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Evaluations of Nominations of Cultural and Mixed Properties

ICOMOS report for the World Heritage Committee
44th extended session, Fuzhou (China) / Online meeting, 16 – 31 July 2021

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2021

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44th extended session, Fuzhou (China) / Online meeting, 16 – 31 July 2021
Part I
World Heritage List Nominations 2020
Nominations evaluated by ICOMOS for the World Heritage List 2020

I Introduction
ICOMOS analysis of nominations 1
ICOMOS procedure 5
ICOMOS check tool recommendations 9

II Tables
Alphabetical index of the evaluations (by State Party) 11
Nominations by category 13
Geographical spread of nominations 15
Numerical index of the evaluations 17
Technical evaluation mission experts 19

World Heritage List Nominations received by 1st February 2019

III Mixed property

A Africa

New nomination
Ethiopia [N/C 1516]
Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery) 21

IV Cultural properties

A Arab States

New nomination
Saudi Arabia [C 1619]
Cultural Rock Arts in Himā Najrān 30

B Asia – Pacific

New nominations
India [C 1570]
The Glorious Kakatiya Temples and Gateways – Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India 40

Iran (Islamic Republic of) [C 1585]
Trans-Iranian Railway 52
C Europe – North America

New nominations
Austria / Belgium / Czechia / France / Germany / Italy / United Kingdom [C 1613]
The Great Spas of Europe 74

France [C 1625]
Cordouan Lighthouse 92

Germany [C 1614]
Mathildenhöhe Darmstadt 104

Greece [C 1617]
Fortress of Spinalonga 114

Italy [C 1623]
‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles 125

Spain [C 1618]
Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences 136

Turkey [C 1622]
Arslantepe Mound 148

Extension
Netherlands [C 759bis]
Dutch Water Defence Lines
[Extension of “Defence Line of Amsterdam”, inscribed in 1996, criteria (ii)(iv)(v)] 160

D Latin America and the Caribbean

New nominations
Brazil [C 1620]
Sítio Roberto Burle Marx 176

Dominican Republic [C 1628]
Historical and Archaeological Site of La Isabela 188

Peru [C 1624]
Chankillo Solar Observatory and ceremonial center 198

Uruguay [C 1612]
The work of engineer Eladio Dieste: Church of Atlántida 209
World Heritage List Nominations and minor boundary modifications received by 1st February 2020
Referral back nominations, minor modifications to boundaries and creations of buffer zones, evaluated by ICOMOS for the World Heritage List 2020

V Cultural properties

A Asia – Pacific

Nomination referred back by a previous session of the World Heritage Committee
China [C 1561rev]
Quanzhou: Emporium of the World in Song-Yuan China 220

B Europe – North America

Nominations referred back by previous sessions of the World Heritage Committee
Austria / Germany / Hungary / Slovakia [C 1608rev]
Frontiers of the Roman Empire – The Danube Limes (Western Segment) 234

Belgium / Netherlands [C 1555rev]
Colonies of Benevolence 252

Romania [C 1552rev]
Roșia Montană Mining Landscape 264

Minor modifications to the boundaries
Canada [C 158bis]
Head-Smashed-In Buffalo Jump 276

France [C 600bis]
Paris, Banks of the Seine 278

Italy [C 147ter]
Historic Centre of Florence 282

Italy [C 1538bis]
Ivrea, industrial city of the 20th century 284

United Kingdom of Great Britain and Northern Ireland [C 370ter]
Durham Castle and Cathedral 286

Creation/modification of buffer zone
France [C 230quarter]
Abbey Church of Saint-Savin sur Gartempe 288

Holy See / Italy [C 91quarter]
Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura 290
C Latin America and the Caribbean

Creation/modification of buffer zone
Honduras [C 129bis]
Maya Site of Copan
Part II
World Heritage List Nominations 2021
Nominations evaluated by ICOMOS for the World Heritage List 2021

I  Introduction
ICOMOS analysis of nominations 298
ICOMOS procedure 302
ICOMOS check tool recommendations 305

II  Tables
Alphabetical index of the evaluations (by State Party) 306
Nominations by category 308
Geographical spread of nominations 310
Numerical index of the evaluations 312
Technical evaluation mission experts 314

World Heritage List Nominations received by 1st February 2020
For which Technical Evaluation Missions were organised by November 2020

III  Cultural properties

A  Africa

New nomination
Côte d’Ivoire [C 1648]
Sudanese style mosques in northern Côte d’Ivoire 316

B  Asia – Pacific

New nominations
Iran (Islamic Republic of) [C 1647]
Cultural Landscape of Hawraman/Uramanat 327

Japan [C 1632]
Jomon Prehistoric Sites in Northern Japan 339

C  Europe – North America

New nominations
France [C 1635]
Nice, capital of Riviera tourism 350

Germany [C 1636]
ShUM Sites of Speyer, Worms and Mainz 363
World Heritage List Nominations received by 1st February 2020 and minor boundary modifications received by 1st February 2021

See Addendum WHC/21/44.COM/INF.8B1.Add which includes nominations for which Technical Evaluation Missions were organised between December 2020 and January 2021\(^1\) and minor modifications to boundaries and creations of buffer zones.

### IV Cultural properties

#### A Arab States

**Nomination deferred by a previous session of the World Heritage Committee**

- Jordan [C 689rev]
  - As-Salt – The Place of Tolerance and Urban Hospitality

#### B Asia – Pacific

**New nomination**

- India [C 1645]
  - Dholavira: A Harappan City

#### C Europe – North America

**New nominations**

- Latvia [C 1637]
  - Grobiņa archaeological ensemble

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\(^1\) as per request of the Extraordinary Session of the World Heritage Committee (Decision 14 EXT.COM 4 point 6)
Poland [C 1629]
Gdańsk Shipyard – the birthplace of “Solidarity” and the symbol of the Fall of the Iron Curtain in Europe

Creation/modification of buffer zones
Czechia [C 1589bis]
Landscape for Breeding and Training of Ceremonial Carriage Horses at Kladnuby nad Labem

France [C 85bis]
Prehistoric Sites and Decorated Caves of the Vézère Valley

France [C 868bis]
Routes of Santiago de Compostela in France

Italy [C 826bis]
Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto)

Italy [C 829bis]
Archaeological Areas of Pompei, Herculaneum and Torre Annunziata

D Latin America and the Caribbean

New nomination
Chile [C 1634]
Settlement and Artificial Mummification of the Chinchorro Culture in the Arica and Parinacota Region

Extension
Mexico [C 702bis]
Franciscan Ensemble of the Monastery and Cathedral of Our Lady of the Assumption of Tlaxcala (as Extension of the “Earliest 16th-Century Monasteries on the Slopes of Popocatepetl”) [inscribed in 1994, criteria (ii), (iv)]

Creation/modification of buffer zone
Bolivia [C 420bis]
City of Potosí
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Belgium / Netherlands [C 1555rev]
Colonies of Benevolence 252

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Roșia Montană Mining Landscape 264

Minor modifications to the boundaries
Canada [C 158bis]
Head-Smashed-In Buffalo Jump 276

France [C 600bis]
Paris, Banks of the Seine 278

Italy [C 147ter]
Historic Centre of Florence 282

Italy [C 1538bis]
Ivrea, industrial city of the 20th century 284

United Kingdom of Great Britain and Northern Ireland [C 370ter]
Durham Castle and Cathedral 286

Creation/modification of buffer zone
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Abbey Church of Saint-Savin sur Gartempe 288

Holy See / Italy [C 91quarter]
Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura 290
C  **Latin America and the Caribbean**

Creation/modification of buffer zone

Honduras [C 129bis]

Maya Site of Copan  

296
I Introduction

ICOMOS Analysis of nominations

In 2020, ICOMOS was called on to evaluate 30 nominations.

They consisted of:

- 16 new nominations
- 1 extension
- 4 referred nominations
- 9 minor modifications/creations of buffer zone

The geographical spread is as follows:

**Africa**
Total: 1 nomination, 1 country
1 new nomination
(1 mixed property)

**Arab States**
Total: 1 nomination, 1 country
1 new nomination
(1 cultural property)

**Asia-Pacific**
Total: 4 nominations, 4 countries
3 new nominations
1 referred
(4 cultural properties)

**Europe and North America**
Total: 11 nominations, 14 countries
7 new nominations
3 referred
1 extension
8 minor modifications/creations of buffer zone
(19 cultural properties)

**Latin America and the Caribbean**
Total: 4 nominations, 4 countries
4 new nominations
1 minor modification/creation of buffer zone
(5 cultural properties)

ICOMOS regrets the underrepresentation of certain Regions in the submissions, particularly Africa, and the Arab States.

General remarks

1. Quality and complexity of nomination dossiers

Generally speaking, ICOMOS notes that nominations are increasingly complex, sometimes to the detriment of the dossiers’ clarity and coherence.

Certain nominations would benefit if more time were taken in preparation. For example, completing the legal protection process, finalising a management plan or undertaking additional research.

ICOMOS urges applicants to carefully review the Resource Manual Preparing World Heritage Nominations. An electronic version is available on its website and on the World Heritage Centre website. The Manual is an invaluable resource in helping States Parties prepare effective nomination dossiers. Thanks to the World Heritage Capacity-Building programme, the manual is available in several languages (Arabic, English, French, Portuguese and Spanish).

When evaluating the Comparative Analysis included in nomination dossiers, ICOMOS examines the methodology used by the State Party and the relevance of the examples against a set of parameters. Comparisons with the nominated property should be drawn with sites expressing the same values, and within a defined geo-cultural area. Therefore, the values need to be clearly defined and the geo-cultural framework should be determined according to those values. Comparisons should be drawn with similar properties already inscribed on the World Heritage List and with other examples at national and international level within the defined geo-cultural area.

On this basis, ICOMOS indicates whether or not the Comparative Analysis is complete; and whether or not, the analysis justifies consideration of the property for the World Heritage List.

If the nomination is considered incomplete or insufficient according to the parameters indicated above, ICOMOS takes several actions. It requests additional information from the State Party; checks relevant ICOMOS thematic studies; examines the wealth of information available about properties already evaluated and/or inscribed on the World Heritage List, and on the Tentative Lists; and, consults international experts (belonging or not to the
ICOMOS network) to improve its understanding of the nomination.

ICOMOS wishes to point out that its role is to evaluate the properties based on the information provided in the nominations (i.e. the dossiers), and on the basis of field visits and assessments by ICOMOS experts as well as additional international studies. Similarly, ICOMOS evaluates the protection, conservation and management of the property at the time of the nomination and not at some unspecified time in the future after the adoption of proposed laws and management plans. It is thus the duty of ICOMOS to indicate to the World Heritage Committee if adequate protection and management are in place prior to inscription.

2. ICOMOS evaluations

The objective of ICOMOS is the conservation and long-term protection and presentation of cultural heritage, based on whether or not it is of Outstanding Universal Value. In formulating its recommendations, ICOMOS seeks to be as helpful as possible to States Parties, whatever the final recommendation being proposed.

ICOMOS is well aware that it cannot please everyone. Despite sometimes being under considerable pressure, it must remain rigorous and scientific, and its first duty remains the conservation of properties.

ICOMOS also notes that the dialogue developed with States Parties during the evaluation process is often very helpful to solve issues and difficulties. In many cases, it contributes to the adoption of the final recommendations made by ICOMOS. However, the current timeframe does not provide enough time for dialogue when the issues are complex.

3. “Referred back” nominations – “Deferred” nominations

ICOMOS wishes to once again express its concerns about the difficulties raised when a “deferred” recommendation is changed into a “referred back” recommendation. This action does not allow the Advisory Bodies to carry out an appropriate evaluation of nominations which are in many cases “resubmitted” as entirely new ones.

In its recommendations, ICOMOS clearly distinguishes between nominations which are recommended to be referred back and those which are deferred. For referred nominations, criteria have been justified, and conditions of Authenticity have been met to the satisfaction of ICOMOS. Supplementary information must be supplied to satisfy other requirements of the Operational Guidelines, but no further technical evaluation mission will be required. For deferred nominations, the very nature of the information requested (e.g., a more thorough study, major reconsideration of boundaries, a request for a substantial revision, or serious gaps in regard to management and conservation issues) means that a new mission as well as consideration by the full ICOMOS World Heritage Panel are required. Time is thus needed to reconstitute the nomination, to evaluate that nomination again, and to ensure that it has the consideration needed to advance the nomination further.

4. “Minor” modifications to boundaries

These requests originate either from monitoring, the retrospective inventory or periodic reporting.

ICOMOS notes that all modifications to the boundaries of a property and its buffer zone are proposed as "minor" modifications, even when they constitute, in fact, substantial modifications to the property, or even in some cases an extension of the property.

According to the Operational Guidelines, proposals for major modifications, whether extensions or reductions, constitute a new nomination (paragraph 165). ICOMOS recommends to the World Heritage Committee that this provision should be consistently and rigorously applied.

ICOMOS suggests moreover that an extension of the calendar for the evaluation of such requests should be considered, in order to bring it into line with the calendar in force for new nominations, which would open up the possibility of dialogue and exchange of information with the States Parties.

5. Serial nominations and extensions

ICOMOS recalls that the Operational Guidelines of November 2011 (paragraph 137) validated a change in the approach to serial properties. Serial nominations should not consist merely of a catalogue of sites, but should instead concern a collection or ensemble of sites with specific cultural, social or functional links over time, in which each site contributes substantially to the Outstanding Universal Value of the serial property as a whole.

ICOMOS wishes to encourage States Parties to give consideration to the implications of this change when preparing serial nominations.

This year, ICOMOS has examined 6 serial nominations, including 34 monuments, ensembles
and sites. These nominations require a more substantial investment in terms of human and financial resources at all levels of evaluation of the properties. The increase in the number of serial nominations needs to be taken into account in the budgets and contracts. Furthermore, ICOMOS notes that there are also enormous pressures on keeping the statutory calendar, which arise from the heavier task of evaluating these large and complex serial nominations. ICOMOS wishes to repeat its suggestion, supported by the Jade Tabet¹ review, that the World Heritage Committee give consideration to an extended timeframe for these kinds of nominations.

6. Development projects

ICOMOS points out that its Guidance on Heritage Impact Assessments for cultural World Heritage properties can be consulted on its website. This Guidance has been translated into several languages and ICOMOS urges States Parties to make use of it. In addition, research work has been undertaken in order to better understand Heritage Impact Assessments. ICOMOS encourages States Parties to incorporate a Heritage Impact Assessment approach into the management system of their nominated properties. This will ensure that any programme, project or legislation regarding the property be assessed in terms of its consequences on the Outstanding Universal Value and its supporting attributes.

Based on recent experiences where information had not been shared in an adequate manner, ICOMOS reiterates its concerns related to the need of identifying development projects within World Heritage properties during the evaluation cycle, and to bring to ICOMOS’ attention any development projects that are planned within the nominated property or in its vicinity, to ensure that comprehensive information is received concerning these potential projects. ICOMOS once again suggests that during the nomination evaluation procedure the World Heritage Committee should apply provisions similar to those stipulated in paragraph 172, inviting the States Parties to inform the Committee of “their intention to undertake or to authorize in an area protected under the Convention major restorations or new constructions which may affect the Outstanding Universal Value of the property [...].

7. Connecting Practice

ICOMOS and IUCN are currently working on improving the integrated consideration and management of natural and cultural values and attributes. This effort is based on a long term joint project entitled “Connecting Practice”, which is now in its third phase (since May 2018). The project aims to explore, learn about and create new methods of recognition and support for the interconnected character of the natural, cultural and social values of World Heritage Sites. This phase focuses specifically on the understanding and integration of cultural and natural concepts into the management of World Heritage sites and how to strengthen their resilience. The reports of phases I and II are available on the ICOMOS website.

8. Transnational serial nominations

ICOMOS wishes to congratulate the States Parties on the efforts made to prepare transnational serial nominations. ICOMOS sees in the themes and challenges considered, a return to the fundamentals of the World Heritage Convention.

The monitoring of the state of conservation of properties of this type is a considerable challenge, which could enable experimentation with specific tools adapted to such properties.

ICOMOS wishes to stress the importance of involving the Advisory Bodies in the upstream processes for the preparation of nominations of this type. ICOMOS is available for upstream involvement at strategic development level for these vast and complex transnational serial nominations.

9. Historic Urban Landscape (HUL)

ICOMOS noted the increasing use of the notion of Historic Urban Landscape (HUL) in the draft statements of Outstanding Universal Value. While acknowledging the importance of the UNESCO Recommendation on Historic Urban Landscapes as being “an additional tool to integrate policies and practices of conservation of the built environment into the wider goals of urban development in respect of the inherited values and traditions of different cultural contexts”, there is an agreement that the notion of HUL should be seen as a useful methodological approach that can sustain and strengthen management. But, it cannot be understood as a category of heritage and should not be mentioned as such in justifications for inscription of nominated properties.

10. Cultural landscapes

ICOMOS notes some new challenges and trends emerging in some recent nominations. One example is what is called an ‘evolving landscape’ where the idea of an organically ‘evolved landscape’ has been merged with that of a ‘continuing landscape’. This merging is leading to nominations for properties where it is suggested that more or less everything in the property could continue to evolve over time in the future. While it is clearly desirable that continuing cultural landscapes play an active role in contemporary society, in order for this to happen in a way that sustains Outstanding Universal Value, there does need to be a clear understanding of which parts of the evolutionary process may evolve and how, and what aspects should be maintained as a ‘golden thread’ linking what is there now to the way the landscape has evolved over time.

11. Buffer zones

In recent years, discussions on properties at the World Heritage Committee as part of the State of Conservation process have focused on many developments within buffer zones. Such discussions bring sharply into focus the nature and specificities of buffer zones and how precisely they are meant to support their properties. In order to ensure there is a clear understanding of the purpose and scope of individual buffer zones, and how they operate, as requested by the Operational Guidelines, ICOMOS through its evaluations has tried to assess in a systematic way the rationale for the boundaries of a buffer zone. This approach includes examining the role of the buffer zone in supporting Outstanding Universal Value and its relationship to attributes of Outstanding Universal Value; how the buffer zone relates to the broader setting and what, if anything, needs protecting in the broader setting as well as how the buffer zone is managed and protected.

12. Upstream process

ICOMOS has been active in extending its collaboration with States Parties on upstream work, advice work and on the development of Tentative Lists.

ICOMOS has extended the length of the ICOMOS World Heritage Panel meeting in order to examine the missions and projects developed by ICOMOS for the purpose of upstream processes.

Furthermore, ICOMOS wishes to draw attention to paragraph 122 of the Operational Guidelines which invites States Parties to “contact the Advisory Bodies and the World Heritage Centre at the earliest opportunity in considering nominations to seek information and guidance”, and in particular the relevance of this paragraph in connection with the preparation of the nomination dossier for mixed properties and serial properties.

ICOMOS notes as a general observation that a preliminary review of State Party Tentative Lists by the Advisory Bodies, as part of the upstream process, is of great assistance in identifying properties that are more likely to be assessed as having Outstanding Universal Value and therefore result in successful nominations. It respectfully suggests to the Committee that States Parties be encouraged to defer proceeding with the preparation of nomination dossiers until after such a preliminary review has been undertaken.

ICOMOS, at the request of the World Heritage Centre, has drafted some guidance on the Upstream support which can be provided by the Advisory bodies on developing or revising Tentative Lists. This document shall identify the stages where assistance could be helpful to States Parties, and in which ways the Advisory Bodies might be requested to provide that assistance. This guidance shall be made available by the World Heritage Centre to relevant States Parties when completed.
ICOMOS procedure

The ICOMOS procedure is described in Annex 6 of the Operational Guidelines for the Implementation of the World Heritage Convention. It is regulated by the Policy for the implementation of the ICOMOS World Heritage mandate (latest revision in October 2015). This document is available on the ICOMOS website: www.international.icomos.org.

This policy makes public the existing procedure, and sets out the fair, transparent and credible approach ICOMOS adopts in fulfilling its world heritage obligations, and the way it avoids conflicts of interest.

The evaluation of nominations, which involves more than 40 to 50 international experts for each nomination dossier, is coordinated by the World Heritage Evaluation Unit of the International Secretariat of ICOMOS, in collaboration with the ICOMOS officers responsible for World Heritage and the ICOMOS World Heritage Panel.

The ICOMOS World Heritage Panel, which brings together some thirty persons, is made up of members of the ICOMOS Board, representatives of ICOMOS International Scientific Committees as well as of some other organizations than ICOMOS and other individual experts. The Panel members are selected each year depending on the nature of the properties nominated (e.g., rock art, 20th century heritage, industrial heritage, etc.) and on the basis of geo-cultural balanced representation. TICCIH and DoCoMoMo are also invited to participate in discussions in which their expertise is relevant. In principle all members of the Panel participate by drawing on their own financial resources (pro bono work). The Panel’s composition and terms of reference are available on the ICOMOS website. They represent the various professional, geographic and cultural sensibilities present at the international level. The Panel prepares the ICOMOS recommendations for each nomination on a collegial basis.

For each nominated property, ICOMOS assesses whether it bears testimony of an Outstanding Universal Value:

- whether it meets the Criteria of the Operational Guidelines;
- whether it meets the conditions of Authenticity and Integrity;
- whether legal protection is adequate; and,
- whether the management processes are satisfactory.

All properties are given equal attention, and ICOMOS also makes every effort to be as objective, scientific and rigorous as possible.

In order to reinforce consistency of the evaluations and recommendations, and to check which additional information requests should be sent to States Parties, ICOMOS uses a check box tool, which is included in this volume.

1. Preparatory work

The preparatory work is done in several stages:

a. Initial study of dossiers. This first stage of the work consists of the creation of an inventory of the nomination dossier documents. They are then studied to identify the various issues relating to the property and the choice of the various experts who will be called on to review the dossier (i.e., ICOMOS advisers, experts for mission, experts for consultations). A compilation of all relevant comparative material (e.g., Tentative Lists, properties already on the World Heritage List, nomination dossiers, “filling the gaps” ICOMOS study, etc.) is prepared in order to assist the work of the advisers on the specific item of comparative analysis.

b. Consultations. International experts are invited to express their opinion through desk reviews about the Comparative Analysis and the Outstanding Universal Value of the nominated properties with reference to the ten Criteria set out in the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019), paragraph 77. ICOMOS also consults experts on a desktop basis on issues related to cultural tourism and risk preparedness in order to provide recommendations on these issues in a systematic manner through all the nomination dossiers.

For this purpose, ICOMOS calls on the following:

- ICOMOS International Scientific Committees;
- Individual ICOMOS members with special expertise, identified after consultation with International and National Committees;
- Non-ICOMOS members with specific expertise, identified mostly amongst Universities and Research Institutes or partner organisations.
For the nominations to be considered by the World Heritage Committee at its 44rd session, around 146 experts provided desk reviews. Twenty-nine percent (29%) of the reports received has been drafted by non-ICOMOS members.

c. Technical evaluation missions. As a rule, ICOMOS calls on a person from the region in which the nominated property is located. In certain exceptional circumstances, often in cases in which the nature of the property is unusual, the expert may not originate from the region concerned. The objective of the missions is to study the Authenticity, Integrity, factors affecting the property, protection, conservation and management (Operational Guidelines, paragraph 78).

Experts are sent the nomination dossier (i.e., electronic versions and copy of the maps in colour), a note with key questions based on a preliminary examination of the dossiers, documentation on the Convention and detailed guidelines for evaluation missions.

All experts have a duty of confidentiality. Their opinion about the nomination does not necessarily reflect that of the organisation; it is the ICOMOS World Heritage Panel which, after acquainting itself with all the information, analyses it and determines the organisation's position.

Missions are sent to all the nominated properties except in the case of nominations referred back for which the Operational Guidelines do not stipulate that a mission is necessary. (Note: The principle is that properties are referred back because additional information is necessary, and not because thorough or substantial modifications are needed). The deadlines set out in the Operational Guidelines mean moreover that it is not possible to organise missions, desk reviews or consideration by the full ICOMOS World Heritage Panel for properties referred back).

In the 2019-2020 cycle, 20 experts representing 17 countries took part in field missions as part of the evaluation of the 17 nominated properties, which in turn represented 23 countries.

In addition, 1 technical evaluation mission was carried out jointly with IUCN for one mixed property nomination.

ICOMOS and IUCN have exchanged desk reviews and information about draft recommendations concerning mixed property nominations and cultural landscapes before and after their respective Panel meetings.

As well, in the 2019-2020 cycle, ICOMOS received comments from the IUCN concerning four cultural landscape nominations. These comments have been taken into account by ICOMOS in its recommendations.

2. Evaluations and recommendations

a. ICOMOS World Heritage Panel. Draft evaluations (in either English or French) were prepared on the basis of the information contained in the nomination dossiers, mission reports, consultations and research. They were examined by the ICOMOS World Heritage Panel at a meeting in Paris from 18 to 23 November 2019. The Panel defined draft recommendations and identified the additional information requests to be sent to the States Parties. Individual meetings were organized with each nominating State Party and Panel members during the Panel meeting.

b. Interim reports. As prescribed by the revised Operational Guidelines for the Implementation of the World Heritage Convention (Annex 6), the Advisory Bodies have been requested to submit a short interim report for each nomination by 31 January 2020. These reports provide States Parties with the relevant information outlining issues related to the evaluation process and some include additional information requests. All documents received by 28 February 2020 were examined by the second World Heritage Panel at its meeting from 11 to 12 March 2020.

c. Finalisation of the evaluation volume and its presentation to the World Heritage Committee. Following these meetings, revised evaluations have been prepared in both working languages, printed and dispatched to the UNESCO World Heritage Centre for distribution to members of the World Heritage Committee at its 44th session.

Nominated properties and ICOMOS recommendations will be presented to the World Heritage Committee by ICOMOS advisers in PowerPoint form.

As an Advisory Body, ICOMOS makes a recommendation based on an objective, rigorous and scientific analysis. However, decisions are the responsibility of the World Heritage Committee. The process relies on the Committee members and their knowledge of the nominations and the evaluations published by the Advisory Bodies.
3. Referred back nominations and requests for minor modifications

By 1st February of each year, preceding the World Heritage Committee meeting, ICOMOS also receives supplementary information on nominations referred back during previous sessions of the World Heritage Committee. Four nominations which had been referred back were assessed during the recent 2019-2020 cycle.

ICOMOS also examines requests for "minor" modifications to boundaries or creation of Buffer Zones, and for changes of Criteria or name for some properties already inscribed on the World Heritage List. Nine (9) requests of this type were submitted by States Parties before 1st February of this year. At the request of the World Heritage Centre, all requests have been examined and included in the following document: WHC/20/44.COM/INF.8B1.Add.

4. Dialogue with States Parties

ICOMOS makes every effort to maintain dialogue with the States Parties throughout the nomination evaluation process (i.e. following receipt of the nominations, during and after the technical evaluation mission, and following the meeting of the ICOMOS World Heritage Panel).

First, information may be requested to provide details or clarifications. Of the 2019-2020 nominations, 100% received requests for additional information before the ICOMOS November Panel meeting; and 88% of the nominations received such requests through the Interim reports, after the Panel meeting.

The World Heritage Committee decision 38 COM 13.8 called upon the Advisory Bodies to consult and have a dialogue with all concerned States Parties during the course of the evaluation of nominations. Consequently, ICOMOS has strengthened the dialogue and communication in the evaluation process, through discussions organized during its Panel meeting, and through the delivery of the Interim reports.

In most cases, the dialogues with States Parties were fruitful in clarifying issues and elucidating facts.

However, the main point highlighted by these direct dialogues is the fact that, even though the State Party receives advice from ICOMOS earlier than previously, there is still very limited time available for both parties to work together to resolve issues. This is especially true under the current evaluation timetable established to review the dossiers that require reformulation at a wider scale. This is true for all cases even if the State Party expresses a willingness to do so. This is further exasperated by the fact that this is an ad hoc process and not a regularly anticipated step in the review.

In conclusion, ICOMOS encourages States Parties to request Upstream advice which could be useful for resolving issues prior to the submission of nominations.

ICOMOS recalls working document WHC/14/38.COM/9A which mentions the “option of extending the evaluation process by 12 months to allow for improved and constructive dialogue between stakeholders, in the light of the outcomes of the Director General’s meeting “World Heritage Convention: Thinking ahead” and supports an extension of the calendar for the evaluation of nominations by 12 months, which would open up the possibility of dialogue and exchange of information with the States Parties.

As the nomination process is currently being reviewed and discussed in detail, ICOMOS is open to ways of increasing dialogue and adopting new methods that would uphold the credibility of the Convention in the future.

5. Conclusion

All the evaluated cultural properties are remarkable and deserving of protection and conservation. In reaching its recommendations to the World Heritage Committee, ICOMOS relies on the Operational Guidelines for the Implementation of the World Heritage Convention and the direction of the World Heritage Committee.

The opinion of ICOMOS is both independent and institutional. The opinion of one of its members is not binding on the organisation, and the evaluation texts are each the work of between 40-50 persons on every nomination, with several stages of in-depth peer review. ICOMOS represents cultural heritage experts throughout the five global regions and is working to protect the entire cultural heritage of the world.

ICOMOS takes a professional and rigorous view of all the dossiers received and reviewed. Protection, conservation and management are key for the transmission of all heritage properties to future generations and ICOMOS remains committed to making recommendations for all nominated properties.

Paris, April 2020
### Check tool recommendations

<table>
<thead>
<tr>
<th>Comparative analysis</th>
<th>Integrity</th>
<th>Authenticity</th>
<th>Criteria</th>
<th>Selection justified (series)</th>
<th>Boundaries</th>
<th>Protection property</th>
<th>Protection buffer zone</th>
<th>Conservation</th>
<th>Management</th>
<th>Threats addressed</th>
<th>Mission required</th>
<th>Conclusion</th>
</tr>
</thead>
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√ OK - Good
≈ Adequate - Can be improved
O Not demonstrated at this stage
X Not OK - Not adequate

The grid does not give all possible combinations, but only the lowest benchmarks below which a nomination moves to another category.

This tool is to be used jointly with the table summarizing the ICOMOS recommendations.
## Cultural and Mixed Properties

### Alphabetic Index of the evaluations (by State Party)

<table>
<thead>
<tr>
<th>State Party</th>
<th>ID number</th>
<th>Name of the property</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria / Belgium / Czechia / France / Italy / United Kingdom</td>
<td>C 1613</td>
<td>The Great Spas of Europe</td>
<td>74</td>
</tr>
<tr>
<td>Austria / Germany / Hungary / Slovakia</td>
<td>C 1608rev</td>
<td>Frontiers of the Roman Empire – The Danube Limes (Western Segment)</td>
<td>234</td>
</tr>
<tr>
<td>Belgium / Netherlands</td>
<td>C 1555rev</td>
<td>Colonies of Benevolence</td>
<td>252</td>
</tr>
<tr>
<td>Brazil</td>
<td>C 1620</td>
<td>Sitio Roberto Burle Marx</td>
<td>176</td>
</tr>
<tr>
<td>China</td>
<td>C 1561rev</td>
<td>Quanzhou: Emporium of the World in Song-Yuan China</td>
<td>220</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>C 1628</td>
<td>Historical and Archaeological Site of La Isabel</td>
<td>188</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>N/C 1516</td>
<td>Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery)</td>
<td>21</td>
</tr>
<tr>
<td>France</td>
<td>C 1625</td>
<td>Cordouan Lighthouse</td>
<td>92</td>
</tr>
<tr>
<td>Germany</td>
<td>C 1614</td>
<td>Mathildenhöhe Darmstadt</td>
<td>104</td>
</tr>
<tr>
<td>Greece</td>
<td>C 1617</td>
<td>Fortress of Spinalonga</td>
<td>114</td>
</tr>
<tr>
<td>India</td>
<td>C 1570</td>
<td>The Glorious Kakatiya Temples and Gateways – Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India</td>
<td>40</td>
</tr>
<tr>
<td>Iran (Islamic Republic of)</td>
<td>C 1585</td>
<td>Trans-Iranian Railway</td>
<td>52</td>
</tr>
<tr>
<td>Italy</td>
<td>C 1623</td>
<td>Padova <em>Urbs picta</em>: Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles</td>
<td>125</td>
</tr>
<tr>
<td>Mongolia</td>
<td>C 1621</td>
<td>Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture</td>
<td>63</td>
</tr>
<tr>
<td>Netherlands</td>
<td>C 759bis</td>
<td>Dutch Water Defence Lines [extension of “Defence Line of Amsterdam”, inscribed in 1996, criteria (ii)(iv)(v)]</td>
<td>160</td>
</tr>
<tr>
<td>Peru</td>
<td>C 1624</td>
<td>Chankillo Solar Observatory and ceremonial center</td>
<td>198</td>
</tr>
<tr>
<td>Romania</td>
<td>C 1552rev</td>
<td>Roșia Montană Mining Landscape</td>
<td>264</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>C 1619</td>
<td>Cultural Rock Arts in Ḥimā Najrān</td>
<td>30</td>
</tr>
<tr>
<td>Spain</td>
<td>C 1618</td>
<td>Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences</td>
<td>136</td>
</tr>
<tr>
<td>Turkey</td>
<td>C 1622</td>
<td>Arslantepe Mound</td>
<td>148</td>
</tr>
<tr>
<td>Uruguay</td>
<td>C 1593</td>
<td>The work of engineer Eladio Dieste: Church of Atlántida</td>
<td>209</td>
</tr>
</tbody>
</table>
### Cultural and Mixed Properties

#### Nominations by category

<table>
<thead>
<tr>
<th>New nominations (16)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Austria / Belgium / Czechia/ France / Germany/ Italy / United Kingdom</strong></td>
</tr>
<tr>
<td>Brazil</td>
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<tr>
<td>Dominican Republic</td>
</tr>
<tr>
<td>Ethiopia</td>
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<tr>
<td>France</td>
</tr>
<tr>
<td>Germany</td>
</tr>
<tr>
<td>Greece</td>
</tr>
<tr>
<td>India</td>
</tr>
<tr>
<td><strong>Iran (Islamic Republic of)</strong></td>
</tr>
<tr>
<td><strong>Italy</strong></td>
</tr>
<tr>
<td><strong>Mongolia</strong></td>
</tr>
<tr>
<td><strong>Peru</strong></td>
</tr>
<tr>
<td><strong>Saudi Arabia</strong></td>
</tr>
<tr>
<td><strong>Spain</strong></td>
</tr>
<tr>
<td><strong>Turkey</strong></td>
</tr>
<tr>
<td><strong>Uruguay</strong></td>
</tr>
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</table>

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<thead>
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<th>Extension (1)</th>
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</thead>
<tbody>
<tr>
<td>Netherlands</td>
</tr>
<tr>
<td>[Extension of “Defence Line of Amsterdam”, inscribed in 1996, criteria (ii)(iv)(v)]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referred back nominations (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Austria / Germany / Hungary / Slovakia</strong></td>
</tr>
<tr>
<td><strong>Belgium / Netherlands</strong></td>
</tr>
<tr>
<td><strong>China</strong></td>
</tr>
<tr>
<td><strong>Romania</strong></td>
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</table>
Cultural and Mixed Properties

**Geographical spread of nominations**

<table>
<thead>
<tr>
<th>Region</th>
<th>States Parties</th>
<th>Nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Africa</strong></td>
<td>1 State Party, 1 nomination</td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>N/C 1516</td>
<td><em>Holqa</em> Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery)</td>
</tr>
<tr>
<td><strong>Arab States</strong></td>
<td>1 State Party, 1 nomination</td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>C 1619</td>
<td>Cultural Rock Arts in Himâ Najrân</td>
</tr>
<tr>
<td><strong>Asia – Pacific</strong></td>
<td>4 States Parties, 4 nominations</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>C 1561rev</td>
<td>Quanzhou: Emporium of the World in Song-Yuan China</td>
</tr>
<tr>
<td>India</td>
<td>C 1570</td>
<td>The Glorious Kakatiya Temples and Gateways – Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India</td>
</tr>
<tr>
<td>Iran (Islamic Republic of)</td>
<td>C 1585</td>
<td>Trans-Iranian Railway</td>
</tr>
<tr>
<td>Mongolia</td>
<td>C 1621</td>
<td>Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture</td>
</tr>
<tr>
<td><strong>Europe – North America</strong></td>
<td>14 States Parties, 11 nominations</td>
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<td>C 1613</td>
<td>The Great Spas of Europe</td>
</tr>
<tr>
<td>Austria / Germany / Hungary / Slovakia</td>
<td>C 1608rev</td>
<td>Frontiers of the Roman Empire -- The Danube Limes (Western Segment)</td>
</tr>
<tr>
<td>Belgium / Netherlands</td>
<td>C 1555rev</td>
<td>Colonies of Benevolence</td>
</tr>
<tr>
<td>France</td>
<td>C 1625</td>
<td>Cordouan Lighthouse</td>
</tr>
<tr>
<td>Germany</td>
<td>C 1614</td>
<td>Mathildenhöhe Darmstadt</td>
</tr>
<tr>
<td>Greece</td>
<td>C 1617</td>
<td>Fortress of Spinalonga</td>
</tr>
<tr>
<td>Italy</td>
<td>C 1623</td>
<td>‘Padova <em>Urbs picta</em>’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles</td>
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<tr>
<td>Netherlands</td>
<td>C 759bis</td>
<td>Dutch Water Defence Lines</td>
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<tr>
<td>Romania</td>
<td>C 1552rev</td>
<td>Roșia Montană Mining Landscape</td>
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<tr>
<td>Spain</td>
<td>C 1618</td>
<td>Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences</td>
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<td>C 1622</td>
<td>Arslantepe Mound</td>
</tr>
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<td>Brazil</td>
<td>C 1620</td>
<td>Sitio Roberto Burle Marx</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>C 1628</td>
<td>Historical and Archaeological Site of La Isabela</td>
</tr>
<tr>
<td>Peru</td>
<td>C 1624</td>
<td>Chankillo Solar Observatory and ceremonial center</td>
</tr>
<tr>
<td>Uruguay</td>
<td>C 1612</td>
<td>The work of engineer Eladio Dieste: Church of Atlántida</td>
</tr>
</tbody>
</table>
# Cultural and Mixed Properties

## Numerical Index of the evaluations

<table>
<thead>
<tr>
<th>ID N°</th>
<th>State Party</th>
<th>Proposed World Heritage Property</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>C 759bis</td>
<td>Netherlands</td>
<td>Dutch Water Defence Lines [extension of “Defence Line of Amsterdam”, inscribed in 1996, criteria (ii)(iv)(v)]</td>
<td>160</td>
</tr>
<tr>
<td>N/C 1516</td>
<td>Ethiopia</td>
<td><em>Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery)</em></td>
<td>21</td>
</tr>
<tr>
<td>C 1552rev</td>
<td>Romania</td>
<td>Roșița Montană Mining Landscape</td>
<td>264</td>
</tr>
<tr>
<td>C 1555rev</td>
<td>Belgium / Netherlands</td>
<td>Colonies of Benevolence</td>
<td>252</td>
</tr>
<tr>
<td>C 1561rev</td>
<td>China</td>
<td>Quanzhou: Emporium of the World in Song-Yuan China</td>
<td>220</td>
</tr>
<tr>
<td>C 1570</td>
<td>India</td>
<td>The Glorious Kakatiya Temples and Gateways – Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India</td>
<td>40</td>
</tr>
<tr>
<td>C 1585</td>
<td>Iran (Islamic Republic of)</td>
<td>Trans-Iranian Railway</td>
<td>52</td>
</tr>
<tr>
<td>C 1608rev</td>
<td>Austria / Germany / Hungary / Slovakia</td>
<td>Frontiers of the Roman Empire – The Danube Limes (Western Segment)</td>
<td>234</td>
</tr>
<tr>
<td>C 1612</td>
<td>Uruguay</td>
<td>The work of engineer Eladio Dieste: Church of Atlántida</td>
<td>209</td>
</tr>
<tr>
<td>C 1613</td>
<td>Austria / Belgium / Czechia / France / Germany / Italy / United Kingdom</td>
<td>The Great Spas of Europe</td>
<td>74</td>
</tr>
<tr>
<td>C 1614</td>
<td>Germany</td>
<td>Mathildenhöhe Darmstadt</td>
<td>104</td>
</tr>
<tr>
<td>C 1617</td>
<td>Greece</td>
<td>Fortress of Spinalonga</td>
<td>114</td>
</tr>
<tr>
<td>C 1618</td>
<td>Spain</td>
<td>Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences</td>
<td>136</td>
</tr>
<tr>
<td>C 1619</td>
<td>Saudi Arabia</td>
<td>Cultural Rock Arts in Ḥimā Najrān</td>
<td>30</td>
</tr>
<tr>
<td>C 1620</td>
<td>Brazil</td>
<td>Sitio Roberto Burle Marx</td>
<td>176</td>
</tr>
<tr>
<td>C 1621</td>
<td>Mongolia</td>
<td>Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture</td>
<td>63</td>
</tr>
<tr>
<td>C 1622</td>
<td>Turkey</td>
<td>Arslantepe Mound</td>
<td>148</td>
</tr>
<tr>
<td>C 1623</td>
<td>Italy</td>
<td><em>Padova Urbs picta</em>, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles</td>
<td>125</td>
</tr>
<tr>
<td>C 1624</td>
<td>Peru</td>
<td>Chankillo Solar Observatory and ceremonial center</td>
<td>198</td>
</tr>
<tr>
<td>C 1625</td>
<td>France</td>
<td>Cordouan Lighthouse</td>
<td>92</td>
</tr>
<tr>
<td>C 1628</td>
<td>Dominican Republic</td>
<td>Historical and Archaeological Site of La Isabela</td>
<td>188</td>
</tr>
</tbody>
</table>
### Cultural and Mixed properties

**Technical evaluation mission experts**

<table>
<thead>
<tr>
<th>State Party</th>
<th>ID number</th>
<th>Name of the property</th>
<th>Field mission</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria / Belgium / Czechia / France / Germany / Italy / United Kingdom</td>
<td>C 1613</td>
<td>The Great Spas of Europe</td>
<td>Tamás Fejérday (Hungary) and Marieke Kuipers (Netherlands)</td>
<td>Sept.-Oct. 2019</td>
</tr>
<tr>
<td>Brazil</td>
<td>C 1620</td>
<td>Sitio Roberto Burle Marx</td>
<td>Maria Eugenia Bacci (Venezuela)</td>
<td>Sept. 2019</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>C 1628</td>
<td>Historical and Archaeological Site of La Isabela</td>
<td>Agamemnon Gus Pantel (United States of America)</td>
<td>Aug. 2019</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>N/C 1516</td>
<td>Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery)</td>
<td>Pascal Taruvinga (Zimbabwe)</td>
<td>Oct. 2019</td>
</tr>
<tr>
<td>France</td>
<td>C 1625</td>
<td>Cordouan Lighthouse</td>
<td>Stefano Francesco Musso (Italy)</td>
<td>Oct. 2019</td>
</tr>
<tr>
<td>Germany</td>
<td>C 1614</td>
<td>Mathildenhöhe Darmstadt</td>
<td>Natalia Dushkina (Russian Federation)</td>
<td>Aug. 2019</td>
</tr>
<tr>
<td>Greece</td>
<td>C 1617</td>
<td>Fortress of Spinalonga</td>
<td>Teresa Colletta (Italy)</td>
<td>Sept. 2019</td>
</tr>
<tr>
<td>India</td>
<td>C 1570</td>
<td>The Glorious Kakatiya Temples and Gateways – Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhubalpally District, Telangana State, India</td>
<td>Vasu Poshyanandana (Thailand)</td>
<td>Sept. 2019</td>
</tr>
<tr>
<td>Iran (Islamic Republic of)</td>
<td>C 1585</td>
<td>Trans-Iranian Railway</td>
<td>Günter Dinhobl (Austria) and Anton Häfliger (Switzerland)</td>
<td>Sept.-Oct. 2019</td>
</tr>
<tr>
<td>Italy</td>
<td>C 1623</td>
<td>‘Padova Urbs picta’ Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles</td>
<td>Benoit Vincens de Tapol (France)</td>
<td>Sept. 2019</td>
</tr>
<tr>
<td>Mongolia</td>
<td>C 1621</td>
<td>Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture</td>
<td>Toshio Hayashi (Japan)</td>
<td>Aug. 2019</td>
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<td>Peru</td>
<td>C 1624</td>
<td>Chankillo Solar Observatory and ceremonial center</td>
<td>Nelly M. Robles Garcia (Mexico)</td>
<td>Aug. 2019</td>
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<tr>
<td>Saudi Arabia</td>
<td>C 1619</td>
<td>Cultural Rock Arts in Ḥimā Najrān</td>
<td>Benjamin W. Smith (Australia)</td>
<td>Sept. 2019</td>
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<tr>
<td>Spain</td>
<td>C 1618</td>
<td>Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences</td>
<td>Bernhard Furrer (Switzerland)</td>
<td>Oct. 2019</td>
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<td>Turkey</td>
<td>C 1622</td>
<td>Arslantepe Mound</td>
<td>Mariana Correia (Portugal)</td>
<td>Sept. 2019</td>
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<td>Uruguay</td>
<td>C 1612</td>
<td>The work of engineer Eladio Dieste: Church of Atlántida</td>
<td>Alfredo Conti (Argentina)</td>
<td>Sept. 2019</td>
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<td>ID number</td>
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<td>Field mission</td>
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<td>Austria / Germany / Hungary / Slovakia</td>
<td>C 1608rev</td>
<td>Frontiers of the Roman Empire – The Danube Limes (Western Segment)</td>
<td>David Lakin (United Kingdom) Adriol Olivier (United Kingdom)</td>
<td>Sept.-Oct. 2018</td>
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<td>C 1555rev</td>
<td>Colonies of Benevolence</td>
<td>Ana Luengo (Spain)</td>
<td>Oct. 2017</td>
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<tr>
<td>Romania</td>
<td>C 1552rev</td>
<td>Roșia Montană Mining Landscape</td>
<td>Helmuth Albrecht (Germany)</td>
<td>Sept. 2017</td>
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III  Mixed property

A  Africa
   New nomination
Holqa Sof Umar: Natural and Cultural Heritage
(Ethiopia)
No 1516

Official name as proposed by the State Party
Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery)

Location
Sof Umar village
Bale Administrative Zone
Oromia National Regional State
Ethiopia

Brief description
The Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery) is a limestone cave system located along the Weib River catchment in the southeastern Ethiopian lowlands. The cave system is accessed from the narrow and deep river gorge. Once dry, the cave system is now crossed by a subterranean water course formed by the Weib River. The total length of the cave system is about 15.1 kilometres.

All the chambers of the cave system that are associated with cultural activities are grouped into three components. The first chamber is used as a mosque; the second is known as the Chamber of Columns, with “balconies” of 20-metre-long limestone stalactites; and the third is said to have been excavated by God (Allah) to hide the Muslim saint Sof Umar. Passages connect these chambers to the overall cave system.

The nominated property is a testimony to the spiritual life of the Islamic community that makes pilgrimage visits to this place. Annual festive events with comprehensive Islamic religious processions, and traditional beliefs and practices, are conducted in the cave shrines and mosque. These ancestral cult beliefs and practices have reputedly been undertaken for nearly 1,000 years and still contribute to the living culture of the Islamic community in this part of Ethiopia’s Oromia region.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

Note: The property is nominated as a mixed cultural and natural property. IUCN will assess the natural significances, while ICOMOS assesses the cultural significances.

1 Basic data

Included in the Tentative List
14 December 2011

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

A joint ICOMOS-IUCN technical evaluation mission visited the property from 3 to 12 October 2019.

Additional information received by ICOMOS
A letter from ICOMOS was sent to the State Party on 16 September 2019 requesting further information on the justification of Outstanding Universal Value, the comparative analysis, importance of the surrounding forest, protection, funding and visitor facilities.

A joint ICOMOS-IUCN Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel on the following aspects: documentation, comparative analysis, the broader context regarding Sufi Islam, justification of Outstanding Universal Value, archaeological potential, legal protection, management, site issues, conservation measures, availability of experts, tourism planning and facilities, and monitoring.

Additional information was received from the State Party on 18 October 2019 and 14 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The Holqa Sof Umar is located along the Weib River catchment in the southeastern Ethiopian lowlands. The river flows through a narrow and deep gorge with dense bush, beyond which is flat to undulating woodland.

The nominated property is a maze of limestone cave passages that are crossed by a subterranean watercourse formed by the Weib River. The cave system is in the southwest bank of the river on a bend, with the river diverting through the cave system, thereby leaving the original river path dry on the surface. The caves and
subterranean river system developed in Jurassic limestone bedding formations. The total length of the cave system is about 15.1 kilometres.

The small village of Sof Umar is located above the caves, and access to the caves is from this village. The main entrances are upstream at Ayoyo Makko and downstream at Holqa. However, the dry cave passages can be accessed through more than 40 entrances in cliffs along the river.

The Sof Umar cave system forms part of the cultural and religious life of the local population, being important local Islamic shrines and sites of traditional cultural practices linking nature and culture. The caves, which are now used for periodic activities, no longer serve as permanent cultural and religious centres as they had been during the time of Sof Umar and his followers, around the early 11th century.

All the accessible chambers, domes and columns in the cave system are designated to various ritual activities. The accessible chambers are grouped into three components. The first chamber is used as a mosque, the second is known as the Chamber of Columns, with “balconies” of 20-metre-long limestone stalactites, and the third is believed to have been excavated by God (Allah) to hide the Muslim saint Sof Umar. Passages connect these chambers to the overall system.

The dry cave passages can be grouped into the Ayoyo Makko series, close to the sink point where the river enters the cave system; the Chamber of Columns adjacent to the subterranean river course between the sink and resurgence (where the river flows out of the cave system): the Holqa Circle Line series, close to the Holqa resurgence; and the Abe Kurie and Alpha series downstream from the Holqa resurgence.

An isolated and broken limestone column close to the sink of the Weib River is named after Ayoyo, the daughter of Sheikh Sof Umar, while the chamber close to the Ayoyo Makko entrance is believed to be the Mosque of Usama Abdi (Usuma Abdi being the son of Sheikh Sof Umar). This chamber has a large circular domed ceiling that gives the appearance of a high-ceilinged mosque, possibly reflecting the influence of the natural setting on cultural and religious beliefs.

The Ayoyo Makko series is an interconnected sequence of cave passages that comprises collapsed chambers up to 10 metres wide and 10 metres high, floored by boulders of limestone and connected by narrow (less than 2 metres wide), low rift passages. In places, the larger chambers have circular domes up to 10 metres in diameter.

The caves have cultural significance for their prominent role in the life of the local population. The caves have been feared and revered by the local population, and have served as sacred Islamic shrines since their presumed habitation by Sheikh Sof Umar almost one thousand years ago.

Currently, only the first few chambers close to the Ayoyo Makko entrance are used for ritual practices. Ritual or religious ceremonies are held twice a year in these chambers and in a stone enclosure just outside the caves. Local people as well as those from farther away gather to celebrate the religious life of Sheikh Sof Umar, Ayoyo Makko and the followers of Sheikh Sof Umar, with the belief that these ritual practices have healing powers. The ceremonies include full Islamic religious processions, and traditional beliefs and practices. The caves are believed to be “Caves of Mystery,” where the ancestral cult procession of Sheikh Sof Umar, his families and descendants is observed.

Pilgrimage to the cave system is believed to have started many years ago. The pilgrimage involves thousands of people, including Amharas, Hararis and Somalis in addition to the Oromo peoples living in Ethiopia’s Bale Administrative Zone. People of different backgrounds from Shewa, Arsi, Wollo, Jimma, former Sidamo and other parts of the country also attend the pilgrimage ceremony.

ICOMOS acknowledges the additional information provided by the State Party in February 2020 following the ICOMOS Interim Report. It allows a better understanding of the interactions related to the cave system and social and religious activities of the place. However, the information provided remains descriptive and analysis in relation to the proposed justification for inscription is missing. The documentation provided by the State Party in the nomination dossier and additional information does not provide sufficient context to enable an understanding of the significance of the property.

**Boundaries**

The nominated property has an area of 793.02 ha, and a buffer zone of 1,307.35 ha.

The nominated property boundary does not incorporate all the potential attributes of the proposed Outstanding Universal Value. In additional information provided by the State Party in response to ICOMOS’ first letter, it has confirmed that the sacred forest is an important potential attribute. However, only some of this forest is within the property, with other parts within or outside the buffer zone. The whole of the sacred forest should be within the property.

A suitable revised buffer zone should be determined to provide adequate protection for the nominated property with its revised boundary to include the sacred forest.

**State of conservation**

The present state of conservation of the nominated property is generally good and the cave system remains well preserved. It is noted, however, that a chamber collapsed in the relatively recent past. The reason for this collapse is not known. It could be related to natural decay, or possibly to human activity. Investigations and ongoing monitoring are therefore required to determine the
cause(s) of the collapse and to watch for further deterioration.

While the setting for the cave system remains largely intact, the nominated property's state of conservation has been affected by village expansion, graffiti and the installation of power generators for the caves.

It is noted that the State Party has proposed the removal of the generators and electrical system from the caves, but this has not yet happened.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are environmental degradation, increasing resource exploitation by the local community, livestock grazing in the area, agricultural activities, vehicles passing on roads over the cave system, village expansion, human activities in the cave system, lack of conservation action, limited capacity and inadequate financial resources.

In general, the ecological setting of the cave system, river and sacred forests faces a threat of gradual environmental degradation from a range of factors. Erosion of soils and sedimentation/siltation of the river are such factors. Resource extraction by the local community, such as harvesting wood for various purposes including charcoal production, is another factor.

Livestock grazing is contributing to a general degradation of the environment. In addition, the consequence of livestock drinking water near the main upstream entrance to the cave system is that their excrement fouls the water that flows into the cave system. This polluted water may have negative impacts.

Agricultural activities in the fields above the caves could lead to the infiltration of water into the cave system, potentially triggering collapses. Land degradation is also a threat due to increased agricultural activity and the related clearing of brush and cutting of trees.

Vehicles passing on roads over the cave system pose a threat of possible collapses in the cave system. In addition, the poor condition of roads results in stormwater and sediment management problems within the property.

The expansion of the village towards the east on land above the cave system also represents a potential threat.

Increased pressure associated with human activity in the caves may have negative impacts, such as graffiti and the installation of the generators powering a permanent lighting system.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The property is exceptional testimony to the spiritual life of the Islamic community who make pilgrimage visits to it. Annual festive events with comprehensive Islamic religious processions, and traditional beliefs and practices, are conducted in the cave shrines and mosques. These ancestral cult beliefs and practices have been undertaken for nearly 1,000 years and are still a living culture of the Islamic community of this part of the region.

- The Holga Sof Umar, while now an important Islamic shrine, has a religious history that predates the arrival of the Muslims in Bale (southeastern Ethiopia), a history calibrated in thousands of years. The traditional belief in this part of Africa revolved around spirit worship and ancestral cults in which the most powerful supernatural beings were believed to attach themselves to old trees and boulders, and to inhabit caves which became places of veneration where prayers were offered and sacrifices made. The Sof Umar cave system retains many signs of the persistence of such traditional African beliefs and practices.

- The cave system and the powerful meaning and mystery associated with this site as a holy place are exceptional testimony to a living cultural tradition. It is also exceptional testimony to the story of human use of cave shelters for religious purposes. As a sacred place of worship, the Sof Umar cave system is believed to be the "Caves of Mystery" where the ancestral cult of Sheikh Sof Umar, his families and descendants is observed and annually commemorated.

ICOMOS acknowledges the additional information submitted by the State Party in response to the issues raised in the Interim Report, in particular on the themes put forward for the proposed justification for inscription. However, ICOMOS considers that the arguments related to cultural practices, and in particular to the traditional system of conflict resolution does not appear to go beyond the local importance. As regards the position of the nominated property in relation to the spread of Sufi Islam, not enough information and analysis were provided to understand the role of the property in the broader context of Sufi Islam and its history for the region and for Africa.

Comparative analysis
The comparative analysis provided in the nomination dossier is focused almost entirely on the significance of the property's natural heritage, and only natural heritage properties are provided for comparison. Apart from a brief assertion about the importance of the cave system in the cultural and religious life of the local population, no analysis is provided that addresses the cultural
heritage values of the nominated property, and no comparable properties with cultural values are identified or discussed.

In a request for additional information, ICOMOS requested the State Party substantially augment the analysis to consider potential properties with similar values and attributes on the World Heritage List or otherwise. In response, the State Party provided a brief re-statement of the values of the property although no additional information regarding comparable properties.

A comparative analysis appropriate for the nominated property that fully considers cultural significance, and that provides appropriate comparisons with other cultural and mixed properties expressing similar values and attributes has not been provided.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The mixed property is nominated on the basis of cultural criteria (iii), (v) and (vi), and on the basis of natural criteria (vii) and (viii). The comments below relate to the justification of the cultural criteria.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the property is exceptional testimony to the spiritual life of the Islamic community that makes pilgrimage visits to this place. Annual festive events with comprehensive Islamic religious processions, and traditional beliefs and practices, are conducted in the cave shrines and mosque. These ancestral cult beliefs and practices have reputedly been undertaken for nearly 1,000 years and still contribute to a living culture of the Islamic community in this part of Ethiopia’s Oromia region.

ICOMOS acknowledges that important cultural practices and traditions take place at the property, that there is a long cultural history associated with the caves, and that accordingly there is a strong link between nature and culture. The coexistence or integration of traditional beliefs and Islamic religious practices within the culture is of interest.

The nomination dossier includes many references to the importance of the nominated property at the local level and to the local community, but its importance beyond the local level has not been established. While the nominated property is also a focus of pilgrimage activities, the broader significance of the property in the context of World Heritage is not substantiated.

References to the use of the cave system by Christians, Muslims and non-believers, and as a place for a traditional system of conflict resolution, are not supported by the nomination dossier, and are only given very limited support in additional information provided by the State Party. While these themes are of interest, the related potential value would require further substantial research and justification.

The spread of Sufi Islam appears to be an important theme related to understanding and appreciating the importance of the nominated property. However, the limited additional information presented about the possible relevance of this broad theme to this specific property is not sufficient to understand the significance of the property. For example, the role of an earlier and more prominent Sufi Saint, Sheikh Hussein, raises a question about the possibility of sites associated with this saint having greater potential value.

Overall, the proposed value is not supported by substantial documentation and a robust comparative analysis.

ICOMOS considers that criterion (iii) has not been justified.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the Holqa Sof Umar, while now an important Islamic shrine, has a religious history that predates the arrival of Muslims in Bale (southeastern Ethiopia), a history calibrated in thousands of years. The traditional belief in this part of Africa revolved around spirit worship and ancestral cults in which the most powerful supernatural beings were believed to attach themselves to old trees and boulders, and to inhabit caves which became places of veneration where prayers were offered and sacrifices made. The Sof Umar cave system retains many signs of the persistence of such traditional African beliefs and practices.

ICOMOS acknowledges that the nominated property is witness to traditional beliefs and practices, and that these now co-exist with Islamic practices in the same cultural context. The longstanding traditional beliefs and practices associated with the cave system, reflecting a harmonious interaction between nature and culture, are notable. Nonetheless, the justification provided by the State Party does not support significance beyond the local level. The information available is not adequate to justify this criterion, nor is the justification supported by a robust comparative analysis.
The form of the interaction between nature and culture also needs to be better understood for this criterion to be justified. The associative relationship of people with the cave system does not accord with the normal interpretation of interaction under the criterion.

ICOMOS considers that criterion (vi) has not been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

This criterion is justified by the State Party on the grounds that the cave system and the powerful meaning and mystery associated with this site as a holy place are exceptional testimony to a living cultural tradition. It is also exceptional testimony to the story of human use of cave shelters for religious purposes. As a sacred place of worship, the Sof Umar cave system is believed to be the “Caves of Mystery” where the ancestral cult of Sheikh Sof Umar, his families and descendants is observed and annually commemorated.

ICOMOS acknowledges the importance of the nominated property as a holy place associated with the ancestral cult of Sheikh Sof Umar, and the focus on continuing religious traditions and beliefs. However, the nomination dossier’s justification, supplemented by additional information, relates only to the local significance of the nominated property. Moreover, the significance of this property as regards the human use of cave shelters for religious purposes has not been substantiated. The information available is not adequate to justify this criterion, nor is the justification supported by a robust comparative analysis.

ICOMOS considers that criterion (vi) has not been justified.

ICOMOS considers that the nominated property does not meet any of the proposed cultural criteria.

Integrity and authenticity

Integrity

The integrity of the nominated property is presented by the State Party as being based on the natural cave system having a long history of use as a place of religious and cultural practices. The features include the cave system with its entrances from the narrow and deep river gorge, and in particular the linked chambers. These elements are testimony to the ancient and still living spiritual life of the Islamic community, as well as traditional beliefs and practices.

However, the property boundary does not incorporate all the potential attributes of the proposed Outstanding Universal Value. In additional information provided by the State Party it has confirmed that the sacred forest is an important potential attribute. However, only some of this forest is within the property, with other parts within or outside the buffer zone. The whole of the sacred forest should be within the property.

The cave system generally remains well preserved and appears to be largely unmodified, with only limited signs of damage resulting from collapse. There is some graffiti. Active protection by the local population and minimal pressure from tourism have contributed to its preservation. The natural setting for the property generally remains intact with no permanent modifications, though it has suffered some environmental degradation and is subject to various pressures.

Risks for the property include the growing inter-generational gap in the community and the increasing rural-to-urban migrations, both of which could threaten the continuity of religious and traditional practices.

Nonetheless, because the potential Outstanding Universal Value has not been established, it is difficult to definitively assess the integrity of the property.

ICOMOS considers that the conditions of integrity have not been met.

Authenticity

The authenticity of the nominated property likely lies in the formation of the caves and cave passages, the underground stream and the dramatically sculptured karst landforms. The cave system remains a site of traditional worship for the local people, integrated with Islamic religious practices. The cave system is a place of powerful spiritual meanings for the community.

ICOMOS considers, based on these potential attributes and limited documentation, that the property generally retains its original location, setting, form, materials, spirit and feeling. While there have been physical changes to the cave system, such as the collapse of some of its parts, it is believed to be largely unchanged. It also retains its traditional use and function, notably related to traditional and Islamic beliefs and practices, and the property is still under the care of traditional local custodians. However, the intensity of these activities is somewhat less in the modern period.

However, without the potential Outstanding Universal Value having been established, and the potential attributes relevant to conveying that value having been confirmed and adequately documented, the evaluation of authenticity cannot be considered definitive.

ICOMOS considers that the conditions of integrity and authenticity have not been met.
Evaluation of the proposed justification for inscription

There is very little documentation and scientific literature about the nominated property, and limited mapping of the physical form and layout of the cave system.

The themes proposed in relation to the proposed justification for inscription are of interest, however the related potential value would require further substantial research and justification to understand and justify the significance of the property beyond the local importance.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List.

ICOMOS also considers that the nominated property does not meet any of the proposed cultural criteria. The requirements of integrity and authenticity have not been met.

Features

The identified features of Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery) are related to the central cultural theme of a natural cave system with a long history of use as a place of religious and cultural practices.

The presumed attributes include the cave system with its entrances from the narrow and deep river gorge, and in particular examples of the three linked chambers, one representing a mosque, one the Chamber of Columns, and one believed to have been excavated by God (Allah) to hide the Muslim saint Sof Umar. There is also a place outside the cave system for receiving visitors. The additional information provided by the State Party has confirmed that the sacred forest is an important potential attribute.

ICOMOS considers that the presumed attributes conveying the value of the property have been well identified, but that the nominated property cannot be said to demonstrate Outstanding Universal Value.

4 Conservation measures and monitoring

Conservation measures

Active conservation measures include permanent management of the property involving monitoring and environmental control, awareness raising and controls over village expansion.

While a system of legal protection and a management plan have been developed, very little conservation work is taking place and there is effectively no capacity for conservation.

In response to the Interim Report, the State Party has indicated that conservation issues will be addressed in a revised management plan. ICOMOS recommends this should be in the form of a conservation strategy integrated into the management plan.

Monitoring

Monitoring is undertaken by experts of the federal Directorate of Inventory and Inspection of the Cultural Heritages or from the regional Bureau of Culture and Tourism. Inspection formats are used for monitoring. Annual reports based on seasonal field work are also prepared. The federal and regional offices have a long experience in undertaking monitoring.

The State Party has developed a very short list of key indicators for measuring the state of conservation. ICOMOS considers that these indicators are too general and superficial to effectively capture changes to the features that convey the values of the property. Most of the indicators relevant to the cultural values relate to pressures on the property, and not its physical state. One indicator relates to the continuity of ritual practice. The period for monitoring is also indicated.

ICOMOS considers that conservation measures are not adequate to fully address the challenges facing this property. In addition, the proposed monitoring system lacks detail and depth, and does not address the physical state of the cave system.

5 Protection and management

Documentation

No information has been provided by the State Party indicating the existence of a detailed and systematic inventory or other documentation of the physical qualities of the cave system, or of its associated cultural values. Some information about these values does exist in the nomination dossier and has also been provided in the additional information supplied by the State Party, but it is not clear if this is in a consolidated form such as an inventory or comprehensive documentary record about the property. In the additional information provided in February 2020, a map of the internal cave system was provided by the State Party, indicating that the map should be updated in the future. No specific timeframe was provided.

In addition, given the general understanding of the prehistoric use of caves by humans in this and other parts of Africa, it seems possible that ancient use, prior to the period of religious use, may have left archaeological evidence. This aspect has not been investigated. In response to the Interim Report, the State Party has indicated it will conduct archaeological research, however, no details or timeframe were provided.
In addition, the State Party explained that extensive scientific and documentary research are planned in the near future for documenting the oral traditions related to the cultural practices of the place. ICOMOS welcomes this project and encourages the State Party to pursue his efforts for the documentation of this place.

There is a compelling need for a research and documentation program focusing on the various features and processes associated with the cultural values of the property, including detailed mapping. This would be essential for a better understanding of the cave system, in terms of form and layout, and would therefore establish a baseline for management and monitoring of the property.

**Legal protection**

The local community, custodians of the cave and elders collectively ensure the primary protection and management of the property.

Ethiopia has a federal government system that allows regional states to administer their own affairs. This includes the creation of a Culture and Tourism Bureau to look after cultural resources and tourism development. Regional states also produce regional policies, rules and regulations to conserve and protect cultural and natural heritage. Ministries and authorities have thus been established at both the federal and regional jurisdictions.

Accordingly, the property is protected by a range of legal instruments. The 1994 Constitution of the Federal Democratic Republic of Ethiopia guarantees the preservation of its cultural and natural heritage. The Ethiopian Cultural Policy of 1997 declares that cultural heritage shall be protected and transmitted to future generations. The nominated property is also protected by Proclamation No. 209/2000, Proclamation for Research and Conservation of Cultural Heritage. This proclamation declares that natural and cultural sites are owned, managed and protected by the government and the public. There is also Proclamation No. 839/2014, the Proclamation to provide for the Classification of Cultural Heritages into National and Regional Cultural Heritages. It gives the federal government responsibility for properties inscribed on the World Heritage List. The nominated property is further protected by the Protection Law of the Oromia National Regional State No. 158/2013, which establishes the Office of the Sol Umur Heritage Site as well as a management committee of stakeholders that includes local authorities and public representatives.

While the Oromia National Regional State has promulgated Regulation No. 158/2013, implementation at the property is effectively very weak: the site office has not been fully established or resourced; conservation work as required in the Regulation is not being undertaken; the local administration in the area is not playing a meaningful or effective role.

In response to the Interim Report, the State Party stressed that legal protection is established, and there is a commitment to improve protective mechanisms. However, no details or timeframe were provided.

**Management system**

A traditional code of management for the property is implemented alongside a modern administrative system. The local community, custodians of the cave and elders ensure the primary protection and management of the property.

The cave system and surrounding forest are considered by the local people to be a sacred place of worship. Accordingly, the local community has a high commitment to the long-term protection and management of the property, as do government bodies.

The custodian of the caves is the local community, especially the local community chief. The community manages the caves within the context of them being publicly owned. The surrounding forest is also publicly owned and is managed by the community. The local government provides administrative support to the community, which protects the forest from illegal encroachment and clearance activities. The community has established a development and conservation committee which is responsible for coordinating the participation of local people and which works in partnership with authorities and stakeholders.

The Authority for Research and Conservation of Cultural Heritage and the Oromia National Regional State Culture and Tourism Bureau at the federal and regional levels respectively are legally authorised to manage the property. A site manager has been employed to work actively with the local community and other stakeholders to protect and manage the site.

The management plan addresses issues related to conservation, protection, research, education, sustainable tourism and improvement of the life of the local community. It includes an action plan.

The management plan identifies the conservation problems of the site, such as a lack of conservation policy and strategy, limited local institutional capacity, and limited budget and staff, amongst other matters. The plan also identifies positive measures taken by the government, including the establishment of a regional office for the administration and preservation of the site, the preparation of regulations, and the assignment of staff for protection and maintenance.

The management plan does not consider the environmental context of the property, which is integral to the associated cultural practices. The plan does not review stakeholder relations with a view to identifying opportunities for collaboration and partnerships. Nor does it provide an understanding of how a stakeholder engagement framework can be developed. The governance framework and management context are also
not analysed. There are no vision or mission statements that would relate property management to the desired state of conservation. The plan does not make the necessary linkages with the tourism strategy of the Culture and Tourism Bureau.

In response to the Interim Report, the State Party has advised that a revised management plan will be prepared including a range of conservation and management issues. It will also address the governance framework, management context and stakeholder involvement. No details of the timeframe for this revised plan were indicated.

At present, there are no trained conservation experts in the regional bureau.

Overall, the property lacks capacity for effective management. There are limited human resources available through the traditional custodians and community guides, and there are no locally based experts available. There is only weak collaboration between the range of agencies with some management responsibility in the locality.

Most of the 28 activities identified in the management plan that were supposed to have been started in 2018 have not commenced due to budgetary and capacity related issues.

Requirements include adequate financial resources and capacity, and the ability to involve experts.

Stronger collaboration amongst agencies is needed. Further broad consultation on the management plan would assist with these issues. Regulations restricting or prohibiting human activities in the nominated property and buffer zone are also needed to ensure the long-term protection of the property.

The socio-cultural integrity of the traditional community is an important issue that should be addressed in the management plan.

Visitor management
While the tourism potential of the cave system has been recognised, the actual number of tourists visiting the caves has been minimal. This is because of the difficulty accessing the property and the absence of accommodation and other visitor facilities.

With regard to ceremonial activities, about 2,000 Ethiopians attend these, with only a few foreigners.

There have been attempts by the regional authorities to expand tourism activities and amenities, including the installation of lighting and generators for the caves. While installation was completed some years ago, this lighting has not been used. A guest house has also been built near the cave entrance, but it remains closed.

The nearby village has no hotel or accommodation facilities or other services for tourism. Most tour operators to the property provide services from the town of Ginir some 40 kilometres away.

The site has an interpretation centre, but this needs to be upgraded with holistic and inclusive exhibitions presenting the full range of the property’s values, including space for temporary exhibitions on conservation programs at the site. These needs are noted in the management plan.

Tourism activity is managed by the local community, and permission to enter the caves must be sought from the traditional chief, along with the payment of a nominal fee. Local guides take visitors through the caves.

There is a need for site-specific signage, alternative tour routes and information panels for unguided tours. Multilingual information brochures for the public should be prepared, and could be linked to existing mainstream tourism information packages for the area. There is an as-yet unfulfilled proposal for a tourist destination development plan.

The State Party in response to the Interim Report has indicated that a tourism master plan will be incorporated into the management plan.

Community involvement
The local community is fundamental to the intangible heritage values of the property, as well as its effective protection and management. The property is considered by the local people to be a sacred place of worship. The community, especially the local community chief, are custodians of the cave system and provide day-to-day management.

There is a need for the State Party to build a formalised, strong and effective partnership with the local community in the management of the property. This includes engaging and involving the community in the decision-making processes, rather than simply consulting them.

As noted above, stakeholder involvement is to be addressed in a revised management plan.

Evaluation of the effectiveness of the protection and management of nominated property
No information has been provided by the State Party indicating the existence of a detailed and systematic inventory or other documentation of the physical qualities of the cave system, or of its associated cultural values. Limited mapping exists but is not adequate.

While legal protection is provided for the property, its implementation is weak. In any event, the more important day-to-day protection appears to be provided by the local community.
Similarly, traditional management by the local community is very important for the property. While a management plan exists, many problems and issues have not yet been addressed, and the property lacks capacity for effective management. The management is not supported by trained conservation experts in the regional bureau.

Tourism does not seem to be a major pressure at present. Nonetheless, planning and facilities for visitors are minimal.

The local community is closely involved in the protection and management of the property, although it needs to be empowered and more directly involved in decision-making.

ICOMOS considers that documentation is not adequate. The local community plays a vital role in protection and management although this role needs to be strengthened, supplemented by legal protection measures and an effective management plan. Implementation of legal protection is weak. The property lacks capacity for effective management, the plan needs to be augmented to address a range of additional issues, and management needs to be supported by trained conservation experts in the regional bureau. Tourism planning and facilities should be improved.

7 Recommendations

ICOMOS recommends that the World Heritage Committee adopts the following draft decision, noting that this will be harmonized as appropriate with the recommendations of IUCN regarding their evaluation of this mixed site nomination under the natural criteria and included in the working document WHC/20/44.COM/8B.

Recommendations with respect to inscription

ICOMOS recommends that Holqa Sof Umar: Natural and Cultural Heritage (Sof Umar: Caves of Mystery), Ethiopia, should not be inscribed on the World Heritage List on the basis of cultural criteria.

6 Conclusion

ICOMOS considers there is a lack of documentation to support an adequate understanding of potential cultural values of the property, including the wider historical and cultural context. Accordingly, Outstanding Universal Value is not justified. Such an understanding of cultural values is essential to ensuring the appropriate protection, conservation and management of the property.

The comparative analysis does not justify consideration of this property for the World Heritage List. No analysis is provided which addresses the cultural heritage value of the property, and no comparable properties with cultural values are identified or discussed.

ICOMOS considers that the nominated property does not meet any of the proposed cultural criteria. Whilst acknowledging the cultural practices and traditions that take place at the property, the nomination dossier supports the claims of significance only at the local level.

The conditions of integrity and authenticity have not been met.

ICOMOS considers that conservation measures are not adequate to ensure the conservation of potential Outstanding Universal Value. In addition, the proposed monitoring system lacks detail and depth, and does not address the physical state of the cave system.
Map showing the boundaries of the nominated property
IV Cultural properties

A Arab States
   New nomination

B Asia – Pacific
   New nominations

C Europe – North America
   New nominations
   Extension

D Latin America and the Caribbean
   New nominations
Cultural Rock Arts in Ḥimā Najrān (Saudi Arabia)
No 1619

Official name as proposed by the State Party
Cultural Rock Arts in Ḥimā Najrān

Location
Ḥimā Area
Najrān Region
Saudi Arabia

Brief description
Located in an arid, mountainous area of southwest Saudi Arabia, Cultural Rock Arts in Ḥimā Najrān contains a substantial collection of rock art images depicting hunting, fauna, flora and lifestyles in a cultural continuity from prehistoric through mediaeval times and almost to the present, a period of 7000 years. The property and its large buffer zone are also rich in unexcavated archaeological resources in the form of cairns, stone structures, interments, stone tool scatters and ancient wells.

This location is at the oldest known toll station on an important ancient desert caravan route, where the wells of Bi‘r Ḥimā date back at least 3000 years and still produce fresh water. Travellers among the intensive caravan traffic as well as armies camping here left a wealth of rock inscriptions and petroglyphs. These and earlier examples cover a period of 7000 years, continuing up to the last 30 years, most preserved in pristine condition. Inscriptions are in different scripts, including Musnad, Aramaic-Nabatean, South Arabian, Thamudic, Greek and Arabic.

No archaeological excavations have been carried out in the nominated property. Nevertheless, a large number of surface archaeological resources are found in the nominated property and its buffer zone, including stone cairns, dry-laid stone tombs, extensive stone arrangements, stone tool scatters and ceramic shards.

The nominated property is a serial nomination consisting of six component parts:

Saidah (HIM01) is a rock outcrop about 20 metres high and 90 metres in diameter. There is a large inscription on a high part of the cliff face as well as 43 smaller inscriptions. Many petroglyphs are located on boulders around the base of the hill.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information about the justification for inscription, integrity and authenticity, factors affecting the property, boundaries, conservation, protection and management, interpretation, presentation and visitor management.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: justification for nomination, boundaries, conservation and protection.

Additional information was received from the State Party on 10 October 2019 and 27 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Cultural Rock Arts in Ḥimā Najrān is located in southwest Saudi Arabia on one of the ancient caravan routes of the Arabian Peninsula. The wells at Bi‘r Ḥimā were the last source of water before crossing the desert on the way to the north. Travellers among the intensive caravan traffic as well as armies camping here left a wealth of rock inscriptions and petroglyphs. These and earlier examples cover a period of 7000 years, continuing up to the last 30 years, most preserved in pristine condition. Inscriptions are in different scripts, including Musnad, Aramaic-Nabatean, South-Arabian, Thamudic, Greek and Arabic.

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Saidah (HIM01) is a rock outcrop about 20 metres high and 90 metres in diameter. There is a large inscription on a high part of the cliff face as well as 43 smaller inscriptions. Many petroglyphs are located on boulders around the base of the hill.
Himā Wells (HIM02) consists of two sites of rock inscriptions located close to the five ancient wells of Bi‘r Himā. They have been in use for at least 3000 years and continue to provide water. Caravans and armies camped here over a long span of time and in different periods. Inscribed rock panels are located 150 metres from the wells. Inscriptions covering more than 45 metres in length extend along the foot of the cliff. Seven stone tombs are located at the bottom of the slope below the cliff.

ʿĀn Jamal (JML01) is a low, rocky ridge marked by very large angular boulders and a vertical cliff. All are densely covered with 245 petroglyphs and 438 inscriptions. One of the inscriptions is thought to be between 1300 and 1350 years old, on the basis of the micro-erosion calibration at southern Saudi Arabia. The most recent presence of surface water was established according to scientific evidence gained from ʿĀn Jamal. This gives an estimate of the time of the gradual lowering of the aquifer leading to the region’s final phase of desertification. A toll station for caravans once existed at ʿĀn Jamal.

Dhibāh 1 (DBA01) is a series of large boulders at the foot of a mountain stretching for 2.5 kilometres from east to west. It consists of a number of rock art panels, one of the ten sites of the Dhibāh complex. It includes the presumed depictions of three or four elephants. As the animal did not exist in the Arabian Peninsula, a number of interpretations by researchers have been considered for these depictions.

Minshaf 2 (IBD02) is a site complex 3.5 kilometres east of Dhibāh 1. Its dominant features are large bovid depictions with elaborately decorated internal bodies. The markings are usually associated with Neolithic cattle depictions in northern Saudi Arabia.

Najd Khayrān (SAD07) is immediately north and along wadi Saad. It is located at the base of a meandering cliff, with thousands of petroglyphs on it and on large blocks of sandstone at its base. Four polished “slides” occur on a steeply sloping panel on a huge block in front of the “waterfall,” opening the door for different interpretations. Among big boulders east of the “waterfall” are panels of petroglyphs, some of which depict bovids and human figures, and in some cases interactions between them.

In addition to the six component parts of the nominated property, additional 545 sites have been inventoried, including thousands of rock art and rock inscriptions in the wider Himā area.

The nominated property’s history begins with the Lower Palaeolithic hominin presence at ʿĀn Jamal and Sha‘īb Hinmat, with occupation sites of the Acheulian and perhaps earlier. Stone structures are the testimony of human occupation during the Neolithic. Continuous occupation of the nominated property since the Neolithic is thought most probable, though not yet confirmed by archaeological excavations.

The rock art of the property was first brought to outside attention following a 1951-52 Belgian expedition under the auspices of King Ibn Saud. Since then it had been photographed and studied, though the nominated property and the buffer zone remain incompletely explored. Attempts have been made, to establish the chronology of Arabian rock art up to the present, with many expeditions to Himā by Saudi and foreign specialists.

**Boundaries**

The area of the six component parts of the serial nomination totals 242.17 ha, with a single buffer zone of 31,575.83 ha.

The six component parts that comprise the nominated property – possibly containing more than 100,000 petroglyphs – encompass the region’s largest and most significant concentrations of rock art and rock inscription sites.

The 2018 Tourism Management Plan subdivides the buffer zone into a “developed” zone containing the Himā Wells and Saidah component parts in the south, and a larger “undeveloped” zone containing the other four component parts in the north.

In response to a request for additional information sent by ICOMOS in September 2019, the State Party clarified that the rationale for delineating the boundaries of the nominated property is based in part on adopting fenced-in “exclusion area” boundaries established many years ago. The rationale for delineating the boundaries of the buffer zone is based on “annexing” the largest possible number of rock art, inscription and archaeological clusters within the overall extent of the greater cultural heritage zone.

The State Party advises that the western part of the proposed buffer zone is limited because of sensitivities among the Bedouins. It hopes the buffer zone may be extended in the future, particularly to include the site of Jabal al-Kawbab.

ICOMOS considers that the buffer zone should be extended to include Jabal al-Kawbab and part of Jabal al-Qāra, which are adjacent to the proposed buffer zone, thereby adding a hill area that contains many important sites. This request was presented in the ICOMOS Interim Report and the State Party accepted this proposal. It indicated that the timeframe for inclusion of these sites would be between 3 and 5 years, as they required detailed documentation and studies.

ICOMOS considers that the rationale for the boundaries of the nominated property and the buffer zone was difficult to confirm without the records documenting all known sites. The list of 551 rock art and rock inscription sites located within the nominated area, the buffer zone and in the wider Himā area have been provided as part of the additional information in February 2020. However,
little information was provided on the sites located in the buffer zone and wider area.

ICOMOS recommends that a map showing the precise location of the inventoried heritage sites reported from the nominated area and the buffer zone be provided.

ICOMOS recommends as well that further research, including mapping, documenting and inventorying sites in the buffer zone be carried out.

ICOMOS concludes that boundaries of the nominated property are adequate. ICOMOS also encourages the State Party to advance archaeological research in the buffer zone, and to consider the option of extending the property in the future, in case information comes to light that contribute to the understanding of the property.

ICOMOS considers that dividing the buffer zone into “developed” and “undeveloped” zones is not coherent, particularly in relation to the township of Himā and the potential development there in proximity to the Himā wells, petroglyphs and inscriptions (component parts HIM01 and HIM02 of the nominated property). In the additional information provided in February 2020, the State Party explained that any development within the “developed zone” will be subject to approval and will need “to comply with traditional architectural practices, without impinging on the visual ambience of the two core sites”. As regards the development within the “undeveloped zone”, it will be limited to fencing, visitor paths, platforms and barriers. There are traditional Bedouin tent settlements in a few locations, but no permanent structures will be allowed.

In addition, the suggestion of the State Party that Najd Khayrán (component SAD07) be developed as a tourism destination appears contradictory to the developed/undeveloped division within the buffer zone, as it is located in the “undeveloped” zone. The State Party provided clarification in February 2020: this will involve the installation of minimal tourist facilities, including concrete paths from the entrance gate to the rock art concentrations and potentially a sun-shade at the gate. Consideration is being given to the installation of a Bedouin tent nearby with toilet, coffee shop facilities and a monitoring centre.

ICOMOS considers that more information on the rationale for the division of the buffer zone into two zones remain necessary. It appears that part of the rationale for the developed zone focused on Himā village as it is the settlement area with access to the regional road network. However, it is not clear from where the access to Najd Khayran will be, and it would appear that road facilities will be required. ICOMOS recommends also that the State Party carries out Heritage Impact Assessment studies of the impact of these proposed developments before they are implemented.

**State of conservation**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is good.

The six component parts are individually fenced with restricted access to vehicles, except for Himā Wells (HIM02), as the wells are still used as a source of water for the local community.

Several sites have suffered from damage from bullets, as large blocks were used for target shooting. ICOMOS inquired the State Party about the measure in place to prevent such practices. The State Party clarified that this practice has been stopped and is now prevented by the fencing around each of the six component parts.

The state of conservation is affected in a limited way by natural deterioration such as erosion by air-borne quartz sand and slow granular exfoliation caused by the natural removal of interstitial colloid silica by solution.

**Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are human threats such as vandalism and the impact of foot traffic at the base of the cliffs. Three issues in particular should also be carefully monitored: graffiti, bullet damage and garbage.

Development pressures are limited to the expected future increase in tourism, as well as the infrastructure and services visitors will need, and the potential future expansion of Himā township.

Other factors include natural threats such as wind and rainwater erosion and diurnal differences in temperature. Natural disasters may include seismic activity along the axis of the Red Sea and the Gulf of Aden.

**3 Proposed justification for inscription**

**Proposed justification**

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The artistic skills demonstrated in the rock art are exceptional, with many of the petroglyphs representing masterpieces of human creative genius.
- Invested with the beliefs, concerns, desires and priorities of its creators, the rock art represents the surviving cultural precipitate of 300 to 400 generations.
- The rock art and rock inscriptions exhibit an important interchange of values by many ethnic groups from all over the Middle East. The inscriptions represent a long span of time in the
developments in monumental arts and writing, and
document systems of writing which eventually
bestowed alphabetic scripts on the world.

- The property bears a unique testimony to a number
  of ancient traditions over many millennia,
culminating in a civilization that is still living today. It
represents a massive outdoor library.
- The massive corpora of petroglyphs and rock
  inscriptions present an outstanding record of human
interaction with a volatile environment. This
interaction provides a salutary lesson to modern
society globally.

In its Interim Report, ICOMOS raised that the name of
the nominated property “Cultural Rock arts in Himā
Najran” could be seen as restrictive due to the different
types of identified attributes and archaeological
potential. The State Party replied by changing the name
of the property to be “Ḥimā Cultural Precinct”. ICOMOS
thanks the State Party for having considered changing
the name of the property. However, the suggested term
of “precinct” does not appear appropriate to reflect all
values of the nominated property. Therefore, ICOMOS
recommends that the name of the nominated property
be changed for “Ḥimā Cultural area”.

Comparative analysis
The comparative analysis is presented in three parts:
comparisons with sites in Saudi Arabia; comparisons
with sites in the Middle East; and comparisons with other
sites throughout the world, including World Heritage and
Tentative List properties, all having a comparable
combination of values and attributes.

First comparisons mention the numerous regions of Saudi
Arabia that have known concentrations of rock art. A brief
analysis emphasizes the qualities of the nominated
property that are different from those found in Rock Art in
the Hail Region of Saudi Arabia (2015, criteria (i) and (iii)).
A short outline summarises the existence of rock art
and/or rock inscriptions in the Levant, Turkey, Jordan,
Syria, Yemen, Oman, United Arab Emirates, Iraq, Iran,
Pakistan, Afghanistan, and Egypt. Only a few specific
sites – Belidibi, Kara’In and Öküzlü’In (Turkey), and
jabal Akhdar and Dhofar (Oman) – are mentioned.

General comments are provided about the nature of rock
art and rock inscription sites in China, India,
Australia and Europe. Brief but more focused global
comparative analyses are then made with nine
properties on the World Heritage List and one site on a
Tentative List. Among these are Rock Paintings of the
Sierra de San Francisco (Mexico, 1993, criteria (i) and (iii)),
Zuojiang Huashan Rock Art Cultural Landscape
(China, 2016, criteria (iii) and (vi)), Wadi Rum Protected
Area (Jordan, 2011, criteria (iii), (v) and (vii)),
Twyfelfontein or Uf-//aes (Namibia, 2007, criteria (iii)
and (v)) and the Dampier Cultural Area (Murujuga
Cultural Landscape, Australia, Tentative List).

The comparative analysis contends that the nominated
property stands out for its exceptional continuity, linking
many periods and traditions from the prehistoric and
Neolithic periods up to very recent times; for its
exceptional quality, density and state of conservation; as
a source of written rock art ethnography; and as one of
the largest rock art sites in the world.

As regards the choice of components that comprise this
serial nomination, the State Party states that the six
selected component parts represent the largest and
most significant concentrations of the approximately 550
rock art and rock inscription sites known in the region.
The great majority of the remaining rock engraving sites
are included in the buffer zone.

The Interim Report requested from the State Party further
analysis and amplification regarding sites within Saudi
Arabia, particularly with Rock Art in the Hail Region of
Saudi Arabia, to determine whether and how the
nominated property stands out or can be seen as the best
example or representative. The State Party submitted
additional information consolidating the comparative
analysis. The State Party’s concluded that Jubbah and
Shuwaymis (2015) include the finest examples of
Neolithic rock art known in the world, while the
nominated property is a cultural area linking a massive
corpus of prehistoric and historic rock art, rock
inscriptions and archaeological remains. It links long
past with the present and places the Bedouin identity
within its historical context. The Hail site complexes
already inscribed on the List are large by international
standards, but they are certainly not the largest known
in the country, which the Cultural Rock Arts in Himā
Najrān is.

ICOMOS notes that the rock engravings within the
nominated property differ from those at al-Jubba
because they date from both the pre-Islamic and Islamic
periods. For the pre-Islamic period, they can be divided
into three categories: engravings made by the local
population consisting of itinerant shepherds; those left
by the inhabitants of the neighboring oases; and a
significant number of texts left by the caravanners and
armies passing through Ḥimā. It includes considerable
accumulation of historical texts that makes it possible to
hypothesize that Ḥimā was the great market of the south
where caravans were formed. It should be added that,
in comparison with al-Jubbah, Ḥimā is situated in a
different cultural sphere, that of the civilizations of the
southwest of the peninsula, known as the “sudarabic”
one, whose best known representatives are the
kingdoms of Sabaʾ and Himyar.

As for the internal selection of sites, the component parts
that are selected were chosen on the basis of historical
significance and of being relatively accessible and
representative examples of the overall corpus. The
buffer zone areas are of low accessibility. Jabal Qara
and Jabal al-Kawbab remain not well explored.
ICOMOS is satisfied with the additional information and comparisons provided, and considers that the comparative analysis justifies consideration of this property for the World Heritage List.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i), (ii), (iii) and (v).

Criterion (i): represent a masterpiece of human creative genius;
This criterion is justified by the State Party on the grounds that the visually stunning rock art, which was created by simple stone hammers, includes masterpieces of human creative genius that express the beliefs, concerns, desires and priorities of more than 300 generations.

ICOMOS considers that the rock arts at the nominated property, despite their importance and quality of execution, are not outstanding either in terms of visual settings, techniques employed or of the subject matter.

ICOMOS considers that criterion (i) has not been justified.

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town planning or landscape design;
This criterion is justified by the State Party on the grounds that the rock art and inscriptions reflect an important interchange of values by numerous ethnocultural groups from many parts of the Middle East who were travelling by caravans and stopping at the wells of Ḥimā. The inscriptions they left represent a long span of time in the development of monumental arts and writing.

ICOMOS considers that to satisfy this consideration it is necessary to demonstrate how the property has either absorbed ideas from elsewhere or has influenced other areas. It is not easy to justify this criterion unless sufficient information is available on the cultural/ethnological context that is available or when stylistic (or thematic) comparisons can be made with other rock-art sites in areas that are more or less remote.

ICOMOS considers that not enough information could document the way the property express important interchanges of ideas in the marks of beliefs and traditions recorded by people from different parts of this region or travelling through it.

ICOMOS considers that criterion (ii) has not been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living, or which has disappeared;
This criterion is justified by the State Party on the grounds that the property bears a unique testimony to a number of ancient traditions over the span of many millennia from the Neolithic to the present, chronicling the history of the Arab people more effectively than any other place and thus representing a massive outdoor library of that history.

ICOMOS considers that the property does bear an exceptional testimony to a long series of cultural traditions, arguably to the Palaeolithic and at the very least to the Neolithic and stretching from then until the present day. People passed through, left a pristine record of their presence and passage in the form of rock inscriptions and rock art, the former in some cases describing their lived context and environment, the themes in the rock art reflecting the changing character of the environment and how they adapted to it.

ICOMOS considers that criterion (iii) is justified.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
This criterion is justified by the State Party on the grounds that the massive collection of petroglyphs and rock inscriptions present an outstanding record of human interaction with a volatile environment that underwent irreversible fluctuations in climate and aquifer levels. This interaction provides a useful lesson to modern society.

ICOMOS considers that the State Party’s interpretation of this criterion is not how traditionally it is used. In addition, part of the arguments which are put forward to justify it are similar to those acknowledged for criterion (ii).

ICOMOS considers that criterion (v) has not been justified.

ICOMOS considers that the nominated property meets criterion (iii) and that criteria (i), (ii) and (v) have not been justified.

Integrity and authenticity

Integrity
The six component parts that comprise the nominated property – possibly containing more than 100,000 petroglyphs – encompass the region’s largest and most significant concentrations of rock art and rock inscription sites, and is thus of adequate size to demonstrate the proposed Outstanding Universal Value. The great
The nominated property is free from development except for site protection works and the small township of Himā (which occupies approximately 1.1 percent of the property’s total area), with an access road leading to it and a communications pylon on a nearby hill. The archaeological resources within the nominated property remain almost totally intact.

ICOMOS considers that the integrity of the whole series has been demonstrated; and that the integrity of the individual component parts that comprise the series has been demonstrated.

**Authenticity**

All rock art and rock inscriptions within the nominated property have retained their original locations, settings and substance, as well as their form and design for the vast majority of them. Their function has also been kept to a certain extent: they have social and communal value to the local Bedouin people who live and graze their livestock in the region and who consider the rock art to be part of their own heritage.

The authenticity of the petroglyphs is clear from their patinated condition, state of weathering and fractures in rock panels that have been determined to postdate the images. Other scientific work as well as stylistic similarities with direct-dated rock art elsewhere in Saudi Arabia also confirm their authenticity.

Some engravings have been “refreshed,” as certain sections have been re-pecked. However, most of these were done in ancient times and could be considered part of their authenticity, as they manifest the active role these images played in the lives of people. In a few cases the refreshing is less clearly linked to ritual usage and could perhaps be attributed to more recent vandalism. However, such damage has minimal impact on the overall ancient and authentic nature of the rock art.

The rock inscriptions are fresher and brighter than most of the rock art. There are several different recognizable types of script, the older ones being more patinated. Some of the inscriptions describe events that occurred at known dates.

The location, width and depth of the wells at Bīr Himā are original, but the above-ground walling is recent, built to ensure safety. The network of channels linking the five ancient wells is a recent restoration. The State Party advises that the walling additions and channel restorations are reversible.

ICOMOS considers that the conditions of authenticity of the whole series have been met; and that the conditions of authenticity of the individual component parts that comprise the series have been met.

In conclusion, ICOMOS considers that the conditions of integrity of the whole series have been met; and that the conditions of integrity of the individual components that comprise the series have been met; and that the conditions of authenticity of the whole series and of the individual components have been met.

**Evaluation of the proposed justification for inscription**

The comparative analysis justifies consideration of the property for the World Heritage List.

The nominated property meets criterion (iii). Criteria (i), (ii) and (v) have not been justified.

The nominated property meets the conditions of integrity and authenticity for the individual components that comprise the series, and for the series as a whole.

**Attributes**

The nomination dossier does not present in a clear and detailed way the full range of attributes relevant to the proposed Outstanding Universal Value. ICOMOS considers that the key attributes of Cultural Rock Arts in Himā Najrān include the rock art, the rock inscriptions, the five wells at Bīr Himā and their associated environment, the surface and subsurface archaeological resources, the natural environment including rock panels, rock outcrops, cliff faces, ridges and large boulders, and the landscape setting that is essentially free of development.

ICOMOS considers that the identification of the attributes should be further detailed to be used as a robust basis for the management of the property.

**4 Conservation measures and monitoring**

**Conservation measures**

In the Himā Wells component of the serial nomination (HIM02), the above-ground parts of the wells at Bīr Himā were built up with a heavy use of cement mortar. There are also built-up walkways between the wells that do not appear necessary. A shed and a modern water pump are also in the vicinity. Careful removal of the walkways and the cement mortar have been identified as urgent actions in the Management Plan’s Action Plan.

ICOMOS requested in its Interim Report further information on how the State Party will address in the future the above ground walling for the wells and water channels. The State Party replied that the new concrete structure around the wells and water channels will be removed if ICOMOS advise so. ICOMOS considers that a careful and informed reconstruction based on historic research is required rather than removal and to ‘re-instate the previous conditions. A specialist study should be commissioned to make recommendations on whether and how to restore the original fabric of the tops of the wells and water channels.
In its Interim Report, ICOMOS requested further information on the conservation measures in place for the sites located within the buffer zone, as the component parts of the nominated property are protected by fences. The State Party replied that guards from the local residents are based at the information center to ensure the protection of the sites and that more guards will be employed to be based in a proposed Bedouin tent close to Najd al-Khayran site.

ICOMOS notes that there is no conservation strategy for the overall property and its buffer zone, and considers that a conservation strategy should be established and implemented, as being part of the management plan.

Monitoring
There is no monitoring or reporting of the detailed conditions of the nominated property. The State Party indicates that inscription of the nominated property on the World Heritage List would provide a strong impetus for the introduction of such practices in Saudi Arabia.

Only a notional example of a monitoring program has been provided in the nomination dossier. It is intended that a future monitoring program will address the main features of the nominated property’s six component parts. It will aim to monitor their state of conservation, particularly with regard to natural deterioration and the anticipated increase in visitation.

Representative monitoring stations will be established in the six component parts, according to the State Party, as it is not possible to monitor each of the tens of thousands of petroglyphs and inscriptions throughout the property. The Management Plan’s action plan includes the future use of a GIS platform to regularly monitor the condition of the sites.

ICOMOS considers that an operational monitoring program is essential, with a complete set of measurable key indicators that address the state of conservation of the full range of identified attributes that support the proposed Outstanding Universal Value, as well as the identified threats. It must also indicate the periodicity of examination and the identity of the responsible authorities.

ICOMOS requested further information in its Interim Report in relation to the timeframe for the establishment of the monitoring stations and the initiation of the monitoring program. The State Party replied that there is already a functioning monitoring station at the information centre and that a second monitoring center is planned to be established in a large Bedouin tent near and out of site from Najd al-Khayran site, and will include a coffee shop, toilets and resting area. The State Party specifies that this can be realized in a few months, once a decision is made.

ICOMOS notes that the Saudi Commission for Tourism and National Heritage’s Najran office has no access to site record files. These files could inform the baseline for the monitoring program. In addition, ICOMOS notes that monitoring should be carried out by staff with training in archaeology, rock art conservation and heritage management, and requested in its Interim report information on the timeframe for their recruitment. The State Party replied that all data are filed and available in Riyadh and in Najran Offices of the Saudi Commission for Tourism and National Heritage.

ICOMOS considers that it remains unclear what the timescale is for the appointment of appropriate specialized staff in archaeology, heritage management and conservation. This is a critical issue for the establishment of a management system and monitoring programme and requires clarification and commitment of resources (as does the completion and operationalization of the digital database).

ICOMOS considers that a conservation program should be created and implemented, together with the recruitment of specialised staff. ICOMOS also considers that a monitoring program needs to be established with measurable key indicators, periodicity and responsible authorities identified.

5 Protection and management

Documentation
According to the nomination dossier, many of the rock art and rock inscriptions within the nominated property are documented. The State Party advises that all records, with original photographs, maps and other forms of data, are kept at the Survey and Excavation Centre, and a digital version of the records is available on the websites of the National Museum and the Saudi Commission for Tourism and Heritage.

ICOMOS considers that it is of utmost importance for the Saudi Commission for Tourism and National Heritage’s Najran Office to keep and to make internally accessible to staff a database of consistent site record files for all sites inventoried within the nominated property and the buffer zone, including site record sheets (panel by panel), past condition reports, past conservation interventions and all photographs taken of the site since it was first recorded.

ICOMOS requested further information in its Interim Report on that issue, especially on the structure of the database to be developed and a detailed calendar for its completion. The State Party replied with the template of the data sheets for the site and a few filled examples. However, the structure of the database was not submitted with the additional information.
Legal protection
The nominated property and the buffer zone are the property of the Government of Saudi Arabia. They are managed and protected by the Saudi Commission for Tourism and National Heritage.

The rock art and inscriptions within the nominated property are protected as an archaeological monument by Royal Decree No. M/26 dated 23/06/1392H (1972); by the Law for Antiquities, revised and amended by Royal Decree No. M/3 as the Law for Antiquities, Museums and Urban Heritage (2015), which formed the Saudi Commission for Tourism and National Heritage; and by the Resolution by the Council of Ministers No. 78 dated 16/3/1429H (2008), which integrated the Antiquities and Museums department into the Supreme Commission for Tourism and eventually the Saudi Commission for Tourism and National Heritage, where it now resides.

The nominated property is protected at the highest level within its jurisdiction.

In terms of physical protection, ICOMOS noted that three of the component parts are fenced, equipped with signage and that the fencing of the three others is planned. In its first letter for additional information, ICOMOS requested information on the status of the fencing of the remaining components. The State Party replied that all fencing has been put in place with accessibility control.

In its Interim Report, ICOMOS requested further clarifications on the strategy for protection of the sites that are located within the buffer zone, especially in relation to the tourism accessibility plans that are expressed in the tourism management plan. The State Party replied that guards are from the local residents and are based at the information center. And that more guards will be employed to be based in the proposed Bedouin tent.

Management system
The nominated property is managed by the Saudi Commission for Tourism and National Heritage through its office in Najrān. The Najrān office works under the direction of the Commission’s headquarters in Riyadh.

The 2018 Management Plan for the nominated property has four management objectives: 1) Protect the rock art and inscription sites; 2) Engender wider understanding and appreciation of the sites; 3) Enhance the experience of visitors; and 4) Realize the potential of the sites to serve tourism and the social development of the region.

The Management Plan also includes an Action Plan, prioritized in four categories: urgent and priority actions (2019); essential actions (2020-2022); necessary but not urgent actions (2020-2024); and desirable actions (2021-2028). Actions include strengthening the Najrān office’s resources and capacity, and fully protecting the “core zones” of the nominated property (priority action); preparing a risk preparedness plan, implementing a World Heritage monitoring plan and adopting an integrated interpretation plan (essential); establishing a Centre for Rock Art Research (necessary); and re-evaluating the nominated property and the boundaries of the buffer zone (desirable).

ICOMOS in its first letter requested information to the State Party on the status of the implementation of the management plan, but no information was provided.

ICOMOS also noted that the term “hima” refers to a traditional system of protection and management, and asked the State Party in its first letter on whether the use of this term in the name of the property refers to this tradition, and if yes, how it works for the nominated property. The State Party replied in October 2019 that through the hima system, local people are involved in the visitor management of the nominated property which enhances the local economy. No information was provided in relation to the use of this term in the name of the property.

ICOMOS further requested in its Interim Report information on whether the local Bedouin tribes practiced the hima traditional system and if there is a possibility to include it within the management plan of the property and the buffer zone. The State Party replied that the local Bedouins are fully aware of the importance of the sites and they look after them, in this way the traditional system of custodianship has been integrated within the management plan.

The government has allocated funds for the current (2018) three-year period of about one billion Saudi Riyals. Whenever needed, external technical support is contracted. Collaboration with foreign missions provides scientific and technical collaboration and support for Saudi Commission for Tourism and National Heritage staff.

ICOMOS notes that the management plan adopts a limited access to some important sites, but that the tourism management plan proposes potential routes for guided tour using 4x4 vehicles. This contradiction was raised in ICOMOS Interim Report, and the State Party replied that the access of tourists beyond the main sites, mentioned in the Tourism Management Plan, is a tentative proposal and not a firm plan. In addition, the Nomination Dossier and the Management Plan have precedence over tourism considerations. The State Party suggested that if that tentative proposal would impede the potential listing, then it would be withdrawn.

ICOMOS notes that the staff of the Commission’s Najrān Office is well trained for certain management aspects of the nominated property, though there is a need for more capacity with specializations in archaeology, heritage management, rock art and rock art conservation. The State Party submitted additional information stating that Najran University Department of Archaeology will establish the Center for Rock Art and that there are
Saudi researchers in rock art in Riyadh who may be employed. At present, a French team from CNRS and the University of Paris is surveying and documenting sites within the nominated property and its buffer zone.

ICOMOS also considers that a conservation management strategy should be created, implemented and integrated into the management plan of the nominated property.

Visitor management
Najrān, about 120 kilometres south by automobile, is the nearest city to the nominated property and is the access point for visitors from outside the region. It is connected to Riyadh by a highway and various facilities for visitors. A large new regional museum is nearing completion in Najrān. It will include displays on the rock art and rock inscription sites of Ḥimā and act as a gateway to the nominated property. ICOMOS in its first letter requested information on the status of this museum. The State Party replied in October 2019 that the museum was almost completed and will open in few months.

A local visitor centre for the property was established in the small township of Ḥimā in 2017. It has been functioning as a base for researchers, and will be adapted to include ticketing facilities, restrooms, first aid equipment and rescue equipment. It will also be the base for guards and guides to take visitors through the accessible parts of the property.

A Tourism Management Plan (2018) was submitted with the nomination dossier, outlining the tourism vision for the Najrān Region, the proposed tourism development areas and a strategic master plan for tourism. There are, however, contradictions between the Tourism Plan and the Management Plan, such as the suggestion to develop a tourism destination at Najd Khayrān (component SAD07) described in the Tourism Plan, which is in the “undeveloped” zone according to the Nomination Dossier. The State Party submitted additional information stating that the proposed development will be a large traditional Bedouin tent near and out of site from Najd al-Khayran site, and will include a coffee shop, toilets and resting area. The State Party also stated that the access of tourists beyond the four nominated sites, mentioned in the Tourism Management Plan is a tentative proposal and not a firm plan. The Nomination Dossier and the Management Plan have precedence over tourism considerations.

Community involvement
The local community is fully aware of the nomination and has been consulted throughout the process. It strongly supports the nomination, as expressed by the heads of families.

Three members of the Ḥimā community are employed by the Saudi Commission for Tourism and National Heritage to run its Ḥimā compound, which includes a research house and two separate reception rooms. They receive visitors and act as custodians for the entire nominated property, ensuring that no unauthorized visits are made. This approach engages the local community positively in the management of the property and warrants the community’s support. It is expected that, as the number of visitors increases, more custodians from the local community will be employed.

Evaluation of the effectiveness of the protection and management of nominated property
For the effective monitoring, conservation, protection and management of the property, it is essential that a database of consistent site record files for all sites inventoried within the nominated property and the buffer zone be kept and made internally accessible to staff.

The legal protection for the nominated property is adequate.

The Management Plan (2018) appears to be adequate, with clear sets of objectives and responsibilities identified, though there is a need for certain specialized staff. The Tourism Management Plan (2018) addresses the potential growth in tourism in a sensible and practical way. However, there are some contradictions between the Management Plan and the Tourism Management Plan that require attention, in particular the suggestion of developing a tourism destination in the “undeveloped” zone.

ICOMOS also considers that a conservation management strategy should be created, implemented and integrated into the management plan of the nominated property.

Capacity building is required in the fields of archaeology, heritage management and rock art conservation in order to implement the monitoring, conservation and management plans and programs.

ICOMOS considers that a complete internally accessible database of site records is required, that the Management Plan and the Tourism Management Plan need to be fully aligned, that a conservation management strategy should be established, and that capacity needs to be built in the fields of archaeology, heritage management and rock art conservation.

6 Conclusion
ICOMOS considers that the six component parts that comprise Cultural Rock Arts in Ḥimā Najrān – an area known for the quality and density of its rock art and rock inscriptions – include outstanding images made over a period of 7000 years and inscriptions expressing human interactions, beliefs, traditions and relationships with the challenging environment.

The comparative analysis justifies consideration of this property for the World Heritage List.
ICOMOS considers that the nominated serial property meets criterion (iii). Criteria (i), (ii) and (v) have not been justified. The serial approach is justified, and the selection of the component parts forming the series is appropriate. The integrity and the authenticity of the whole series have been demonstrated; the integrity and the authenticity of the individual components that comprise the series have also been demonstrated.

The database of site records for all components of the nominated serial property and the buffer zone needs to be updated, completed and made accessible. Such a database is essential for the effective monitoring, conservation, protection and management of the property.

Based on the information provided, the boundaries of the buffer zone should be enlarged to include Jabal al-Kawbab and parts of Jabal al-Qāra, which contain many known important sites.

An overall conservation program is needed, and a professional rock art conservator should be engaged on site. Moreover, a monitoring program identifying measurable key indicators, periodicity and responsible authorities needs to be created and implemented.

Legal protection of the nominated property is adequate. The management system was only recently implemented but also appears adequate, though there is a need for staff with expertise in specializations such as heritage management and rock art conservation. The Management Plan and the Tourism Management Plan should be fully aligned. The involvement of the local community has thus far been strongly supportive and will play a crucial role in the protection and management of the property and the buffer zone.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the nomination of Cultural Rock Arts in Himā Najrān, Saudi Arabia, be referred back to the State Party to allow it to:

- Provide a map showing the precise location of the inventoried heritage sites reported from the nominated areas and buffer zone;
- Complete and make internally accessible to staff a database of site records for every known rock art and rock inscription site inventoried in the nominated property and the buffer zone with clear maps, within a GIS;
- Carrying out Heritage Impact Assessments for any projects related to tourism activities at Najd Khayrān before they are implemented;
- Enlarge the buffer zone to include Jabal al-Kawbab and parts of Jabal al-Qāra;
- Create and implement a conservation program and engaging additional staff with specialist training in heritage management, archaeology and rock art conservation;
- Create and implement a monitoring program that identifies measurable key indicators, periodicity and responsible authorities.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Undertaking restoration of the above-ground walling for the wells and water channels at Himā, based on comprehensive archival and archaeological research;

ICOMOS also recommends that the name of the property be changed to become “Himā Cultural area”.

- Create and implement a conservation program and engaging additional staff with specialist training in heritage management, archaeology and rock art conservation;
- Create and implement a monitoring program that identifies measurable key indicators, periodicity and responsible authorities.
Map showing the boundaries of the nominated property
IV Cultural properties

A  Arab States
   New nomination

B  Asia – Pacific
   New nominations

C  Europe – North America
   New nominations
   Extension

D  Latin America and the Caribbean
   New nominations
Rudreshwara (Ramappa) Temple (India) No 1570

Official name as proposed by the State Party
The Glorious Kakatiya Temples and Gateways - Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India

Location
Palampet
Mulugu District
Telangana State
India

Brief description
The temple of Rudreshwara, popularly known as Ramappa Temple, is located in the village of Palampet approximately 200km north-east of Hyderabad, in the State of Telangana. Rudreshwara is the main Shiva temple in a larger walled temple complex which includes smaller temples and Mandapa structures, all constructed during the Kakatiyan period (1123–1323 CE) under its chieftains Rudradeva and Recharla Rudra. The temple is built of sandstone with decorated beams and pillars of carved granite and dolerite with a distinctive and pyramidal Vimana (horizontally stepped tower) made of lightweight porous bricks, so-called 'floating bricks', which reduced the weight of the roof structures. The temple's sculptures of high artistic quality illustrate regional dance customs and Kakatiyan culture.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a nomination of a site.

1 Basic data

Included in the Tentative List
15 April 2014

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 23 to 27 September 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information about the selection process of the property, in particular the decision to abandon the initially planned serial nomination as proposed on the Tentative List, the importance of the historic irrigation system, the comparative analysis, and a number of planning documents, including the integrated management plan, the tourism development plan and the land acquisition plan.

An Interim Report was provided to the State Party on 20 December 2019, summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: on the name of the property; the definition of the proposed Outstanding Universal Value in the context of its artistic quality and its wider geographical context; protection and management arrangements, including the establishment of a special development area; the integrated conservation and management plan; tourism development plans; as well as methodological approaches to conservation.

Additional information was received from the State Party on 24 October 2019 and on 28 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Rudreshwara Temple, also known as Ramappa Temple, is a temple complex which was built during the Kakatiyan dynasty (1123–1323 CE). It is the feudal chief Recharla Rudra who started its construction in 1213 CE, which remains documented in a 204-line inscription on a polished basalt pillar. The construction of the temple is said to have taken around 40 years to complete.

Recharla Rudra was an important general, who had supported the King Ganapatideva since his early years, granting him security when he was in danger and reinstating him into power. He subsequently became very powerful and influential as well as responsible for Ghanpur, a military garrison roughly 10 kilometres away from Palampet and Ramappa Temple.

The temple complex of Rudreshwara is located south-east of the village of Palampet in the foothills of a forested area and amidst agricultural fields, close to the shores of the Ramappa Cheruvu, a Kakatiya-built water reservoir.
This setting was selected following the ideology and practice sanctioned in dharma texts that temples are to be constructed to form an integral part of a natural setting, including hills, forests, catchment areas, streams, lakes, springs and agricultural lands. In line with these stipulations, the landscape in the vicinity of Rudreshwara Temple forms a triad of (1) temple, (2) spring, stream and water tanks, and (3) village and the farmers’ agricultural production. It is also consciously embedded in its wider surroundings including hills, a forest reserve and agricultural fields. The ideology of Saptasantanas lists the construction of temples as one of seven deeds to attain merit, with the other six relating to notions such as the digging of tanks or creation of gardens. The temple surroundings also contain multiple other smaller temples built by the local merchants and chieftains.

Within this wider temple landscape, Rudreshwara Temple lies at the centre of a walled temple complex, which contains additional structures including the much smaller Kateshwara Temple, the former Kameshwara Temple, now referred to as Kalyana Mandapa due to the absence of the Garbhagriha (the innermost sanctuary) and other structures. All the structures in the complex are oriented on an east-west axis and face the east, towards the rising sun.

Rudreshwara Temple, dedicated to Shiva, is designed on a stellate plan, which was first introduced by Chalukyan architects and later adopted by the Kakatiya architects articulating it into their own style. Built on a bordered and compacted sand bed (sand box) — described as a Kakatiya innovation for earthquake resilience — the temple is constructed of sandstone with sculpted granite and dolerite pillars and lightweight porous bricks, so-called ‘floating bricks’, for the highest structures of the Vimana. The latter is presented as another noteworthy technological feature of this temple’s masterful construction.

The storeyed pyramidal Vimana (a tower above the sanctum sanctorum in a Hindu Temple) of the Vesara order, the decorative carvings in sandstone on granite and dolerite pillars, as well as the bracket figures of maidens carrying the porticos, are the most distinctive features of this temple. The Vimana’s structure is based on a square plan and perfectly pyramidal with five storeys. The sculpted pillars illustrate geometrical and floral ornamentation but also reliefs with references to ritual dances of Shiva. This dance, a cosmic dance understood to be the basis of harmony between matter and energy, was particularly popular as a pre-war dance during the Kakatiya period. Noteworthy are also the 38 bracket figures installed along the exterior of the Sabha Mandapa. These dolerite brackets are the most multi-dimensional components illustrating Gaja-Vyalas (animal-headed creatures) and twelve Madanikas (maidens).

Rudreshwara Temple is a product of the Kakatiya dynasty and its Telugu language groups, most specifically, the Recharla as commanders of this outermost region of the Kakatiyan Empire. Building on the architectural traditions of the earlier Kalyana Chalukyas dynasty, the Kakatiyas developed further their capacity for sculptural expression and bracket figures as illustrated by the Rudreshwara Temple. After a short-lived golden age, the Tuglaq Invasion in 1325-1351 AD and the later Bahmani Dynasty, left the temple in an even more isolated location. Over the centuries the temple complex was affected by lack of maintenance which resulted in losses of elements, vegetation growth and roots which at times have destroyed walls. From the early 20th century onwards, maintenance activities have been taken up again, with the temple complex falling under the responsibility of the Archaeological Survey of India (ASI). At present, the temple continues to be used as a site of pilgrimage and rituals in the authentic tradition of Shaiva-Agama. The temple attracts large crowds of ritual visitors, especially during festivals, and features as a local and regional tourism destination.

**Boundaries**

The nominated property has an area of 5.93 ha, and a buffer zone of 66.27 ha. The boundary of the nominated property corresponds to the area under the custodianship of the Archaeological Survey of India (ASI) and is physically marked by a fence. It contains the temples and the complex’s outer wall and the immediate and small section of the landscaped garden surrounding it, which hosts some small visitor facilities.

The buffer zone is made up of the prohibited area and the regulated area, each drawn at 100m and 200m distance, respectively, from the boundary of the nominated property. Thus both areas together extend to 300 metres in every direction from the nominated property’s boundary. The buffer zone encompasses mostly cultivated lands and forest in addition to three small-scale Kakatiya temples, the visitor parking spaces, and some commercial facilities at the entrance to the temple complex.

These buffer zone measurements were set to correspond with the Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) adopted by the Parliament of India in 1958, which stipulates that, for a distance of 100 meters from an ancient monument recognized by this Act, no construction is permissible and that for a further distance of 200 meters any change would need to be authorized by the ASI.

ICOMOS observes that the Rudreshwara temple complex is an integral part of a wider setting, which is historically shaped by Kakatiya dharma tradition and composed of irrigation systems and water reservoirs which determined the exact location and enabled the functional use of the temple. ICOMOS notes the additional information provided by the State Party, which states that the temple was consciously located in a very specific location and set of natural features, surrounded by a water reservoir, channels and agricultural lands, which contributed to the merits of the temple establishment and were functionally linked to its

41
operation and economic basis. In ICOMOS’ view, this larger environment of the temple, in particular the water storage and distribution system but also the forest reserve, agricultural fields and smaller temples, cannot be separated from the complex and contribute to the testimony of Kakatiya architectural and infrastructural development around Palampet. However, in the present nomination, these features are located outside the property boundary and buffer zone.

ICOMOS notes with appreciation that the State Party intends to establish a special development zone outside the buffer zone aimed at preventing inappropriate developments in a larger area. However, based on the additional information provided in response to ICOMOS’ Interim Report, ICOMOS considers that important features are located in the buffer zone and also beyond it, in the area now intended to be designated as a special development zone. ICOMOS therefore considers that the State Party should consider a significant property boundary extension in order to ensure that all important features of the potential Outstanding Universal Value are subject to adequate legal protection and management, and that subsequently an extended buffer zone needs to be defined around the revised boundary delineation.

State of conservation
The main temple of the complex, the Rudreshwara Temple, is considered to be in a satisfactory state of conservation and has been frequently conserved and maintained since 1914 by the ASI and with the guidance of the Kakatiya Heritage Trust (KHT). Prior to these conservation initiatives the temple was overgrown with vegetation and damaged by growing roots, which were removed. However, it never collapsed even though local differential settlement caused misalignments to some elements. During the first large conservation campaign in 1931, decorations and ornaments that had fallen off but were traceable were reattached in their original positions.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the contemporary state of conservation is a product of continuous conservation activities since the early 20th century, during which all elements of the temple complex, apart from the Kameshwara Temple, have been conserved to different degrees. At present, the Kameshwara Temple is undergoing conservation by means of anastylosis. It presently appears unassembled whereby, apart from large stone slabs which are in their original locations, all other elements have been dismantled. They have been numbered and documented and are now awaiting reassembly by anastylosis. This will happen once the load-bearing calculations for the reassembled structure have been approved. ICOMOS requested clarification on the reasons why a complete disassembly of the temple had been considered the preferred conservation methodology. The State Party responded that the disassembling of Kameshwara Temple was started by the ASI in 2011 under the previous state government of Andhra Pradesh and following geotechnical studies. At present no specific timeframe for the reassembly of Kameshwara Temple is offered, whilst ICOMOS notes that its current condition negatively affects the legibility of important features of the property.

ICOMOS recommends that the revised comprehensive conservation and management plan committed by the State Party to be completed by December 2021, establishes a clear timeframe and methodology for the completion of its conservation. There are also three smaller temples within the complex, which have not been fully investigated and documented.

The Rudreshwara (Ramappa) Temple demonstrates a floor settlement challenge, which was caused by sand leaking out of the foundations. However, as this did not cause any risk to the building structure, the temple was conserved in a condition illustrating the settlement adjustments as a reference to the wisdom of the sand-box construction. Smaller additions to the historic structure include new pillars added to support the roof corners on the western side and sandstone replacements in the parapet, used in locations where originally floating bricks would have been placed. These two changes affect the perception of the temple’s homogenous Kakatiya workmanship and design and should be replaced by more appropriate methods and materials in future conservation initiatives.

None of the other structures inside the nominated property boundaries, which have not been specifically referred to above, require urgent conservation actions, as all seem to be in a quite stable condition. However, several of the smaller Kakatiya temples, located in the buffer zone, seem at risk of collapsing. The state of conservation of the important elements not currently included in the boundaries, such as the Kakatiya water distribution system from Ramappa Lake, in particular the Voger Channel, have also not been considered. ICOMOS recommends that in the course of further documentation regarding the boundary extension, these and other essential elements in the enlarged property should be included in the revised comprehensive conservation and management plan.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the nominated property are the permeability of the sand-box and with it the slow continuous loss of the sand within it; inappropriate visitor behaviour and seasonal overcrowding; and potentially future development of visitor infrastructure.

The sand-box system of the foundations of Rudreshwara Temple was an ingenious design to ensure earthquake resistance of the temple structures. However, over the centuries, the box itself became porous and the sand within it leaks slowly but steadily.
The ASI is aware of this problem and possible solutions are being considered.

The nominated property and in particular its surrounding wider area are vulnerable to potential negative visual impacts of visitor facilities and commercial development that could change the character of the wider setting when seen from the property. This wider temple setting has preserved a unique ensemble of Kakatiya created elements related to Rudreshwara Temple, including the water reservoir, water channels, the Vana Gutta forest reserve, agricultural lands and several smaller temples, which illustrate a completely undisturbed visual relationship to each other as well as a complete integration of the Kakatiya temple complex into its surrounding context. ICOMOS considers that this authenticity and integrity in visual terms constitutes a strong information source as to the legibility of the temple features and needs to be preserved in light of the State Party’s intention to promote this area for cultural tourism.

Therefore, ICOMOS considers that the State Party should ensure that all the mentioned features that support the understanding of the temple ensemble as a much larger complex and setting, be incorporated into the revised nominated property and buffer zone, in order to provide these areas with adequate protection, which will mitigate the risks related to development pressures.

Particularly, the areas to the south-west, south and south-east of the temple contain features which originated during the temple’s construction in the Kakatiya era. Potential future visitor facilities or accommodation structures could have negative visual impacts on the values of the nominated property. ICOMOS acknowledges that the special development zone proposed by the State Party, as well as the proposed “view zones”, aims at reducing the risk of inappropriate developments and is proposed to cover the most important areas where the important features are located. This special development area aims at organising different spatial planning systems, divided into heritage zone, public infrastructure zone, residential zone, agriculture zone and forest zone, and at incorporating the regulations.

However, ICOMOS considers that following the redefinition of the boundaries, the stipulations of the special development zone would need to be reviewed in terms of their ability to protect the extended temple complex.

The nominated property is also affected by inappropriate visitor behaviour (including vandalism and theft) and seasonal festive overcrowding. In the integrated conservation and management plan submitted in February 2020, the State Party describes in more detail the festivals which occur in Rudreshwara Temple as well as its strategies for management of visitor flows. Both of these aspects need to be further monitored and results as well as future strategies need to be considered in the revised comprehensive conservation and management plan committed to be finalized in December 2021. In this context a risk preparedness plan should also be developed for all potential natural and anthropogenic disasters and risks which might occur.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The Rudreshwara Temple is a singular testimony of the highest level of creative, artistic and engineering expression of the Kakatiya Period. The nominated property is also a testimony of a flourishing agriculture-based society on land devoid of perennial water sources in the 12th century;
- The Kakatiyas developed the temple in a superior style of temple architecture. The sculptures of the temple, especially its bracket figures, are unique sculptures carved out of the hard dolerite stone and express dynamic movement in their forms; neither humans nor animals appear static or sedentary;
- Rudreshwara Temple illustrates examples of engineering ingenuity, including the invention of floating bricks (light porous bricks) to reduce the load on the foundations, and sand-box foundations, which made the temple an earthquake resistant structure;
- The temple complex of Ramappa displays an interchange of human values over a period of 180 years in the Telugu language-speaking region of Deccan India, documenting the transmission of Kalyana Chalukyas and Hoysalas cultural and architectural traditions to the Vijayanagara Empires.

In its Interim Report, ICOMOS suggested to the State Party the need to consider changing the name of the nominated property as the current one is related to the previous serial nomination project proposed on the Indian Tentative List. The State Party replied suggesting a revised name for the property, namely: “The Glorious Kakatiya Rudreshwara (Ramappa) Temple at Palampet (Mulugu District), Telangana State, India”. ICOMOS takes note of this proposal; however, the name appears very long with location details that are not necessary to the understanding of the property. ICOMOS suggests shortening the future name of the property and invites the State Party to consider how a nomination including the wider temple complex could be best reflected in a revised name.

Comparative analysis

The comparative analysis is presented in two main parts: firstly, a comparison with other Kakatiya temples, followed by a broader comparison of temples with similar features and in comparable historical periods. The latter is divided into a comparison within India and a comparison in an international context. The
comparison with other Kakatiya temples and gateways names just two examples, the Swayambhu Temple in Warangal Fort, and the Thousand Pillars (Rudreshwara) Temple in Hanumakonda. Unfortunately, comparison with these two examples is limited to very general considerations in terms of their integrity and authenticity.

ICOMOS in its request for additional information sent on 24 September 2019 asked to augment the comparative analysis with other testimonies of the Kakatiya dynasty including, but not limited to, the two temple complexes named above. The State Party submitted a brief addition to the comparison of the two temples at Hanumakonda and Warangal describing their inferiority when compared to Rudreshwara Temple at Palampet. No other Kakatiya testimonies were mentioned; however, the State Party informed that the Department of Heritage Telangana (DHT) and the Kakatiya Heritage Trust (KHT) are currently undertaking a comparison of Rudreshwara (Ramappa) Temple and other Kakatiya temples and that progress on this will be updated at a later stage as the research is still in a preparatory stage. ICOMOS considers that such comparative material remains essential to illustrate the temple complex’s potential exceptional features in artistic terms.

The national and international comparison of temple structures of a similar historical timeframe is focused exclusively on World Heritage properties and considers four World Heritage properties in India, as well as the Longmen Grottoes, China (2000, (i), (ii) and (iii)) and the Temple Zone of Sambor Prei Kuk, Archaeological Site of Ancient Ishanapura, Cambodia (2017, (ii), (iii) and (vi)).

ICOMOS considers that while the international comparison could have been far more extensive, also considering sites not yet inscribed on the World Heritage List, the key shortfall of the comparative analysis presented is the lack of comparison of temples within the Kakatiya or larger Chalukya or Deccan empires. ICOMOS considers that despite the additional information submitted by the State Party, the comparative analysis lacks comparisons related to the floating bricks, the sand-box technique for foundation construction, the sculptural art and the layout of the temple construction. These elements, which are presented as being important aspects of the proposed Outstanding Universal Value, would have benefitted from further exploration in terms of comparators.

ICOMOS considers that further comparison with other Kakatiya or larger Chalukya or Deccan empires’ temple complexes is needed to evaluate whether Ramappa Temple can be seen as being the finest surviving ‘Kakatiya’ temple or an exceptional testimony of the Kakatiya era, when compared to other temples of the Kakatiya Dynasty within its regional expansion. An augmented comparative analysis would be further strengthened by considering not only the walled temple complex alone, but the temple complex within its wider setting which includes important other elements testifying to the Kakatiya Dynasty.

ICOMOS considers that the comparative analysis does not justify consideration of this nominated property for World Heritage Listing at this stage.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (i), (ii) and (iii).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that Rudreshwara Temple is a masterpiece of Kakatyan temple architecture expressed through the use of engineering innovations such as floating bricks, sand-box foundations, selection of specific materials and ingenuity in stone sculpting.

ICOMOS considers that lightweight bricks and sand-box foundations are not unique to Rudreshwara Temple and that the exceptional character of these in terms of their characteristics or state of conservation has not been supported by a comprehensive comparative analysis.

The Ramappa Temple needs to be understood in relation to its architectural tradition. However, the temple cannot be said to be as inventive or as complex as its Kalyana Chalukya predecessors for which the staggered, five-projection, four-storey composition was essentially standard by the end of the 11th century.

The stone sculptures however, in particular the bracket figures, can be seen as impressive in terms of artistic capacity and craftsmanship and might stand out in a regional context of Kakatiya artistic production. However, in ICOMOS’ view, it is difficult to understand how sculptures of a single temple could stand out for the entire artistic production of the Kakatiya dynasty or even the wider Deccan Empire context. Further comparative analysis would be needed to compare these with artistic works not only of Kakatiya origin but also of the Chalukya or Deccan empires to consider whether Ramappa indeed offers something exceptional at a regional scale. ICOMOS, in its Interim Report, inquired further about the artistic tradition and production, to which the State Party responded with further information on iconographic content, such as that the sculptures of the temple represent both regional dance customs and Puranic texts, but did not provide additional information on the artistic tradition. This however would be necessary to support the claim that a single temple could best represent the artistic mastery of an empire which left behind a number of exceptional architectural and engineering works.

ICOMOS therefore considers that criterion (i) has not been justified at this stage.
Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design:

This criterion is justified by the State Party on the grounds that Rudreshwara Temple displays the interchange of human values over a period of 180 years, namely from the 12th to the 14th century CE, which influenced the development of architectural and artistic tradition in the Telugu language-speaking region of Deccan in India. The Kakatiyas built upon traditions from the Kalyana Chalukyas and Hoysalas empires and transmitted them to the Vijayanagara Empire in a more refined and improved form of technology, sculpture, and architecture.

ICOMOS considers that most architectural traditions are formed in a specific era and transmit from previous to subsequent eras, or deliberately break with earlier traditions. It appears therefore natural that the Kakatiya architectural and artistic expressions are rooted in previous traditions of the same geo-cultural region and have influenced later ones. What has not been demonstrated is in what way the Rudreshwara Temple can be said to be outstanding in terms of illustrating an interchange of human values over time or within the same geo-cultural area. ICOMOS notes that the interchange in and between human societies and cultures is commonplace and that the justification of this criterion requires that the interchange of values/influence is substantial and important in its impact on the recipient culture. The transfer of a minor cultural aspect, or the transfer of a value which had little impact, cannot be said to be an outstanding value of the nominated property.

Therefore, ICOMOS considers that criterion (ii) has not been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared:

This criterion is justified by the State Party on the grounds that Rudreshwara Temple is the best surviving example of Kakatiyan traditions of art, architecture and technology. The efforts of Kakatiyan craftsmen to interpret and integrate motifs of regional dance customs and Kakatiyan cultural traditions into sculptural and textual representations, stands out as an exceptional testimony of popular cultural art forms in Kakatiyan times.

ICOMOS notes that Rudreshwara (Ramappa) Temple was created as a harmonious ensemble of the natural environment, architecture, sculpture, ritual and dance; five elements, which complemented each other in defining the temple’s ritual space. ICOMOS considers that therefore the walled temple complex currently proposed is one element of this larger Kakatiya ensemble at Palampet. While it indeed reflects Kakatiya cultural traditions, such as the detailed and delicate sculptures which represent both ritual dances and local customs as well as having an architectural function, thereby connecting the different elements, the integration of the temple into its environmental surroundings preserves a unique Kakatiya temple setting and requires that Ramappa Temple is approached within this larger context.

ICOMOS considers that the Rudreshwara Temple has strong potential to be recognized as an exceptional testimony of the Kakatiyan Dynasty and its artistic, architectural and engineering achievements. However, ICOMOS considers the testimony of the temple is not complete at the boundary walls of the inner temple complex but requires the representation of its whole establishment context, including the natural setting of forest reserve, agricultural fields, water distribution system and the smaller temples which complement its immediate surroundings. Only in such a wider context can the property of Rudreshwara Temple do full justice to the testimony of Kakatiyan cultural, architectural and artistic creations. ICOMOS therefore considers that, while having potential to be justified, the potential attributes of criterion (iii) have not been included in the property at this stage.

ICOMOS considers that criterion (iii) demonstrates strong potential to be met once the related attributes are fully included in the property. However, ICOMOS considers that criterion (ii) has not been met and that criterion (i) would require further comparative support to demonstrate its potential.

Integrity and authenticity

Integrity

Integrity for an exceptional temple testimony of the Kakatiya Dynasty would be expressed through inclusion of all the significant architectural and artistic achievements of the temple complex, which remains well preserved and hence provides legible testimony to this political era and cultural tradition up to today. While the Rudreshwara Temple could have the potential to be considered as an exceptional testimony to the Kakatiya Dynasty, ICOMOS considers that the nominated property could only be fully appreciated in its entirety of features, which would include the relationship between the central temple complex and its wider setting, in particular the natural features, the artificial Kakatiya-built reservoir and irrigation systems, and the several smaller temples within the immediate surrounding landscape. For this reason, the larger setting of the site as well as important vistas and sight-lines in the surrounding landscape remain essential to the understanding and completeness of the property but are presently vulnerable in the lack of adequate landscape protection schemes outside the buffer zone.
ICOMOS also considers that there is a high visual and functional integrity of the wider surroundings of the temple complex, which retain not only authenticity in setting but also a significant relationship with both purpose-built and natural elements, which enhance and maintain the atmosphere of temple ceremonies that continue to be performed in the temple complex to the present day. ICOMOS considers that these elements surrounding the temple should be considered as attributes and would need to be included within the property boundaries to demonstrate the temple’s integrity in its historic, dharmic and functional wider setting.

ICOMOS notes that some of these elements are presently located in the buffer zone, including a triple shrine temple situated by the side of the canal from Ramappa Lake, which, in spite of its small size, illustrates significant architectural qualities; and another shrine located on the Kakatiya channel to the north, parallel to the boundary of the nominated area. The latter is a single shrine temple, with a square Mandapa and a small pavilion, and is a good representative of Kakatiya-style architecture, but the building is at risk of collapse as it has settled to one side. In addition, another Shiva temple is situated on the opposite side of the road.

ICOMOS also notes that several other important features are located even outside the buffer zone and therefore lack legal protection as heritage structures, despite the efforts of the State Party to establish a special development zone providing landscape protection to these areas. These features include the earthen bund of about 600m length connecting Gutta to the Lake’s north, which created the Ramappa Lake water reservoir; the Temple of Trikuteshwara swamy and another two temples found on the north-western end of the bund; the Sivalayam on the eastern end of the bund; the water distribution and irrigation system extending north from the bund, including the Voger Channel, which provides water to the inner temple complex; as well as sections of the neighbouring forest reserve and surrounding agricultural lands including the earthen bunds sub-dividing these.

ICOMOS considers that for the nominated property to demonstrate integrity in terms of completeness, these features and attributes would need to be integrated into the property boundaries as they form an essential context for the temple’s meaning and function.

In terms of integrity as intactness, ICOMOS considers that the Ramappa Temple retains the capacity to communicate Kakatiya artistic, architectural and technological production, despite several past conservation measures. However, the Kameshwara Temple, which is at present disassembled and awaiting anastylosis, does not at present illustrate a condition of intactness that would allow the Kakatiya designs and craftsmanship to be legible. ICOMOS considers that this temple, together with the elements and attributes listed above, should be considered for a comprehensive conservation survey as some of these are in need of a structured conservation programme.

Authenticity
The Rudreshwara Temple complex combines features which suggest the exploration of authenticity in form, design, craftsmanship, material, setting, function and use, traditional management system and associated intangible cultural heritage in relation to traditional dance, and integration in its wider natural and architectural context. Despite several past conservation activities which may have restored single elements to designs not fully appropriate – such as a plain parapet in lieu of a chain of decorated elements– the authenticity in design, form and material as well as craftsmanship is acceptable. The disassembled Kameshwara Temple however cannot presently be said to demonstrate authenticity in form, design or craftsmanship and ICOMOS recommends that a detailed conservation programme is established within the revised integrated conservation and management plan, committed to be available in December 2021.

The wider Rudreshwara Temple complex remains in function and use, which not only applies to the temple itself for which ritual use has been reinstated but also for the larger complex including the irrigation channels and cultivated land. This is an important aspect of not only its authenticity but also its value. ICOMOS considers that the setting of the temple complex is of remarkable authenticity in setting, traditional management mechanisms as well as use and function. The Kakatiya wider area which surrounds the temple complex is likewise an important contribution in terms of attributes and authenticity, which needs to be carefully managed and conserved.

ICOMOS considers that, with the exception of the Kameshwara Temple, the conditions of authenticity of the nominated property are acceptable. The conditions of integrity have not been met.

Evaluation of the proposed justification for inscription
The Rudreshwara (Ramappa) Temple at Palampet has the potential to demonstrate Outstanding Universal Value as an exceptional architectural, artistic and technological testimony to the Kakatiya Dynasty and its cultural traditions. Therefore, it demonstrates potential to justify criterion (iii) in a revised nomination approach including a larger territory, as several attributes of this potential Outstanding Universal Value are presently located outside the property boundary, with some even outside the buffer zone. The wider setting of the inner temple complex, composed of related Kakatiya architectural and engineering structures in the nominated property’s surroundings, are features which contribute to the temple’s legibility in terms of its natural, dharmic and functional context and therefore add an important representation to this testimony. ICOMOS considers that a thorough survey of these Kakatiya
remains is essential in the process of extending the boundaries to capture the full representation of the temple complex. As a result, ICOMOS considers that although the conditions of authenticity are in general acceptable for the setting, the nominated property does not meet the conditions of integrity at this stage.

Features
The nominated property partly illustrates Kakatiyan architectural, artistic and technological traditions through its architectural structures within the walled temple compound and its wider setting. The walled temple complex, namely the Rudreshwara Temple (as the main building of the complex), is a single shrine temple comprising the central Rudreshwara (Ramappa) Temple and other secondary mandapas, shrines and temples. The sculptures, especially the bracket figures at the Rudreshwara Temple, are fine artistic representations of Kakatiya dance customs and cultural traditions. These features testify to Kakatiya customs and temple rituals as well as construction technology, materials and other sculptural elements illustrating artistic capacities in terms of workmanship.

Additional features not presently included in the nominated property are situated in the surrounding landscape and include a number of smaller shrines and temples as well as a sophisticated Kakatiya water distribution and irrigation system, composed of an earthen bund creating a large water reservoir, irrigation channels and forest reserves, as well as cultivated land. These features constitute not only an important setting but contain features illustrating an exceptional testimony of the Kakatiya Dynasty, in terms of the historic and functional context of the temple, in line with dharmic texts.

ICOMOS considers that while Rudreshwara Temple has potential to demonstrate an Outstanding Universal Value as an exceptional testimony of the cultural traditions of the Kakatiya Dynasty, none of the cultural criteria have been demonstrated at this stage. Whilst in ICOMOS’ view the wider temple complex might potentially be an adequate selection of an exceptional Kakatiya testimony in comparative terms, the boundaries do not presently include the essential features and attributes of this wider temple complex, which was created in this specific location complementing the surrounding natural features and engineering works in line with dharmic texts and thus creating an integral temple complex linked by spiritual tradition and functional use. Therefore, while the conditions of authenticity are satisfactory, the conditions of integrity cannot be fully met in terms of completeness due to the missing features and attributes as well as a general vulnerability of the temple’s setting as a result of a lack of protection mechanisms.

4 Conservation measures and monitoring

Conservation measures
The history of study and conservation of Ramappa Temple began in 1914. The first conservation works were small repairs, followed by wider interventions in 1931. Several further conservation initiatives have been undertaken by the Archaeological Survey of India, since it was formally given responsibility for the property in 1948.

These works included conservation and reconsolidation of the temples and the Nandi Mandapa, surface cleaning of sculptures, and, more recently, the ongoing documentation and disassembly works in preparation for the anastylosis of Kameshwara Temple, as well as conservation works at the Prakara wall. These conservation measures are currently focused on the eastern wall, which is formed of two parallel stone walls, an internal cavity filled with packed sand and a top cover of stone slabs decorated with stone merlons. The next step will be the conservation of the walls at other points and correction of the previous work that used small blocks of stone and cement.

While the conservation results seem largely appropriate, with the exception of the plain parapet in lieu of a chain of decorated elements and the disassembled Kameshwara Temple, ICOMOS considers it important to integrate all ongoing and planned conservation measures in a comprehensive conservation plan. With its response to the Interim Report the State Party submitted a draft integrated conservation and management plan, which it foresees to be finalized by December 2021. However, this draft does not yet contain the comprehensive and programmed approach to conservation which ICOMOS considers desirable to be completed within the envisaged timeframe.

This integrated conservation and management plan should also consider the state of conservation and activities needed for all other valuable structures in the wider setting around the currently nominated property. Some of the smaller temples and shrines in the buffer zone and beyond are at immediate risk of collapse and require urgent consideration in the overall programmed conservation approach of this Kakatiya heritage.

Monitoring
The nomination dossier describes that monitoring at the site is frequently undertaken based on annual plans. The key indicators presented relate to vegetation growth, change of surface colour, the dolerite and sandstone surfaces as well as the enlargement of cracks in floors and beams. The monitoring is coordinated and supervised by the ASI, Hyderabad Circle, and the monitoring records are stored with the Archaeological Department of Hyderabad.
Unfortunately, no details are provided as to how the monitoring is implemented. ICOMOS therefore considers that further information on existing monitoring programmes and their implementation are needed in order to assess their appropriateness and effectiveness.

In terms of the indicators presented, ICOMOS considers that the themes covered are appropriate for considering the progress in decay of the structures although more specific indicators would need to be elaborated, based on a clear understanding of the identified attributes of the proposed Outstanding Universal Value. ICOMOS further recommends consideration of additional aspects such as visitor numbers, demands and proposals for visitor infrastructure, cases of vandalism as well as permeability of the sand-box, within the monitoring programmes. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

ICOMOS considers that present conservation activities are globally appropriate but that the integrated conservation and management plan should consider a comprehensive and programmed approach to conservation, and should consider the state of conservation of the structures and features located in the wider setting of the nominated property. Monitoring programmes should be further elaborated, namely by expanding the monitoring indicators in relation to the nominated property’s identified attributes and key factors affecting their state of conservation.

5 Protection and management

Documentation
The Rudreshwara (Ramappa) Temple was identified as a protected monument in 1914 and was initially documented at that time. During the late 1980s, research was conducted to appreciate the construction technology of Kakatiyan temples, which also covered the temple complex at Palampet. The documentation of the temple structures in the complex, including that of Kameshwara Temple before its complete disassembly, as well as of different conservation works carried out over the years, appears sufficient.

However, ICOMOS notes with concern that elements of the larger temple complex, such as the Kakatiyan heritage features surrounding the property within its wider setting, have not enjoyed the same level of documentation. ICOMOS therefore recommends documenting these features in greater detail to anticipate their legal protection and future inclusion in the property.

Legal protection
The nominated property is protected under the Ancient Monuments and Archaeological Sites and Remains Act (AMASR) of 1958, the AMASR (Amendment and Validation) Act of 2010, and the Ancient Monuments Preservation Act of 1904.

ICOMOS considers that the nominated property within its boundaries enjoys adequate protection at the highest national level, and that the proposed buffer zone is equally well protected. ICOMOS notes that several features that could demonstrate potential Outstanding Universal Value of the property are located outside its boundaries and even outside the buffer zone. ICOMOS appreciates the plans to establish a special development zone, which were communicated in the additional information received in response to ICOMOS’ Interim Report. While this zone appears to cover the most relevant areas, ICOMOS notes that heritage features need to be covered as such by legal protection, which might require more legal scrutiny than a development zone can offer, ideally legal protection as monuments at the highest national/federal level.

Management system
The nominated property is managed by the Archaeological Survey of India (ASI), namely its Hyderabad Circle and under its Warangal sub-Circle. The Warangal sub-Circle is headed by a Conservation Assistant who has three staff members under him to manage the temple complex along with others in the sub-circle’s territories. The Hyderabad Circle and Warangal Circle jointly carry out regular maintenance works, including removal of vegetation on roofs, walls and other parts of the structures. They also commission day-to-day cleaning within the complex which includes sweeping and garbage removal.

Given the distance to the office of the site manager in Hyderabad and the sub-circle in Warangal, day-to-day management activities strongly depend on the two guides who are permanently posted at the site as staff of Telangana State Tourism Development Corporation, as well as on local communities living around the temple complex and the priests performing the ceremonies at the temple. ICOMOS considers that the local communities should be considered for the daily management of the nominated property, and integrated into the management system.

The management of Rudreshwara Temple is co-funded by the ASI, which provides resources for maintenance of the physical components, and the Endowments Department of Telangana State, which funds the cultural aspects and continuing temple rituals. In addition, in the context of important festivals, the funds for such events are managed by the Kakatiya Heritage Trust.

A first site management plan was submitted with the additional information provided by the State Party at the request of ICOMOS on 24 October 2019. This plan, prepared by the ASI, is a preliminary planning document designed for a period of five years. It is based on the objectives to study and analyse the challenges in conservation, visitor management and risks, and to draw up an integrated management plan providing a more concrete response to the issues analysed. It was not indicated in the documentation provided when this site management plan was prepared, nor whether it has been formally adopted or not, nor when it will be under
implementation. However, it is observable on site that some activities outlined in the management plan have already been completed.

In the State Party’s response to the ICOMOS Interim Report in February 2020, a draft integrated conservation and management plan was submitted. This draft document, compiled by the Department of Heritage Telangana, includes a number of chapters which specifically address management implications on issues already raised by ICOMOS in its letters in relation to conservation. It includes a process plan and schedule for the revision and finalization of the draft integrated conservation and management plan by December 2021. Subsequent to these considerations the plan includes both national and Telangana heritage legislative documents and the previously submitted ASI management plan.

Whilst the introductory section of this draft integrated conservation and management plan refers to risk management and disaster response as well as visitor management, ICOMOS considers that these themes should be further developed in terms of objectives, policies and processes. Risk management would mostly relate to the risks of extreme weather events, earthquakes, and crowds during festive occasions, as well as the overall protection of the setting around the site to preserve its pristine character and prevent visual disturbances. Likewise, the assessment criteria and mechanisms for the consideration of appropriateness of future visitor infrastructure in the property’s wider setting should be defined more explicitly. ICOMOS considers that the draft integrated conservation and management plan should consider the wider setting of the nomination, that is to say the water distribution system but also the forest reserve, agricultural fields and smaller temples, in addition to the wider temple complex itself, before its finalisation.

Visitor management

The Rudreshwara Temple is used for performing religious ceremonies, rituals, and traditional events during festivals, with parades that are direct interpretations of its historical functions. The development and construction of a new information centre and office for the guides of the site has been completed. ICOMOS noted that several tourism infrastructures have been established, or are in the process of being established, around the nominated property. Further information was requested in the Interim Report, and the State Party replied that Ramappa Temple is a visitor destination gaining popularity which therefore requires adequate visitor infrastructure for better visitor experience and regional economic growth. A master plan is being prepared to demarcate the location of key visitor infrastructures. In addition, the draft integrated conservation and management plan provides further detailed information on the anticipated developments, which include parking facilities, a tourism/visitor village, private hotels, the Ramappa Lakefront development and road infrastructure developments around the temple. The information provided in the draft document includes the location of a shopping arcade, a tourism village and the Ramappa Lakefront development, but not those of the private hotels already mentioned. All these are scheduled to be completely developed by the end of 2021, which raises concerns as the integrated conservation and management plan is scheduled to be completed after this date. Smaller new infrastructures like toilet facilities and water purifiers have already been completed.

ICOMOS considers that the tourism development plans are mostly appropriate and at a considerable distance from the property. The tourism village is in a location that does not suggest any negative impacts to the property including to important features located outside the property boundaries. The only development in a location with very strong heritage features is the Ramappa Lakefront development, planned for restaurants and a children’s amusement park. As this is situated in a key location of the larger Kakatiya temple setting, ICOMOS considers that this development would need to be reconsidered with an extremely cautious approach and that Heritage Impact Assessments should be undertaken before any such plans are approved or even implemented. The shopping arcade to the north of the temple is likewise in a sensitive location and its appropriateness will depend on design, height and volume of the structure.

At present about 200,000 persons visit the temple annually, which includes pilgrims who come to participate in ceremonies during festivals. For the increase in visitor numbers anticipated after potential inclusion of the nominated property on the World Heritage List, the State Party prepared a visitor flow system as part of the tourism development plan. An overview document with maps was provided with the additional information the State Party submitted at the request of ICOMOS on 24 October 2019. This plan foresees new access roads and gates from the east, which was the original entrance to the temple. Here visitors will be dropped to enter the temple complex and exit at the opposite rear gateway, which is the present entrance. An exclusion zone for commercial services was created on either side and shops are only allowed around the parking lot. Here also more visitor sanitary facilities will be provided.

Community involvement

The community members, including both inhabitants and religious representatives and priests, have been informed about the nomination and its potential consequences. There is hope among the local community for World Heritage recognition with an expectation that it will foster local development and increase community revenues which will help increase the quality of life. The priests were apprehensive of stricter regulations, which would prevent them from living within the nominated property. ICOMOS considers that the management approach would benefit from
stronger integration of the local and religious communities to ensure full compatibility of protection status and respect of the use of the property as a temple.

Evaluation of the Effectiveness of the Protection and Management of nominated property

The protection of the nominated property is satisfactory; however, significant features of the proposed Outstanding Universal Value are located outside the boundary and even outside the buffer zone and do not enjoy adequate legal protection. Whilst ASI, from its Hyderabad Circle and Warangal sub-Circle respectively, holds the main authority for managing the nominated property, ICOMOS recommends involving the local community and the priests as partners and stakeholders in the overall management system, particularly in relation to day-to-day maintenance.

The draft integrated conservation and management plan submitted anticipates the finalization of a comprehensive integrated management plan by December 2021. As the present site management plan is focused on a site analysis and on the development of an integrated management plan, it cannot be considered an effective management document but rather a tool driving the preparation of more concrete management strategies. Whilst awaiting the completion of the integrated conservation and management plan, ICOMOS suggests to cautiously re-evaluate the anticipated Ramappa Lakefront development, including through Heritage Impact Assessments, before any projects are approved or even implemented in this sensitive location.

ICOMOS considers that the integrated management plan, announced for December 2021, should be finalized and integrate a programmed conservation plan for the property in its wider context and geographical extension as well as dedicated sections for risk preparedness and disaster response and visitor management.

6 Conclusion

Rudreshwara (Ramappa) Temple is a temple complex which was built during the Kakatiyan Dynasty. Focusing only on the main temple, ICOMOS considers that this nomination, as currently presented, does not meet the requirements for Outstanding Universal Value at this stage. Rudreshwara Temple is the centre of a larger Kakatiya temple ensemble, which illustrates various facets of Kakatiya cultural traditions and architectural, engineering and artistic production. Given the survival of its large lake and picturesque scenery, strengthening the comparative analysis in terms of comparison with the Kakatiya Dynasty and other dynasties in South India to see whether the Ramappa complex could be considered as an outstanding example of the way Kakatiya temples were developed as part of large landscape complexes with water tanks and towns, would be needed. When reflecting on the Kakatiyan Dynasty’s achievements, the inner walled temple complex alone does not provide a complete picture. A large number of important features of this larger comprehensive temple complex are located outside the property boundaries and even outside the buffer zone. The justification for inscription lacks specific elements of the narrative and value concepts, as well as integrity, in terms of completeness, and therefore cannot be demonstrated at this stage.

ICOMOS considers that Rudreshwara Temple cannot be understood merely within its walled inner temple precinct but needs to be represented in its wider temple context, embedded in its natural surroundings based on principles and deeds outlined in historic dharmic texts. In light of the conscious choice of the temple location in relation to the hills and a forest reserve, and its creation along with the Ramappa Lake bund, which initiated the former water stream’s function as a water reservoir, as well as the water channels and agricultural lands that traditionally sustained the larger temple economy and function, these elements cannot be separated from the inner temple complex. The Kakatiyan architectural and engineering structures in the temple’s wider setting, including several smaller temples, need to be thoroughly appraised and integrated within the property boundaries to fully encompass this important Kakatiya testimony.

Whilst the nominated property enjoys adequate protection, important features are presently located outside the property boundaries and are not covered by adequate legal protection. Conservation efforts seem largely satisfactory, although a programmed approach to conservation of the features in the wider temple setting is urgently needed, as is a precise plan for the reassembly of Kameshwara Temple.

The draft integrated conservation and site management plan presented is a tool which guides an analytical process towards the compilation and finalization of the integrated conservation and management plan, announced for December 2021. Before its finalization most projects of the tourism development plan are supposed to have been finalized. ICOMOS therefore recommends to carefully re-evaluate these, in particular the Ramappa Lakefront development in terms of its potential negative impact on the property features located at this critical location in the vicinity of the Ramappa Lake bund. ICOMOS recommends that Heritage Impact Assessments are undertaken before any approval is granted to these development projects.

As the official site manager is situated in Hyderabad, ICOMOS recommends that the site management authorities cooperate even closer with the local community and priests and recognise these as both stakeholders and partners in the overall management system. ICOMOS further recommends that risk preparedness and disaster management, also in terms of protection of the visual setting and response to visitor challenges, are further developed in the revised
integrated conservation and management plan and that the monitoring indicators are further elaborated and, where appropriate, streamlined with the Periodic Reporting questionnaire.

ICOMOS considers that the title of the nomination should be reconsidered, in light of the new nomination strategy, and which should avoid the geographical details as presented in the current proposal.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of The Glorious Kakatiya Temples and Gateways - Rudreshwara (Ramappa) Temple, Palampet, Jayashankar Bhupalpally District, Telangana State, India, to the World Heritage List be deferred in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Redefine the nomination approach to include the wider context of Rudreshwara (Ramappa) Temple and accordingly enlarge the property boundaries and buffer zone to include the architectural and engineering structures as well as natural features which form the historic dharmic context as well as the economic and functional basis of the temple;

- Develop the comparative analysis in line with the selected nomination approach to compare the property with all other testimonies of the Kakatiya Dynasty and other dynasties in Deccan India to support its revised approach as a representation of the way Kakatiya temples were developed as part of large landscape complexes with water tanks and towns, and which fully portrays the architectural, artistic and engineering testimony of this productive dynasty;

- Revise the justification for inscription based on the most appropriate criteria and amend the title to match the revised focus of the nomination;

- Provide adequate legal protection to the wider complex of Rudreshwara Temple and expand the programmed conservation approach to cover the additional architectural and engineering features, including Ramappa Lake bund, the water distribution and irrigation channels, and the smaller temples in the wider temple setting;

- Following the redefinition of boundaries, review the stipulations of the proposed special development zone in terms of their ability to protect the visual integrity of the extended temple complex;

- Finalize the integrated conservation and management plan as well as update the tourism development plan, to integrate risk preparedness strategies, visitor management at festive events with overcrowding, and cautious assessment criteria for approving any additional visitor infrastructure in and around the property;

- Undertake Heritage Impact Assessments for any projects located near the property, in particular the development projects near the Ramappa Lake;

- Provide a schedule and detailed methodology for the reassembly and conservation of Kameshwara Temple;

- Expand the monitoring system to include more detailed indicators on factors affecting key attributes of the nominated property, namely the stability of the structures and leakages in the sand-box as well as visitor number and behaviour related indicators and tourism-related developments in the wider surroundings of the property.

Any revised nomination should be visited by a mission to the site.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Launching conservation initiatives to revise the previous unsatisfactory conservation results on a parapet and canopy by more appropriate methods and materials,

b) Involving more closely as partners and stakeholders, local priests and community members into the management system of the property,

c) Re-evaluating critically the need for disassembly and anastylosis in the conservation of mandapas and temples, including smaller structures outside the property that would need to be subjected to conservation measures in the near future;
Map showing the boundaries of the nominated property
1 Basic data
Included in the Tentative List
2 February 2017

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 21 September to 4 October 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information about integrity and authenticity, factors affecting the property, boundaries, conservation, protection and management, interpretation, presentation and visitor management.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: justification for the nomination, protection, management and conservation.

Additional information was received from the State Party on 28 October 2019 and 26 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property
Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated property is a cross-country standard gauge rail line connecting the port of Bandar-e Torkaman on the Caspian Sea in the northeast with the port of Bandar-e Imam Khomeini on the Persian Gulf in the southwest. It is a single property of 1394 kilometres in length by (typically) 34 metres in width, and includes 174 large bridges, 186 small bridges, 224 tunnels, 89 stations and a number of ancillary buildings. These constructions vary technically, artistically and architecturally, and have different cultural and social characteristics.
The nominated property can be divided into two segments. The so-called northern line (Bandar-e Torkaman to Tehran) is 461 kilometres long with multiple spiral bends ascending the spectacular hillsides of the Talar gorge. The southern line (Tehran to Bandar-e Imam Khomeini) is 933 kilometres long ascending the deep gorges of the Abdiz valley, passing through vast deserts. The northern segment includes 93 tunnels with a total length of 23.599 kilometres, and the southern segment includes 131 tunnels with a total length of 60.067 kilometres.

The nature of the terrain that is covered by the nominated property varies greatly in terms of geography and climate. The property crosses fertile farmlands of rice, tobacco, cotton and citrus, thick forests and high mountains, wheat farms, a salt desert, hilly terrain, deep rice, tobacco, cotton and citrus, and humid and hot at the Persian Gulf.

The construction of the Trans-Iranian Railway involved major structural and technical works due to the topographical features and characteristics of the route. They included temporary roads for construction operations, retaining walls, return walls, cover walls, coastal walls, dam walls, flood-ways, channels, heavy walls, protective walls, tunnels, bridges, stations, technical structures and residential buildings in addition to the substructure and superstructure of the rail line itself.

Extensive mountain cutting was necessary in some areas. In other areas, the rugged terrain dictated constructing small and large bridges, including 47 large masonry bridges, 107 valley masonry bridges, 20 large metal bridges, 186 small metal bridges, 1368 vaulted waterways, 1475 bridges with reinforced concrete coatings, 421 metal tubes, 476 reinforced concrete pipes, six overpasses and one underpass. Notable among these are the Orim Bridge, Kalantari Bridge, Veresk Bridge, Veresk Underpass, Rudshur Bridge, Abdiz Bridge, Karun Bridge, Dom-dom Bridge and Shahbazan Bridge.

Extensive backfilling and earthmoving was required in some areas. Keeping the line within an acceptable maximum gradient was a challenge. Four types of gradients were executed, the steepest being about 3 percent. Changes in course, line corrections and construction of open tunnels or drainage canals became necessary in some areas during construction. Two types of tracklaying were used: 12-metre-long rails on 17 sleepers, and 12.5-metre-long rails on 17 or 19 sleepers.

The Trans-Iranian Railway stations are classified into four typologies: large city stations; small town stations; organizational stations; and midway stations. They were built in three different periods that informed their architectural styles. Those built from 1921 to 1941 had classical European façades. From 1941 to 1978, branch stations were built with classical European façades, while stations of major destinations followed the tenets of Postmodernism. And after 1978, the year of the Islamic Revolution, stations were also built following the principles of classical architecture.

Other buildings are included in the nominated property, such as repair workshops, quarters for staff, goods sheds, residual fuel storage structures and depots. Local architecture and weather conditions were taken into consideration in their design. Also included in the property are temporary access roads made for constructing the railway. In its Interim Report ICOMOS requested further information on the cultural and natural aspects that influenced the design of the railway throughout the eight different regions crossed. The State Party did not address this question.

Movable cultural heritage elements such as rolling stock of locomotives and wagons, road construction equipment and machinery are essential for keeping the railway functional.

The history of the Trans-Iranian Railway began in the second half of the 19th century, during the Qajar Period. The construction of railways in Iran had become an important national aspiration, and competing offers for concessions were presented by Western countries. After a number of aborted projects and trials, the construction of the Trans-Iranian Railway started in earnest in 1927. It was financed by public participation and taxes, thereby avoiding foreign funding, and was completed in 1938.

Surveying the terrain and deciding the route were major challenges, given the long distance the railway covers and the geographical diversity of the regions it passes through. Mapping included the use of sophisticated techniques and tools for the time, such as airplanes equipped with vertical photographic instruments. A railway syndicate was formed and tasked with realizing the project. Construction operations started at three sites simultaneously, on the northern, southern and central segments of the rail line. The segments were joined at Sefid Cheshmeh (Fuzieh) Station, which was renamed Somayyeh, at 542-550 kilometres distance from Bandar-e Imam Khomeini.

Railway equipment, such as bridge-building equipment and iron sleepers, were imported from the United States of America. Delays and technical problems, mainly on the southern line, resulted in the syndicate’s contract being cancelled. Works were continued under the direct control of the government and the Danish company Kampsax, which had railway construction experience in Turkey.
During the Second World War the Allied Forces invaded Iran and British and Soviet armies used the Trans-Iranian Railway to carry food and ammunition from the southern seas via the Persian Gulf to the Soviet Union. Thus, the Iranian railway played an important role in the Allied Forces’ victory.

Beginning in the 1940s the Iranian railways were expanded with the addition of new lines. Operations that had been interrupted by the Second World War were recommenced in the 1950s. The Trans-Iranian Railway has continued in operation to the present day with both passenger and freight trains. The key engineering features and infrastructure that underpin the railway’s operation also continue in use.

**Boundaries**
The nominated property has an area of 5784 ha, and a buffer zone of 32,755 ha.

The nominated property is the railway track itself and a corridor of 17 metres on either side of the rail line’s central axis. In cities the property is narrowed to the railway track itself. The areas of workshops in Tehran, Bandar-e Torkaman and other cities are included within the boundaries of the nominated property.

In its first letter, ICOMOS requested information on the rationale for the delineation of the buffer zone boundaries, considering the different local contexts and terrane. The State Party replied on 24 October 2019 that the buffer zone boundaries extend 100 metres beyond the boundaries of the nominated property on each side, with exceptions along the route due to the nature of the localities. The boundaries are those specified in the 1975 bylaw on buffer zone delineation for railways.

A protected “landscape zone” has been identified outside the buffer zone along the route. ICOMOS requested further information on the landscape zone in its first letter, especially on the distinction with the buffer zone, and the rationale for its implementation, as it seems to disappear in some instances (between C27 and C34 for example). The State Party replied that the landscape zone is related to the preservation of the landscapes that are directly related to the railroad, compared to the buffer zone which provide technical aspects of protection of the area. Its rationale has been determined on the basis of the extent and scope of the landscape and natural elements that are visible from the train by the observer. For areas where landscape zone is not much visible, it relates to dense urban zones crossed by the railway.

**State of conservation**
The nominated property is an operational railway. All its elements are maintained for functional and safety purposes, and have been from its inauguration to the present day.

As an operational railway, the infrastructure of the nominated property that is still being used, including bridges, tunnels, walls and buildings, is generally in a good state of conservation. The buildings that are no longer in use, however, are in need of conservation, renovation or adaptive reuse. Old signalling systems, historical machines, tools and vehicles that are not in use anymore, or are intended to be replaced by modern equivalents, are also in need of conservation and presentation initiatives.

ICOMOS recommends that the State Party undertake a conservation initiative for the historically significant infrastructure, buildings, machines, vehicles and tools that are no longer in use.

**Factors affecting the property**
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development pressures, environmental pressures, natural disasters, sandstorms and earthquakes.

Development pressures are relevant primarily in the urban areas, where the buffer zone (and landscape zone) is very small. ICOMOS requested information on the current and potential development pressures in urban, rural and natural areas in buffer zone. The State Party replied that in urban areas, some of the cities were already there before the railway, and regulations are in place to keep their original boundaries. The Environment Protection Organisation provides standards and guidelines for the natural areas.

The pressure to modernize and increase the efficiency of railways in general can also be considered a factor. ICOMOS requested additional information it is first letter, in relation to the impact of the continuous technological improvement and technological upgrading. The State Party replied that when there is replacement of systems for new ones, the old ones are kept as a valuable historical remains. This was the case for the telephone system for example.

Environmental pressures include heat and humidity, soil subsidence and landslides. Natural disasters include floods; potentially vulnerable areas have been recorded by GPS data. Sandstorms create problems for the railway, particularly in the central plateau and southern parts of the country. Seismic faults are found all over the country, raising the possibility of earthquakes.
3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- It is a technological and architectural masterpiece representing major stages of long-term development of human, technical and economic activities early in the 20th century in West Asia.
- The system is considered a remarkable engineering feat in creativity and innovation on a wide scale, encompassing technological and architectural variety.
- It symbolizes the creative use of various technologies for gaining access to plains, highlands, forests and coastal regions at both ends of Iran that led to new technological developments in building bridges, tunnels, aqueducts, retaining walls, roads as well as carriage of equipment, surveying and mapping, which were later used by international experts in other parts of the world.
- It caused a huge increase in trade and in cultural and economic relations between Iran and other countries in the region, thus marking a significant and decisive stage in the historical development of Iran, regional states and consequently other countries of the world.
- The technological ensemble represents a significant stage of human history because of its role in terminating the Second World War and establishing a sustainable peace.

ICOMOS notes that the proposed justification for inscription has not been supported by adequate argumentation nor documentation.

Comparative analysis
The comparative analysis is presented in three parts: comparison with another railway within the Islamic Republic of Iran; comparisons with railways in West Asia; and comparisons with mountain railways – including World Heritage and Tentative List properties – all having a comparable combination of values and attributes. The analysis makes reference to the 1999 ICOMOS thematic study Railways as World Heritage Sites and it is made with regard to eleven physical attributes and eight historical attributes.

ICOMOS noted in the Interim Report that the comparative analysis considers only a few regional and international comparators, and that it limits the latter to mountain railways. ICOMOS considers that the Trans-Iranian Railway is an example of the creation of large-scale transportation infrastructure, which was a global phenomenon by the time of its construction. Therefore, the Interim Report noted that the comparative analysis must be global. As a national railway, the comparisons should be with other national railways with similar values and attributes, particularly those created in the context of challenging terrain and climate. In addition, ICOMOS noted that the use of quantitative rather than qualitative assessments in the comparative analysis was not helpful in establishing the significance of the nominated property, as cultural values are not always possible to compare quantitatively.

ICOMOS also noted that the analysis did not include a comparison with the distinctive aspects of the Trans-Iranian Railway, such as its protective walls, retaining walls and drainage canals. The notable length of the railway is likewise not considered in the comparative analysis. Assessing the distinctive features that were left out of the comparisons might possibly strengthen the comparisons and provide a more discursive argumentation of the historical, cultural and symbolic aspects of the nominated property.

The State Party submitted additional information expanding and consolidating the comparative analysis including Rhaetian Railway, Italy and Switzerland (2008, (ii) & (iv)), Semmering Railway, Austria (1998, (ii) & (iv)), Mountain Railway of India (1999, 2005, 2008, (ii) & (iv)), Hejaz Railway, KSA (Tentative List (ii), (iv) & (vi)), Trans-Andean railroad, Ecuador (Tentative List (ii), (iv) & (v)), Trans-Siberian Rail Routes, Russia and Overland Railroad, United States of America.

The additional information submitted by the State Party with consolidation of the comparative analysis concluded on the historical, cultural and symbolic significance of the Trans-Iranian Railway, in terms of the role it plays with the bridge of Victory during World War II, the standardisation of the 1435 gauge railways, the revitalisation of the ancient silk route with the connection of the two seas from North to South, the synergy of the international contributors to the construction of the railway, and the role it had for the introduction of new architectural style combining Iranian traditional and western architecture.

ICOMOS considers that the new elements put forward in terms of comparison confirm that the railway was a late construction which did not bring a particular innovative aspect. ICOMOS considers that the comparative analysis did not establish the significance of the nominated property with regards to the proposed justification for inscription in relation to the railway innovation.

In its Interim Report, ICOMOS requested as well the State Party to further develop on the impacts of the development of the railway had on the society itself, as it crosses eight different regions. The State Party answered this question by listing the modernization processes triggered by the entry into operation of the Trans-Iranian Railway: the transition from a condition of demographic dispersion in distant oases to forms of urban centralization, with the creation of new towns, the birth of a new urban lifestyle, the development of new agricultural activities (cotton) and new industrial branches related to oil. However, these effects induced by the Trans-Iranian Railway are only listed and are not
detailed enough to offer element which could support the significance of the property.

ICOMOS considers that an interesting aspect of the Trans-Iranian Railway would potentially lay, not necessarily in terms of history of the railway techniques, but rather on the fact that it represents the expansion of modern state power in the 20th century in a specific context of non-colonized Asia. The Trans-Iranian Railway was a national prestige project undertaken by the new Pahlavi state of Iran (established in 1925), connected the Caspian Sea in the north with the Persian Gulf in the south via the Iranian capital of Tehran. It was the focal point of Iran’s comprehensive infrastructural projects undertaken by the state, including highway construction, port construction, and electrification.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the construction of the Trans-Iranian Railway involved an interchange of human values, cultures and technical know-how, as it involved engineers, technicians, contractors and project managers from many countries. It revived ancient routes such as the Silk Road and the Spice Route. It also initiated outstanding ways of solving engineering problems in dealing with the different and challenging terrain along its route. The resulting know-how influenced other parts of the world, as the foreign experts who worked on the Trans-Iranian Railway subsequently worked on projects outside Iran.

The State Party submitted additional information in February 2020 bringing some examples of new solutions used in terms of engineering construction. This includes a new type of insulation used for digging tunnels and the Austrian method of tunneling (NATM) or sprayed concrete lining method (SCL) for design and construction of tunnels that revolutionized modern tunneling. One of the leading engineers who developed it was one of the Trans-Iranian Railway construction engineers. Some publications are mentioned on the engineering experience that was gained in the construction of Trans-Iranian Railway. The State Party also submitted additional information explaining that Iranian traditional master builders cooperated closely with the Trans-Iranian Railway engineers by exchange of knowledge, which is manifested in the stone layout and variety of vaults.

ICOMOS considers that the interchange of knowledge and technical expertise that would have formed the basis for the design and realization of the Trans-Iranian Railway is not demonstrated. In terms of technical influences for railway techniques, the Trans-Iranian Railway was an adaptation of western technologies already implemented elsewhere, with no technical specificities. In relation to the masonry bridge construction and the Persian influence, this argument is weak as they cannot be considered as the same technical structures: for example, the circular arches were not used during the Persian times. The influence could potentially be explored further in terms of architectural designs, for which detailed analyses and further research work would need to be undertaken.

ICOMOS considers that the additional information submitted by the State Party does not provide solid arguments that demonstrate the role of the construction of the Trans-Iranian Railway in the development of railway technological innovations.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the Trans-Iranian Railway represents a major stage in the development of human, technical and economic activities in West Asia in the early 20th century. It is also justified on the grounds that it represents a significant stage in human history because of its role in terminating the Second World War and establishing a sustainable peace. The property is also considered as a showpiece for a creative and new style, emerging from the Iranian mixed with western architecture.

ICOMOS considers that the significant stage in human history regarding the development of human, technical and economic activities in West Asia in the early 20th century, as proposed, is too broadly defined, particularly as concerns the activities and the chosen time period. The new technological knowledge developments should be better documented to support this criterion, and the improvements gained in terms of adaptation of traditional methods or in terms of technical innovations should be highlighted. While arguably important, the overall significance of the role played by the Trans-Iranian Railway in terminating the Second World War and establishing a sustainable peace has not been supported in a comparative context.

ICOMOS notes the interesting role of the Trans-Iranian Railway in the modernization of Iran as a unique approach materialized by importing and domesticating western technologies by national financing and managing of the construction and implementation. Within this context, the modernization of the country impacted it socially, economically and culturally in a unique manner. ICOMOS also notes that the establishment of a new route that connected the Persian
Gulf with the Caspian Sea introduced another aspect of modernity by connecting two previously not connected cultural realms. However, ICOMOS considers that there is a need to enhance this narrative and consolidate it by thorough documentation of the tangible features and deeper analysis of their cultural significance with regards to the narrative.

ICOMOS does not consider that any of the proposed cultural criteria have been justified at this stage.

### Integrity and authenticity

#### Integrity

According to the nomination dossier, the integrity of the nominated property is based on infrastructure such as rail lines, technological and architectural elements and ensembles, and the dynamic functions and interrelationships of an operational railway.

On this basis, the nominated property would appear to be of adequate size to contain all the identified attributes needed to demonstrate the proposed Outstanding Universal Value. It includes the entire length of the historic Trans-Iranian Railway with its key supporting infrastructure, engineering works and architectural elements. The physical fabric of the nominated property is mostly in good condition.

There are some development pressures in the urban areas, and general pressure to modernize and increase the efficiency of the railway. Modernization by electrification has been planned for the line between Tehran, Garmsar and Bandar-e Torkaman. A Heritage Impact Assessment for this project is advised. Any threats that may exist related to geological and climate change are managed by the General Directorate of Line and Technological Ensembles.

#### Authenticity

The railway line within its surrounding landscapes appears to be largely authentic in terms of location, setting, form, design, materials, use and function, even if some elements have been upgraded or replaced. The stations and station buildings are also mostly authentic (supplemented by new demands such as signalling technology), as are the design and substance of the majority of bridges and tunnels.

Some sections of the original rail line have been enlarged to accommodate a double track, or modified slightly because of geological circumstances, and that several historic steam locomotive devices such as water cranes and coal boxes have been removed. The central masonry arches of the Talezang bridge were replaced by a steel girder in 1988 after being bombed.

ICOMOS notes that it is inevitable that elements of the infrastructure of a viable operating rail line will be replaced from time to time to meet safety and operational requirements. ICOMOS therefore considers that these are tolerable modifications and that the property meets the conditions of authenticity.

ICOMOS considers that the conditions of integrity and authenticity have been met.

### Evaluation of the proposed justification for inscription

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage as it does not convincingly establish universal significance of the nominated property with regards to its comparators.

ICOMOS considers that criterion (ii) has not been demonstrated.

ICOMOS considers that criterion (iv) has not been demonstrated at this stage and that the role of Trans-Iranian Railway in developing a unique national modernization process for Iran within its geo-cultural region resulted in a modernization and industrialization process that transformed previously isolated areas into urban modern settlements could be further explored to demonstrate whether this criterion could be justified.

The conditions of integrity and authenticity have been met. A Heritage Impact Assessment of the planned electrification of the Tehran—Garmsar—Bandar-e Torkaman line is advised.

### Features

Key features of the property include, among others, the 1394-kilometre-long rail line, bridges, tunnels, train stations and ancillary buildings such as workshops, staff quarters, goods sheds, fuel storage structures and depots, retaining and protective walls, flood-ways, channels and drainage canals. Its continuing use could also be a contributing element. In terms of dynamic functions, the potential attributes could include the interrelationships between the physical elements.

While not attributes of the proposed Outstanding Universal Value, movable cultural heritage elements such as rolling stock of locomotives and wagons, road construction equipment and machinery are essential for keeping the railway functional.

ICOMOS considers that it is not yet possible to conclusively identify the attributes of this property without an adequate justification of Outstanding Universal Value.
4 Conservation measures and monitoring

Conservation measures
To a large degree the nomination dossier equates the conservation of the nominated property with the repair and maintenance activities being undertaken there. The section on conservation focuses on “preventive” repair and maintenance, and “unavoidable” repair and maintenance. The former includes planned and reactive work to preserve safety and prevent structural problems; the latter includes work to guarantee constant service.

Master plans for the stations have recently been produced along with an inventory and history of these buildings. An inventory of the workshop areas currently underway will also lead to a master plan. The management plan lists numerous measures to protect and conserve the nominated property, but also to modernize the railway.

ICOMOS considers that the main conservation challenge is to balance measures that address the safety and operational viability of the railway on one hand, and the conservation of the heritage features on the other hand. ICOMOS therefore considers it essential that an overall conservation management plan be created for the nominated property, including the railway as well as the historical and architectural associated features, which would serve to complement the existing Management Plan.

Monitoring
The monitoring program addresses the main features of the nominated property, including engineering structures (bridges, tunnels, tracks and protective structures), fleet (freight, passenger and locomotive), buildings (stations and facilities) as well as railway infrastructure, publicity, training, tourism, natural elements and environment. It aims to monitor the state of conservation and the proposed cultural-historical and technical aspects of the nominated property, particularly with regards to the factors that affect it. A specialized team is in charge of monitoring and maintaining 13 types of bridges within the property.

The monitoring program is divided into seven categories: fleet (rolling stock), buildings, engineering structures, railway systems (signals, switching systems, etc.), training and education, buffer zone and tourism. Indicators include statements such as “checking the appearance and cleanliness of buildings.”

ICOMOS considers that elements of movable cultural heritage such as rolling stock, while essential for keeping the railway functional, are not attributes of the proposed Outstanding Universal Value, nor are training, education, buffer zone or tourism.

ICOMOS considers that the key indicators are not linked as closely as desirable to the identified attributes of the proposed Outstanding Universal Value and to the identified threats. A key indicator for buildings, for example, should be the condition of the character-defining elements that support the proposed Outstanding Universal Value of the property.

ICOMOS also considers that the monitoring regime should include the historic elements of the property that are no longer in use.

ICOMOS considers that conservation measures should balance the requirements of a working railway with the requirements of a cultural heritage resource, that an overall conservation plan be created for the property, that the key monitoring indicators be linked more directly to the identified attributes that support the proposed Outstanding Universal Value, and that the monitoring regime include the historic elements that are no longer in use.

5 Protection and management

Documentation
The Trans-Iranian Railway Office, part of the Iranian Railway Company, is responsible for keeping records and documents of the heritage-related aspects of the nominated property.

Older Trans-Iranian Railway records and research documents of are kept at the Research Division of the Centre for International Research and Education of the Ministry of Foreign Affairs. Records, reports and studies of the technical and management aspects of the property are kept by the Railways of the Islamic Republic of Iran.

ICOMOS appreciates the quality of information in the nomination dossier on the engineering aspects of the Trans-Iranian Railway. However, ICOMOS notes that the nomination dossier does not include a detailed inventory, documentation and analysis of the cultural heritage aspects of the railway. An inventory of all the attributes that support the proposed Outstanding Universal Value of the nominated property is needed, including the architecture and current state of conservation of the railway stations, workshops and other buildings. Historic elements that are no longer in active use should also be fully documented for conservation, protection and management purposes.

As per ICOMOS’ request, the State Party submitted additional information clarifying that COSWIN is a program for conservation and management of Trans-Iranian Railway for the engineering aspects of the railways. The State Party submitted information on the existing records on cultural heritage aspects. This concerns machinery (locomotives, machines, tools and rolling stock), architecture (the railway stations, workshops and other related buildings), for which reports and the conservation plan for Sari station are provided, but also historical archives kept in the Railway Company of Iran and other organizations, and objects kept in
deposits or the Railway Museum when they are not in use.

ICOMOS notes that the submitted records are not complete for all the features of the nominated property. In addition, ICOMOS notes the need for a complete list of all the stations, workshops as well as all other elements and features of the property. In addition, ICOMOS notes that the datasheets that the State Party submitted on the engines are incomplete and are not useful for conservation purposes as they lack information on the history and state of conservation. ICOMOS also notes the need for documentation of the buffer zone for each railway station and building within the property.

Legal protection
The nominated property and all its infrastructure are owned by the Railways of the Islamic Republic of Iran, which has legal responsibility for the protection, repair and maintenance of the Trans-Iranian Railway. The nominated property is affected by a large number of different types of laws and regulations, due to its function and extent and to the diversity of its cultural and natural contexts.

The property, the buffer zone and the landscape zone are protected by Department of Environment laws under the Constitution of the Islamic Republic of Iran, Article 45 and Article 50; the Act of Conservation and Optimization of Environment; the Criminal Islamic Law for Destruction of Natural Heritage, 1996; and Book Five of the Islamic Penal Code (dissuasive penalties).

The nominated property is registered on the national list of heritage monuments (No. 31906, “Trans-Iranian Railway from Bandar-e Torkaman to Bandar-e Imam Khomeini”), and has been regulated by the legislation governing cultural heritage since 2017. It thus enjoys the highest national level of protection.

Forty-two individual buildings and structures have also been registered on the national list of monuments, and are thus protected by cultural heritage law both as single components and as elements and features of the property. In addition, ICOMOS notes the need for documentation of the buffer zone for each railway station and building within the property.

Management system
The nominated property is centrally managed by the Trans-Iranian Railway Office, which is part of the Iranian Railway Company. The Office’s Steering Committee is responsible for reviewing conservation-related issues for the nominated property and the buffer zone as well as consultation and coordination regarding inter-organizational issues. A representative of the Iranian Cultural Heritage, Handicrafts and Tourism Organization is a member of this committee and takes care of heritage aspects of the property’s management. A Technical Committee is responsible for policies and decision-making pertaining to conservation issues as well as interdepartmental coordination of technical issues within the company.

The management, maintenance and development of the Trans-Iranian Railway has been included in national five-year development plans since 1989, the current iteration being the “Sixth Development Plan: 2017-2021.” The “IRAN 2026 Vision,” which was ratified in 2009, includes a document on rail transport.

A Management Plan has been prepared for the nominated property with the main goal of protecting the values of the Trans-Iranian Railway while respecting its authenticity, integrity and function. The Plan sets the management approach, strategy and guidelines. It includes an Action Plan divided into three categories: Short Term Plans (two years); Middle Term Plans (five years); and Long Term Plans (ten years). ICOMOS requested information on the status of the short-term plans of the Action Plan in its first letter. The State Party replied that short-term plans are categorized in three parts. The first one is about preservation, maintenance and monitoring: monitoring for dependent elements is done within station master plans. The first phase included eleven stations and is complete. The documentation and research for historical buildings is done for some buildings. Some contracts are done for the upgrading the maintenance quality of railway facilities. The second relates to sustainable development: events are under process, such as conferences, meetings and ceremonies are managed by related organizations and NGOs. Finally, the third deals with marketing strategies, tourism and human resources development: informative information, such as maps and guidebooks and brochures are done in regular phases. Feasibility studies for founding railway museums on various scales as well as the design of the central museum of railway heritage are in different phases.

The Railways of the Islamic Republic of Iran is a commercial operation. It also receives an allocated budget from the government, which reached 16000 billion Rials in 2018. According to the Management Plan,
Budgets are allocated for the maintenance and renewal of running operations. No information is provided about budget allocations for conservation operations regarding the heritage aspects of the nominated property, the buffer zone or the landscape zone.

The Training and Research Centre of Railway is responsible for training staff by running short-term training workshops as well as internal and external training programs. Also, local and national universities run major teaching and research programs at the bachelor’s, master’s and doctoral degree levels.

ICOMOS requested in its Interim Report an explanation on the role and activities of the Trans-Iranian Railway Office at the Iranian Railway Company and the role of the representative of the Iranian Cultural Heritage, Handicrafts and Tourism Organization within the Office. The State Party submitted additional information clarifying that the Trans-Iranian Railway Office is a subdivision of the Deputy of Infrastructure and Technical Affairs, which is the most important deputy in the hierarchy of the Railway Company of Iran. There is also a strategic technical committee. The working group within the Trans-Iranian Railway Office takes action in accordance with management plan objectives. Besides research is conducted by experts from the Office and the Subdivision.

Visitor management
Railway tourism is at an embryonic stage in the Islamic Republic of Iran. In order to plan for and attract more tourists, the Tourism Division of the Railways of the Islamic Republic of Iran was recently established. Policies for tourism development are made on short-, medium- and long-term bases within the nominated property’s management plan.

The main train stations are considered as focal points for providing visitors’ facilities. Tourist and accommodation places are reportedly being designed at some stations, and exclusive trains for tourists are in operation or are about to be purchased. A study has looked at the potential of the Trans-Iranian Railway to link numerous cultural and natural heritage places, including properties already on the World Heritage List.

Listed buildings within the property have commemorative plaques that provide a short summary of their history. In addition, television screens inside the stations give information on the history of the Trans-Iranian Railway, and tourist destinations that can be reached on the railway. Special tourist trains are available from Tehran northwards, with plans to extend information and rides for tourists within the nominated property.

In its first letter for additional information, ICOMOS requested further information on the future plans for the interpretation and presentation of the different development phases of the railway, in particular the parts that are not in use anymore (locomotives, machines, etc.). The State Party replied that there are ongoing feasibility studies for the establishment of a Great Railway Museum. Many of the features that are no longer in use will be displayed at the museum or at their location.

Community involvement
Community involvement is mentioned in the Management Plan (“seeking public participation”) and at various points within the Management Plan’s Action Plan. Community involvement in and awareness of the nomination is not explicitly stated.

The Management Plan’s management strategy includes specific objectives that will engage and benefit local communities along the Trans-Iranian Railway. These include delegating tourism management and giving its revenues to local residents; increasing private sector investment in boosting tourism and conserving railway heritage; empowering and improving the economic state of local residents; prioritizing cultural products and adding a variety of social activities; identifying and introducing ceremonies and customs belonging to subcultures on the railway route; creating social interactions between villages and train stations; and expanding cultural, educational and museum activities.

Evaluation of the effectiveness of the protection and management of nominated property
While substantial documentation is submitted about the nominated property, particularly the engineering aspects, the nomination dossier does not include an adequate inventory, documentation, and analysis of the cultural heritage aspects of the railway that are potentially relevant to the proposed Outstanding Universal Value. The additional information submitted by the State Party addressed this issue partially with information that is not complete nor including the details required for an efficient management and conservation of the property as a cultural heritage resource.

Legal protection is generally satisfactory.

The structure of the management system puts the Trans-Iranian Railway Office at a relatively low level in the Iranian Railway Company’s organizational chart. Furthermore, the Iranian Cultural Heritage, Handicrafts and Tourism Organization is not positioned at the decision-making level for the nominated property. This raises concerns about achieving the appropriate balance between the operational aspects of the railway and the conservation of the heritage values of the nominated property. The absence of a dedicated budget allocation for cultural heritage conservation activities is also a concern. An overall conservation management plan should be developed.

Visitor management is adequate. Regular monitoring of property should be carried out to assess the impact of tourists on the nominated property in the event the number of visitors increases as a result of the various planned tourism initiatives.
6 Conclusion

The scale and the engineering works of the Trans-Iranian Railway are notable. Its construction connected many regions and subcultures within the Islamic Republic of Iran and represented an important step towards the modernization of the country.

Nevertheless, the comparative analysis does not convincingly justify consideration of this property for the World Heritage List at this stage.

ICOMOS considers that criterion (ii) has not been demonstrated. The interchange of knowledge and technical expertise that formed the basis for the design and realization of the Trans-Iranian Railway has not been justified. In addition, it is not possible at this time to determine whether the nominated property can be considered an outstanding technological and/or architectural ensemble. Furthermore, the overall significance of the property’s role in terminating the Second World War and establishing a sustainable peace has not been supported in a comparative context.

ICOMOS considers that criterion (iv) has not been demonstrated at this stage. However, the role of Trans-Iranian Railway in the modernization of Iran through a different approach and process from other non-western countries could be further explored with an in depth study on its manifestation in the features and characteristics of the nominated property.

ICOMOS considers that the conditions of integrity and authenticity have been met – though it is not yet possible to conclusively identify the attributes of this property without a solid justification of Outstanding Universal Value. A Heritage Impact Assessment of the planned electrification of the Tehran-Garmsar-Bandar-e Torkaman line is advised.

Conservation measures should balance the requirements of a working railway with the requirements of a cultural heritage resource. To that end, an overall conservation plan, as a complement the existing Management Plan, is essential for the nominated property.

The key monitoring indicators should be linked more directly to the identified attributes that support the proposed Outstanding Universal Value, and the monitoring regime should include the historic elements that are no longer in use.

In terms of documentation, a more balanced and holistic approach is required to address the cultural heritage elements (such as buildings) with the same level of detail as the engineering elements.

Protection of the nominated property can be considered adequate, but its management is not adequate at this stage. The Trans-Iranian Railway Office’s relatively low placement in the Iranian Railway Company’s organizational chart, and the Iranian Cultural Heritage, Handicrafts and Tourism Organization’s position outside the main decision-making level, raise concerns about the prospect of achieving the appropriate balance between the operational aspects of the railway and the conservation of the heritage values of the nominated property.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of Trans-Iranian Railway, Islamic Republic of Iran, to the World Heritage List be deferred in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Reconsider the scope of the nomination on the basis of an expanded and augmented exploration of the role of Trans-Iranian Railway in the modernization of the country;
- Create a complete inventory and thorough documentation of all the tangible features that could support a revised justification for inscription, deeply analyse their cultural significance in relation to the revised scope of the nomination; and, in a more holistic way, address the cultural heritage elements (such as buildings) with the same level of detail as the engineering elements;
- Revise the comparative analysis, the justification for inscription and the criteria, focussing on the most appropriate ones in relation to the potential of the property and the revised focus of the nomination;
- Establish a conservation plan to complement the existing Management Plan, with the objective of better ensuring the appropriate balance between measures that address the safety and operational viability of the railway, and the conservation of the nominated property as cultural resource;
Reconsider the organizational hierarchy to ensure that decision-making regarding the nominated property's cultural heritage is positioned at the most effective level.

Any revised nomination should be visited by a mission to the site.

**Additional recommendations**

ICOMOS further recommends that the State Party give consideration to the following:

a) Documenting, monitoring and conserving the historic buildings and other elements that are no longer in use,

b) Preparing a Heritage Impact Assessment of the planned electrification of the Tehran-Garmsar-Bandar-e Torkaman line,

c) Encouraging community involvement by means of the full and effective participation of a wide variety of stakeholders and rights-holders;
Map showing the location of the nominated property
Deer Stone Monuments and Related Sites
(Mongolia)
No 1621

Official name as proposed by the State Party
Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture

Location
Ikhtamir soum, Battsengel soum and Öndör-Ulaan soum, Arkhangai province
Bürentogtokh soum, Khövsgöl province
Mongolia

Brief description
The serial property comprises Bronze Age and Early Iron Age deer stone monuments and related sites located within the eastern and northern slopes of the Khangai Ridge in central Mongolia. A deer stone is a massive monolith up to 4 metres tall set directly in the ground as a single standing stone or in groups. Covered with either highly stylized or more representational engravings of stags, deer stones are the most important surviving structures belonging to the Bronze Age culture of Eurasian nomadic peoples.

Dating from about 1200 to 600 BCE, Mongolian deer stone monuments relate to megalithic ceremonial and funerary culture and are almost always located in the context of spatially extended complexes that include large burial mounds called *khirgisuurs* and sacrificial altars. This serial property’s four component parts – Khoid Tamir, Jargalantyn Am (two components) and Uushigiin Övör – are testimony to the ceremonial funerary practice and culture of Eurasian Bronze Age nomads that evolved and then slowly disappeared between the 2nd and 1st millennia BCE.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 4 sites.

1 Basic data

Included in the Tentative List
19 December 2014

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 14 to 22 August 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 3 October 2019 requesting further information about mapping, attributes, boundaries, comparative analysis, justification, state of conservation, management and protection.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: the overall context and knowledge about the property, landscape elements, boundaries, comparative analysis and conservation measures.

Additional information was received from the State Party on 4 November 2019 and 28 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
This serial property comprises Bronze Age and Early Iron Age deer stone monuments and related sites in central Mongolia within the eastern and northern slopes of the Khangai Ridge. The four component parts are Khoid Tamir, Jargalantyn Am (two components) and Uushigiin Övör. The original nomination was for three component parts, but in response to an ICOMOS suggestion, the State Party decided to include an additional component part at Jargalantyn Am, originally located within the buffer zone.

Mongolia has important monuments and complex heritage sites belonging to the Bronze Age culture of Eurasian nomadic peoples. Amongst these, important heritage structures are deer stone monuments dating from about 1200 to 600 BCE. These monuments are almost always located in the context of spatially extended complexes that include *khirgisuurs* (burial mounds) and sacrificial altars. The Mongolian deer stone monuments relate to megalithic ceremonial and funerary culture.
A deer stone is a gigantic stele, ranging in height up to 4 metres, with engravings of stylized stag images or more depictive representations. These massive, elaborately decorated monoliths are set directly in the ground as single stones or in groups. A deer stone is generally divided into three ornamented anthropomorphic sections: an upper section that includes the head, a middle section that includes the torso, and a lower section that includes the lower body.

Within Mongolia and Eurasia there are three relatively distinct forms of deer stones. The nominated serial property displays two of these: the Mongol-Transbaikal type (Mongolian type), which is characterized by stylized stag images; and the Eurasian type, which does not have images and is less well articulated as a type. The third type, Sayan-Altai, displays realistically depicted animals. Most examples of the latter are today found in the Russian Federation, with only a few in Mongolia.

The four component parts represent major concentrations of deer stones as well as significant concentrations of surface monuments of a funerary and ceremonial nature. There appears to be a clear association of the deer stones and surface monuments such as khirgisuurs with specific rivers and mountains. The component parts are all within low valleys.

Deer stones were often accompanied by khirgisuurs. A khirgisuur is a composite site of a round stone mound at the centre and a square or round stone enclosure (sometimes referred to as a fence), with many small stone heaps (or satellites) outside the eastern and southern stone enclosure rows, and sometimes with many small stone circles outside the stone enclosure. Some scholars consider khirgisuurs to be animal sacrifice sites related to solar worship. Others consider them to be human tombs. The largest khirgisuurs in Mongolia’s Khanui River valley, in the southern component part at Jargalantyn Am, have more than 1,700 small satellite mounds, each potentially containing a horse skull. Such large khirgisuurs may reflect the existence of powerful leaders from the period.

The Khoid Tamir component part offers the richest assemblage of surface monuments with khirgisuurs, mounds, circles and 48 massive standing stones.

The northern most of the two Jargalantyn Am component parts is a large complex consisting of 26 deer stones and related features. This component has been described as the largest Bronze Age offering complex in Mongolia.

The southern Jargalantyn Am component part is dominated by two very large khirgisuurs (north and south), possibly the largest in Mongolia, between which are three deer stones.

The Uushigiin Övör component part contains 24 deer stones. These standing steles are of two types, the Mongol-Transbaikal type and the Eurasian type. They form a complex with other features. This component presents the combination of the early nomads’ funerary and ritual traditions.

The Uushigiin Övör component is dated to 1312-810 BCE. Of the four component parts, it is the best portrayal of the early nomadic funerary and ritual tradition. Despite some fallen or broken deer stones, the site was not modified by later nomadic populations, as occurred in the Khoid Tamir and Jargalantyn Am component parts. Of special note is the presence of a deer stone with its depiction of a human face in a most elaborate form, which has played a key role in understanding the meaning of deer stones.

In its Interim Report, ICOMOS requested further information on the relationship between deer stones and khirgisuurs, especially on the role of the latter in relation to the overall narrative of the nominated property. The State Party provided further information regarding its understanding. These two types of ceremonial attributes honour departed leaders from this single ancient culture, the khirgisuurs as the burial of the tangible remains, and deer stones as the symbolic representation, with ceremonial sacrifices and feasting occurring at each location. Deer stones with khirgisuurs are interpreted as relating to individuals of the highest social position, whereas khirgisuurs without deer stones relate to less important individuals.

ICOMOS also requested confirmation about human burials at the complexes and whether they are from the same period as the complexes. The State Party confirmed that human burials are found at khirgisuurs, and it asserts that the burials and the deer stones are from the same period.

ICOMOS also requested information about occupation sites related to the nominated property. The State Party clarified that an occupation site Avdar Khad is actually dated back to Stone Age and not related to the complexes. However, no further information was provided on potential other occupation sites surrounding the nominated property.

The Interim Report also sought information about the connection of the complexes to the surrounding landscape. While the State Party emphasised the importance of the natural environment in the creation of the complexes, it asserts that these landscapes are important because they are worshipped, but the landscapes elements are not documented. ICOMOS considers that a landscape approach should be adopted for the management of the nominated property. This includes the necessity of documenting the landscape elements and setting of the component parts of the property.
The history of the nominated property begins in the Late-Middle Holocene (c. 6000-4000 years BP), when the central Mongolian landscape assumed its present mountain steppe character. The herding of domesticated animals began to dominate the way of life, and the low valleys became important for their pastures, which lasted all year.

With the transition to full horse-riding nomadism in the mid-2nd millennium BCE and thereafter, these valleys were evidently important for pasturing domesticated animals. The presence of significant populations is recorded in thousands of compositions and images from various periods.

In the cultures of northern Eurasia, stone monuments played a key role as representations of power and remembrance for social and cultural continuity. In the Late Bronze Age in Mongolia (1200-600 BCE), deer stone monuments and khirgisuurs were erected scores of deer stones and khirgisuurs as well as thousands of sacrificial monuments in many places in the Khoid Tamir valley. Five sacrificial structures have been dated to 1200-760 BCE.

Subsequently, these sites were influenced by later peoples in two historical periods. Around the 8th to 7th centuries BCE, later peoples made slab tombs using the deer stones and the sacrificial structures, thus destroying the original form and appearance of these complexes. Following this, in the 6th to 8th centuries CE, ancient Turks used deer stones as parapets and tethers, and as Kurgan stele. Nonetheless, 24 fully intact deer stones are to be found at their original sites at Khoid Tamir.

The Jargalantyn Am component parts developed through two phases in history. In the first phase, the sacrificial structures related to the deer stones in the central part of the complex were built together with the great khirgisuurs in the northwest. This has been dated to the 10th to 9th centuries BCE in the general period of the khirgisuur-deer stone culture. In the second phase, another group of people occupied and settled this area in the 8th to 7th centuries BCE, as described above, and four large burial-sacrificial complexes located to the north were built.

These later phases are important manifestations of the cultural sequence of the ancient nomads of the later period of the Bronze Age in Mongolia. The deer stones used as parapets and tethers for the later stone structures were buried underground for almost 2000 years and were accordingly well preserved.

**Boundaries**

The area of the initial three component parts of the serial nomination totalled 9,403.89 hectares, and the area of the three buffer zones totalled 32,322.19 hectares.

In response to a question from ICOMOS about the feasibility of including within the nominated serial property two very large khirgisuurs situated within the buffer zone of the Jargalantyn Am component part, the State Party decided on 4 November 2019 to include these khirgisuurs as a second component at Jargalantyn Am (both within the same buffer zone). This addition resulted in a total of four component parts being nominated. As a result of the changes of delineations, the new surfaces for the nominated areas and buffer zones should be updated.

The nominated serial property’s boundaries incorporate most identified attributes of the proposed Outstanding Universal Value and appear generally well defined. However, there is also a large khirgisuur and several deer stones in the western part of the buffer zone of the Uushigin Övör component part, which could have been considered for inclusion within the nominated serial
property. In response to the ICOMOS Interim Report, the State Party advised that the engraving style and integrity of this complex are less valuable compared to the sites comprised within this component part. The State Party prefers to keep these sites as part of the buffer zone.

The buffer zones generally provide adequate protection for the property. The buffer zones reflect the topography of the landscape surrounding the component parts, incorporating hills and river valleys. Nevertheless, the buffer zone to the south of the Uushigiin Övör component part should be extended to include the area where there is currently a tent hotel (ger). The hotel should then be relocated outside the extended buffer zone, farther away from the nominated property.

**State of conservation**

In general, the deer stones and other identified attributes display an acceptable state of conservation, with limited impact from human or animal activities.

At the Khoid Tamir component part, 24 of the 113 deer stones are in their original locations. 63 of the stones were re-used in ancient times for slab graves or parapets, and as stele. This reflects the complex cultural story of these sites. These have been restored/re-erected relatively recently and are comparatively well preserved. 44 Khoid Tamir deer stones have been broken, and the engravings on 52 stones have become indistinct. The central mounds of the khirgisuurs have been looted, although the enclosure and stone mounds are well preserved. The rock art appears to be well preserved. The stone quarry associated with the component part is also well preserved.

At the northern Jargalantyn Am component part, 25 of the 30 deer stones are complete. Again, most of the deer stones were re-used in the creation of slab graves, but all stones have now been re-erected. In some cases, the stones have been fixed using cement. Also, at this component are examples of the use of the stone fragments from broken deer stones to support and fix other deer stones. The stones of this component are the best preserved.

At the southern Jargalantyn Am component part, the central mound of the south khirgisuur has been badly damaged by looting, but the surrounding stone fence and the small stone mounds or circles are very well preserved.

At the Uushigiin Övör component part, 14 stones are standing while 10 others have fallen and are in a fragmented form. Previously fallen deer stones have been re-erected. However, some of the stones have been oriented to directions other than the east, whereas east is the traditional orientation. There has also been the use of cement in re-erecting stones. The component part has a wire-mesh protective fence that cuts across the circular enclosure of one of the khirgisuurs.

In its first letter, ICOMOS sought additional information about the extent of modern damage to the nominated property. The State Party provided a detailed analysis according to component part, attribute type and nature of damage, although it is suspected the information relates to all damage through time.

**Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are grazing animal impacts, tourism development, disused mining infrastructure in the buffer zone of one component part, and unsympathetic protective fencing.

The re-use of decorated stones for animal shelters has ceased.

While grass fires are a possibility and could affect the deer stones, there has been no evidence of damage from past fires.

There are no mining or cultivation activities in the nominated serial property. The impact from traditional grazing has been minimal. Nonetheless, the carrying capacity of the land for grazing must be defined, and traditional methods of pasture rotation revived.

There are no intrusions from the construction of major roads, settlements or industrial development. There are no commercial activities apart from those related to tourism.

At the southwestern part of the buffer zone of the Khoid Tamir component part there is a disused coal mine with remnant machinery.

At Jargalantyn Am there is the contemporary religious practice of tying blue cloth to the head of deer stones.

The Uushigiin Övör component part has a number of fragments of deer stones which may be at risk of being taken by visitors. As noted above, the component has a wire-mesh protective fence that cuts across the circular enclosure of one of the khirgisuurs, though there are plans to relocate the fence. In the buffer zone just south of the property boundary is a tent hotel that needs to be relocated outside the buffer zone.

ICOMOS considers that contemporary factors affecting the property are relatively minor, and with effective management they should be satisfactorily addressed.
3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Of both exceptional beauty and cultural significance, the nominated serial property constitutes an outstanding example of Bronze Age megalithic monumental art of the highest quality and uniqueness – true masterworks of Late Bronze Age culture. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type – a human wrapped in the signs of a great antlered stag. Both deer stones and their attendant khirgisuurs demonstrate the artistic vitality and creative genius of human achievement in prehistoric times.
- The property is a genuine and exceptional testimony to the ceremonial, funeral practice and culture of the Eurasian Bronze Age nomads, which had evolved and disappeared slowly from the 2nd to the 1st millennia BCE.
- The property portrays an outstanding example of a type of animal-style art and archaeological landscape that represents a significant stage of Bronze Age culture in Central and North Asia, during which were built the ancient megalithic funerary and ceremonial structures.

ICOMOS considers that the overall narrative and justification for the nominated property is too focused on deer stones and not on the whole archaeological complexes which include other substantial attributes, notably the khirgisuurs. A greater balance needs to be achieved in the portrayal of the complexes so that a complete picture and understanding of the property could be allowed in relation to the early nomadic society in Eurasian.

This balance should also be reflected in the name of the property. The proposed name also has another issue in claiming to represent the “Heart of Bronze Age Culture”. Given the widespread existence of the Bronze Age which is represented by important properties on the World Heritage List, such claim cannot be justified.

Comparative analysis

The nomination dossier presents a relatively short comparative analysis. The analysis is presented in three parts: the first and second parts consider similar properties inside and outside Mongolia, and the third part considers properties with similarities that are already inscribed on the World Heritage List or on Tentative Lists.

The analysis notes that deer stones are widely distributed throughout Eurasia, with approximately 1,500 deer stones having been identified in an area between Mongolia and Ukraine. 80% of deer stones are to be found in Mongolia, and most of these are located in its central and western regions.

The analysis notes that a number of large sites identical to the proposed nomination are to be found in parts of the Khangai Range and in the Mongolian Altai. Seven of these sites are identified. The Khoid Tamir complex is claimed to provide the richest assemblage of rock art, deer stones and sacrificial structures, as well as a spectacular natural setting. In addition, the Jargalantyn Am and Uushigiin Övör component parts are claimed to have the largest complexes with megalithic deer stones and sacrificial structures from the Bronze Age found in the world.

The analysis also contends that the nominated property has greater authenticity and higher integrity than the other Mongolian sites identified.

The comparative analysis also considers sites outside Mongolia, where more than 200 deer stones have been identified. The State Party notes that the vast majority of these sites do not have a khirgisuur complex and are of the much simpler Sayan-Altai type, which lacks the artistic dimension of the nominated property.

The analysis indicates the best comparison is a site in the Chuya Steppe of the Russian Altai. This site has stones of the simple Sayan-Altai type, and almost all have been removed or otherwise damaged.

The analysis notes the presence of sites in Xinjiang Uygur Autonomous Region in northwest China, which also belong to the same deer stone tradition as the nominated property. The analysis also refers to sites in Eastern Europe, though the anthropomorphic stones found there have no known relationship to the Mongolian deer stone tradition.

The analysis also considers properties inscribed on the World Heritage List. It notes that there are no directly comparable properties currently on the List or on any Tentative Lists. Nonetheless, the analysis considers rock art sites of the Stone and Bronze Ages in the context of a chronological and typological framework. However, none of these sites include deer stones and khirgisuurs.

With regard to other rock art sites in Asia, only the Petroglyphs within the Archaeological Landscape of Tamgaly (Kazakhstan, 2004, criterion (iii)) includes stag images that can be compared with those of the nominated property. A primary difference is the presentation of images on stone steles that are components of funerary and ceremonial sites.
Another framework for comparison relates to burial monuments and sites that have a megalithic character. The analysis notes the presence of many such properties that have been inscribed on the World Heritage List. The analysis suggests that the most relevant comparisons can be made with standing-stone megalithic monuments in Europe and the British Isles dating from the Neolithic and the Bronze Age. However, it is noted that these megaliths do not have images and engravings. Nonetheless, these other megalithic sites have similar purposes regarding ritual, sacrifice and religious beliefs.

At a number of sites, megalithic monuments are associated with dolmens and tumuli, but the analysis contends that these are totally different from the khirgisuurs within the nominated property. The analysis also notes that none of the megalithic monuments considered are associated with nomadic cultures or with the emergence of a new cultural complex in the Late Bronze Age. Finally, the analysis notes that most of the megalithic sites date to the late Neolithic and Early Bronze Age, being older than the nominated property.

In its first letter and Interim Report ICOMOS sought an augmented comparative analysis in terms of its scope and depth within and outside Mongolia, including an exploration of the form, theme, execution techniques, distribution and meaning of sites. The State Party provided an augmented analysis which considers in brief details 11 sites in Mongolia, as well as one site in each of Russian Federation and China.

In the case of the Mongolian sites, the State Party concludes that the nominated property is the superior collection of sites to be nominated. The primary criteria used to decide this relate to integrity, the number of attributes represented, the presence of a range of attributes, the quality of the art, the size of the stones and their concentration. In the case of the Russian site, the criteria used include the height and quality of engravings. In the case of the Chinese site, the quality of the engravings is the decisive criterion.

ICOMOS considers that the analysis is not yet presented in a satisfactory form. The additional information provided throughout the evaluation process should be consolidated making clear the criteria used for the analysis, applying such criteria consistently, and considering the use of a tabular form to summarise the findings.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List. However, the analysis should be consolidated with clear criteria used consistently, and with summary findings in a table.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i), (iii) and (iv).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that the nominated serial property constitutes an outstanding example of Bronze Age megalithic monumental art of the Late Bronze Age culture. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type – a human wrapped in the signs of a great antlered stag. Both the deer stones and their attendant khirgisuurs demonstrate the artistic vitality and creative genius of human achievement in prehistoric times.

ICOMOS considers that the deer stones within the nominated serial property portray a style that has a high intellectual or symbolic endowment, and a high level of artistic skill. The style evolved and is reflective of Eurasian nomadic cultures in the Bronze Age. The artistic variety and refinement of the khirgisuurs, however, is not substantiated in the nomination dossier. ICOMOS requested further information in that regard in its first letter. The State Party provided brief additional information stressing workmanship, technical knowledge and symbolic cosmic endowment.

Based on the creative qualities of the deer stones and the cultural role of their design qualities, the nominated property has the potential to meet this criterion but it should more strongly demonstrate outstanding visual qualities, in terms of the techniques used, or in terms of their location (when, for instance, they appear to have been deliberately sited in a specific place in order to achieve a particular effect), and the cultural role of their design qualities.

ICOMOS considers that this criterion has not been demonstrated at this stage.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the property is exceptional testimony to the ceremonial funeral practice and culture of Eurasian Bronze Age nomads, which evolved and then slowly disappeared between the 2nd and 1st millennia BCE.

ICOMOS considers that the nominated property is a testimony to the culture of Bronze Age Eurasian nomads. The impressive qualities of the property, with its rich material expressions of the culture, coupled with the apparent lack of other sites associated with these nomadic peoples, are indicators of the importance of this testimony.
However, additional context and understanding about the nominated property is required, including the relationship between deer stones, *khirgisuurs* and other attributes, the presence and role of human burials and occupation sites, and the results of archaeological excavations.

The State Party has provided additional information which begins to provide this context, however it does not yet provide a satisfactory overall narrative for an adequate understanding of the various attributes, their relationships and meaning.

ICOMOS considers that this criterion will be justified once the overall narrative will be adequately presented.

For criterion (iv) the State Party provided a revised justification in its additional information submitted in February 2020. This revised justification is taken into account below.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that the nominated property illustrates an outstanding example of type of animal style art and monumental heritage complexes that represent a significant stage of Bronze Age funeral and ceremonial Culture of human history in Central and North Asia.

As noted above, in response to ICOMOS Interim Report, the State Party provided this revised statement regarding criterion (iv), excluding references to the landscape.

With regard to the revised justification, ICOMOS considers there is potential for this criterion to be justified, but there is not yet an adequate presentation of the overall narrative of the nominated property to enable the typology of the complexes to be satisfactorily understood.

ICOMOS considers that this criterion will be justified once the overall narrative will be adequately presented.

ICOMOS considers that the cultural criteria will be justified when the context and understanding of the property, especially its overall narrative providing an adequate understanding of the various attributes, their relationships and meaning, will be adequately presented.

**Integrity and authenticity**

**Integrity**

The integrity of the nominated serial property is based on the deer stone monuments located in the context of spatially extended complexes including deer stones, *khirgisuurs* containing human remains, pavement areas, circular or square rock fences, satellite mounds containing horse remains, and satellite boulder ovals or rings/hearth.

These elements demonstrate the monumental art and provide testimony to the ceremonial funeral practice and culture of Eurasian Bronze Age nomads.

The nominated property is affected by development only in a minor way, related to tourism development too close to the Uushgiin Ŭvôr component part and the residual impact of abandoned mining in the buffer zone of the Khoid Tamir component part.

ICOMOS considers that the nominated serial property includes all the elements necessary to express the proposed Outstanding Universal Value and the selection of component sites has been justified.

**Authenticity**

The authenticity of the nominated property is based on its form, design, materials, location and setting.

ICOMOS considers that the nominated property meets the requirements of authenticity for the whole series as well as for the component parts. The form and design of the property is largely original, noting that some deer stones have fallen or are broken into fragments, and in many instances other stones have been re-erected. In some cases, there would appear to be a degree of conjecture involved in deer stone re-erections, impacting authenticity. The materials, location and setting of the attributes have been retained.

In conclusion, ICOMOS considers that the conditions of authenticity and integrity for the whole series as well as the authenticity and integrity of the component parts have been met.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List. However, the analysis should be consolidated with clear criteria used consistently, and with summary findings in a table.

The nominated serial property has the potential to meet criteria (i), (iii) and (iv), but these will be justified when the context and understanding of the property, especially its overall narrative providing an adequate understanding of the various attributes, their relationships and meaning, will be adequately presented.
The name of the nominated property should also be revised to reflect a balanced representation of the overall narrative which extends well beyond deer stones. It should also be revised regarding the unqualified claim to represent the “Heart of Bronze Age Culture”.

ICOMOS considers that the conditions of authenticity and integrity for the whole series as well as the authenticity and integrity of the component parts have been met.

Attributes
Key identified attributes of the spatially extended complexes include deer stones, khirgisuurs containing human remains, pavement areas, circular or square rock fences, satellite mounds containing horse remains, and satellite boulder ovals or rings/hearths, as well as a quarry.

4 Conservation measures and monitoring

Conservation measures
Active conservation measures in recent decades include the uncovering and re-erection of half-buried and fallen deer stones. This work has restored the stones to their original settings and orientation, with some exceptions.

The Government of Mongolia adopted a National Programme for the Protection of Stone Heritage Properties in Mongolia in 2019 that includes several activities at the nominated property. In its first letter, ICOMOS requested further information about a protective fence at the Uushigiin Övör component part, which appeared to impact the nominated property. The State Party provided details about replacement fencing to avoid this impact.

While the proposed conservation measures could be said to be appropriate, additional measures and remediation should be considered to address a range of issues. These include the previous use of cement and the incorrect orientation of some re-erected deer stones. If any deer stones are still incorporated into slab graves, careful consideration should be given to whether re-erection is appropriate, given the values that may be associated with this later cultural phase. If re-erection of the deer stones is ultimately determined to be appropriate, mitigation measures such as full heritage recording of the slab graves should be undertaken.

In its Interim Report ICOMOS sought further details about the reconstruction works. The State Party provided additional information however, it would appear that there has been a degree of conjecture involved in the reconstructions, in terms of the location for the re-erected stones.

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In its Interim Report ICOMOS sought further details about the reconstruction works. The State Party provided additional information however, it would appear that there has been a degree of conjecture involved in the reconstructions, in terms of the location for the re-erected stones.

ICOMOS recommends that the State Party does not undertake any further re-erection of deer stones without a robust methodology consistent with best conservation practice, and that consideration of remedial measures be given when needed.

Monitoring
A baseline condition assessment of the nominated property will be undertaken from 2019 to 2021. The nomination dossier provides a suite of key monitoring indicators.

While these measures seem generally satisfactory, an emphasis should be put on monitoring the actual state of conservation of the identified attributes.

ICOMOS considers that the conservation measures undertaken as part of the national programme could be appropriate, but additional measures should be considered to address a range of other issues. No further re-erection of deer stones should be undertaken without a robust conservation methodology. The monitoring arrangements seem generally satisfactory, but an emphasis should be placed on the actual state of conservation of the identified attributes.

5 Protection and management

Documentation
While some inventory and survey work has been undertaken, additional survey work is required. All of the deer stones have been inventoried, and it is understood an inventory of the component parts is to be updated in 2020-2021.

The National Programme for the Protection of Stone Heritage Properties will prepare an updated registration and inventory of the four component parts between 2019 and 2024.

In its Interim Report, ICOMOS requested further information on the research undertaken at the site, and the interpretation of the archaeological findings for the understanding of the complexes. The State Party provided additional information on recent excavations and future excavation strategy.

As noted above, the Interim Report also asked about documentation on the landscape connection to the complexes. The State Party indicated there is no documentation about landscape elements which are worshipped. ICOMOS considers that a landscape management approach is necessary for the setting of the component parts, and that documentation is required about the important elements in this landscape.
Legal protection
The primary mechanisms for protecting the nominated property are the traditional worshipping practices undertaken by local people, based on the respect for the old relics and spiritual objects shown by the region's nomadic peoples. They also value the grasslands and customarily do not disturb them by digging.

This traditional protection has been formalised by means of local people working under contract to the local governing administrations.

In addition, legal protection is provided through the Mongolian Law on the Protection of Cultural Heritage (2014) and the List of Immovable Historical and Cultural Heritage Properties under State, Provincial and Local (Soum) Protection (2008). Khoid Tamir and Uushigiin Övör are included in the State list, while Jargalantyn Am is in the provincial and local lists. Uushigiin Övör is also a monument under State Special Protection. There is also a working group undertaking research to update and re-select sites for state and provincial protection. This work was due to be completed in 2019.

Management system
The nominated property's component parts are all State owned. Local people play a major role in managing the property. In addition, the Government of Mongolia has created a National Programme for the Protection of Stone Heritage Properties as a major protective measure.

A formal management plan has recently been developed and will be updated in accordance with any recommendations following possible inscription. The administration/management office for the property is responsible for implementing the management plan.

Technical assistance and guidelines are to be provided by the Mongolian National Commission for UNESCO, the Mongolian National Committee for World Heritage and the UNESCO-accredited Foundation for the Mongolian National Committee for World Heritage.

The very concise management plan outlines a range of objectives for the nominated property. The plan also provides brief details about the management authority and its role. The main part of the plan lists a range of activities, the responsible bodies are identified, and broad timeframes are given. The nomination dossier refers to the development of long-term objectives of the management plan over 10 years, and ICOMOS asked in its first letter for clarification about this timeframe and whether they can be developed sooner. The State Party advised that the timeframe relates to both the development of objectives and implementation of the management plan. It also indicated that a shorter timeframe of 3 to 5 years is possible.

Partial implementation of the management plan has begun, but full implementation will take place only after inscription on the World Heritage List. ICOMOS asked in its first letter about the possibility of implementing the management plan before inscription. The State Party indicated that some protection and preservation measures included in the plan will align with activities to be implemented in 2020.

The State Party indicates that, in accordance with the Law on the Protection of Cultural Heritage, the protection administration will be established and provided with personnel and resources only after inscription.

A risk management plan for the property is to be prepared and completed by 2021.

As noted above, ICOMOS considers a landscape management approach is required for the setting of the nominated property.

With regard to staffing and expertise, the nomination dossier provided general information but no details. In the case of funding, there is no body responsible for funding preservation and protection, some funds are available from existing budgets, and otherwise possible sources of funds are identified, although the lack of funds is also noted.

In its first letter ICOMOS sought further details about staffing, expertise and funding. The State Party noted that there will be 18 and 20 staff working in the protection administration and, in addition, there are enough expert staff available in the two provinces. Regarding funding, the State Party indicated a commitment to funding from the Government, further general information on sources of funding were offered, but no other details were provided.

Visitor management
While there are publications related to the deer stones, no suitable on-site interpretation is provided. However, the archaeological research centre at Khoid Tamir is providing some information for local people and tourists. A tourist information centre is proposed to be built next to the archaeological research centre and a specific route for tourists is being established.

Proposed future activities include making a documentary film and publishing a book about the deer stones.

A tourism plan is to be prepared by the State Party. At the provincial level, a tourism route has been created specifically for the four component parts, and the component parts have been included in other tourism routes.

Tourist camps have been constructed and road access has been improved. Visitor facilities and infrastructure will be regulated.
**Community involvement**

The involvement of the local nomadic peoples is vital to the current management of the property. As noted above, they respect the spiritual qualities of the property and undertake traditional worship practices, protect the pasture and do not undertake excavation activities. Their role is formalised through contracts with the local governing administrations.

**Evaluation of the effectiveness of the protection and management of nominated property**

While some documentation exists for the nominated property, further survey work is required. The State Party has scheduled this additional work. Documentation is also needed about the important elements in the landscape setting of the nominated property.

In the case of protection, the role of the local nomadic peoples is important to the long-term and effective protection of the nominated property. This role is supplemented by legislative protection at the national level, as well the development of protective instruments at the provincial and local levels. It will be important for the State Party to ensure a comprehensive and integrated approach to the protection of the property, including completion of all steps necessary to provide comprehensive legal protection.

Effective on-ground management also relies on the local community. In general, this situation seems to be providing a reasonable level of management for the property. While a short formal management plan has been prepared, additional planning tools are yet to be completed. It is concerning that full implementation of the management plan, and the provision of personnel and resources for the protection administration will only be undertaken or provided if and when the property is inscribed on the World Heritage List.

A landscape management approach is required for the setting of the nominated property.

Visitor management and interpretation are in need of improvement in several ways. The location of one tent hotel is too close to one component of the property. The impact of tourists and visitors is also a matter of potential concern.

The role of the local community is very important in this property, as well as their involvement in the effective protection and management of the property.

ICOMOS considers that the protection and management are in need of improvement. The State Party should ensure a comprehensive and integrated approach to the protection of the property, including completion of all steps necessary to provide comprehensive legal protection. In the case of management, additional planning tools should be completed – a risk management plan and a tourism plan. Personnel and resources for the protection administration should be provided, and full implementation of the management plan undertaken as soon as possible. Every effort should be made to support the local community in the effective protection and management of the property.

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**6 Conclusion**

The serial property Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture includes numerous examples of high-quality megalithic monumental art created by Eurasian nomadic peoples. Related to ceremonial and funerary culture and located in the context of complexes that include khirgisuurs (burial mounds), the deer stone monuments exhibit an extraordinary variety of both highly stylized and representational engravings of stags.

ICOMOS considers that the overall narrative of the nominated property should reflect the whole of the archaeological complexes, portraying a greater balance regarding deer stones and the other substantial attributes notably the khirgisuurs. This balance should also be reflected in the property’s name, which should also be amended or qualified as the claim to represent the “Heart of Bronze Age Culture” is not justified.

The comparative analysis justifies consideration of this property for the World Heritage List. However, the analysis should be consolidated with clear criteria used consistently, and with summary findings in a table.

The nominated serial property has the potential to meet criteria (i), (iii) and (iv), but these will be justified when the context and understanding of the property, especially its overall narrative providing an adequate understanding of the various attributes, their relationships and meaning, will be adequately presented.

The conditions of authenticity and integrity for the whole series as well as the authenticity and integrity of the component parts have been met.

The buffer zone to the south of the Uushigiin Övör component part should be extended.

The conservation measures undertaken as part of the national programme may well be appropriate, but additional measures should be considered to address a range of other issues. No further re-erection of deer stones should be undertaken without a robust conservation methodology. In the case of monitoring, the arrangements seem generally satisfactory, but an emphasis should be put on the actual state of conservation of the identified attributes.

The protection and management are in need of improvement. The available documentation for the property needs to be more detailed, as planned by the State Party, and extend to the important elements in the landscape setting. The State Party should ensure a
comprehensive and integrated approach to the protection of the property, including completion of all steps necessary to provide complete legal protection.

In the case of management, additional planning tools such as a risk management plan and a tourism plan should be completed and implemented. Personnel and resources for the protection administration should be provided, and full implementation of the management plan undertaken as soon as possible. Interpretive materials for the property should be improved, and every effort should be made to support the local community in the effective protection and management of the property.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the nomination of Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture, Mongolia, be referred back to the State Party in order to allow it to:

- Revise the overall narrative of the nominated property to reflect the whole of the archaeological complexes, portraying a greater balance regarding deer stones and the other substantial attributes notably the khirgisuurs;
- Consolidate the information provided for the comparative analysis with clear criteria used consistently, and with summary findings in a table;
- Review the justification for inscription of the nominated property based on a revised overall narrative which will provide an adequate understanding of the various attributes, their relationships and meaning. In the case of criterion (i), this should also include the cultural role of the design qualities of the deer stones;
- Extend the buffer zone to the south of the Uushigiin Övör component part to include the area where there is currently a tent hotel, with the objective of relocating the hotel outside of the extended buffer zone;
- Take all steps necessary to provide comprehensive legal protection to the component sites as soon as possible;
- Fully implement the management plan;
- Provide personnel and resources for the protection administration in charge of the protection of the nominated property.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Completing the planned survey and documentation work as soon as possible, and extending documentation to include the important elements in the landscape setting,

b) Adopting a landscape management approach for the setting of the nominated property,

c) Preparing and implementing a risk management plan and a tourism plan,

d) Implement additional conservation measures as part of the national programme,

e) Avoiding further re-erection of deer stones without a robust methodology consistent with best conservation practice, and consideration of remedial measures as needed,

f) Giving emphasis in the monitoring arrangements to the actual state of conservation of the identified attributes,

g) Defining the carrying capacity of the land for grazing, and reviving traditional methods of pasture rotation,

h) Establishing a timetable for the removal of the remnant machinery of the disused coal mine in the southwestern part of the buffer zone of the Khoid Tamir component part,

i) Improving the interpretive materials for the property,

j) Updating the new surfaces for the property areas and buffer zones;

ICOMOS also recommends that the name of the property be amended according to the revised narrative and that the “Heart of Bronze Age Culture” be removed from the title.
Map showing the location of the nominated components
IV Cultural properties

A Arab States
New nomination

B Asia – Pacific
New nominations

C Europe – North America
New nominations
Extension

D Latin America and the Caribbean
New nominations
The Great Spas of Europe
(Austria, Belgium, Czechia, France, Germany, Italy and United Kingdom)
No 1613

Official name as proposed by the States Parties
The Great Spas of Europe

Location
Lower Austria, Austria
Liège province, Belgium
Karlovy Vary Region, Czechia
Auvergne-Rhône-Alpes Region, Allier Department, France
Rhineland-Palatinate, Germany
Baden-Württemberg, Germany
Bavaria, Unterfranken Region, Germany
Tuscany, Pistoia Province, Italy
Bath and North East Somerset, United Kingdom

Brief description
The serial nominated property comprises eleven towns, located in seven European countries, which developed around natural mineral water springs and epitomise the grandest and most international resorts that are testimony to the European spa phenomenon that flourished from around 1700 to the 1930s. The components are: Baden bei Wien (Austria); Spa (Belgium); Františkovy Lázně (Czechia); Karlovy Vary (Czechia); Mariánské Lázně (Czechia); Vichy (France); Bad Ems (Germany); Baden-Baden (Germany); Bad Kissingen (Germany); Montecatini Terme (Italy); and City of Bath (United Kingdom).

These spa towns reflect an urban typology that functions around ensembles of spa buildings such as the ‘kurhaus’ and ‘kursaal’, pump rooms, drinking halls (‘trinkhalle’), colonnades and galleries designed to harness the natural mineral water resources and to allow their practical use for bathing and drinking; related visitor facilities include assembly rooms, casinos, theatres, hotels and villas, and spa-specific support infrastructure. These ensembles are all integrated into an overall urban context that includes a carefully managed recreational and therapeutic environment in a picturesque landscape.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of eleven sites.

1 Basic data

Included in the Tentative List
Austria: 11 July 2014
Belgium: 3 July 2014
Czechia: 17 June 2014
France: 7 July 2014
Germany: 11 August 2014
Italy: 1 July 2014
United Kingdom: 25 July 2014

Background
This is a new nomination. A previous nomination focusing only on the Spa of Luhačovice – area with a collection of historic spa buildings and spa-related facilities (Czechia) was submitted in 2007. The property was deferred by the World Heritage Committee in order to allow the State Party to conduct a more thorough study of the nominated property, particularly in the framework of a global thematic study of thermalism. Luhačovice is not included in the nominated property nor has such a formal global thematic study been undertaken so far.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 10 September to 3 October 2019.

Additional information received by ICOMOS
A letter was sent to the States Parties on 9 October 2019 requesting further information about the description of the property, the justifications for criteria (ii) and (iii), the comparative analysis – justification for a serial approach and criteria for selection of the component parts of the serial nomination, and information received about development projects.

An Interim Report was provided to the States Parties on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: terminology to consistently describe all the component parts; timeframe proposed; justification of criterion (iii); comparative analysis; boundaries; protection and management system; and monitoring.

Additional information was received from the States Parties on 31 July 2019, 13 August 2019, 2 September 2019, 11 November 2019 and 25 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020
2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history

The eleven towns that comprise the serial nominated property represent the grandest and most international spa towns among hundreds of towns that are testimony to the European spa phenomenon between ca. 1700 and 1930. These towns display common elements comprising a distinct spa quarter centred on the springs, from which other zones radiate outwards.

The component parts of this nominated series are the following: Baden bei Wien (Austria); Spa (Belgium); Františkovy Lázně (Czechia); Karlovy Vary (Czechia); Mariánské Lázně (Czechia); Vichy (France); Bad Ems (Germany); Baden-Baden (Germany); Bad Kissingen (Germany); Montecatini Terme (Italy); and City of Bath (United Kingdom).

Depending on mineral content and temperature, some water sources were suitable for drinking, some for bathing, and some for inhalation. Such applications determined the development of specific types of spa buildings popularised across Europe, such as the spring pavilion (for example in Františkovy Lázně, Spa and Vichy), and pump room/drinking hall or ‘trinkhalle’ (for example in the City of Bath, Baden-Baden, Baden bei Wien, Bad Kissingen and Vichy).

Gentle exercise was considered part of ‘taking the cure’, therefore grand colonnades were built, some incorporating spring fountains from which those ‘taking the cure’ could drink the waters as well as walk (for example the Mišinská Colonnade in Karlovy Vary, the Colonnade Temple at the Cross spring at Mariánské Lázně). Exercise could also include strolling in landscaped gardens and ‘kurgartens’, such as in Baden bei Wien or in Bad Kissingen, or gentle riverside walks, for example in Vichy, Baden-Baden and Karlovy Vary. In many of the spa towns, extensive landscaped gardens were laid out.

All component parts also contain substantial buildings and designed spaces for entertainment and recreation. These include the conversation house/assembly room (the earliest examples being the Assembly Rooms in City of Bath, the Waux-Hall in Spa, and the Kurhaus in Bad Ems). The development of casinos also played an essential role in spa life, with particular component parts hosting some of the earliest examples in the world (for example in Spa, Baden-Baden, Bad Ems and Vichy). Elaborate theatres, opera houses, concert and dance halls can also be found in all component parts.

To accommodate guests, hotels, lodging houses and villas were built, mostly within or in the proximity of the spa quarter. Some hotels are monumental in scale and architecture and numerous villas in most component parts display a wide range of international architectural styles. Infrastructure such as funiculars (for example at Bad Ems, Karlovy Vary and Montecatini Terme) facilitated access to lookout towers, restaurants and specific features of interest; railways were extended to all component parts, providing the main means of transportation for guests.

Roman remains and structures can be found in several component parts of the nominated property attesting to the long use of their mineral and thermal springs. Attempts to analyse mineral waters date back to the 15th century, which consequently led to the development of the first treatises recommending their curative effects. Drinking therapies became firmly established from the end of the 16th century and with them new approaches to medicine emerged. As bathing therapy made way for drinking treatment and its continued accompaniment of physical activity, new types of spa structures and new layouts of spa complexes were required.

In the middle of the 18th century, structured and functional spa treatment establishments often became the biggest buildings of a spa town, requiring a reorganisation of the access roads and often the destruction of ancient medieval surrounding buildings, as in the case of Vichy, and in the City of Bath. The latter also became the first of the component parts to develop large-scale ensembles of lodgings close to the springs with their baths, pump room and assembly rooms, around the same period. The City Corporation promoted the city for pleasure as well as a place for healing. Terraces and squares were designed around parades, promenades, gardens and pleasure grounds. The Royal Crescent, built between 1767 and 1775, became a popular destination for visitors. Bath Street, laid out from 1791 to 1794 and which linked the King’s Bath and Pump Room with the Cross Bath and the Hot Bath, provided a street of shops and shelter for pedestrians. There was a close relationship between the city and the surrounding countryside, which became all the more important when doctors and physicians started promoting exercise as a contribution to ‘taking the cure’ from 1720 onwards.

The thermal springs of Baden bei Wien were known from Roman times. From the 15th century onwards the town was popular with the Habsburg Emperors and more so from 1793 with Emperor Franz II; it became the leading spa for the Habsburg Emperor’s family and attracted many fashionable guests and visitors. The Sauerhof, built in 1820, was the first freestanding great spa hotel in Europe and by 1870 Baden bei Wien had emerged as a world-class spa resort.
The international recognition of the city of Spa grew when Russian Tsar Peter the Great visited to take the cure in 1717 but its golden years began with the construction of the gambling house La Redoute in 1763. A fire in 1807 led to considerable destruction. An overall plan for the town was designed and, although never implemented, it had some influence on subsequent developments. New baths were created in 1868 together with a casino. The last important urban transformation was the construction at the beginning of the 20th century of the Casino complex, which is the result of successive modifications of the former Redoute following several fires.

The mineral water at Františkovy Lázně, protected at source from 1516, was used for export in the 16th century when it was sent to European courts. In 1793, the construction of a new town replaced the earlier cluster of buildings. It was laid out initially along a central axis (founded on Baroque principles of axiality and symmetry) within which the principal functions of the spa were concentrated. From the beginning of the 19th century the spa town was further expanded, based on the principle of ideal towns, to form a regular rectangular grid within which the principal functions of the spa were concentrated. Parallel streets were densely lined with Classical, Empire and Historicist buildings in architectural unity.

The origin of Karlovy Vary dates to around 1350 and by the second half of the 15th century, its popularity as a spa expanded beyond the borders of the Bohemian Kingdom, with records of the spa's first prominent visitors dating from this period. The town was destroyed by a fire in 1604 and its reconstruction adhered to the original urban layout. Following another fire in 1759, the city was reconstructed according to late-Baroque principles. By the mid-19th century the spa quarter spread along the entire length of the valley. Its connection to the European railway network in 1870 brought further growth but the town enjoyed its greatest economic boom especially during the period 1890-1914. This led to the construction of many prominent structures, and it can be considered the largest spa complex in Europe. The municipal theatre built by F. Fellner and H. Helmer between 1884 and 1886 became a model for the construction of other theatres in Europe.

In 1779, when the springs of Mariánské Lázně were entrusted to the Czech monastery doctor Johann Josef Nehr, the valley existed in its entirely natural state. The purposeful urban planning of constructing a spa began around 1815, when the Lobkowitz artistic gardener, Wenzel Skalník, began to construct a spa park. Public green spaces became one of the most important elements forming the entire composition of the town, with the centre comprised of an expansive, natural landscape park. This spatial division of the town was completed in the 1820s-1830s by Josef Esch, forming a multiple hierarchy urban district of the spa centre, reminiscent of a classical Acropolis. The town, however, experienced its greatest building development in the period from the 1870s until World War I, when the renown of the spa reached its absolute peak. This was based on recommendations of its mineral waters by a range of world-renowned doctors as well as visits of royal family members, of statesmen and of politicians, who took treatments there.

Vichy had gained a widespread curative reputation by the end of the 16th century and its popularity with the aristocracy was high until the 18th century. In 1785, following the visit of the daughters of King Louis XV, a bathhouse and arcade housing the springs were built. The Parc des Sources, which still exists, was created in 1812 by Napoleon Bonaparte. The dominant urban structure of Vichy was born after the visit of the Emperor Napoleon III in 1861. He became the greatest patron of the town, commissioning the construction of a church, parks along the river, building chalets and ensuring a high international reputation. By the 1880s, the town and its spa buildings had become inadequate for the number of visitors, leading to further renovation projects. This included the construction of the covered galleries in the Parc des Sources (1902) and the new opera and theatre designed by Le Coeur and Woog (1898-1903).

The origins of Bad Ems as a spa town can be traced back to the Middle Ages. By 1720, the town was among the most popular spas in Germany. But the town's prominence grew further from 1806 onwards, when the State pursued a methodical expansion including re-impounding of the springs, the construction of new baths and bathhouses, the refurbishment of the Kurhaus, as well as the laying out of footpaths and promenades. From around 1820, the new administration of the Duchy of Nassau set town-planning parameters and specifications for the design of new buildings. In the 1820s and 1830s, hotels and boarding houses sprang up in quick succession, and the spa town developed the structure and neighbourhoods it has largely retained ever since.

Baden-Baden was founded by the Romans, who used its mineral waters to cure war injuries. The town kept its spa function over the centuries but after the French burnt the city to the ground in 1689, the bathing system almost came to a standstill. The city was partly rebuilt and its resurgence as a spa town was initiated with the building of the Promenadehaus and the laying out of a chestnut-lined avenue outside the city walls west of the Oos River in 1765-66. By the middle of the 19th century, increased number of visitors contributed to the southern urban expansion "Lichtentaler Vorstadt", incorporating the church buildings of different religious denominations (including Russian-Orthodox and Anglican), mansions and several hotel buildings, and the continuing development of the south-western villa quarter Beutig-Quettig. As a result of the Franco-German War of 1870-71, and the prohibition of gaming in 1872, the change from an international fashion bath to a spa and health resort took place. In the last third of the 19th century,
modern bathing palaces were created near the warm springs, replacing an old town quarter.

**Bad Kissingen** was known as a spa town from the 16th century onwards. A new Kurhaus and a spa garden were built in 1738, making it the oldest spa garden purpose-built to host promenading as part of the drinking cure, as well as leisure activities. The spa town developed methodically from 1814 onwards, contributing to it becoming a fashionable spa town, particularly in the 1830s. The central spa quarter was developed in two phases: first during the Biedermeier period in the early 19th century; then in the early years of the 20th century. The foundation of the German Reich and the establishment of a link to the railway system in 1871 gave the spa town another significant boost, leading to further urban expansion and the construction of elegant residential areas. The town however never featured a purpose-built mansion district; rather the entire town was geared for the spa business.

**Montecatini Terme** illustrates the last great flourish of the European spa phenomenon in the early 20th century. The origins of the exploitation of the waters of **Montecatini Terme** goes back to Roman times but the first nucleus of urban settlement in the central area of the spa was sketched out by order of the Grand Duke of Tuscany Pietro Leopoldo, who also ordered the building of the baths from 1773 to 1783. These were built away from an earlier settlement and were built together with a wide avenue of elm trees. This axial promenade related the baths to the surrounding landscape and a focal point in the hill top town of Montecatini Alto. Completed in 1833, the avenue became the established feature of the town, posing challenges on how to incorporate the arrival of the railway twenty years later. In 1897, the construction of a funicular railway facilitated access from **Montecatini Terme** to Montecatini Alto, where spa guests went for leisure and pleasure and where villas for medical use were also located. The beginning of the 20th century marks its conversion from a “town of baths” to a “spa town”, largely under the influence of the architect Giulio Bernardini, following a tour to other spa towns in Switzerland, Bohemia and Germany, which included Karlovy Vary and Baden-Baden. He designed a series of emblematic buildings such as Tamerici Terme or the Excelsior Thermal Baths but above all the Public Park and many small villas, which were to be a feature of the new spa town.

The golden era of the Great Spas of Europe came to an end with the outbreak of World War I. Many spa towns found themselves unable to continue as before, following such an interruption. However, several prominent spa buildings inspired by pre-war architectural trends were built or adapted even in the 1920s and early 1930s. The impact of the economic depression of the 1930s, the devastation of World War II, and widespread competition from seaside resorts, led to a dramatic decline in spa visitors. After World War II, and with the rise in state welfare, spa treatment became commonly available under state medical systems, and balneology, hydrotherapy and physiotherapy underwent major developments. Today, with the rise of modern medicine, such types of treatment are no longer covered by most national health services. However, thermal resources still contribute significantly to new approaches to wellness and to recreational and cultural tourism.

**Boundaries**

As presented in the nomination dossier, the area of the nominated property comprising the eleven components totals 7,006 ha, with buffer zones of 11,327 ha.

Overall, the boundaries of the component parts have been drawn to include: the most important spa structures and buildings used for thermal related activities; the social facilities and buildings for leisure and pleasure; accommodation facilities such as hotels, guesthouses and villas; related spa infrastructure such as railway stations, funiculars, mineral water bottling plants and salt extraction factories; and the surrounding therapeutic and recreational spa landscape.

The combination of these elements varies considerably among the component parts of the nominated property, particularly in terms of the extent of the accommodation and recreational areas. Consequently, there is considerable difference in the size of the component parts.

While the boundaries of the nominated property have been drawn taking into consideration the mapping of the attributes that convey the proposed Outstanding Universal Value of the nominated property, in some cases the boundaries of the nominated property only slightly differ from existing administrative and protective boundaries. Therefore, in its Interim Report, ICOMOS requested the States Parties to consider if the boundaries could be revised to coincide with existing designations in order to facilitate management. In the supplementary information submitted on 25 February 2020, the State Party of Austria expressed the willingness to improve the boundaries of the component part of **Baden bei Wien**; however, for legal reasons it was not possible to submit the revisions by the deadline of 28 February 2020. ICOMOS recommends that Austria adopt the revised boundaries of the property in the Mitterberg and Badener Berg areas in **Baden bei Wien** and extend the protection zone under the Construction Plan to include the entirety of the property in this component part.

ICOMOS also noted that some of the boundaries of the component parts of **Vichy and Montecatini Terme** were drawn along the axis of streets, hence it requested the respective States Parties to consider changing the boundaries to include both sides of the street to reflect the coherence of the street as an urban element. In the case of Montecatini Terme, the State Party of Italy confirms that the boundaries of this component that ran down the middle of main streets were moved in order to include both sides of the streets. However, ICOMOS notes that in the new maps submitted with the
supplementary information, the revised boundaries still exclude the buildings and building plots on the other side of the street. Therefore, ICOMOS recommends that the boundaries of the property that are still drawn along streets in Montecatini Terme be adjusted to include the building plots on the other side of the street and extend the protection statute to the entirety of the property in this component part.

In the case of Vichy, in addition to the issue of some boundaries drawn down the middle of streets, ICOMOS recommended that the boundary of the component be adjusted to include the railway station, since it served as a pivotal point in the extension of the town between the station and the river, and the central axis which connects the railway station with the town centre. The State Party of France submitted new maps, presenting the new boundaries incorporating the suggested urban elements. ICOMOS highly appreciates the efforts and notes that due to this change, the total area of the nominated property and buffer zones will need to be revised accordingly.

The City of Bath is already inscribed in its own right on the World Heritage List and its inclusion as part of the serial nominated property is based on the same boundaries. Hence, the area proposed is considerably more extensive than any other component part of the series but is also not closely defined in relation to the mapping of the attributes of the proposed Outstanding Universal Value, as in the case of the other components of the nominated property. Hence, ICOMOS’ Interim Report requested further information on the rationale used for defining the boundaries of this component. The State Party of the United Kingdom responded that for reasons of effective management it is proposed that the two boundaries of the already inscribed property and the serial component are the same. While ICOMOS acknowledges the rationale for this choice, it underlines the fact that strict implementation of the protective measures to maintain the integrity of both the Roman structures and the attributes related to the Great Spa component should be ensured.

Buffer zones for the components of the nominated series are drawn both for the direct protection of the nominated property and for the specific protection of spring catchments and of important wider settings. A distinction was made on whether parts of the surrounding landscape are included in the nominated property or the buffer zone. Where the areas of spa forests or landscaped parkland contain tangible attributes such as structures and other features, these areas are incorporated in the property; where such forested and park areas represent mainly “protective” areas they form a buffer zone. In addition, the delineation of the buffer zones also takes into consideration existing boundaries of different levels of conservation and protected areas, resulting in some cases in a complex mosaic of protection and management arrangements.

All component parts include buffer zones (some quite extensive) with the exception of the City of Bath. However, this component is surrounded by a designated Green Belt which seeks to protect the open landscape around the City while the Cotswold Area of Outstanding Natural Beauty abuts the City to the north, east and south.

The ICOMOS technical evaluation mission noted that the northern boundary of the buffer zone of Karlovy Vary does not ensure sufficient protection from future development, particularly from a visual perspective, and suggested it should be extended. Therefore, in its Interim Report, ICOMOS asked about the possibility of doing so. The State Party of Czechia declared it would be prepared to revise the buffer zone; however, no new maps were submitted in this regard, as part of the supplementary information. ICOMOS recommends that the northern part of the buffer zone of Karlovy Vary be extended to ensure adequate protection from future development, particularly from a visual perspective.

The buffer zone of Vichy was also revised to take into consideration the changes to the boundaries of the nominated property in this component. The new delimitation takes into consideration the perimeter of the national designation as “Site patrimonial remarquable” (Outstanding Heritage Site). As a result, in some parts, the newly-defined boundaries now coincide with the boundary of the nominated property of this component. In the supplementary information, the State Party of France noted its willingness to further extend the buffer zone – based on the existence of protected perimeters around existing historic monuments (radius of 500m) – but that this was unfeasible by the deadline of 28 February 2020. ICOMOS recommends that the buffer zone around the train station in Vichy be extended, taking into account the protected perimeters of the surroundings of existing historic monuments.

State of conservation
Several component parts were destroyed by fires over the centuries leading to subsequent reconstructions that contributed to the development of the urban settlements as spa towns. In other cases, parts of the settlements were destroyed to make way for such developments. After World War II, there was a dramatic decline in spa visitors; however, in most component parts, spa functions endured, supported by upgrades and redevelopments in order to keep pace with standards of services and hygiene as well as a growing shift from a medical to a wellness approach in recent decades. Some components, such as Vichy and Bad Ems saw, nevertheless, a decline in the spa business, leading to neglect and inappropriate maintenance measures and conversions in the second half of the 20th century.

In recent years, in some component parts, spa functions have been moved to modern facilities and historic buildings and structures have undergone extensive conservation, sometimes to facilitate new uses. The need for regular updating of spa technology and practices sometimes creates tensions with the desired
conservation of historic spa buildings. Extensive works are planned in the coming years as attested by the number of development projects submitted as part of the nomination dossier.

A large proportion of the spa buildings and buildings related to leisure and pleasure retain their original function, following renovations and adaptations over the years. However, challenges of technical upgrading need to be cautiously addressed.

The adaptive reuse of the spa and leisure buildings has been carried out in some component parts: the Frauenbad baths and Josefsbad baths in Baden bei Wien have been converted to an exhibition centre and restaurant, respectively; the Casino in Vichy is now the Palais des Congrès; the Vier Türme bathhouse in Bad Enns is now used as a theatre and restaurant; and the Former Luitpoldbad in Bad Kissingen has been converted into an administrative building with exhibition rooms. Likewise, some hotels and villas have been converted into apartments due to a decline in demand from their heyday.

The poor state of conservation of some buildings, such as the Sommerarena in Baden bei Wien, the Waux-Hall (the interior part) in Spa and the Untere Saline in Bad Kissingen, needs to be mentioned and their conservation should be given priority.

Other buildings are currently vacant and await a new function, as in the case of the Anciens Thermes in Spa, Kavkaz Spa House in Mariánské Lázně, the upper station of the Malbergbahn funicular railway in Bad Enns, and the Neues Schloss in Baden-Baden. In Františkovy Lázně and Mariánské Lázně, the façades of several historic buildings have been painted in unsuitable colours, during the socialist period.

Despite some challenges, based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation of the built fabric is overall satisfactory. Formal gardens, urban parks and promenades are overall in a good state of conservation.

Factors affecting the property
Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development and tourism pressures.

Concerns over the modification and reuse of historic buildings and structures, including changing the building height and other construction dimensions, are noted in several component parts. Health and security requirements and/or legal prescriptions can also lead to functional changes in the traditional use of some spa buildings and infrastructure, or even to their abandonment, with potentially undesirable consequences for the functional integrity and the state of conservation of typical spa elements.

Further densification and real estate pressure on unbuilt-upon plots are also reported in Spa, Bad Enns, Baden-Baden, Bad Kissingen and the City of Bath. The architectural quality of the design of new structures is also a concern in Spa and the City of Bath.

A considerable number of development projects were submitted as part of the nomination dossier. Hence, in its first request for additional information in October 2019, ICOMOS informed the States Parties that it could not analyse these projects in detail during the evaluation process nor comment on their potential impacts on the nominated property. The technical evaluation mission had an opportunity to analyse some of the proposed developments, although only at a superficial level, and made some recommendations. ICOMOS notes that the assessment of the different development projects and their potential cumulative impacts would need to be done through an ad-hoc process.

The adverse effects of car parking and traffic density are also a matter of concern in several component parts, namely Karlovy Vary, Vichy, Bad Enns and the City of Bath. Wind turbines outside the buffer zone of Bad Kissingen also pose challenges to the protection of the broader setting of this component part.

Although there is long-standing experience in visitor management in all component parts, tourism pressures still raise concerns, particularly following a potential increase in visitor numbers if the nominated property were to be inscribed on the World Heritage List. Several component parts do not yet have a consistent methodology for measuring visitor numbers, and other relevant statistical data is only available for nine components. In most cases, available data makes it difficult to distinguish between visitors visiting for therapeutic reasons, which involve longer stays, or wellness and tourism purposes.

Pressures for changing the use of residential buildings, such as homes converted to hotels and guest houses, as well as retail activity to cater for visitors, are also noted by the States Parties. However, the nomination dossier does not include any information on how such pressures are currently being dealt with.

3 Proposed justification for inscription

Proposed justification
The serial nominated property is considered by the States Parties to be of Outstanding Universal Value as a cultural property for the following reasons:

- The nominated property constitutes the only example of urbanisation around a medical practice, creating a new urban typology with a specific form, function and architecture that has no earlier parallel;
• The Great Spas of Europe epitomise the grandest and most international resorts of the many hundreds of towns that are testimony to the European spa phenomenon that flourished from around 1700 to the 1930s;
• The series illustrates the geographical spread of the phenomenon, through time, and continued function as the embodiment of a living tradition;
• The nominated property is testimony to the exchange of ideas and values in the development of balneology, medicine, arts and leisure activities. Developments within the nominated property also influenced the early development of sea-bathing, climatic, and gaming resorts throughout the world and played a significant part in the origins of modern tourism.

Comparative analysis
The comparative analysis is presented in three parts. The first part explains the framework for comparison that was used and consists of a basic thematic study on geo-cultural areas of thermalism. It starts by analysing different bathing traditions throughout the world, such as the Japanese onsen and the thermal hammams in Turkey and North Africa. It then looks at the diffusion of the European spa phenomenon worldwide, namely in the Americas, New Zealand and North Africa. The influence of the spa phenomenon on the creation of other European health and leisure resorts (e.g. climatic health resorts and seaside resorts) is also examined. This part of the comparative analysis closes with further information on chronological aspects of the development of spa towns and the linkages between those towns during the period of around 1700 to the 1930s and in terms of their geographical distribution in the most dynamic regions of Europe.

The second part of the comparative analysis sets out the rationale for choosing the components by looking at principal spa towns in Europe that are already inscribed on the World Heritage List and on Tentative Lists, as well as sites not yet included in either of these lists. It also sets out the criteria for selection of potential comparisons, mainly by looking at 18th and 19th century European spa towns with an international character. A detailed review was carried out by an international group of experts, which led to a first selection of around 40 spa towns, subsequently reduced to 16 and finally to the 11 component parts that constitute the series.

Comparisons are then presented based on the following criteria: completeness of attributes in terms of Outstanding Universal Value; international standing and influence; satisfactory degrees of integrity and authenticity; still-living tradition as a spa town; and significant contribution to the Outstanding Universal Value. Comparisons are presented in terms of European sub-regions, for a total of 47 sites, with brief explanations why certain towns were retained as part of the series and others not.

The third part of the comparative analysis presents the conclusions. It is considered that the nominated property fills a gap on the World Heritage List, as spa towns are essentially different from other urban settlements since they were intended, built and managed expressly for health and leisure. The use of mineral waters in other regions is also considered very distinct from that of the European spas.

ICOMOS requested further clarifications in relation to the justification of the serial approach and the selection of the components both in its request of 09 October 2019 and its Interim Report on 20 December 2019. The first request focused on the precise elements and benchmarks that were used to assess the international standing and influence of the spa towns, one of the main criteria for the comparative analysis; the second, on how the ranking against a set of defined criteria, considered quite broad, was made. The States Parties provided detailed information regarding the analysis of historical references as well as the methods used by the international group of experts to select the final series.

Whilst the methodology used could have been based on more detailed criteria, ICOMOS considers that the comparative analysis presents a structured approach that clearly explains the rationale and the selection of the eleven component parts. ICOMOS also considers that the comparative analysis outlines the reasons that make the nominated serial property stand out in terms of the geo-cultural area (i.e. Europe) both for how those towns developed around the combination of medical use of the mineral waters with entertainment, social and leisure activities, and as the most international and complete representatives of how that spa phenomenon flourished from ca 1700 to the 1930s.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The serial property is nominated on the basis of cultural criteria (ii), (iii), (iv) and (vi).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the States Parties on the grounds that the nominated property is testimony to the exchange of innovative ideas that influenced the development of modern European towns from the 18th century to the early 20th century, including pioneering urban planning and architectural prototypes, together with an intimately associated development of medicine, arts and leisure activities.
ICOMOS considers that the nomination dossier and the supplementary information provided present little evidence on what the innovative character of those planning ideas is or how those ideas are tangibly embodied in the attributes of the nominated property. Most of the spa towns evolved organically from earlier settlements, with consequent developments throughout the centuries, but only a few can be said to have been truly planned. Even in the component parts where major planned spa developments took place, it is unclear how they could be considered outstanding from a planning perspective.

On the other hand, ICOMOS considers that the nominated serial property presents an important interchange of human values in terms of developments in medicine, science and balneology, and that this is tangibly expressed in the physical attributes of the nominated property in terms of the spa architecture, town-planning and landscape design. In ICOMOS’ view, the claim that some of these physical elements constitute architectural prototypes in their own right cannot be accepted as exceptional; instead, ICOMOS concurs that the spread of influences in terms of architecture between the component parts and between the nominated property and other spa and leisure resorts in Europe and other regions can be said to be outstanding in terms of the influence it had during the period of ca.1700 to the 1930s. Therefore, from this perspective, ICOMOS considers that criterion (ii) is justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the States Parties on the grounds that the nominated property bears exceptional testimony to the conscious care for human health that developed around natural mineral springs. This tradition was born of a remarkable cultural and social phenomenon which flourished from the 18th century to the early 20th century, and which continues to thrive today.

ICOMOS considers that if the cultural traditions expressed by the nominated property were the conscious care for human health that developed around natural mineral springs it cannot be considered that this tradition was born of the phenomenon that flourished during the timeframe considered but that it existed well before that. Moreover, the selection of the component parts would need to be different than the series proposed and could even extend beyond the geo-cultural area of Europe.

ICOMOS therefore considers that the cultural tradition that flourished from the 18th century to the early 20th century is the regime of ‘taking the cure’, including its associated leisure and social activities. In this regard, ICOMOS requested further information regarding the extent to which this tradition can still be considered to be living and to reflect a medical use as opposed to wellness activities linked to a modern tourism industry. Despite the detailed responses provided by the States Parties, ICOMOS considers that there is a contradiction between the rationale presented for the selection of the component parts associated with the timeframe of ca.1700-1930s and the claim that the regime of ‘taking the cure’ can still be seen as a continuing living tradition in an exceptional way.

In addition, ICOMOS notes that in several components, the spa functions have been relocated to modern facilities, such as the City of Bath where there is no long-term thermal stay anymore. In their response, the States Parties also state that after the 1930s, the pan-European spa phenomenon was different and does not conform to the proposed Outstanding Universal Value. In ICOMOS’ view the continuous function and use of the spa facilities is important but cannot be said to be an attribute of the proposed Outstanding Universal Value.

ICOMOS considers that the nominated property justifies criterion (iii) but as an exceptional testimony to the regime of ‘taking the cure’ and the European spa phenomenon that flourished from the 18th century to the early 20th century.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the States Parties on the grounds that the nominated property is an outstanding example of a specific settlement type, a new urban typology centred on natural mineral springs and devoted to health and leisure, that flourished from around 1700 to the 1930s. This developed to include architectural prototypes that are spatially arranged according to the distribution of springs and the regime of ‘taking the cure’.

ICOMOS considers that the nominated property displays a defined type of mono-functional urban typology but that this typology cannot be considered to be of an outstanding nature, particularly since the size and urban layouts of the different component parts vary significantly. In addition, the timeframe proposed is unequally reflected in the dates of the urban forms in most of the component parts.

ICOMOS also notes that only some buildings like the ‘trinkhalle’ (drinking halls) and pump rooms, designed for drinking mineral waters, can be recognised as partly defined new types of buildings. For the most part, existing architectural forms were used and adapted and therefore cannot be considered as outstanding examples of a type of building. In terms of bathing, no new and clearly identifiable architectural forms emerged. ICOMOS also notes that the justification of this criterion repeats some of the arguments provided under criterion (ii) and that these arguments are better.
captured by criterion (ii). ICOMOS therefore considers that this criterion has not been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the States Parties on the grounds that the nominated property comprised politically neutral nodes in an international network of health and leisure, in which these spa towns became vectors of a transnational culture. Elements of the nominated property are associated with, and directly linked to, social, political and cultural ideas that helped to shape European democratic traditions and ideals.

ICOMOS considers that some spa towns were already included as part of the Grand Tour in the 17th century and that places and structures entirely devoted to the leisure pursuits of the society were introduced in many other settlements from the 18th century onwards. Whilst spa towns became fashionable for the wealthy and influential as well as artists, writers, playwrights, poets and composers, these people also patronised and visited many other places as part of a nascent modern tourism industry.

ICOMOS considers that, individually, several of the component parts were associated with events, artistic works and social and political ideas. However, the nomination does not clearly set out how the same could be said for the series as a whole nor how those events and works could be considered of outstanding universal significance when compared with similar dynamics and the internationalism of leisure resorts in Europe in the 18th, 19th and early 20th centuries. Therefore, ICOMOS considers that criterion (vi) has not been justified.

ICOMOS considers that the nominated serial property justifies criteria (ii) and (iii) but that criteria (iv) and (vi) have not been justified.

**Integrity and authenticity**

Integrity

The integrity of the nominated property is based on the evidence related to the European spa phenomenon expressed through the mono-functional urban typology of the spa town and distinctive characteristics of a ‘great’ European spa. As a serial nomination, integrity is also a measure of if the combination of component parts contains all the attributes necessary and how each component part contributes to the proposed Outstanding Universal Value of the property as a whole in a substantial and discernible way. Furthermore, it is necessary to consider the extent to which the nominated property is affected by adverse effects of development and neglect as well as how other pressures are managed.

ICOMOS considers that the concept of ‘spa town’ is at the centre of the definition of the proposed Outstanding Universal Value of the nominated property. Therefore, in its requests for supplementary information, ICOMOS noted that a number of different notions were used interchangeably throughout the nomination dossier, such as ‘spa town’, ‘historic urban landscape’, or ‘urban ensemble of the spa town’. Therefore, ICOMOS asked the States Parties to clarify how the term ‘spa town’ could be used to consistently describe all the component parts, particularly since considerable differences exist between the component parts in terms of size and urban layout. The States Parties replied that the boundaries of all component parts correspond to the boundaries of the spa towns within the timeframe of ca. 1700-1930s but also that this is the term used for places known for their spa function, particularly amongst the local communities. ICOMOS considers the arguments presented are valid and that consequently this term should be reflected in the English title of the nominated property. At present, the English title proposed only refers to ‘spas’ which ICOMOS considers could be applied to a wider variety of places than those reflected in the nominated property. Therefore, ICOMOS considers that the English title of the property could be changed to ‘The Great Spa Towns of Europe’. This changes of the title in English does not imply changes in the French name proposed in the nomination dossier ‘Les grandes villes d’eaux d’Europe’, which already take the urban dimension into consideration.

Assessing the integrity of the nominated property as an exceptional testimony to the European spa phenomenon, which gained its highest expression from around 1700 to the 1930s, is also a matter of gauging the geographical spread of the phenomenon, through time. ICOMOS notes that from a geographical perspective, the use of mineral waters within the geo-cultural area of Europe is much wider spread than what is reflected in the nominated property. Likewise, the use of mineral waters has its roots in antiquity, namely in some of the component parts such as City of Bath and Baden-Baden that have springs known to ancient tribes and the Romans. However, as the focus of the nomination is on the spa phenomenon that flourished within the timeframe defined and how these towns developed around a combination of health, leisure and social activities, ICOMOS considers that this phenomenon is indeed best represented by the series presented. The component parts represent the most international and influential places in terms of the flow of ideas of the medical use of mineral waters, balneology and related spa architecture, planning and landscape design. As a whole, the series demonstrates all stages of the development of the spa phenomenon, starting with the most influential spa towns in the 18th century (e.g. the City of Bath and Spa), to the development of model spa towns such as Vichy and Františkovy Lázně, to towns that are testimony to the last stages of the phenomenon in the early 20th century, such as Montecatini Terme.

In terms of wholeness and intactness, all the component parts maintain the urban layout that emerged during the period concerned to a remarkable degree.
Individually, based on the observations of the ICOMOS technical evaluation mission, none of the component parts is currently threatened by deterioration or neglect. However, as mentioned before, it is not possible for ICOMOS to assess the potential impacts, as well as their potential cumulative effects, of the different development projects submitted as part of the nomination dossier, during the evaluation process. Some of these developments were briefly discussed during the technical mission. It is considered that the reuse as a multi-functional complex of the Ancien Thermes in Spa, which includes new constructions, will affect the historic spa nucleus; however, given the challenging situation, it is seen as a narrowly accepted intervention. In Bad Ems, the intention to erect three apartment blocks in the south area near the railway station should be critically assessed in terms of the volumes, architecture, forms and materials. In Bad Kissingen, the extension and reuse project for the Fürstenhof and neighbouring Villa Gordon, which will involve the construction of a huge undulating tower of steel and glass, could have considerable visual impact. In the City of Bath, the execution of the Rugby Stadium plans in their current size and form is undesirable as they will clearly have a great impact on the integrity of the historic townscape.

From a functional integrity point of view, ICOMOS further notes that in several component parts, spa functions have largely been moved to modern facilities, that many historic spa buildings have already been adapted to new uses, and that more adaptations are planned. Some buildings remain vacant and await new functions.

**Authenticity**

The authenticity of the nominated property is based on whether the proposed Outstanding Universal Value is truthfully and credibly expressed, namely through form and design, materials and substance, use and function, traditions, and location and setting.

ICOMOS considers that in terms of form and design, the urban layouts of the spa towns as well as their therapeutic and recreational landscapes are to a high degree intact. However, in some component parts, some 20th and 21st century constructions are of mediocre architectural quality and not well integrated with the historic built fabric. The adaptive reuse of some historic buildings has led to changes to their interiors which cannot be seen as fully authentic in terms of design, materials and substance. Some of the planned development projects also raise issues in this regard.

In terms of use and function, current health and security regulations contribute to the loss of the original function of some of the historic buildings. Mineral water sources continue to be used for spa functions and in some component parts, visitors can still freely serve themselves, drinking from continuously available sources.

The setting of the spa towns in terms of open spaces and surrounding recreational and therapeutic landscape has been retained.

In conclusion, ICOMOS considers that the conditions of authenticity and integrity have been met for the series as a whole and for the individual components, but that the high number of development projects received during the evaluation process raise some concerns about potential adverse effects on the conditions of integrity.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the comparative analysis demonstrates that there is scope for the inscription of the nominated serial property on the World Heritage List, that criteria (ii) and (iii) have been justified, and that the conditions of authenticity and integrity for the selected components and the series as a whole have been met. However, the high number of development projects received during the evaluation process raise some concerns about potential adverse effects on the conditions of integrity.

**Attributes**

The attributes of the nominated property that convey the interchange of ideas related to the medical use of mineral waters, balneology and spa architecture, and the testimony to the spa phenomenon that flourished between ca.1700 and the 1930s, include the urban layouts of the spa towns and the buildings associated with the spa, leisure and social functions, as well as the related infrastructures.

Although the structure and spatial layout of each component part vary, they share common elements that define them as spa towns: namely their mono-functional typology, a distinct spa quarter centred on the springs from which other zones with specific features radiate outwards, and their surrounding therapeutic and recreational spa landscape. The location and topographical setting of each spa town influence its form and character.

The springs (mineral water sources/outlets), the qualities of the mineral waters (capacity/flow rate, pressure, purity, chemical composition, temperature, taste, and clarity) and the use of the waters both externally (e.g by bathing) and internally (e.g by drinking) for treating specific conditions are also important attributes. So is the duration of the treatments and the regimes associated with them.

Ensembles of spa buildings include the ‘kurhaus’ and ‘kursaal’, pump rooms, drinking halls (‘trinkhalle’), colonnades and galleries designed to harness the natural mineral water resources and to allow their practical use for bathing and drinking. The attributes related to this spa architecture include both the physical structures as well as their traditional use and function.
The social facilities and buildings for leisure and pleasure include conversation, assembly and reading rooms as well as casinos, theatres, opera houses, concert halls and music pavilions associated with the timeframe defined. Similarly, the accommodation facilities dating from the same period, namely hotels, lodging houses and villas, help to convey the Outstanding Universal Value of the nominated serial property.

Attributes also include a range of supporting infrastructures that contributed to the spa phenomenon, such as railway stations, funiculars, spring water bottling facilities, salt extraction and production facilities, and spring water pumping stations and supply pipelines.

In terms of the therapeutic and recreational landscape, attributes include recreational parkland and pathways, designed woodland walks, rides and drives, hillside trails, restaurants, cafés and bars in the spa landscape, sports facilities (e.g., golf courses, tennis courts, horse racecourses) as well watchtowers, viewpoints and vistas.

ICOMOS considers that the attributes are well identified and will be a solid basis for the management of the serial property.

4 Conservation measures and monitoring

Conservation measures
All component parts have well-established measures for the protection of springs and water sources. Regarding the buildings with spa functions, upgrades and redevelopments in order to keep pace with standards of services, hygiene and new spa technology can create tensions with their conservation as historic buildings. Challenges of adaptive reuse and technical upgrading of industrial structures (such as bottling plants, funiculars and railway stations) need also to be cautiously addressed. Again, ICOMOS notes that the high number of development projects submitted during the evaluation process will need to be addressed through an ad-hoc process.

As spa towns, conservation measures are linked with spatial planning measures and the designation of the urban ensembles as conservation areas. All component parts benefit from a wide range of planning instruments, which establish rules and regulations in terms of demolitions, what areas can be urbanised or not, scale, height and mass of new constructions, etc. Financial incentives to support conservation exist in some of the component parts (e.g., Baden bei Wien, Spa, Karlovy Vary); however, they are mostly limited to listed buildings.

ICOMOS considers that spatial planning measures that take a holistic approach to the spa town from a heritage perspective are also important to address densification, real estate pressure on still unbuilt-upon plots, growing traffic pressures and demand for more parking areas. Such approaches should extend to the landscape level, and take into consideration the relationship between the nominated property, the buffer zones and the broader setting to consider potential visual (or other) impacts such as the installation of wind turbines (as in the case in Bad Kissingen).

Monitoring
Monitoring at the level of each component part is based on existing systems in the respective State Party. ICOMOS understands that mineral springs are regularly monitored but that, at present, monitoring of the built fabric is mainly limited to listed buildings.

To monitor the nominated property as a whole, the States Parties have developed a common format for assessing the state of conservation of all the component parts. This format is structured around the desired state of conservation of the key groups of attributes and detailed in a number of measures, which in practice correspond to the monitoring indicators. ICOMOS in its Interim Report noted that some of these indicators seem quite difficult to assess, such as “character of spa historic urban landscape to remain unchanged” or, in relation to the therapeutic and recreational landscape, “links to remain unchanged”. Similarly, concerns were raised in relation to monitoring indicators related to tourism. The proposed periodicity for some of the monitoring measures (e.g., twice within each Periodic Reporting cycle) also looked insufficient.

The States Parties’ reply acknowledges the need to develop further the monitoring methodology, and that this is already included as one of the actions planned in the Management Plan.

ICOMOS considers that the proposed common monitoring format for all component parts is well conceived and structured, and welcomes the States Parties’ willingness to detail it further. Hence, ICOMOS recommends expanding the monitoring indicators in relation to the main factors affecting the property, namely re-use of historic buildings and the densification of the urban fabric. In terms of the attribute called “continuing spa function”, an indicator such as “number of people taking the cure and duration of stay” from a therapeutic and medical perspective could provide better information than just the number of accommodation units. Although tourism is a well understood activity within the spa towns that constitute the nominated property, ICOMOS considers that the potential effects from increased visitor numbers, if the serial nominated property were to be inscribed on the World Heritage List, should not be underestimated. Therefore, ICOMOS advises to monitor changes in use of residential buildings and take into account the potential social effects of phenomena such as Airbnb; likewise, changes from traditional commercial uses to tourism activities should also be taken into account.
Recalling the number of development projects submitted during the evaluation process, monitoring the “number of applications for consent for new developments” is critical but the quality of the projects should also be a key point; particularly since this was noted as a factor affecting some of the components.

ICOMOS considers that present conservation measures are appropriate and that the monitoring programme proposed is well structured but should be further developed, namely by detailing some of the monitoring indicators to make them more measurable and by expanding the indicators in relation to the factors affecting the nominated property, the continuing spa function, and the potential effects of increased tourism.

5 Protection and management

Documentation
Comprehensive archives and records are maintained for each spa town. These include building surveys and inventories, spring inventories and collections of maps, plans and photographs. Most information is available in databases from the national heritage authorities and the municipalities. Older documents can be found in local building archives and local museums.

The nomination dossier builds extensively on historic records, namely maps and photographs. Accurate and detailed maps were provided for all component parts.

Legal protection
The nominated property is composed of eleven towns in seven European States Parties, some governed on a federal basis with laws and regulations relating to heritage and environmental protection being determined at the Länder level, or on a regional basis rather than a national one. Therefore, there is considerable diversity among the legal frameworks in place for each component part. Due to limitations on the length of evaluation reports, this section only provides a short summary of the most relevant aspects.

Because the proposed Outstanding Universal Value of the nominated serial property is linked to the definition of the components as spa towns, ICOMOS considers that the legal protection of the urban ensembles in their entirety is essential. ICOMOS noted that while the three Czech components are protected in their entirety as Urban Heritage Reserves and that the component part of Vichy is part of the Site patrimonial remarquable, the other component parts did not seem to be protected in their entirety in similar ways. Therefore, in its Interim Report, ICOMOS asked the States Parties if legal protection could be extended to the entirety of all or most component parts.

In the supplementary information provided, the State Party of Belgium has agreed to extend the urban conservation area (ZPU – zone protégée en matière d’urbanisme) of Spa. The State Party of Germany mentioned the existence of a cultural monument zone ‘Historic Spa Bad Ems’ and that it protects the entire developed area of the component part in accordance with the Protection of Cultural Heritage Act. Similarly, it is noted that the municipality of Bad Kissingen is currently considering the possibility of expanding the ‘Ensemble’ to include the entire building stock of the component, which would therefore be included under the legal status of monuments. No information on this request was received in relation to the component parts of Baden bei Wien and Montecatini Terme, which posed similar issues. ICOMOS acknowledges that this type of request may require lengthy administrative procedures and can be challenging to achieve within the deadline for submitting the supplementary information, but considers that this should be implemented at the soonest.

ICOMOS in its Interim Report also noted that in a number of component parts, their buffer zones seemed to be mainly protected by a mosaic of environmental and natural designations and instruments. Therefore, it asked for a concise explanation on how the buffer zone of each component part is protected, from a legal and cultural heritage perspective, and if such measures cover the buffer zone in its entirety. Based on the detailed responses of the States Parties for each component, ICOMOS considers that given the variety of national, regional and local protection systems, it is acceptable that different approaches exist. Overall, the legal and planning measures for the buffer zones are considered satisfactory; however, it is important to ensure that the entire area of the buffer zones is covered by the existing measures and that no legal or planning gaps exist.

Management system
The States Parties have established an overall management system for the nominated property as a whole, with a Property Management Plan (PMP) complemented and supported by Local Management Plans (LMP) for each of the eleven component parts.

This overall management system is overseen by an Intergovernmental Committee (IGC), made up of representatives of the States Parties. The IGC will be responsible for coordination with the World Heritage Centre and the Advisory Bodies and will meet once a year. A Great Spas Management Board (GSMB), composed of the most senior official from each component part, will be responsible for the operational coordination and overall management of the property in close consultation with the IGC. The Board, which will meet at least twice per year, sets up the annual budget for the overall management of the property and establishes and employs the Secretariat to support the whole system. The work of the Board and the Secretariat is funded centrally through annual contributions received directly from the participating spa town authorities known as the ‘common budget’. A Site Managers Group drawn from the site management of each component will oversee the implementation of the Property Management Plan and its harmonisation with the Local Management Plans; this group is expected to meet at least three times per year.
The status of the Overall Management System is to be agreed, updated and approved by the GSMB on a six-year basis. The GSMB must be consulted on the development of the action plans contained in the Local Management Plans and each component part is to report on their implementation annually, with the revision of the LMPs being formalised on a six-year cycle.

Work on the nomination began in 2011 and the experience gathered throughout the process provided a firm foundation for further development of a comprehensive management system for the nominated property. However, the overall management system remains untested, and partly still “under construction”. Consequently, as acknowledged by the States Parties in the nomination dossier, it might need to be modified and developed as further experience is gathered. ICOMOS considers that from a conceptual viewpoint the overall management system is well conceived but its effectiveness will need to be evaluated in the future, not only as a coordination structure but also in relation to the overall management effectiveness of the nominated property as a whole.

Responsibility for the protection and management of each of the component parts of the property rests with the national/regional government and local authorities of the respective State Party. Local Management Plans for each component part were submitted as part of the nomination dossier, some still as draft documents. Therefore, ICOMOS in its Interim Report requested the States Parties for further information on the current status of the development of the LMPs, when they were expected to start being implemented as well as their legal status and articulation with other existing planning documents. The supplementary information provided by the States Parties in this regard presents quite a diverse array of situations. LMPs are already being implemented at Baden bei Wien, Spa, Baden-Baden, Bad Kissingen and Montecatini Terme. At Vichy and Bad Ems, the LMPs have been approved but implementation is yet to start. The LMPs for the three Czech components are still waiting to be approved. Thus, in practice, the implementation of the LMPs will follow different management cycles. ICOMOS also notes that not all the action plans included in the LMPs follow the six-year cycle proposed for the Property Management Plan that applies to the nominated property as a whole. As such, it is important to establish a date to harmonise the management cycles for all component parts in order to implement the Property Management Plan and the LMPs in a coordinated way. This approach should also take into account the periodicity of the common monitoring programme.

A draft LMP has been prepared for the City of Bath, in line with the other component parts. However, since this component is already inscribed in its own right on the World Heritage List, it already has a management plan, currently in its third iteration (2016-2022). ICOMOS therefore considers that to facilitate management, and as suggested in the supplementary information submitted in February 2020, if the property were to be inscribed, the two management plans should be merged and the component part managed for both Outstanding Universal Values it conveys, particularly since the argument to propose the same boundaries was to facilitate management.

ICOMOS notes that the content, quality and legal status of the LMPs vary significantly. Given that the component parts are located in seven different countries, it is understandable that the legal requirements are different. However, ICOMOS considers that, where possible, LMPs should have a legal status and where not, they should be formally approved by the respective authorities. Independently of their legal standing, all plans should be fully articulated with existing planning documents, and necessary human and financial resources for their implementation should be allocated.

ICOMOS in its Interim Report also asked the States Parties for an update on the appointment of the site managers/coordinators. The States Parties’ reply is unclear as to whether site managers are already in place for Baden bei Wien, Bad Ems and Montecatini Terme. In Bad Kissingen, the position has been created but is not occupied yet and in Františkovy Lázně and Vichy, site managers are in place but only on a part-time basis. ICOMOS considers that site managers/coordinators should be appointed as soon as possible to ensure daily management for the sites.

As mentioned before, ICOMOS is concerned with the high number of development projects received with the nomination and has informed the States Parties that it cannot assess these projects in detail nor their potential impacts on the nominated serial property during the evaluation process. In addition, the ICOMOS technical evaluation mission expressed concerns over intentions to develop a new rugby stadium together with an urban rearrangement of the Western Riverbank in the City of Bath. Again in this component part, the mission also noted potential dangers deriving from Policy B4, which determines that where development has a demonstrable public benefit, this benefit will be weighed against the level of harm to the Outstanding Universal Value of the World Heritage Site. The potential visual impacts of wind turbines in the broader setting of Bad Kissingen and potentially in the broader setting of Baden-Baden were also mentioned by the technical evaluation mission. ICOMOS considers that Heritage Impact Assessment procedures should be introduced into the management system of each component part to address the potential impacts of development projects.

ICOMOS considers that the potential impacts of the development projects should be carefully examined, both individually and for their potential cumulative effects on the nominated property as a whole. ICOMOS suggests that mechanisms in this regard are set-up within the overall management system developed for the whole property, potentially by requesting the involved States Parties to submit potential projects to the examination of the Great Spas Management Board.
**Visitor management**

All component parts have long-standing experience of providing services to large numbers of domestic and foreign visitors. Not all components have visitor management plans per se but their Local Management Plans include objectives and actions on the welcoming and management of visitors. The nomination dossier recognises that a more coherent approach to visitor management across the whole property is needed, if the property were to be inscribed on the World Heritage List.

The Property Management Plan specifies five management objectives in relation to tourism, namely: to establish a standard format for the collection of tourism and spa user data across the component sites on an annual basis; to monitor the impact of changing social welfare and public health services; to monitor the provision of new visitor accommodation in the spa towns; to create a multi-language website for promotional purposes; and to create a forum for the spa town tourism officers to share best practice and experience. These objectives are detailed through specific actions included in the action plan of the Property Management Plan. In addition, the Site Managers Group has a dedicated sub-group to deal with tourism issues.

The Property Management Plan also includes actions related to the implementation of overarching interpretation strategies and the production of a common guide. ICOMOS notes that the needs and expectations of health visitors might be different from those of tourists in general and that this should be taken into consideration when developing tourism and interpretation strategies.

**Community involvement**

Throughout the nomination process, events have been organised in all component parts to inform the local communities of the nomination. ICOMOS’ technical evaluation mission confirmed the States Parties’ efforts to inform the public periodically and through a variety of communication approaches.

The aims of the Property Management Plan, structured around the five strategic objectives of the World Heritage Committee adopted in the Budapest Declaration to guide the future implementation of the World Heritage Convention (commonly known as the 5Cs), include a number of objectives related to communities. These include awareness-raising objectives as well as local communities’ engagement in the management of the nominated property, namely through their involvement in Local World Heritage Steering Groups; these groups form part of the overall management system for the nominated property.

**Evaluation of the effectiveness of the protection and management of nominated property**

ICOMOS considers that overall the boundaries for the component parts and their buffer zones are adequate with only a few minor modifications needed, that could not be put in place within the timetable available for the supplementary information. This is the case with Baden bei Wien, where the boundaries of the nominated property should be slightly extended in the Mitterberg and Badener Berg areas; and Montecatini Terme, where the boundaries that are still drawn down the middle of streets need to include the building plots on the other side of the street. ICOMOS also considers that the northern part of the buffer zone of Karlovy Vary should be extended to ensure adequate protection from future development, particularly from a visual perspective. In Vichy, the buffer zone around the train station also needs to be extended and legal protection granted, taking into account the protected perimeters of the surroundings of existing historic monuments. New maps will need to be submitted to reflect the necessary changes for the four component parts mentioned above.

From a legal perspective, in Baden bei Wien, the protection zone under the Construction Plan should be extended to include the entirety of the nominated property in this component part. Similarly, as agreed by the State Party of Belgium in the supplementary information, the ZPU of Spa should be enlarged to cover the entirety of the component part. The State Party of Germany should confirm that the component parts of Bad Ems and Bad Kissingen are likewise legally protected in their entirety as urban conservation areas. In Montecatini Terme, in addition to the required change in the boundaries of the nominated property, the protection statute should be extended to the entirety of the component.

The overall state of conservation of the nominated property is considered good; however, ICOMOS notes that adaptive-reuse of historic buildings as well as necessary alterations, upgrades and redevelopments of historic spa buildings in order to keep pace with standards of services and hygiene, needs to be carefully balanced with the conservation of their architectural, artistic and historical values.

Conservation measures in place are considered adequate; spatial planning measures are also important to address densification, real estate pressure on still unbuilt-upon plots, growing traffic pressures and demand for more parking areas. All component parts have satisfactory planning frameworks; however, ICOMOS notes that approaches should be considered at the landscape level to take into consideration the relationship between the nominated property, the buffer zones and the broader setting, to help address potential visual (or other) impacts, such as the installation of wind turbines (as in the case in Bad Kissingen).

ICOMOS considers that the potential impacts of the development projects received during the evaluation process as well as the potential construction of a new rugby stadium in the City of Bath, should be carefully examined both individually and for their potential cumulative effects on the nominated property as a whole. Therefore, ICOMOS suggests that mechanisms in this regard are set-up within the overall management system developed for the whole property, potentially by
requesting the involved States Parties to submit potential projects to the examination of the Great Spas Management Board.

ICOMOS considers that from a conceptual viewpoint the overall management system is well conceived and if the nominated property were to be inscribed, should start being fully implemented as soon as possible. The effectiveness of this system should be evaluated as further experience is gathered, and the system revised if necessary, based on the results of such an evaluation. Likewise, the LMPs that have not been formally approved yet should be approved as soon as possible and where possible should be given legal status. ICOMOS considers it important that the implementation of the Property Management Plan and the LMPs is done in a coordinated way, following the same management cycle to facilitate the management of the property as a whole; this should also take into account the periodicity of the common monitoring programme.

ICOMOS considers that the proposed common monitoring format for all component parts is well conceived and structured but agrees with the States Parties that it needs to be further detailed. ICOMOS recommends detailing some of the monitoring indicators to make it more measurable and to include more indicators in relation to the main factors affecting the property.

Site manager coordinators need to be in place for all component parts. ICOMOS considers it important that the role of the site coordinators is clear and adapted to the needs of managing a World Heritage property, if the nominated property were to be inscribed.

While all component parts have long-standing experience of visitor management, ICOMOS considers that coordination is needed in relation to the property as a whole and that overarching tourism and interpretation strategies should be developed. These strategies should balance the needs and expectations of health visitors and those of tourists in general, since they might be different.

ICOMOS considers that the requirements for protection and management are generally adequate. Nonetheless some aspects of the overall management system and the management systems for the individual components are not yet fully in place or could be reinforced.

6 Conclusion

The serial nominated property exhibits an important interchange of human values and ideas related to medicine, balneology, spa architecture and planning, landscape design and leisure facilities that influenced the development of spa towns throughout Europe and even other parts of the world. It also bears an exceptional testimony to the regime of 'taking the cure' and the European spa phenomenon that flourished from around 1700 to the 1930s. Therefore, ICOMOS considers that the nominated property meets criteria (ii) and (iii).

ICOMOS also considers that the serial approach and the selection of component parts are justified and that the comparative analysis ascertains that there are no comparable properties in the same geo-cultural area. The nominated property meets the conditions of integrity both at the level of the components and for the nominated property as a whole. ICOMOS stresses that this entails that the nominated property includes all elements to express the proposed Outstanding Universal Value and is of adequate size to ensure the complete representation of the features and processes which convey the property's significance; as a serial nomination this should be equated to meaning that the selection of component parts is complete.

At present, the nominated property is not affected by adverse effects of neglect that could undermine the conditions of integrity. However, ICOMOS notes that the high number of development projects received with the nomination dossier and that could not unfortunately be analysed, will need to be addressed through an ad-hoc process in the future.

ICOMOS considers that the nominated property meets the conditions of authenticity and that the requirements for protection and management are overall satisfactory. ICOMOS notes that some of the aspects of the overall management system for the whole property are not yet fully in place and that at the individual level of the components some measures need to be reinforced.

ICOMOS considers that the English title of the nominated property should be changed to include the term 'spa towns', instead of just 'spas', which applies to a wider variety of places; therefore, it suggests amending the English title to: 'The Great Spa Towns of Europe'. This change of the title in English does not imply changes in the French name proposed in the nomination dossier ‘Les grandes villes d’eaux d’Europe’.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that The Great Spas of Europe, Austria, Belgium, Czechia, France, Germany, Italy, United Kingdom, be inscribed on the World Heritage List on the basis of criteria (ii) and (iii).

Recommended Statement of Outstanding Universal Value

Brief synthesis
The Great Spas of Europe bear an exceptional testimony to the European spa phenomenon, which gained its highest expression from around 1700 to the 1930s. This transnational serial property comprises
eleven spa towns located in seven countries: Baden bei Wien (Austria); Spa (Belgium); Karlovy Vary, Františkovy Lázně and Mariánské Lázně (Czechia); Vichy (France); Bad Ems, Baden-Baden and Bad Kissingen (Germany); Montecatini Terme (Italy); and City of Bath (United Kingdom). The series captures the most fashionable, dynamic and international spa towns among the many hundreds that contributed to the European spa phenomenon.

Whilst each spa town is different, all the towns developed around mineral water sources, which were the catalyst for a model of spatial organisation dedicated to curative, therapeutic, recreational and social functions. Ensembles of spa buildings include baths, pump rooms, drinking halls, treatment facilities and colonnades designed to harness the water resources and to allow its practical use for bathing and drinking. ‘Taking the cure’, externally and internally, was complemented by exercise and social activities requiring visitor facilities such as assembly rooms, casinos, theatres, hotels, villas and related infrastructures (from water piping systems and salts production to railways and funiculars). All are integrated into an overall urban context that includes a carefully managed recreational and therapeutic environment of parks, gardens, promenades, sports facilities and woodlands. Buildings and spaces connect visually and physically with their surrounding landscapes, which are used regularly for exercise as a contribution to the therapy of the cure, and for relaxation and enjoyment.

Criterion (ii): The Great Spas of Europe exhibits an important interchange of innovative ideas that influenced the development of medicine, balneology and leisure activities from around 1700 to the 1930s. This interchange is tangibly expressed through an urban typology centred on natural mineral springs and devoted to health and leisure. Those ideas influenced the popularity and development of spa towns and balneology throughout Europe and in other parts of the world.

The Great Spas of Europe became centres of experimentation which stayed abreast of their competitors by adapting to the changing tastes, sensitivities and requirements of visitors. Other than physicians, the principal agents of transmission were the architects, designers and gardeners who created the built and ‘natural’ environments framing spa life. As a result, the property displays important examples of spa architecture such as the ‘kurhaus’ and ‘kursaal’, pump rooms, drinking halls (‘trinkhalle’), colonnades and galleries designed to harness the natural mineral water resource and to allow its practical use for bathing and drinking.

Criterion (iii): The Great Spas of Europe bears exceptional testimony to the European spa phenomenon, which has its roots in antiquity, but gained its highest expression from around 1700 to the 1930s. ‘Taking the cure’, either externally (by bathing) or internally (by drinking, and inhaling) involved a highly structured and timed daily regime and a combination of medical aspects and leisure, including entertainment and social activities (e.g. gambling, theatre, music, dancing) as well as taking physical exercise within an outdoor therapeutic spa landscape.

These parameters directly influenced the spatial layout of spa towns and the form and function of spa buildings or ‘spa architecture’. Urban parks and promenades allowed people taking the cure “to see and be seen” by others.

Integrity

The eleven component parts that comprise the serial property represent the most exceptional examples of European spa towns. All component parts share a set of determining characteristics formed during the most significant “culture-creating” phase of their history and development, the heyday period from around 1700 to the 1950s. Each and every one continues to function for the purpose for which it was originally developed.

The series illustrates the main stages of the development of the spa phenomenon, starting with the most influential spa towns in the 18th century, to the development of model spa towns in the 19th century, to towns that are testimony to the last stages of the phenomenon in the early 20th century.

Boundaries are determined in relation to the mapping of the attributes that convey Outstanding Universal Value, namely: the most important spa structures and buildings used for thermal-related activities; the social facilities and buildings for leisure and pleasure; accommodation facilities; related spa infrastructure; and the surrounding therapeutic and recreational spa landscape. Buffer zones are drawn both for the protection of spring catchments and important setting.

All component parts and their constituent elements are generally in good condition. Elements requiring conservation either have works already planned, or are awaiting alternative uses, with their current state of conservation maintained. Upgrades and redevelopments made to keep pace with standards of services, hygiene and new spa technology, can create tensions with their conservation as historic buildings, and need to be carefully addressed. Challenges in the adaptive reuse and technical upgrading of industrial structures pose similar challenges.

Authenticity

The property meets the conditions of authenticity in terms of form and design, materials and substance, use and function, traditions, and location and setting.

All component parts express the Outstanding Universal Value of the property through a variety of common and highly authentic attributes: mineral springs, of great diversity, which maintain their natural physical qualities,
including substance, location and setting; a distinct and highly legible spatial layout and a well-maintained location and setting that combine to retain an enduring spirit and feeling; spa architecture, that remains authentic in form and design, original materials and substance, even though some buildings have experienced change of use; the spa therapeutic landscape, which retains its form, design and function, and continues to be used for the purpose for which it was designed; spa infrastructure, much of which is either original or evolved on original principles and remains in use; continuing spa use and function despite the need to meet today’s standards.

The veracity and credible expression of attributes embodied in structures that date from around 1700 to the 1930s, the principal period of contribution to Outstanding Universal Value, is further evidenced during substantial and sustained conservation works that are informed by expansive archival collections of plans, documents, publications and photographs held at each component part.

Protection and management requirements
Responsibility for the protection and management of each of the eleven component parts of the property rests with the national/regional government (in the case of Germany, with the government of the Länder, and local authorities of that State Party). Each component is protected through legislation and spatial planning regulations applicable in its State Party or individual province, as well as by a significant degree of public/charitable ownership of key buildings and landscapes. Each part has a property manager or coordinator and a Local Management Plan in place conforming to the overall Property Management Plan.

An overall management system for the whole property has been established, with a Property Management Plan and Action Plan agreed by all stakeholders. An Inter-Governmental Committee, made up of national World Heritage Focal Points and/or a representative of the highest monument or heritage protection authority, keeps track of matters relating to the property. A Great Spas Management Board (GSMB), made up of the Mayors of the eleven components, is responsible for the operational coordination and overall management of the property in close consultation with the Inter-Governmental Committee. The Board sets and manages the budget for the overall management functions, monitors and reviews the Action Plan, approves and publishes an Annual Report, employs the Secretariat, and directs other activities for the property as a whole.

The Site Managers Group includes site managers for each component, the Secretariat, and any specialist advisors. The Site Managers Group is essentially an expert group for debate and exchanges of experience and to advise the GSMB on relevant management issues. The international structure is supported and serviced by a Secretariat jointly funded by all the components.

An important concern will be to continue to develop cooperation and collaboration between the individual components and to ensure that the property as a whole is effectively managed and the overall management system is adequately resourced. Development pressures may be an issue since these are living cities which will need to continue to adapt and change to maintain their role as spa towns. Managing tourism so that it is truly sustainable may also become a challenge. A management approach at the landscape level, which considers the relationship between each component, the buffer zone, and the broader setting is also needed to maintain views to, and from, the picturesque wider landscape.

Additional recommendations
ICOMOS further recommends that the States Parties give consideration to the following:

a) Adjusting the boundaries of the property in the Mitterberg and Badener Berg areas in Baden bei Wien and extending the protection zone under the Construction Plan to include the entirety of the property in this component part,
b) Adjusting the boundaries of the property that are still drawn down the middle of streets in Montecatini Terme to include the building plots on the other side of the street and extending the protection statute to the entirety of this component part,
c) Extending the northern part of the buffer zone of Karlovy Vary to ensure adequate protection from future development, particularly from a visual perspective,
d) Extending the buffer zone around the train station in Vichy, taking into account the protected perimeters of the surroundings of existing historic monuments,
e) Confirming that the component parts of Bad Ems and Bad Kissingen are legally protected in their entirety as urban conservation areas,
f) Extending the ZPU in Spa to cover the entirety of the World Heritage property in this component part,
g) Formally approving and implementing the Local Management Plans for the three Czech components and ensuring their articulation with existing planning documents,
h) Implementing the Local Management Plans at Vichy and Bad Ems,
i) Reviewing the management plan of the City of Bath so that its fourth iteration takes into account both its inscription on the World Heritage List in its own right and its inscription as one of the component parts of The Great Spas of Europe,
j) Appointing site managers for all component parts that have not yet done so and ensuring that their role is clear and adapted to the needs of managing a World Heritage property.

k) Extending and further detailing the monitoring programme for the property as a whole.

l) Introducing Heritage Impact Assessment procedures into the management system of each component part to address the potential impacts of development projects,

m) Considering how the role of the Great Spas Management Board might be refined to allow full understanding by all States Parties of major development proposals in all component sites, in relation to their potential cumulative impacts on the property as a whole,

n) Submitting a State of Conservation report by 1st December 2022 in order to provide progress and/or clarification on the above-mentioned recommendations for examination by the World Heritage Committee at its 46th session;

ICOMOS further recommends that the name of the property in English be changed to: “The Great Spa Towns of Europe”. This change in English does not imply changes in the French name suggested in the nomination dossier “Les grandes villes d’eaux d’Europe”.
Map showing the location of the nominated components
Cordouan Lighthouse
(France)
No 1625

Official name as proposed by the State Party
Cordouan Lighthouse

Location
Nouvelle Aquitaine Region
Gironde Department
France

Brief description
The Lighthouse of Cordouan rises up on a shallow rocky plateau in the Atlantic Ocean at the mouth of the Gironde estuary. Built in white limestone dressed blocks at the turn of the 16th and 17th centuries by the will of Kings Henry III and Henry IV, and to engineer Louis de Foix’s designs, then remodelled by engineer Joseph Teulère in the late 18th century. Cordouan has been ever since in use for maritime signalling. Its architectural forms drew inspiration from ancient models, Renaissance Mannerism and the specific architectural language of the École des Ponts et Chaussées.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a monument.

1 Basic data

Included in the Tentative List
1 February 2002

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS Technical Evaluation mission visited the property from 30 September to 4 October 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 16 September 2019 requesting further information about the management system and development projects.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report including: the potential impact of human activities on the lighthouse; tourism; protection measures of the buffer zone; and the management plan.

Additional information was received from the State Party on 9 August 2019, 18 October 2019, and on 26 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The Lighthouse of Cordouan rises up on the homonymous rocky plateau at the centre of the 12 km-wide mouth of the Gironde estuary (635 sqkm).

The shallow plateau is made up of white and beige limestone outcrops. Around it, between the end of the mouth of the Gironde and the coast, a series of sandbanks are found, moving under the effect of the swell, tidal currents and storms. Two “natural” channels surround the Cordouan plateau: the southern passage, for small pleasure boats, and the northern passage, for large cruise ships or commercial vessels. The south passage is shallow and stable, as it is cut into the rocky plateau itself. The northern passage is much deeper (15 to 30 meters) and stable only in its inner section.

The Lighthouse of Cordouan is located on the eastern side of the rocky plateau. Leading to it is a 270m long pier, built in stone and called le peyrat, to facilitate landings. The structure bearing the lighthouse is founded on 2,000 stilts of oak, sunk into the rocky plateau and supporting a first course of large stones, which serves as a base for the platform from which the tower rises.

The platform and the tower are protected from the waves by a surrounding ring-shaped structure: l’anneau. Rising 7.50 meters above the bedrock, it is also built out of freestone, bonded with hydraulic mortar and joined by iron staples sealed with lead. In order to protect the whole structure from the pounding of the waves, there is, in addition, a reinforced concrete “cuirass” on the face of the western side of the ring-shaped structure. There is a gap of about twenty centimeters between it and the stone masonry of the ring, which absorbs the shock of the waves and diffuses its effects.
On the eastern side of the ring, two thick oak doors open to a staircase which leads to the top of the platform and thence to the tower. The buildings at platform level, built within the inner walls of the ring structure, in Saint-Savinien stone and brick, house the kitchen and the living areas of the keepers, as well as the technical spaces for the operation of the lighthouse.

The tower itself rises above the platform to a height of about 63 meters, bringing the total height of the structure to about 67 meters above the rocky plateau. It is architecturally composed of five registers. The first two registers correspond to the part built at the turn of the 16th and the 17th centuries, while the upper part of the tower corresponds to the addition built at the end of the 18th century.

The first register has a dressed-stone elevation with Tuscan columns. A monumental doorway, decorated with allegories of the Ocean or the River, opens on the eastern side of the tower.

The second register corresponds to the first and second floors. It is adorned with a colossal order of composite pilasters supporting an architrave, cornice and modillions. Between the pilasters, two levels of bays punctuate the façade.

The third register conceals the inner cupola of the chapel, whilst the fourth register extends from the fourth to the seventh floors, the elevation taking the form of a frustoconical tower completed by a modillion cornice.

The fifth register corresponds to the lantern level, its windows equipped with white, green and red glass. A cornice with gargoyles supports a metal dome crowned by a ball topped with a point and an iron wind vane.

The interiors of the lighthouse house functional and ceremonial spaces, and all are richly decorated with a symbolic ornamental programme — Tuscan columns, allegories and decorative architectural ornament representative of the French 16th, 17th and 18th centuries. The floors/ceilings of the rooms are pierced at their centres by open oculi which allow for spatial interconnection.

The lighthouse rises up above a large vaulted semicircular cellar, arranged inside the platform and accessible from the vestibule, a square room roofed with a vault, pierced at its centre by an oculus which opens into the room above, and with three other openings. The four former sleeping cells of the keepers sit at the NW, NE, SE, and SW corners. The entrances are decorated with classic architectural motifs.

Before the present Lighthouse was erected, there existed already a much smaller tower, the origins of which are not fully ascertained, presumably dating back to the 13th–14th centuries. It was named the Tower of the Black Prince or Tower of England, for it was built or rehabilitated by the Prince of Wales, Edward of Woodstock, who was based in Bordeaux in order to protect the Anglo–Aquitanian possessions. By the end of the 16th century, the Tower was ruinous and could not perform its function; despite Aquitaine being regained by the French during the mid-15th century, it took several decades before any repairs were undertaken.

Construction of the new lighthouse began in the 1580’s to Louis de Foix’s designs, but it was delayed by conflict and lack of resources. King Henry IV gave renewed support to the undertaking and, in 1611, after de Foix’s death, the Lighthouse was finally completed and the beacon lit.

The building conceived by Louis de Foix combined utilitarian functions with a highly symbolic form, thanks to architectural composition, high quality construction techniques and a full-fledged decoration programme. De Foix drew inspiration from several ancient and contemporary models to achieve a completely new architectural form, reflecting Henry IV’s royal ambitions and legitimisation programme as Henry III’s heir.

The 17th century Lighthouse had a different appearance to the construction we know today: the third register, corresponding to the chapel dome, had a conical shape and the upper levels had a smaller section. Already in 1617 a storm had seriously damaged the upper parts of the building but it was only with Louis XIV’s ascent to the throne that repair works began in 1663 at the lighthouse.

The harsh conditions to which the Lighthouse was exposed continued to damage the building and by the second half of the 18th century new interventions were needed. The repair proposals first advanced by Joseph Teulère included increasing the height of the structure: various projects were submitted but eventually a second project by Teulère, proposing an increase in height of 60 feet (48m) was approved in 1787. His designs correspond to the appearance of the building today. The reinforcement and heightening of the lighthouse began in 1788.

A metallic lantern crowns the building and houses a completely new type of lighting system which was able to produce a specific lighting sequence and made the lighthouse distinguishable among the other beacons along the coast.

In 1823 the optical system invented by Augustin Fresnel was installed at the Lighthouse, demonstrating its efficiency and giving Cordouan international fame.

In the mid-19th century, the state of conservation of the buildings located in the ring was reported as poor, non-functional and humid: beginning in the summer of 1850, they were demolished and rebuilt. The new structures were insulated from the ring-wall and provided with adequate living spaces. The interior and exterior of the beacon house were restored and the lantern was
reconstructed to house a modernised Fresnel-type lighting system.

In 1862 the Lighthouse was classified as a historic monument: until 1904 it remained the only structure of this type to enjoy this status.

Several technical improvements took place to the lantern in 1896, 1907, 1949 and in the 2000’s.

In 1926 a reinforced concrete “cuirass” was built on the west side of the ring, and subsequently repaired in 1963, 1975, and 1983.

During the 1980’s the Lighthouse of Cordouan risked being declassified and sold; grassroots movements contributed to raising public awareness which led to the State deciding to keep the beacon in use.

**Boundaries**

The nominated property has an area of 17,015 ha, and a buffer zone of 83,879 ha. From south-west to north-west, the boundary of the nominated property follows the 10m bathymetric limit as measured by the Hydrographic and Oceanographic Marine Service. From north-west to east, the perimeter follows the limits of the historic navigation routes of the north passages from 1757 to 2014; from east to south-east, the perimeter follows the limits of the historic navigation routes of the south passages from 1757 to 2014, as measured by the Inter-Regional Directorate of the Mer Sud-Atlantique. The boundary of the nominated property includes the rocky outcrop which surfaces during low tide and the sandbars defining the navigation routes.

On the mainland, the buffer zone extends on both sides of the mouth of the Gironde and encompasses stretches of coastal land from which the Lighthouse is visible, including former tidal areas, state forests, protected sites as well as other beacons which are part of the signalling system of the Gironde. In the sea, the boundary follows a regular circular shape, which reflects the area of exclusion for off-shore wind turbines.

Nobody lives permanently within the nominated property, whilst the buffer zone is home to 47,626 inhabitants, distributed among 11 municipalities, the most populous being Royan with 18,393 inhabitants.

In its Interim Report, ICOMOS requested additional information on the rationale for the boundary of the buffer zone towards the sea: the State Party has provided satisfactory information, which is dealt with in the next section on protection.

ICOMOS considers that the boundaries are clearly discernible and are all provided with protection measures that ensure the additional layer of protection demanded of a buffer zone.

**State of conservation**

Due to the harsh environment in which the nominated property is located, it has been the object of several repair and restoration campaigns since its construction. These are partly outlined in the Description section above, whilst the most recent ones are discussed below.

Restoration and rehabilitation campaigns took place between the 1980’s and 1990’s. Eventually, the 1926 concrete “cuirass” was reconstructed in the early 2000’s as a self-standing structure for a more effective protection of the ring. For the stone masonry and decorative components, the most used restoration method is the replacement of the degraded elements with new ones, having closely matching characteristics.

Further conservation works were carried out in 2010, 2015 and will continue until 2021, all preceded by careful diagnostic campaigns.

Based on the information provided by the State Party and the observations of the ICOMOS Technical Evaluation mission, ICOMOS considers that the state of conservation is overall good and being monitored, although the rate of degradation of the surfaces is rather high, due to the extreme environmental conditions. At the time the mission took place, the internal surfaces of the chapel were in an advanced state of decay. However, a restoration programme is underway and interventions are planned for implementation.

ICOMOS considers that the need for substitution of deteriorated building elements should be carefully considered if not strictly necessary for the conservation and the prolongation of the life of the monument. Reproduction and replacement of decayed sculptural elements might not always be necessary or useful.

**Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS Technical Evaluation mission, ICOMOS considers that the main affecting factors include:

- Sea storms and inundation;
- Dispersion of pollutants (e.g. in the case of maritime accidents and during the recharging of the lighthouse fuel chamber);
- Potential fire (related to the fuel storage);
- Potential wind-farm development;
- Gravel extraction.

However, the State Party has put in place measures to counteract the potential effects of the above-mentioned factors. In particular, the buffer zone is defined as an exclusion zone for wind farms up to 29.2km distance from the Lighthouse. ICOMOS requested clarification with regards to the rationale for establishing the exclusion zone in its Interim Report. The State Party explained that the size of the buffer zone in the sea has been based on principles of visibility and co-visibility as well as the earth’s curvature, which has resulted in
29km. This limit is locally reduced to respect the limits of French territorial waters (22.22 km). Furthermore, all areas favourable for wind farm construction, both offshore and on the land have been excluded from the buffer zone.

Urban development pressure might be a factor affecting the buffer zone; however, a system of planning instruments and protected areas provides the zone with protecting mechanisms from development. ICOMOS requested additional information on how planning provisions would guarantee the protection of the nominated property. The State Party has provided sufficient additional information, which is dealt with in the section on protection and management.

The State Party informed on 19 August 2019 about several projects within the nominated property and the buffer zone, in particular, about concessions for the extraction of marine gravels from areas within the nominated property and in the buffer zone. The concession is planned to expire in 2023, with the potential for renewal. On the other hand, mining exploitation requests within the buffer zone are repeatedly denied. Information was provided to ICOMOS during the technical evaluation mission as regards: scientific investigations and mapping for conservation works; areas in public ownership; and perimeters of protected monuments.

In its Interim Report, ICOMOS requested additional information concerning potential affecting factors, particularly on the gravel extraction. The State Party has informed about the size of the concession, the average and authorised maximum volume of extraction: as of February 2020 no request for the renewal of the concession has been submitted and the deadline is July 2021. The Local commission of the SAGE – a planning tool for the management of water and aquatic resources – has made a stand against gravel extraction in the estuary.

ICOMOS notes that the level of knowledge on the hydraulic and sediment system of the estuary is still being developed. Therefore it recommends that the concession in the nominated property is not renewed, and no concessions be issued within the buffer zone or the estuary until a much clearer understanding of the hydraulic and sedimentation dynamics of the area is achieved, so as not to disturb the dynamic hydraulic balance of the Gironde estuary, which might impact negatively on the nominated property.

Upon a request by ICOMOS, the State Party has also informed that studies have been initiated to seek alternative sources of energy for the lighthouse, although at the moment only a reduction of the energy consumption of the lantern can be achieved.

With regards to the accessibility of the channels to large ships, the State Party informs that in 2014 the navigation channel was modified; ships with a maximum of 12.5m draught can sail through the channel to Verdon sur Mer, whilst in Bordeaux the maximum draught is 11m. There is no plan to upgrade the channels and ports to increase ship draught.

ICOMOS notes that the information provided does not rule out the possibility of increasing the ship draught; ICOMOS also recommends monitoring the effects of the current navigation arrangements and to inform promptly the World Heritage Centre in case of any plan to increase the current ship draught.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The Lighthouse of Cordouan is a unique and grandiose creation: built for utilitarian and symbolic purposes, which illustrates in an outstanding manner the genius of its conceivers and builders, who were able to combine technical, architectural, stylistic and symbolic dimensions in one single building, which is still used for its original function;
- Erected in a hostile environment for maritime signalling, it illustrates through its unique architecture the major phases of the history of lighthouses, including the technological advancements that made possible its continued use to this day.

Comparative analysis
The comparative analysis is organised according to four categories of immovable properties: works for maritime signalling, utilitarian buildings, places of power manifestation, and isolated buildings. For this aspect of the comparison, the selection has taken into account properties expressing heritage features as close as possible to the ‘Phare de Cordouan’ as well as geo-cultural diversity.

The key parameters used for the comparative exercise include:

- Symbolism or representation of power;
- Technical challenge;
- Architectural quality;
- Eminent example of the history/evolution of its category;
- Scientific experimentation.

The comparative exercise includes a typological analysis, an analysis based on the above-mentioned parameters and a detailed textual analysis of the tables. Thirteen lighthouses have been compared with the
nominated property. In addition, 32 other properties, either or not on the World Heritage List and on Tentative Lists of States Parties, have been compared with the nominated property.

ICOMOS considers that the methodology used for the comparative analysis is good, but that it could have been sufficient to present only a restricted relevant selection of comparators to demonstrate that there is room for the nominated property on the World Heritage List.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i) and (iv).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that the Cordouan Lighthouse illustrates the achievements of the will to conceive a signalling structure in a highly inhospitable environment as a monument of great artistic ambitions.

ICOMOS considers that Cordouan is indeed a masterpiece of maritime signalling from the 17th century up until today. Since it was first built, to Louis de Foix’s designs, this lighthouse has been acknowledged as an architectural and engineering masterpiece as well as a symbolic endowment to the glory of the King of France at the time. In the 18th century, Joseph Teulère heightened and strengthened Cordouan. The masterly application of the stereometry and stereotomy has allowed for a superb integration between the existing fabric and the new addition, which confirmed also the symbolic function of the lighthouse. The aggressive natural environment it was erected in consolidates the status of this building as an eminent example of artistic, technical and technological human ingenuity.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the nominated property embodies in an outstanding manner the great stages of the history of lighthouses. Cordouan was built with the ambition to continue the tradition of famous beacons of antiquity and illustrates the art of building lighthouses in a period of renewed navigation between the 16th and the 17th centuries, when beacons played an important role as territorial markers and as instruments of safety. Finally, the increase of its height, in the late 18th century, and the changes to its light chamber, attests to the progress made by science and technology of the period. Thanks to its fame, the Cordouan Lighthouse witnessed several experiments to improve lighthouses’ capacity to assist navigation: Augustin Fresnel chose to install at Cordouan, for the first time, his optic system.

ICOMOS observes that, ever since its building in the 17th century, Cordouan has preserved, without interruption, its original function as a lighthouse and territorial marker on the Atlantic shores of France. Its architectural typology, structural system, ornamentation and decorative themes are the result of two major building campaigns – in the 16th-early 17th centuries (L. de Foix) and in the late 17th-early 18th centuries (J. Teulère’s raising of the height).

The architect chosen for the initial structure was clearly oriented towards monumentality and drew inspiration from several ancient and Renaissance buildings. This trait has been confirmed throughout its construction/restoration phases. The architectural language of the facades and the interior decorative elements reflect the different periods that the building evolved through.

The building typology of the Lighthouse of Cordouan, and the technology of its lighting mechanism, had an influence far beyond the territory of France. Therefore, the property illustrates important phases in the history of lighthouses in the regional and global contexts. The Lighthouse of Cordouan can be considered as a significant representative of monumental lighthouses of the Renaissance, pre-modern and modern periods in the world.

ICOMOS considers that the nominated property meets criteria (i) and (iv).

Integrity and authenticity

Integrity

The architectural, technical and symbolic monumental dimensions of the Lighthouse of Cordouan are clearly perceivable. The intervention campaigns throughout its history in the 17th, 18th and 19th centuries have all pursued the perpetuation of its monumentality and ensured its continuous use. The works carried out in the 20th and 21st centuries have contributed to protecting it more effectively from the effects of its harsh environment and to guarantee its functionality with the necessary technological updates. All attributes supporting the proposed justification for inscription are within the boundary of the nominated property, whilst the buffer zone encompasses and protects the historic and territorial setting of Cordouan.

ICOMOS concurs with the State Party’s view and considers that environmental and anthropic pressures are, to the extent it is possible given the location of the property, under control and active measures have been established to avoid or reduce their negative effects.
The nomination dossier provides a careful description of the attributes of the nominated property and of their role and capacity to reflect the proposed justification for inscription and the criteria. Below only a short account is given.

The attributes of the nominated property include:

- the human-built structures (the lighthouse and its encompassing ring; the peyrat or pier)
- the immediate setting (the rocky plateau, the sandbars, the maritime passages).

The identification of the attributes has enabled the delineation of boundaries for the nominated property that take into account the evolution and changes that some of them may undergo due to the natural evolution of this dynamic setting.

ICOMOS considers that the attributes of the proposed justification have been carefully identified and this is a robust basis for management; further research on the dynamic attributes will further strengthen the understanding and management of the property.

4 Conservation measures and monitoring

Conservation measures

The nomination dossier summarises clearly the sequence of intervention programmes implemented or planned from 2003 until 2021.

The Cordouan Lighthouse enjoys a robust maintenance and conservation programme, backed by scientific investigations, documentation and funding (made available essentially by State budget). Following the local community’s pressures and the involvement of “Les Compagnons de Saint Jacques”, today suitably-skilled workers are employed to carry out the interventions.

Urgent measures to be undertaken have been identified and necessary interventions are scheduled and funded.

Monitoring

The custodians of Cordouan ensure regular control and monitoring over the state of conservation of the nominated property. The monitoring system is organised around four main challenges, for each of which qualitative complex indicators have been identified. For each indicator the measurement periodicity and the responsible actors are identified.

ICOMOS recommends that indicators be more evidently linked to the attributes of the nominated property and their main affecting factors.

Streamlining the monitoring system with the Periodic Reporting questionnaire is also advisable.

ICOMOS considers the property is in a good state of conservation and enjoys an adequate maintenance and conservation programme. Monitoring indicators would benefit from a clearer link with the attributes and their affecting factors. Synergies with the Periodic Reporting questionnaire is also advisable.
5 Protection and management

Documentation
The Lighthouse has been thoroughly documented over a long period of time and is covered also by historical representations. Research campaigns have been carried out for the preparation of the nomination dossier and for the conservation programme with the involvement of various institutions (e.g. the Universités in Bordeaux, La Rochelle, Nantes), local actors, civil committees and cultural societies, e.g. the “Association des Phares de Cordouan et de Grave”. These research campaigns continue and will be instrumental in the protection, conservation and interpretation of the nominated property.

ICOMOS however recommends that an updated and rigorous architectural-geometric survey is conducted with the assistance of photogrammetry, topography and 3D laser scanner technologies, in order to create a reliable basis for registering all information deriving from investigations and interventions. Equally, the elaboration of a GIS-based information system associated to a relational database would assist in recording, preserving, and managing all data on the property, thus facilitating maintenance and management and supporting interpretation.

Research is currently being implemented through a management plan of the sediments, initiated in 2020, by the Syndicat Mixte Développement Durable de l’Estuaire de la Gironde (SMIDDEST) – a public body involving the Gironde and the Charente-Maritime Departmental Councils, the New Aquitaine Regional Council, Bordeaux Métropole, the Royan Atlantique Agglomeration Community, the Estuary Community of Communes and the Haute-Saintonge Community of Communes; the management plan of the Parc Naturel Marin de l’Estuaire de la Gironde et de la mer des Pertuis also includes research activity and the Parc is preparing a bibliography on the state of knowledge of the hydro-sedimentary system of the Estuary’s mouth.

ICOMOS notes that the knowledge and understanding of the changeable attributes of the nominated property is still under development and considers that the knowledge of this hydro-sedimentary system is essential for the proper management of the property and for preventing any negative impacts. Therefore ICOMOS recommends that the studies being developed or envisaged be adequately funded and carried out as a matter of priority.

Legal protection
The nominated property is owned by the State. In compliance with the Code de l’Environnement, Code du Patrimoine, Code de l’Urbanisme (Environment, Heritage and Urban Planning Codes), the nominated property and its buffer zone enjoy protection measures; these are detailed in the nomination dossier and only the major ones are briefly recalled below.

The Phare de Cordouan has had the status of classified historic monument since 1862: this designation implies protection and conservation measures, including a circular protection zone of 500m radius.

The nominated property, with the exception of the built structure of the lighthouse, is included in the Marine Natural Park of the Gironde estuary, thus enjoying protection measures that complement the ones deriving from the Heritage Code.

The buffer zone includes areas protected as sites classés or inscrits for their landscape significance: these designations imply restrictions and the need for authorising almost all types of interventions and include several protected historic monuments.

The Loi Littoral (coastline law) forbids any construction at less than 100m from the coastline in unbuilt-up areas and PLU (local urban plans) may increase this distance.

Some municipalities include areas protected as Sites Patrimoniaux Remarquables – SPR (outstanding heritage sites), equipped with regulations ensuring the protection of their heritage features. Any intervention is subordinated to the opinions issued by the Architecte des Bâtiments de France.

Additionally, the buffer zone up to 29.2 km away from the Lighthouse is mentioned as an ‘exclusion zone’ in the strategic document for wind turbines (Document Stratégique de Façade).

The Plan POLMAR provides the response framework in case of accidental pollution.

ICOMOS requested in the Interim Report additional information concerning protection mechanisms in place for the buffer zone. The State Party explained that the Law n. 2016-925 establishes (art. 74) that the State, its agencies and the local authorities must guarantee the protection, conservation and enhancement of the World Heritage properties through their planning instruments. Further explanation is provided in the Management system section of this report.

Management system
The nomination dossier explains that, due to the important role played by the nominated property within the area and considering the large buffer zone affecting several municipalities and communities, the SMIDDEST has acquired an active role in the management and tourist promotion of the property.

The additional information provided by the State Party in October 2019 informs that the direct responsibility for the nominated property, as part of the maritime signalling infrastructure, falls on the Inter-Regional Directorate of the Mer Sud-Atlantique, subdivision “Phares et Balises Verdon-sur-Mer”, whilst its conservation is guaranteed by the Regional Directorate of Cultural Affairs, a devoted
office of the Ministry of Culture and Communication and by the Architecte en Chef des Monuments historiques.

Both above-mentioned directorates are under the authority of the Prefect of the Region Nouvelle Aquitaine, who is also Prefect for the Gironde Department.

A governance system has been put in place to ensure coordination and participation of all key actors. A local pilot commission has been established as an arena for consultation and debate (instruction n. 2012/004 12 April 2012). This has been backed up by an inter-institutional agreement signed in 2013 between the State and the funding local authorities members of SMIDDEST.

A Local Commission for World Heritage (Commission Locale du patrimoine mondial) has been prefigured to supersede the above-mentioned pilot commission. The commission is co-ordinated by the Prefect of Nouvelle Aquitaine Region and the elected president of SMIDDEST. The members of the commission belong to four strands: local collectives, State services, local public operators, civil society.

The co-presidents validate the strategic directions, decide upon the actions to be undertaken, monitor the implementation, oversee the coherence of the management plan actions, and may consult an independent advisory committee.

A technical committee implements the commission’s decisions; its permanent members represent the local collectives and the State services; depending on the specific theme to be dealt with, additional members may be co-opted. SMIDDEST acts as the secretariat for the committee.

Finally, the participatory dimension is guaranteed through the involvement of the Association des phares de Cordouan et de Grave.

The participation of citizens in decision-making is ensured via the consultation and public survey procedure.

A number of plans, which are relevant for protection and management purposes, exist for areas included both in the nominated property and its buffer zone: the management plan for the Parc naturel marin de la Gironde and de la mer des Pertuis; the Schéma régional d’aménagement, de développement durable et d’égalité des territoires (SRADDET) for the Region Nouvelle Aquitaine; the Schéma de cohérence territorial (SCoT) for the two communities of Royan Atlantique (Charente Maritime) and of the townships of Pointe Médoc (Gironde); and finally the masterplans of each town (Plan Local d’Urbanisme - PLU).

ICOMOS requested additional information on the mechanisms in place or envisaged that would guarantee that planning provisions respect the proposed Outstanding Universal Value of the nominated property.

The State Party responded that, based on the law 2016-925, the Prefect of the region/department must inform the authority responsible for the development of Schéma de cohérence territoriale (SCoT) – a large-scale territorial plan which orients the elaboration of local plans – or of local urban plans (PLU), of the provisions of the management plan, in order to guarantee their integration into the planning system.

The SCoT Médoc Atlantique is currently under revision (diagnostic phase). The revision process for the SCoT Royan Atlantique commenced in 2016 and its draft was adopted by decree on 11 October 2019.

ICOMOS considers that these revisions offer the opportunity to guarantee that the objectives and provisions of the Management Plan be fully integrated in the SCoTs and recommends that the authority developing the Scheme be promptly notified about the objectives and provisions of the management plan.

The Local Urban Plans (PLUs) are the key planning documents at the municipal and inter-municipal levels. They are periodically updated, to comply with superior documents or policies or to allow for accommodating a project of general interest.

ICOMOS observes that, since no timeframe for the approval of the revised SCoT has been presented, the consequent revision of the PLU to make them coherent with the provisions of the Management Plan via SCoT might be much delayed. Therefore if actual PLU provisions potentially colliding with the safeguarding of the value and attributes of the nominated property are not promptly revised, they might at some point be implemented before they are modified.

ICOMOS therefore considers that the State authority should consider setting up a viable process so that revisions of the PLUs are completed as soon as possible.

On this point, ICOMOS has noted that the Management Plan indicates 2021 as the timeframe for the issuance of the Prefectoral decree to inform all actors involved on the Management Plan: ICOMOS considers that this deadline should be brought forward to 2020 to guarantee the prompt integration of the management provisions into the SCoTs and PLUs.

The nomination dossier describes in detail six strategic management goals, each articulated into operational objectives and equipped with actions. These have been identified through technical workshops involving all concerned parties and the managers of the nominated property.

ICOMOS requested additional information on the management arrangements to ensure the implementation of the outlined objectives and actions. The State Party provided additional detailed information on 18 October 2019, clarifying the role of each partner in carrying out the planned actions.
In its Interim Report, ICOMOS requested from the State Party additional information on the finalisation of a management plan. The State Party has transmitted a management plan which coordinates the activities included in the previously-submitted objectives and action plan.

Risk management objectives and actions concerning fire, pollution and flood prevention are included within the management framework.

**Visitor management**

Being a strategic infrastructure for navigation safety, visitation at the Cordouan Lighthouse is strictly managed in terms of number of visitors (400 people per day and no more than 49 people at the same time in the lighthouse) and visitation route.

Potential visitor pressures may derive from cruise ships, for which rehabilitation works are being carried out at Royan port. However, the current and sought after tourism audience in the area is represented by elderly people and families, rather than mass tourism.

In its Interim Report, ICOMOS requested additional information on mechanisms to manage potential tourism pressure in the future. The State Party responded that access is limited due to tidal cycles and private access by boat is very limited. For safety reasons, across the whole of France, access to lighthouses open to the public is limited to 30 people simultaneously by decree. Following ad-hoc upgrade of the safety system at Cordouan, this number has been increased to 49 there. The maximum number of visitors acceptable per tide period is 400. A pricing strategy has been deployed to encourage visitation during the low-season; additionally, a network of places on the mainland for the interpretation of the Lighthouse’s significance exists already or is being organised.

ICOMOS notes that not much information is provided on how the access of private vessels is regulated: it is expected that a ceiling is fixed and that preliminary authorisation must be requested before accessing the Lighthouse by private vessels.

ICOMOS also notes that an increase in the number of visitors has been accepted compared to the limits fixed by decree: careful consideration with regard to safety should be given before any further increase is envisaged.

**Community involvement**

Local communities and associations have been involved throughout the nomination process. Their active role in sensitisation has contributed to improving the maintenance of the nominated property. The Association des Phares de Cordouan et de Grave is part of the Local Commission for World Heritage.

**Evaluation of the effectiveness of the protection and management of nominated property**

ICOMOS considers that legal protection and associated measures are adequate to ensure the protection of the nominated property and of the buffer zone.

However, with regards to the buffer zone, effectiveness of protective measures depends largely on the coordination among the different planning instruments and their coherence with the aim of guaranteeing the necessary protection to the Cordouan Lighthouse and its immediate and wider setting. In particular the potential offered by the Law n. 2016-925 should be fully harnessed by issuing rapidly the prefectoral information decree on the management plan provisions, so that planning authorities can integrate them into the planning system. In this regard ICOMOS considers that the State Party needs to ensure that the process of conformation of SCoTs and PLUs to the Management Plan provisions is completed as soon as possible.

The governance system was initiated in 2012 and it appears to be well geared and tested, through the preparation of the nomination dossier and the implementation of management objectives. Additionally, the main responsible bodies for the nominated property are devolved offices of the State administration, under the Prefect of the Region. ICOMOS recommends that the Local Commission for World Heritage be promptly formalised.

The response to the Interim Report contains a management plan that coordinates objectives and actions illustrated in the nomination dossier and provides an adequate account of the management system.

ICOMOS considers that a formal engagement by all relevant authorities to commit to the implementation of the Management Plan will further strengthen the management system. This could be achieved through the update of the inter-institutional protocol signed in 2013.

In terms of documentation and research supporting the management, ICOMOS notes that the Lighthouse enjoys extensive historic and contemporary documentation accumulated over years of research. However, ICOMOS suggests that an updated and rigorous architectural-geometric survey is conducted through photogrammetry, topography and 3D laser scanner technologies, as a basis for registering all past and future information, possibly into a GIS-based relational database.

Studies on the hydro-sedimentary system of the Gironde Estuary exist or are planned: it is essential that adequate resources be allocated to improve the understanding of this complex system to guarantee that envisaged management measures are appropriate and permitted activities do not cause potential unknown negative impacts on the Cordouan Lighthouse.

ICOMOS considers that the nominated property enjoys adequate legal protection status and mechanisms.
6 Conclusion

The Lighthouse of Cordouan was erected at the turn of the 16th and 17th centuries on a rocky plateau at the mouth of the Gironde estuary by the will of the French kings Henry III and Henry IV, and further modified in the 18th century. The Cordouan Lighthouse has been nominated because it is a monument exhibiting a unique architectural form, drawn from ancient models and contemporary mannerist language, of exceptional construction quality and a highly symbolic decorative programme. Erected in a strategic position for territorial control and, at the same time, in an inhospitable environment, the Cordouan Lighthouse illustrates the main phases of the history of lighthouse construction, and, through its formal and craftsmanship qualities, the French Kings’ ambitions, after gaining control over a territory which had long been under English control. Two criteria have been identified as relevant for the nominated property – criterion (i) and (iv).

The nomination approach, which examines in depth the environmental as well as historic conditions which made possible the construction of this infrastructure and its building challenges, demonstrates a profound understanding of the significance of the Cordouan Lighthouse both as technological utilitarian infrastructure and as symbolic monument.

This approach has influenced also the delineation of the boundaries of the nominated property, which encompass the rocky platform as delimited by the 10m bathymetric line, the immediate sandbars and the maritime routes (the passe sud and the fosse de jusant), and the buffer zone, which includes a vast marine and terrestrial area, thus encompassing all attributes conveying the significance of the nominated property and those providing a support to its protection.

The nomination of the Cordouan Lighthouse covers a typology of heritage not specifically represented on the World Heritage List, thus contributing to strengthening the diversity and balance of the List.

ICOMOS concurs with the proposed justification and the selected criteria, on the basis of the comparative analysis and of the tangible and intangible attributes of Cordouan, which reflect clearly and credibly the proposed justification for inscription.

Given the inhospitable environment in which the Lighthouse of Cordouan is situated, its state of conservation can be considered overall good and monitored.

The main factors currently or potentially affecting the Cordouan Lighthouse appear to be addressed and monitored through a set of legal, planning and management mechanisms. Further research on the hydro-sedimentary system of the Gironde Estuary would improve understanding of it and the refinement of management measures, particularly addressed to the dynamic attributes.

The nominated property enjoys adequate legal protection designations and mechanisms. However, ICOMOS considers that the potential of the existing legislation should be fully harnessed and the process of revision of the SCoTs and of the PLUs should be completed as soon as possible to ensure that the Management Plan objectives and provisions be promptly included in the planning system.

A management system has existed since 2012: a local World Heritage Commission with a consultative function was established, involving State services, local administrations, local public operators and civil society representatives. The Commission is backed up by a technical committee, which implements decisions.

ICOMOS observes that efficiency, effectiveness and good results of the management of the nominated property and its buffer zone greatly depend on a constant, strong and continuously-tuned coordination among all the involved authorities, organisations and technical bodies. The role of the “Commission Locale du Patrimoine Mondial”, the Prefects and the SMIDDEST is thus crucial in this regard.

A management plan exists, coordinating all actions planned by key stakeholders: an updated inter-institutional protocol engaging all relevant stakeholders in respecting and implementing the management plan would further strengthen the management framework.

Management tourism seems currently satisfactory. Nevertheless, future pressures might not be excluded and it will be important that future choices about visitation and tourism be made giving predominance to Cordouan’s cultural meanings and vulnerabilities.

7 Recommendations

ICOMOS recommends that the Cordouan Lighthouse, France, be inscribed on the World Heritage List on the basis of criteria (i) and (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

Erected in the open sea on a rocky plateau where the Atlantic Ocean meets the Gironde Estuary, in a highly exposed and hostile environment that is hazardous for shipping, which is also its raison-d’être, Cordouan Lighthouse has been a beacon for ships engaged in trade between Bordeaux and the rest of the world since the 16th century.

Its monumental tower in limestone dressed blocks, decorated with pilasters, columns and sculptures, has 8 levels that rise to a height of 67 metres above sea level. It is the result of two complementary construction campaigns in the 16th and then the 18th century to

101
enhance the technical capacities of the lighthouse, which is still in use today. The Cordouan Lighthouse was conceived from the outset as a monument, both in its stylistic features and expression, and in the engineering techniques employed.

Initial construction was undertaken in 1584 by engineer Louis de Foix, at the behest of the king of France, Henri III. Henri IV, eager to stress his legitimacy, commissioned original and unexpected features at the frontier of his kingdom: apartments for the king and a chapel. A concrete expression of political will intended to impress all the European sea powers and local communities, the Cordouan Lighthouse thus became a monumental lighthouse dedicated to the affirmation of the king’s power. The height of the lighthouse was raised in 1788-1789 by engineer Joseph Teulère, who remained true to the original conception and remodelled the lighthouse in keeping with the architectural form invented in the 16th century by Louis de Foix.

Not only is the form exceptional, but also the quality of the style. The tower of Louis de Foix clearly reflects the influence of antiquity and Italy, evoking in the open sea the forms of Roman mausoleums, and the domes and most elegant features of Renaissance mannerism. Joseph Teulère, to his credit, achieved a masterpiece of French stereotomy in the language of late-18th century neoclassicism.

Cordouan Lighthouse, in its intentional monumentality, is a grandiose and unique creation, in which the human genius is not only architectural, stylistic and technical, but also symbolic and conceptual.

**Criterion (i):** The Cordouan Lighthouse is a masterpiece of maritime signalling, which has remained in use from the 17th century until today. Since it was first built, this lighthouse has represented a symbolic endowment to the glory of the King of France of the time. In the 18th century, Joseph Teulère heightened and strengthened the lighthouse. The masterly application of the stereometry and stereotomy has allowed for a superb integration between the existing fabric and the new addition, which confirmed also its symbolic function. The aggressive natural environment it was erected in consolidates the status of this building as an eminent example of artistic, technical and technological human ingenuity.

**Criterion (iv):** The Cordouan Lighthouse embodies in an outstanding manner the great stages of the history of lighthouses. It was built with the ambition to continue the tradition of famous beacons of antiquity and illustrates the art of building lighthouses in a period of renewed navigation between the 16th and the 17th centuries, when beacons played an important role as territorial markers and as instruments of safety. Finally, the increase of its height, in the late 18th century, and the changes to its light chamber, attest to the progress made by science and technology of the period. Thanks to its fame, the Cordouan Lighthouse witnessed several experiments to improve lighthouses’ capacity to assist navigation.

**Integrity**

The conditions of integrity of Cordouan Lighthouse are very good. The monumental nature of its appearance has, in line with the conception of Louis de Foix, always guided the architectural and technical interventions necessary for its maritime signalling function. The raising of the height of the frustoconical tower in the 18th century by engineer Joseph Teulère, although it changed the original outline, respected the conception of the initial lighthouse by maintaining the symbolic significance of its guiding principles, with the chapel and the king’s apartments. Its monumentality in isolation is a key element of the integrity of Cordouan Lighthouse.

**Authenticity**

Cordouan Lighthouse is structurally authentic and continues to be used for its original function. Its authenticity cannot be understood without taking into account its geographical situation in an extreme maritime and meteorological environment, which makes constant renovations essential. Its authenticity must also be assessed in the light of its role as an active maritime signalling unit, requiring regular technical adaptations. Similarly, the restorations in the 19th and 20th centuries have had only a slight impact on the authenticity of the lighthouse with the addition of the annular buildings and the restoration of the interior spaces. The monument has thus retained its strong visual and symbolic presence, while undergoing a process of technical modernisation in order to maintain its activity.

**Protection and management requirements**

Classified as a Historic Monument since 1862, Cordouan Lighthouse, a state property, is supported by conservation measures funded and directly implemented by the Ministry of Culture. The property is thus protected under the Code du Patrimoine, Code de l’Environnement and Code général de la propriété des personnes publiques (Environment and Heritage Codes, and General Code on Public Property). Maintaining and managing the functional elements of the lighthouse are the responsibility of the Inter-Regional Directorate of the Mer Sud-Atlantique. The whole of the property – except for Cordouan Lighthouse itself – is located in the Parc Naturel Marin de l’Estuaire de la Gironde et de la Mer des Pertuis and is thus covered by the natural park’s management plan. Lastly, the Domaine public maritime inside which the property is located (except for the lighthouse itself) is protected by a principle of non-constructability, and only small-scale works may be carried out, subject to authorisations relating to the use of public property.

The property buffer zone on the land is covered by various conservation, protection, enhancement and planning measures (Coastline law, Historic monuments, Classified and inscribed sites, Outstanding heritage...
sites, Landscape planning, SCoTs and PLUs) which contribute, under the terms of the Heritage Code and Environment Code, to the preservation of the environment and landscape of the property. The parts of the buffer zone in the sea are covered by the same measures as the natural elements located within the boundaries of the property.

The lighthouse is today the responsibility of the Ministry of Ecological and Solidarity-based Transition, while the natural elements of the property form part of the maritime public domain. The SMIDDEST (Syndicat mixte pour le Développement durable de l’Estuaire de la Gironde) has developed a project for the management, tourist enhancement and promotion of the Cordouan site, and organises paid visits to the lighthouse, to the spaces included in the project, and to the plateau surrounding the site. The SMIDDEST is also required to ensure that the site is guarded, to prevent any vandalism or damage to the built structure, and any damage to the fauna and flora of the natural elements.

The management framework revolves around an envisaged Local Commission for World Heritage, which is expected to supersede the pilot local commission set up for the nomination. The efficiency, effectiveness and good results of the Management Plan depend on a constant, strong and continuously-tuned coordination among all the involved authorities, organisations and technical bodies. The role of the “Commission locale du patrimoine mondial”, and in particular of SMIDDEST is thus essential. A management plan has been developed on the basis of objectives and actions planned by all key actors: a formal commitment by all relevant parties to implement its provision will strengthen the management system in place.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Promptly informing, as per the provisions of Law 2016-925, all planning authorities of the objectives and content of the management plan for the property, to ensure the rapid conformation of the SCoTs and of PLUs related to the property and its buffer zone to its provisions,

b) Ensuring that the process of revision of both the SCoTs and the PLUs is completed as soon as possible,

c) Strengthening the management system through a formal commitment among all key state, regional and local stakeholders to implement the updated management plan,

d) Ensuring that no concession for gravel extraction be renewed or issued within the property and the buffer zone until the knowledge of the hydro-sedimentary system of the Gironde Estuary has improved sufficiently to allow for an accurate assessment of the potential negative impacts,

e) Guaranteeing that adequate resources be allocated to continue the research on the hydro-sedimentary system of the Gironde Estuary,

f) Carrying out a rigorous geometric-architectural survey of the Lighthouse and link it to a GIS-based relational database for the management of all information,

g) Elaborating a “structural model” in order to allow further studies of the stability and of the structural behaviour of the Lighthouse under the external demands, especially those of a dynamic nature,

h) Giving consideration to changing the fuel of the lighting system to avoid the presence and use of diesel fuel for environmental reasons,

i) Submitting to the World Heritage Centre by 1 December 2022 a report on the implementation of the recommendations set out above;
Map showing the boundaries of the nominated property
Mathildenhöhe Darmstadt
(Germany)
No 1614

Official name as proposed by the State Party
Mathildenhöhe Darmstadt

Location
City of Darmstadt
State of Hesse
Germany

Brief description
The Darmstadt Artists' Colony is located on the Mathildenhöhe, the highest elevation above the city of Darmstadt in west-central Germany. It was established in 1897 by Ernst Ludwig, the Grand Duke of Hesse, as a centre for the new reform movements in architecture, arts and crafts then emerging. The buildings of the colony were created by its artist members as experimental early modernist living and working environments. The colony was expanded during successive international exhibitions held in 1901, 1904, 1908 and 1914. Today, it offers a testimony of early modern architecture, urban planning and landscape design, all of which were influenced by the Arts and Crafts movement and the Vienna Secession.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a group of buildings.

1 Basic data

Included in the Tentative List
15 January 2015

Background
This is a new nomination.

Consultations and technical evaluation mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 21 to 23 August 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 10 September 2019 requesting further information about integrity and authenticity, factors affecting the property, boundaries, maps, conservation, management, interpretation, presentation and visitor management.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: integrity and authenticity, boundaries of the property and the buffer zone, factors affecting the site, legal protection and visitor management.

Additional information was received from the State Party on 8 August and 21 October 2019, and 28 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The serial nominated property is located east of the historical centre of the city of Darmstadt atop the Mathildenhöhe, one of the foothills of the Odenwald mountain range east of the Rhine valley in west-central Germany.

This serial nomination consists of 23 elements in two component parts. The first component consists of 22 elements: the Wedding Tower (1908), the Exhibition Hall (1908), the Plane Tree Grove (1833, 1904-14), Russian Chapel of St. Maria Magdalena (1897-99), the Lily Basin, the Gottfried Schwab Memorial (1905), the Pergola and Garden (1914), the “Swan Temple” Garden Pavilion (1914), the Ernst Ludwig Fountain is located on the east side of the property where once stood the Villa “In Roses”, which was destroyed during the Second World War and never rebuilt, and the thirteen houses and artists’ studios that were built for the Darmstadt Artists’ Colony and for the international exhibitions of 1901, 1904, 1908 and 1914.

The second component consists of a single element, the interconnected Three House Group, built for the 1904 exhibition.

The history of the nominated property began in 1800, when Prince Christian of Hesse-Darmstadt created an English landscape garden open to the public on the hill above the city of Darmstadt, from which views of the city could be enjoyed. In the mid-19th century, the Grand Duchess Mathilde added garden houses, pavilions and a grove of plane trees. The landscape garden was surrounded by developments except to the east, where the Odenwaldbahn and Rosenhöhe railway station (now called Ostbahnhof) was built in 1869. A reservoir was
The Russian Chapel was built in the central area of the park in 1897-99 on the occasion of the marriage of the Grand Duke’s younger sister to the Russian Tsar.

The Darmstadt Artists’ Colony was established in 1899 by the Grand Duke, who appointed seven artists for three years. The artist-designer Joseph Maria Olbrich was commissioned to manage the colony. Olbrich redesigned the eastern half of the southern slope, while the western half was developed according to Hofmann’s plan. Olbrich introduced an integrated approach to applied arts, crafts and architecture many years before such an approach appeared in the manifesto of the Bauhaus. The colony was also given a goal-driven, commercial focus.

The 1901 exhibition
In 1901, the “Worldwide First Permanent Exhibition of Modern International Architecture” was established at the Darmstadt Artists’ Colony. Under the title A Document of German Art, it presented seven exhibition houses, which were then used after the exhibition as homes, with upper-middle-class living as their focus. In addition to these fully furnished and decorated dwellings, the exhibition incorporated a designed landscape and pieces of sculpture throughout the whole Mathildenhöhe. The exhibition also included a number of temporary buildings designed by Olbrich and removed after the exhibition.

The 1904 exhibition
In 1904, a second exhibition was organized around the idea of modern multiple-family houses on small plots. A three-house group was designed by Olbrich. The houses were equipped with everyday objects designed by the artists of the colony and displayed to the public. The Sculptor Studios were added in 1904 to the Ernst Ludwig House, which was part of the 1901 exhibition. Temporary buildings were also constructed for the exhibition, including an open-air concert hall and five pavilions.

The 1908 exhibition
In 1908, the third exhibition was organized under the title Hessian State Exhibition of Fine Applied Arts. It focused on two types of houses: the upper-class villa; and the worker’s cottage. It included an “Upper Hessian House,” which was built on behalf of the Society for Upper Hessian Tradesmen, and was furnished with items manufactured by companies and craftsmen from Upper Hesse. A temporary small housing estate was also constructed, including six worker’s cottages on behalf of the Central association for the construction of cheap housing. A temporary building for applied arts as well as a temporary building for architecture were constructed. The 1908 exhibition presented the innovative “Wedding Tower” as a wedding present to the Grand Duke. The tower increased the visibility of Mathildenhöhe. It was complemented by the Exhibition Hall, which was built on the brick water reservoir (1877-80) that supplies water to the city.

The 1914 exhibition
In 1914, the fourth exhibition focused again on modern living. It featured fully furnished multi-storey buildings for upper-middle-class urban tenants, holiday homes designed as transportable wooden houses, and the five-storey Studio Building. The exhibition also included sculptures by Bernhard Hoetger in the Plane Tree Grove, a Lily Basin by Albin Müller that served to reflect the adjacent Russian revival church, and a garden pavilion called the “Swan Temple”, also designed by Müller. Temporary buildings included a restaurant pavilion and the Lion Gate. The colony held a forum of world religions on the eve of the First World War.

Developments after the last exhibition
The First World War caused the closure of the last exhibition and the end of the Darmstadt Artists’ Colony, though the Exhibition Hall held important exhibitions during the 1920s. The houses and apartments were privately inhabited.

Many of the buildings were partially or totally damaged during the Second World War, and some of the damaged buildings were removed in the 1950s. In 1955, a Single Men’s Hostel and a Women’s Hospital were constructed to the designs of Ernst Neufert and Otto Bartning, respectively. A fountain and a wall relief by Bartning and Karl Hartung, both designed for the German contribution to the 1958 Brussels World’s Fair, were relocated to Darmstadt.

In 1960, the Bauhaus Archive was established in the Ernst Ludwig House (the collection was moved to Berlin in 1971).

Boundaries
The initial area of the two component parts of the serial nomination totals 4.98 ha, with an initial single buffer zone of 36.95 ha.

The boundaries of the serial nominated property include all the remaining buildings, designed landscapes and works of art of the Darmstadt Artists’ Colony and of the four Mathildenhöhe Darmstadt international exhibitions of 1901, 1904, 1908 and 1914. ICOMOS requested information in its letter sent in September 2019 in order to understand the rationale of the delineation of the boundaries of the nominated area in relation to the four international exhibitions. The State Party replied in October that the first component part encompasses the areas related to 1901, 1908 and 1914 exhibitions, and that the component 2 gathers the areas related to the 1904 exhibition.

ICOMOS also requested information as regards the protective mechanisms in place in the buffer zone to ensure the protection of the panorama, relationships and sightlines of the nominated property. The State Party explained in its reply that the two component parts
are protected by one buffer zone, which is defined by the geographical characteristics of the site and legal planning instruments: planning law inside and outside the buffer zone; Hessian Act on the Protection and Conservation of Monuments (HDSchG) and § 34 of the Federal Building Code (BauGB). ICOMOS notes that among the planning mechanisms inside and outside the buffer zone, some are in process of becoming regulated or being established.

At the request of ICOMOS, the State Party provided additional information clarifying the status of the proceedings. Concerning Mathildenhöhe North-West and East, proceedings are ongoing, the statutory resolution by the local parliament is expected in the course of 2020, and all developments are frozen until the law comes into force. Regarding Elisabethenstift and Landgraf - Georg - Strasse /Erbacher Strasse, proceedings are planned for 2020-2021, with the statutory resolution expected by end of 2021, beginning of 2022. Developments will be frozen from the beginning of the proceedings.

At the request of ICOMOS, further maps were provided by the State Party for a better understanding of the different construction phases, demolition and spatial connection between the components.

As per ICOMOS’ recommendations in its Interim Report, the State Party accepted to enlarge the first component in the southwestern part along the Eugen-Bracht-Weg/Prinz Christians-Weg border, as it was part of the grounds of the 1901 exhibition, and for which the planning pattern and parceling is preserved. However, the State Party decided not to include the adjacent parcel with the building at Prinz-Christsians-Weg 16 as it would not contribute to the proposed Outstanding Universal Value.

The State Party accepted ICOMOS’ recommendation to extend the buffer zone in order to improve this additional layer of protection and to preserve important sightlines. The extensions are on the south and east to include park areas and building ensembles, which are all listed monuments; and to the southeast to include a quarter (Erbacher/Landgraf-Georg Strassen, Fiedlerweg and Schwarzwaldring).

As for ICOMOS’ recommendation to extend the buffer zone to the north along the Kopernikusplatz-Gutenbergstrasse corridor, the State Party responded that this extension will not improve the sightlines to the nominated property as the terrain is sloping sharply to the north forming an urban edge and the four-storey buildings that were constructed before 1901 prevent any visual relation to the nominated property. ICOMOS accepts the explanations provided by the State Party.

The revised nominated property boundaries are of 5.37ha, and for the revised buffer zone of 76.54 ha.

State of conservation

The following buildings were damaged in the late summer of 1944 during the Second World War: the Behrens, Christiansen, Habich, Keller and Olbrich houses from the 1901 exhibition; the Three House Group from the 1904 exhibition; the Exhibition Hall from the 1908 exhibition; and the group of tenement houses from the 1914 exhibition.

Some of the damaged buildings were removed during the 1950s. Others were rebuilt differently or converted for new uses. The Ernst Ludwig House was purchased by the city in 1951 and converted for cultural use.

Damaged buildings that were in public ownership, such as the Exhibition Hall, were safeguarded after the war. “Darmstadt Dialogues” were initiated in the Ernst Ludwig House during 1950s. These discourses initiated important discussions, particularly on reconstruction, and produced some designs.

During the 1960s some houses were acquired and repaired by the city. From then on, renovations and repairs were made to the Wedding Tower and the Exhibition Hall, which hosted a number of large exhibitions.

In its first letter for additional information, ICOMOS requested information on the nine conservation/restoration projects mentioned in the management plan and on the conservation approach for the overall property.

The State Party provided useful additional information regarding the conservation approach, the building research carried out, the status of each project and the planned or executed conservation measures.

While the majority of the buildings damaged or destroyed by carpet-bombing in 1944 appear to have been restored or reconstructed after the war with careful respect to their original designs, ICOMOS has noted in its Interim Report the need to confirm the nature and scope of each element’s restoration or reconstruction by means of detailed documentary and graphic materials illustrating its state of conservation before and after each intervention, as was done for the Large Glückert House. In response, the State Party submitted adequate additional information documenting for each building history of construction and use; interior; grounds; value; distinctive elements; building phases; owner; chronology of interventions; sources and a selective bibliography.

ICOMOS considers that the nominated property is in a good state of conservation.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development pressures...
and environmental pressures. The high demand for residential and commercial facilities creates pressure in the city to build up and out, which typically also increases vehicular traffic. Environmental pressures include occasional strong windstorms, strong rainfall and extended periods of drought. Minor earthquakes are a possibility, as are fires and vandalism. Tourism pressure may generate increased traffic and parking demands.

In the management plan of the nominated property, ICOMOS noted that 36 projects are listed, at different stages of planning and execution covering traffic, new buildings, restoration of existing buildings, artworks and designed landscape. Information was requested on the potential impact of those projects. The State Party replied on October 2019, providing information on the objectives of the planned projects. 26 measures are related to monuments conservation projects and the other 10 measures are planned to face the important traffic and visitor flows around the site.

ICOMOS considers that priority should be given to reduce car traffic pressure within the nominated area by moving car parking outside the area, abolishing car parking in Alexandraweg and Olbrichweg with the aim of preserving the integrity of the nominated property. ICOMOS considers inappropriate to install a bus parking in the narrow Olbrichweg within the nominated area/buffer zone. Another location should be considered. The State Party submitted to ICOMOS additional information clarifying the Mathildenhöhe traffic concept studies, with illustrative maps for the mobility concept for the nominated property. ICOMOS considers that vehicular traffic and parking remain to be a threat to the integrity of the nominated property and should be reassessed regularly with the growth of visitors’ numbers.

A visitor centre is planned to be built within the boundaries of the nominated property. ICOMOS has considered that the proposed location would change the visual perception of the Exhibition Hall and the Wedding Tower from the Olbrichweg entrance to the exhibition grounds and would partially block the passage and visual connection with the Studio Building. ICOMOS therefore has recommended in its Interim Report that the planned visitor centre be located outside the boundaries of the nominated property, and that a careful consideration of its visual and functional impact be made by means of a Heritage Impact Assessment (HIA).

The State Party submitted additional information including the draft HIA, which found that the proposed visitor center has no influence on the main viewpoints and the attributes of the proposed Outstanding Universal Value and that it offers a moderate advantage by closing a historical gap, and that the garden of the Studio Building (1914) will regain its original intimate atmosphere. The HIA recommended a review of the design details with regards to its materiality, arrangement of façades and craftsmanship (but not its overall design or location).

ICOMOS, however, disagrees with the approach and the conclusions and recommendations of the HIA submitted.

The significant increase of built up space/density in the development of the Mathildendöhe’s Eastern slope, and intensive new constructions both within the property and nearby in its buffer zone may cause potential traffic increase and pedestrian load on the site and near Olbrichweg itself. ICOMOS remains of the opinion that the State Party should consider the relocation of the proposed visitor center outside the nominated property, with a careful consideration for the sightlines to the property, the impact of vehicular traffic on the property and the visual impact on the integrity of the property.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The property is a prototype of Modernism that provides compact and exceptional testimony to the emergence of the International Style of 20th century modernist architecture and urban landscape design, and of the avant-garde processes by which this happened;
- Its epochal functional and aesthetic quality reveals a vibrant era of artistic and social reform and embodies a crucial international interchange in the development of architecture and design, urban planning, landscape design and modern exhibition culture;
- It is a holistic symbol of early Modernism where four pioneering and internationally acclaimed exhibitions were held, attracting large numbers of visitors and gaining widespread publicity. The innovative permanency of the exhibitions gave it form, and all exhibits were developed in collaboration with companies from both Germany and abroad;
- The exhibitions featured experimental yet functional architecture, innovative room furnishings and comprehensive landscape design that, for the first time as part of an exhibition, included the presentation of modern living and working environments that consisted of permanent homes open to the public during the exhibitions;
- The different styles of the members of the Darmstadt Artists’ Colony, inspired by various reform movements, combine harmoniously to form an unprecedented total artwork. It developed as a semi-utopian community which became a focal point of the relevant trends of early Modernism, and a fundamental influence on numerous international exhibitions in the 20th and 21st centuries;
The property is seminal in the history of architecture, constructed during an era of radical experimentation that characterises the revolutionary age of Modernism, a major design influence in the 20th century;

The radical synthesis of architecture, design and art includes experimental exhibition buildings that feature progressive architecture, ambitious designed urban landscapes, contemporary spatial art, and innovative artists' houses and studio buildings;

The iconic Wedding Tower and massive Exhibition Hall together form a unique silhouette and landmark for the citizens of Darmstadt, emblematic in terms of local cultural identity.

Comparative analysis
The comparative analysis uses chronological-regional, typological and thematic frameworks to undertake comparisons with sites within Germany, Europe and North America. Comparisons are made with World Heritage sites and Tentative List properties. Comparisons are also made with other sites throughout the world that have a comparable combination of values and attributes.

The geo-cultural area selected for the comparative analysis is Europe and North America, though a few comparisons are also made with sites in North Africa, Latin America, South America, Asia and Australia.

The comparative analysis addresses two themes that are based on the identified attributes of the proposed Outstanding Universal Value: the development of innovative architecture and urban landscape around 1900; and innovative ensemble of living, working and exhibiting in a modern urban landscape. The 83 wide-ranging comparisons include Bauhaus and its Sites in Weimar, Dessau and Bernau (Germany, 1996, 2017, criteria (ii), (iv) and (vi)), Works of Antoni Gaudí (Spain, 1984, 2005, criteria (i), (ii) and (iv)), Taliesin West in the property The 20th-Century Architecture of Frank Lloyd Wright (United States of America, 2019, criterion (ii)), Artists' Colony on the Hohe Warte (Austria), and Gödöllő Artists' Colony (Hungary).

ICOMOS notes that the comparative analysis has been carefully built and that the relevant comparators were chosen to show that the nominated property stands out among others relevant and comparable sites, within its geo-cultural context and framework.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town planning or landscape design;

This criterion is justified by the State Party on the grounds that the nominated property provides a holistic symbol of early Modernism and an exceptional compact testimony to the emergence of the International Style in architecture and urban landscape design. It is also a testimony of the process of these developments and the relevant artistic and social reforms of the time. The Darmstadt Artists' Colony represented a semi-utopian community of artists, who lived and worked with inspirations from different sources. It also represents the innovative permanency of four international exhibitions, which were held between 1901 and 1914. The exhibitions presented innovative experimental and functional architecture, interior furnishings and landscape designs. They presented pioneering visions for living and working environments.

ICOMOS notes that Mathildenhöhe Darmstadt was part of artistic, architectural and economic movements in Europe around 1900, with other hubs of innovation and core design experimentation, such as London, Vienna, Paris and Brussels. They were connected and exchanged influences and dissemination of state-of-the-art ideas, artistic forms and production processes. Exchange in architecture, urban planning and landscape design also occurred through international exhibitions. Darmstadt Artists' Colony manifested influences from North Africa and Asia. Then, Mathildenhöhe influenced twentieth century pioneering groups in Europe such as the Deutsche Werkbund (German Association of Craftsmen 1907), and the Bauhaus, formed in 1919.

ICOMOS considers that the nominated property is a holistic symbol of early Modernism, a testimony of artistic and social reforms of the time, and an important contributor to innovative experimental and functional architecture, interior furnishings and landscape designs through its international exhibitions. ICOMOS does not, however, consider that the property is an exceptional testimony to the emergence of the International Style in architecture and urban landscape design, which was conceived and manifested along different lines.

ICOMOS considers that the nominated property meets criterion (ii).
Collaboration between designers and craftsmen as landscape design, housing, functional workspaces, and science, with Mathildenhöhe as its “city crown.”

Integrity and Authenticity

Integrity

The serial nominated property is said to meet the conditions of integrity, as the series includes within its two component parts all the remaining buildings, works of art and designed landscapes of the Darmstadt Artists’ Colony and the four Mathildenhöhe Darmstadt international exhibitions.

With the extensions of the boundaries for the nominated property and the buffer zone as adopted by the State Party, ICOMOS considers that the conditions of integrity are met, despite wartime destructions and the architectural and urban development of the city. The additional information submitted by the State Party in terms of inventory on each building also confirms the conditions of integrity of each building and of the whole nominated area. This includes the general architectural and urban composition, morphology, planning structure, disposition of volumes and masses, visual interrelations between separate buildings and their links with the surrounding landscapes and cityscape, correlation between open and closed spaces, and disposition of green spaces.

However, ICOMOS considers that the chosen location for the proposed visitor centre would seriously undermine the integrity of the nominated property and therefore recommends the State Party to consider relocating the proposed building outside the nominated property.

Authenticity

The authenticity of the nominated property’s location and setting is largely intact: most of the elements of the property remain in their original settings.

The authenticity of form and design is apparently high for most buildings, such as the Wedding Tower, the Large Glückert House and the Small Glückert House. These buildings were restored and reconstructed according to the original plans. Inscriptions and reliefs in the Plane Tree Grove remain in their authentic form and design.

The authenticity of materials and substance is observed in many of the buildings and objects within the designed landscapes. The use and function of the buildings, fountains and gardens remain as originally intended.

The authenticity of the spirit and feeling of the property is manifested in the careful post-Second World War restorations and reconstructions, as well as in the more recently added elements such as the Ernst Ludwig Fountain, built in 1958–59. This also reflected the recasting of Darmstadt after the war as a city of culture and science, with Mathildenhöhe as its “city crown.”

ICOMOS notes that Keller House, Olbrich House and Habich House (component ID-No. 001), as well as the Three House Group (component ID-No. 002), particularly the Grey House, have undergone major changes and suffered great losses of authenticity. However, planning morphology/parcels of these areas have been preserved. A new low-rise modernist villa was built behind the Behrens House, on its southern boundary, where historically was a green space.

ICOMOS considers that the post-war interventions and changes to the built fabric are an addition to the historical stratigraphy of the nominated property, even if they do not contribute to the proposed Outstanding Universal Value.
ICOMOS considers that despite some local losses and changes, the nominated property appears to be authentic to an adequate degree. This is supported by the additional information submitted by the State Party in response to the Interim Report that added the history of interventions for each element within the nominated property, with detailed documentary and illustrative materials on restorations and reconstructions, including the state of conservation before and after interventions.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met but that the proposed visitor centre would seriously undermine the integrity of the nominated property and it needs to be relocated outside its boundaries.

Evaluation of the proposed justification for inscription
The comparative analysis presented in the nomination dossier justifies consideration of the nominated property for the World Heritage List. Both criteria (ii) and (iv) have been demonstrated.

ICOMOS considers that the conditions of integrity and authenticity have been met but the proposed visitor centre would seriously undermine the integrity of the nominated property and it should be relocated outside the nominated property.

Attributes
Key attributes include the overall spatial plan, the progressive architecture and the designed urban landscape. In particular, they include the exhibition buildings, studio buildings and artists’ houses representing contemporary spatial art with a goal-driven commercial focus; the Wedding Tower, as an iconic building representing progressive pioneering modern architecture; the Russian Chapel; the designed landscapes and artworks, Garden Pavilion and Lily Basin; the Plane Tree Grove, including sculptures, inscriptions and fountains; and the pathways and roads.

ICOMOS considers that the attributes have been properly identified and the proposed justification for inscription is satisfactory.

4 Conservation measures and monitoring

Conservation measures
All conservation interventions are examined and monitored by the authorities at the Federal State of Hesse (the Hessian State Office for Monuments and Sites) and the City of Darmstadt (lower monument protection authority). Interventions are guided by the Building Maintenance Catalogue and the Park Maintenance Programme.

Within this framework, there are currently two ongoing restoration projects and one project in the planning stage. The restoration of the Exhibition Hall started in 2012 and is due to be completed in 2020. The restoration project for Olbrich House started in 2018 and is due to be completed in 2019. The restoration project for the Large Glückert House is currently in the planning stage.

ICOMOS notes the need to adopt a clearly defined conservation strategy in order to avoid inconsistent conservation approaches, such as the simultaneous use of “renewal,” “renovation” and “restoration” activities in a given intervention programme.

In addition, ICOMOS notes technical concerns regarding current conservation interventions. These include the possible impact of ongoing works at the Exhibition Hall by the use of reinforced concrete on the authenticity, integrity and structural stability of the adjacent Wedding Tower; the state of conservation of the wall on the east side of the Plane Tree Grove; the cracking of the Bacchus Fountain alcove and the hidden water infiltration, which requires elimination of the historical public toilet in the forecourt of the Wedding Tower; and the loss of original detailing and fittings, such as the Wedding Tower’s doors and handles, which conveyed the spirit of the age, or “Zeitgeist”, being replaced by mundane versions.

ICOMOS notes the need to strengthen the coordination and collaboration between the private owners and the conservation services, particularly with regards to any alterations or other interventions in interiors and parts of the buildings that are inaccessible to the public.

ICOMOS considers that a conservation management plan is needed to guarantee a consistent conservation approach and strategy for all buildings of the nominated property, including the privately owned one and to ensure sustainable conservation for the whole series.

Monitoring
The monitoring programme addresses the main features and attributes of the nominated property: spatial plan, experimental buildings, sculptures and designed landscapes. It aims to monitor the state of conservation and the proposed Outstanding Universal Value of the property, particularly with regard to the factors that affect the property and the buffer zone. These include urban development and environmental dynamics – the latter including climate change, aridity, weather-related influences and frost – as well as natural disasters (such as fire, lightning and earthquakes), vandalism, and increases in the number of visitors.

ICOMOS notes that the key indicators for the monitoring system in the nomination dossier and the management plan are general and not measurable. ICOMOS considers that the State Party should consider the revision of the monitoring indicators in order to have more detailed measurable indicators and linked to the
identified attributes supporting the proposed Outstanding Universal Value. In addition, these indicators should include the privately owned buildings, with regards to possible changes and alterations to their interiors.

Streamlining the monitoring system with the Periodic Reporting questionnaire is also advisable.

ICOMOS considers that the property is in a good state of conservation. However, ICOMOS considers that a conservation management plan is needed to guarantee a consistent conservation approach and strategy for all buildings of the nominated property. Monitoring indicators would benefit from a clearer link with the attributes and their affecting factors. Synergies with the Periodic Reporting questionnaire is advisable.

5 Protection and management

Documentation
An inventory of the buildings and other elements of the property was created by the Hessian State Office for Monuments and Sites in 2017-18. This database includes 68 buildings and 45 small monuments, designed structures and landscape elements. A complementary publication, Topography of Monuments, was published in 1994.

Since 2018 the municipality has maintained and updated a digital Building Maintenance Catalogue for the property. Records of the property are kept in relevant departments, archives and the university in Hesse and Mathildenhöhe Darmstadt.

Legal protection
The serial nominated property, including its buildings, designed landscapes and art works, is defined as cultural monument and protected by the Hessian Act on the Protection and Conservation of Monuments (HDSchG) of 28 November 2016. It is protected as an ensemble by virtue of Section 2, paragraph 3 HDSchG.

All development activities in the buffer zone are regulated by the following plans and statutes: German Federal Building Code (BauGB); Hessian State Development Plan (LEP 2000, amended 2013); South Hessian Regional Plan/Regional Land-Use Plan (2010); land-use plan of 01/04/2006, based on the provisions of Section 5 of the Federal Building Code (BauGB); and local building plans. The latter include Mathildenhöhe South, since 2015; Mathildenhöhe North-West (decision on disclosure (public participation) planned for the first half of 2020); Mathildenhöhe East (2nd public participation completed on 31 January 2020); Elisabethenstift (Proceedings planned for 2020–21); and Landgraf-Georg-Strasse / Erbacher Strasse (Proceedings planned for 2020–21).

ICOMOS has noted in its Interim Report that there is no clear explanation of how World Heritage terminology, such as “buffer zone,” corresponds to the national protection tools. In addition, the boundaries of the serial nominated property and the buffer zone are not included in the urban regulation instruments, such as the land-use plan and local plans. The State Party submitted an overall explanation on the existing legislation levels (national, federal, state and municipal), together with comments on the Hessian Act on the Protection and Conservation of Monuments.

ICOMOS has noted that, according to Section 18 of the Hessian Act on the Protection and Conservation of Monuments, modifications to cultural monuments are permitted, subject to approval. ICOMOS recommends that the State Party ensures extra care in applying Section 18 for interventions within the nominated property.

ICOMOS has recommended in its Interim Report the development and approval of local building plans that are necessary for urban regulation in the buffer zone and the legal consolidation of the sightlines in the Regional Plan. The State Party provided additional information clarifying that the said laws are either in the process of drafting or in the process of being approved, as explained earlier and that during the approval process a development freeze is imposed.

Management system
The property is managed with close coordination between the owners and the relevant departments of the City of Darmstadt and the Federal State of Hesse. The management structure consists of the owners; the lower monument protection authority; the central specialist authority (Hessian State Office for Monuments and Sites); the Department of Urban Planning and the Department of Building Control; the Department of Culture; the owner-operated municipal enterprise Darmstädter Stadtentwicklungs GmbH (Urban Development Company Darmstadt [DSE]); and press and public relations representatives and economic and tourism promotion bodies.

An independent monument advisory board was established in accordance with the Hessian Act on the Protection and Conservation of Monuments (HDSchG). Its mandate is the protection of the property and its proposed Outstanding Universal Value.

The Hessian State Office for Monuments and Sites is responsible for keeping the Hessian Register of Monuments, dealing with issues of conservation restorations and approvals, coordinating the scientific analysis of monuments, and developing methodological principles for their conservation and restoration.

If the nomination of the property to the World Heritage List is successful, a joint steering group will be formed by representatives of ICOMOS Germany (monitor); Hessian State Office for Monuments and Sites;
municipal sites management; lower monument protection authority of the City of Darmstadt; cultural institutions; and owners and users, including private owners, the Darmstadt University of Applied Sciences and the Russian Chapel. The steering group will be advised by the advisory boards and commissions and will meet once a year.

A Management Plan was created for the World Heritage nomination between 2015 and 2018. It outlines the management structure and the basic principles for planning and action as well as the threats and preventive protection measures. In addition, it defines monitoring and quality control measures and mediation for possible conflicts. The Management Plan also outlines the human and financial resources for the management of the property.

A “Master Plan for Mathildenhöhe Development” was developed in 2016-17 as part of the World Heritage nomination. Its objective is to conserve the ensemble as a depiction of the world’s first permanent building exhibition, and to “sustainably further develop and invigorate it as an international cultural centre”.

ICOMOS considers that priority should be given to conservation and that the “Master for Mathildenhöhe Development” should be revised within the framework of a conservation management plan for the nominated property.

ICOMOS notes the need to strengthen the links between private owners and conservation services in order to improve control over the state of conservation of the property, as well as technical and financial assistance for any required interventions.

ICOMOS also notes that an adequate budget is allocated to the nominated property. However, the most significant budget item is for development projects, mainly for the eastern slope and the proposed visitor centre, which could lead to urbanization pressures for the property.

Visitor management
The serial nominated property contains various facilities for visitors as well as different ways for visitors to receive information and communications, including publications, guided tours and exhibitions. Facilities include museums, an observation tower, a park and other green spaces, hotels, and links to transportation; as well, the Russian Chapel offers church services and tours.

Most building interiors can be visited, but the Small Glückert House, Berhens House and Three House Group are accessible only by special arrangement.

As mentioned under integrity, a visitor centre for the property is planned by the City of Darmstadt. Construction is scheduled to begin in 2020. This centre would seriously undermine the integrity of the nominated property and it should be relocated outside the nominated property.

The process of nominating the property has prompted municipal activities centred on presenting the property to potential visitors. A medium-term, broad-based programme of education and information has been developed by the City of Darmstadt to identify concepts and establish policies, including collaboration with national and international networks.

ICOMOS noted in the Interim Report the need for a detailed visitor management strategy for the property, including an assessment of carrying capacity, a means to monitor and control visitor numbers, and a procedure to enable visitors to access privately owned buildings within the property.

The State Party submitted additional information clarifying that the City of Darmstadt is currently preparing a detailed visitor management strategy, which includes: visitor guidance, carrying capacity with maps showing the adopted mobility concept, monitoring and control, and special events (accessibility to privately owned buildings).

ICOMOS commends the State Party for the detailed information submitted in response to the Interim Report on the conservation history of each building and recommends that the State Party includes this information in the interpretation and presentation of the property to the public.

Community involvement
The public was informed about the development of the nomination process and will continue to be informed.

Evaluation of the effectiveness of the protection and management of nominated property
Legal protection of the nominated property is generally adequate. Regarding interventions within the nominated property, it is recommended that a very cautious approach be taken when applying Section 18 of the Hessian Act on the Protection and Conservation of Monuments.

The management system currently in place is largely adequate. The links between private owners and conservation services need to be strengthened, however, and technical and financial assistance for interventions should be ensured. The budget allocated to the nominated property should reflect an appropriate balance between conservation and development activities at this historic site. A conservation management plan is needed to guarantee a consistent conservation approach and strategy for all buildings of the nominated property.
An improved visitor management strategy is currently being developed.

ICOMOS considers that the protection and management of the property are generally adequate. Nonetheless, a number of improvements are recommended to better protect and manage the property.

6 Conclusion

Mathildenhöhe Darmstadt offers a testimony of early modern architecture, urban planning and designed urban landscapes in a relatively compact area. The Darmstadt Artists’ Colony represented a semi-utopian community of artists whose pioneering visions for living and working environments can be considered a forerunner of architectural Modernism.

The comparative analysis justifies consideration of this property for the World Heritage List.

The justification of criteria (ii) and (iv) signal the nominated property’s Outstanding Universal Value.

The revised boundaries of the nominated property and the buffer zone are adequate.

The additional information on the conservation history of each building within the nominated property, which were submitted by the State Party in response to the Interim Report confirms the conditions of integrity and authenticity.

However, the proposed location for the visitor centre is inadequate and would impact the integrity of the property should the State Party decides to go ahead with its construction.

Vehicular traffic and parking within the property should be carefully monitored and controlled with the growth of visitors’ numbers.

Current conservation activities do not have a clearly defined conservation strategy and have technical concerns, and the monitoring system is insufficient. A conservation management plan is needed to ensure the consistency of conservation approach for all interventions within the nominated property, and private owners should be given the opportunity to receive conservation advices and services if needed.

The legal protection and management of the property are generally adequate. Nonetheless, a number of improvements are recommended to better protect and manage the property.

Section 18 of the Hessian Act on the Protection and Conservation of Monuments should be applied with caution.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the nomination of Mathildenhöhe Darmstadt, Germany, be referred back to the State Party in order to allow it to:

- Relocate the proposed visitor centre outside the boundaries of the property with careful consideration to the property’s integrity regarding sightlines and vehicular traffic impact.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Developing a conservation management plan to guarantee a consistent conservation approach and strategy for all buildings of the nominated property,

b) Strengthening the link between the private owners and conservation services,

c) Ensuring an appropriate balance between development and conservation activities in budget allocations,

d) Including in the interpretation and presentation of the different buildings of the property the history of their conservation;
Revised map showing the boundaries of the nominated property (February 2020)
Fortress of Spinalonga
(Greece)
No 1617

Official name as proposed by the State Party
Fortress of Spinalonga

Location
Municipality of Agios Nikolaos
Regional Unit of Lasithi
Crete
Greece

Brief description
The archaeological site of the Fortress of Spinalonga lies on Crete, at the northeastern end of Mirabello Bay, at the mouth of the natural harbor of Elounda. The site is a small, rocky island, strategically located at the entrance of the natural harbor, fortified and settled over the centuries by three different groups: the Venetians, the Ottomans, and, after the establishment of the independent state of Crete, the leprosy patients. Its inhabitants endured constant hardships living on a small, barren island. The island includes archaeological remains of different periods of history, the most important of them conserved, restored or under ongoing and planned conservation/restoration programs. The island is strongly associated with its use as a leper colony in the 20th century.

Category of property
In terms of categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this property is considered a site.

1 Basic data

Included in the Tentative List
16 January 2014

Background
The proposed dossier is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts, in total eleven reviews.


Additional information received by ICOMOS
A letter was sent to the State Party on 9 October 2019 requesting further information on the comparative analysis, boundaries, site management, planned developments and tourism.

An ICOMOS Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel.

Additional information was received from the State Party on 11 November 2019 and on 26 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The islet of Spinalonga, situated on the northeastern coast of Crete, at the mouth of the natural harbor of Elounda, in Mirabello Bay, occupies 8.5 hectares, 53 m above sea level. The landscape of the islet is formed mostly of hard grey limestone, with no arable land or freshwater resources.

The insular character and historical events have formed the distinct identity of Spinalonga. Due to its location and characteristics, the islet has been used for defense purposes since prehistory, particularly related to the city of Olous – a flourishing trade and urban centre until the Arab invasion in the 9th century. In the 13th-17th centuries (1204-1669) the Venetians developed the islet into one of their most important seaward bastioned forts of the Mediterranean, which also served the defense of the salt flats in the bay at Elounda. In the 18th-19th centuries (1715-1898), under Ottoman rule, the islet thrived as a vibrant settlement and trade centre. Since the beginning of the 20th century, the history of Spinalonga has been intertwined with the history of the treatment of leprosy: the leper colony was constituted on the island soon after the liberation of Crete from Ottoman rule, existing up until 1957. This particular period and its inheritance have endowed Spinalonga with symbolism related to isolation and resilience.

Below are short descriptions of the main features of the nominated property.

The Venetian bastioned fortifications
The fortifications were constructed in several phases. The outer perimeter wall with its Tiepolo and Donato bastions and Moceniga/Barbariga and Michiel
demilunes, salients, terrepleins and flanks, was constructed in the first construction phase in 1579-1584. Porta Maestra, situated approximately in the centre of the west side of the islet, served as the main entrance to the fortress. The inner wall was added as a reinforcing defensive function in the second building phase in 1585-1590. In the third and fourth phases until 1660, mostly reconstruction, reinforcement and modification works were carried out. Throughout all the phases, along with the fortifications, the facilities for the garrison – cisterns, residential buildings, barracks, hospital, gunpowder magazines, storerooms, windmill, etc., and three churches – were also built. In the last phase, as a result of the influx of refugees seeking shelter on the islet, the residential facilities grew considerably. These were later re-used and developed by the Ottoman settlers.

The Ottoman settlement
During the Ottoman occupation Spinalonga continued to function as one of the nine manned fortresses of Crete. As such, the Venetian fortifications and military infrastructure were preserved and maintained with minor alterations. The distinguishing feature of this period is the urban settlement with more than 1,000 inhabitants. The islet thrived as a commercial hub of the wider region of the southern Aegean, with the headquarters of various trade companies and the only customs office for the entire Mirabello province.

During the expansion of the settlement, a number of the Venetian period facilities were demolished, and others were converted for new uses. The settlement was developed in terraces across the entire west and south slopes of the islet. Houses, markets and shops, storerooms and workshops were built within and outside the fortification walls, notable for meticulous construction and high-quality materials, integrating local tradition and the elements of Balkan architecture.

The buildings of the leper colony
The establishment of the leper colony on the islet (1904-1957) brought a significant transformation. The drastic change of function and population made many buildings fall into dereliction, other buildings were converted to new uses, whereas ancillary structures were also added. Some sections of the walls were torn down by the patients to open up the view to the sea. Six buildings, including the dormitories, were built in 1937-1939, designed by the Greek Architect Orestis Mallos, adhering to Modernist architectural principles. The interventions were completed with the construction of the circumferential (ring) road in 1939 that resulted in opening up some parts of the fortification walls.

The development of the site came to an end with the closure of the leper colony in 1957. The strong stigma associated with the disease has kept the islet uninhabited for the subsequent decades. In 1976 the entire territory of the islet was designated as an archaeological site. This act marked the beginning of the site’s development as a heritage destination along with thriving holiday tourism on Crete. Since the designation, the interventions have been focused on conservation/restoration, although in the first stage of works (1979-1981) four buildings erected in the 1930s were demolished in an attempt to “purify” the history of the site from negative association with Hansen’s disease (leprosy).

The two identical dormitories from the interwar period are still preserved today. Another important facility of this period is the hospital building, that was formed out of the existing mosque, after extensions and alterations had been carried out.

Today, the leper colony period is presented as an inseparable part of the history of the site and the remains of this period are included in the conservation programs along with the buildings of the earlier periods.

Boundaries
The nominated property is an island of 8.5 ha and the boundaries are delineated along its coast. It fully incorporates all the features of the proposed Outstanding Universal Value presented in the nomination.

The buffer zone (1,555.4 ha) encloses the island from all sides and encompasses part of the neighboring uninhabited Nisi (Kolokytha) peninsula as well as most of the section of coastline of Crete facing Spinalonga.

The State Party provided additional clarification of the rationale for the delimitation of the proposed buffer zone, answering ICOMOS’s questions raised in its first letter. The rationale is based on the geometric principle – the outer boundaries having approximately equal distances from the site, forming a sort of even-shaped polygon around the nominated property.

ICOMOS expressed concerns about the delineation of the proposed buffer zone, as it did not incorporate the entire historical landscape of the bay at Elounda with its submerged ancient city of Olous, the historical salt flats, and the Nisi (Kolokytha) peninsula, all very important for understanding the history and the values of the site.

The State Party, while expressing full confidence in the original buffer zone proposal being satisfactory for the purpose of protection of the site, presented an alternative delineation of the buffer zone in the additional information submitted in November 2019. The new buffer zone delineation encompasses the areas identified by ICOMOS, leaving out the Elounda settlement and its immediate marine area.

State of conservation
Spinalonga was designated as an archaeological site in 1976. The Ministry of Culture and Sports of Greece has been carrying out maintenance, restoration and enhancement works since then, employing highly qualified scientific staff.
From the outset, the Venetian fortifications have been the main target of conservation and restoration works, limited parts of which were demolished during the operation of the leper colony. However, from the 1990’s onward the Ottoman settlement buildings, and, more recently, the buildings from the leper colony period, have also been included in the conservation plans and programs.

As of today, the major structures of the nominated property, particularly those related to its Venetian past, have been preserved, restored and, in some instances, reconstructed. The overall approach has involved conservation and restoration, as well as some reconstruction. In the restoration projects, use of materials wherever possible similar to the original or compatible with them, has taken place. Traditional techniques have been applied where appropriate.

Most of the consolidation and restoration works have been applied to the Venetian fortification walls and structures, which are generally in a very good state of preservation due to their solid construction and use of quality materials (apart from the inner wall which is of lesser quality).

The surviving remains of the buildings from the Ottoman period are planned to be conserved as roofless ruins. For some of these houses, those that are preserved in a relatively good state, reconstruction is applied or provisioned. At the southwest end of the main thoroughfare certain structures, mainly shops, have been fully restored and now serve as information points for the public, storage facilities, and laboratories.

Four buildings of the leper colony period were demolished in 1979-1981 as part of the attempt to eliminate the social stigma associated with the site. Nowadays, the remaining buildings of this period are included in the conservation and management plans, as an inseparable part of the island’s identity.

The management plan of the nominated property contains descriptions of further conservation and maintenance needs, respective plans, and funding sources.

ICOMOS considers the overall state of conservation is satisfactory; however, it notes the losses of original fabric, dating back to the leper colony period, including the removal of the buildings in the late 1970’s and some excessive restorations/reconstructions that have been carried out in past decades.

ICOMOS has received third party information on the allegedly dilapidated state of the old Salt Warehouse “Chiona”, located in the buffer zone. ICOMOS recommends that heritage features related to the periods of significance of the nominated property should be preserved.

Factors affecting the property
The nomination mentions several natural risk factors, such as fire, earthquake and sea-level rise, all of which are monitored systematically. Prevention of physical damage to the monument is ensured by regular monitoring and maintenance, urgent stabilization or small repairs. Climate change research is one of the measures included in the future plans. Once realized, this study may shed light on the potential natural risks to the nominated property and future needs to prevent their impact.

Development pressure on the site and its immediate environment is regulated using existing legislative framework at the national and local levels: designation as an archaeological site, the protection zones established by the Ministry of Culture and Sports (Archaeological Zone A – non construction) and the Plan of the Spatial and Settlement Organization of Open Cities of the Municipality of Agios-Nikolaos, which considers Spinalonga and its surroundings a “Special Protection Zone – Archaeological Site”, applying restrictions with regards to building volumes, heights, morphology, roofs and the floor area ratio within the coastline areas sensitive for preservation of the integrity of the nominated property.

The State Party provided additional clarification in November 2019 regarding some of the nuances of the existing regulations, confirming that developments are under the control of the municipal and state authorities.

The State Party also provided additional clarification on the planned new pier on which ICOMOS requested further clarification in its first letter. The pier would improve and make safe disembarkation and embarkation of visitors in full correspondence with the national regulations for protection of monuments. Boats using the pier are considered to be small or medium-sized (maximum capacity 200-300 passengers). No information has been provided on whether a Heritage Impact Assessment has been carried out for the upgrade of the pier. The study proposal for extension of the pier was considered by the Hellenic Ministry of Culture and Sports in accordance with national legislation on protection of antiquities. Another study for the spatial configuration of the visitor reception area at the pier is being elaborated and will be completed and approved in 2020, with implementation to begin immediately afterwards.

The statistical data provided in the nomination dossier shows an upward trend of visitors from about 360,000 in 2011 to 413,800 in 2018, without detailed seasonal or daily analysis.

ICOMOS considers that the main factors affecting the nominated property are tourism pressure and potential development projects related to tourism. A thorough analysis of visitation patterns and a comprehensive visitor management plan with the participation of the key stakeholders and the local communities is necessary to
avoid overcrowding of the site as well as ensuring that the local communities benefit from tourism.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Spinalonga is one of the most important Venetian seaward bastion fortresses in the Mediterranean, forming part of an extensive defensive programme for the reinforcement of Crete in the 16th century. Furthermore, the site also represents an exceptional monumental and multicultural palimpsest.

- Spinalonga is a landmark of isolation, confinement and human suffering, standing as a symbol of the stigma associated with leprosy. The struggle for survival of the patients has endowed the island with symbolism and intangible associations. As such, it has inspired literature, music, theatre and cinema, both in Greece and abroad.

ICOMOS observes that this nomination raised a number of questions, particularly in relation to the nomination approach, which poses significant challenges to the State Party, compared to the consistence of the property itself, which might have suggested a different, perhaps more straightforward, nomination strategy. This point is further elaborated in the comments on the comparative analysis and in the section Evaluation of the proposed justification for inscription.

Comparative analysis

The comparative analysis is established on the basis of two main strands of the proposed justification for inscription of the nominated property: the typology and architectural significance of the monuments as a monumental palimpsest; and the symbolic dimension of Spinalonga as a site-monument to isolation, imprisonment and torment, as a place-symbol of social stigma, particularly related to leprosy.

The comparative analysis is divided according to two main categories: the fortified island or coastal fortresses, and the leprosaria. It considers World Heritage Sites, sites inscribed on the national Tentative Lists, as well as other similar sites with a comparable combination of values and attributes.

For the category of fortified islets and coastal fortresses, 13 properties already inscribed on the World Heritage List, 4 from the Tentative Lists of State Parties and 9 exhibiting similar values, have been compared. The comparison has been carried out at the regional and global level.

The comparison includes a narrative and matrix analysis based on the following parameters: the Venetian *fronte bastionato* fortress; bastion-type fortress; island fortress; the period of the 15-17th centuries; place of suffering and historical memory; monumental palimpsest; multi-dimensional and multicultural character.

The parameter-based analysis identifies two properties as the most relevant comparatives for Spinalonga: the transnational serial World Heritage property Venetian Works of Defence between the 16th and 17th Centuries: *Stato da Terra* – Western *Stato da Mar* (Italy, Croatia and Montenegro 2017, (iii), (iv)) and the “Late Medieval Bastioned Fortifications in Greece” on the Tentative List of Greece since 2014.

The comparison acknowledges that the Fortress of Spinalonga and the World Heritage property Venetian Works of Defence fully share all the qualities of Venetian bastioned fortifications of the period, but stresses the difference that the inscribed serial property does not represent a monumental palimpsest, a place of suffering and historical memory, and its components do not have multi-dimensional and multiform character.

Similarly, the comparative analysis admits that Late Medieval Bastioned Fortifications in Greece represents the most similar property to Spinalonga as it contains Venetian bastioned fortifications of the same period, later also conquered by the Ottomans, thereby representing monumental palimpsests. However, the Tentative serial property does not express a multi-dimensional and multiform character, includes no island fortresses, and none of the fortifications are a place of suffering and historical memory like Spinalonga.

In relation to the comparisons with leprosaria, the comparable property presented in the nomination dossier from the World Heritage List is Robben Island (South Africa, 1999, (iii), (vi)), which, even though nominated for different values, still shares common characteristics with Spinalonga as a place for confinement, inter alia of the leprosy patients, for suffering and historical memory. The key differences stressed by the State Party are that Robben Island does not possess buildings from earlier than the 16th century, it does not have multi-dimensional and multiform character, and does not represent a monumental palimpsest.

Among other properties discussed in the comparative analysis some are inscribed in the Tentative Lists of other State Parties and all share the common value as a place for suffering and historical memory related to the treatment of Hansen’s disease (leprosy). However, the comparison underlines that none of the mentioned properties represent monumental palimpsests and do not express multi-dimensional and multicultural characters as Spinalonga does.
In October 2019, ICOMOS requested clarification on the way in which Spinalonga differs from the serial World Heritage property Venetian Works of Defence and how it relates to the Tentative list property Late Medieval Bastioned Fortifications.

The State Party in its response presented an amended comparative table and further reiterated the arguments presented in the nomination dossier supporting the historic specificity of Spinalonga.

ICOMOS observes that an overview of the history of leprosy treatment does not suggest that Spinalonga, as a Leprosarium, would significantly differ from other ones of the period. Forced isolation was the widespread approach to this disease at that time and severe and harsh conditions for the patients existed elsewhere (e.g. in Japan and South Korea, where the segregation policies were abandoned much later).

The comparison related to the facet of significance reflected by the Leprosarium period lacks a robust contextual framework for the formation and operation of leprosaria, particularly in Europe, and does not succeed in demonstrating the exceptionality of the nominated property.

Indeed, a comprehensive contextual framework is missing as a basis for a comparative analysis; however, certain elements presented as being distinctive for Spinalonga, i.e., the leper colony being located in a former fortress and former Ottoman settlement, appear to be circumstantial and do not prove the exceptionality of Spinalonga.

ICOMOS further considers that building such a comparative framework might be problematic, considering that leprosaria are still active in various parts of the world and such an exercise would be highly sensitive.

Although the selection of comparatives is overall appropriate, the parameters selected to demonstrate the uniqueness of Spinalonga among its comparators and the comparison, fails to prove that the nominated property stands out compared to other properties inscribed or not on the World Heritage List.

The arguments for supporting Spinalonga's individual nomination are not sufficiently convincing, in particular with regards to the very strong similarities with the Late Medieval Bastioned Fortifications in Greece and the World Heritage property Venetian Works of Defence. Neither the nomination, nor the additional information provided by the State Party, explain sufficiently the substantial difference between the inscribed or the tentative list properties and the nominated one.

ICOMOS considers that the larger context within which Spinalonga was constructed, reinforced and held by the Venetians could have been expanded, thus helping to contextualize the origins of the nominated property in this part of the Mediterranean Sea. Taking into account the strong similarities with, but also specificities compared to, the Late Medieval Bastioned Fortifications in Greece and the Venetian Works of Defence, the existing comparative framework of the Venetian fortifications should allow the State Party to ascertain whether Spinalonga might have potential to contribute in a tangible manner to this spectrum of values and whether it would qualify for inclusion as a component in the tentative serial property of “Late Medieval Bastioned Fortifications in Greece”.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List as an individual nomination.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (iv) and (vi).

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the fortified islet of Spinalonga represents a multi-dimensional, multicultural monument, a monumental palimpsest created through successive occupation by groups of different ethnicities, religions, and cultural traditions. Its architectural heritage, predominantly the Venetian seaward bastioned fortifications, as well as the later Ottoman settlement and the buildings of the interwar period of the leper colony, render the islet as a place of global interest and outstanding architectural significance.

ICOMOS observes that several monuments share Spinalonga’s characteristics of being a palimpsest, as it is not infrequent that they have been used and adapted in different periods by different cultures or groups and for differing purposes.

ICOMOS also notes that the comparative analysis has shown that other similar fortifications in the region have experienced a similar history of occupation from Venetian to Ottoman power.

With regards to the leper colony, this represents a different strand of history and significance. Additionally, the nominated property represents an adaptation of an existing, emptied settlement to function as a colony for lepers, with only a few buildings erected at a later stage for this purpose. Some adaptations also required some demolitions of previous phases.

ICOMOS considers that criterion (iv) has not been justified.
As of today, these remains are planned to be conserved in a ruined state, some of them restored and reconstructed for public use.

As regards to the landscape, some residential and hotel developments have taken place on the facing mainland coastline during the last decades; nevertheless, overall, it has preserved its main landscape characteristics and visual integrity. Development is controlled under the national heritage legislation as well as the municipal spatial plan.

ICOMOS observes that the largest part of the demolitions occurred along the curtain wall; other more limited demolitions occurred at the east and south curtain walls, and further small demolitions occurred in the second line of the walls in the north, near the Cemetery, in order to open up the entrance. ICOMOS considers that these demolitions have only limitedly affected the integrity of the Spinalonga fortress.

The demolition in the late 1970’s of a number of the Leprosarium buildings, which does not seem to have been sufficiently documented, raises concerns about the integrity of the nominated property with regards to this strand of significance. However, some representative buildings of the same period remain in place and have been included in the conservation programs.

Authenticity

The nomination dossier underlines that the authenticity of the nominated property in terms of form and design, material, techniques, as well as its setting, has been assured to the greatest extent. The conservation programs have been carried out with maximum respect for the special character of the site.

ICOMOS notes that the extensive restoration/reconstruction of some buildings which has taken place in past decades, has not contributed to the authenticity of the nominated property. More recent conservation programmes put in place seem to have adopted a more cautious approach: ICOMOS recommends continued adherence to such an approach and to limit such cases as much as possible.

ICOMOS considers that the conditions of integrity and authenticity can be considered met for what concerns the fortification. On the other hand, the Ottoman period and the leper colony period have suffered from neglect and some demolitions which have reduced their integrity. Some extensive restorations/reconstructions have affected to some extent the authenticity of the nominated property; however it can be considered met. The proposed modified buffer zone contributes to supporting the integrity of the property as long as it is accompanied by the necessary protection mechanisms.
Evaluation of the proposed justification for inscription

The proposed justification for inscription is built around the three strands of cultural significance: monumental representation of three major development phases; the successive occupation and the remodelling of the physical evidence of previous periods by very different communities; isolation and suffering related to leprosy and its treatment with a global relevance.

The arguments presented to support the nomination tend to assume, rather than demonstrate, that the outstanding significance of Spinalonga lies in the uniqueness of the combination of the above-mentioned strands. The justification for inscription does not convincingly suggest that Spinalonga can be considered outstanding “...as to transcend national boundaries and to be of common importance for present and future generations of all humanity”. The palimpsest dimension, emphasized in the proposed justification, appears to be a common trait for ancient properties, which have often witnessed transformations and adaptations in subsequent periods for accommodating new uses and communities.

The State Party considers Spinalonga differently from other fortresses of Venetian origins due to its historic development and particularly its more recent history, as a leper colony. However a nomination based on this dimension of the property might be rather difficult to be further developed because of the lack of the necessary thematic framework at the global scale. As specified in the additional information, Spinalonga constitutes a characteristic example of the prevalent isolation practices for contagious diseases practiced for decades worldwide and belongs to the group of leprosaria that share a distinctive historic character. Furthermore, it should be noted that even despite the discovery of the cure for leprosy in the 1940’s, which has led to dramatic improvement of the medical and social aspects of leprosy, active leprosaria still exist in different parts of the world and people are still suffering from social stigma. Further contextualization of Spinalonga in relation to the global history of Hansen’s disease would be needed for verifying the universal and outstanding nature of its values and assessing its potential contribution to the alleviation of prejudices related to leprosy, promoting social solidarity.

While the nominated property does have national qualities, further work is needed to demonstrate the comparative advantage of the nominated property in terms of justifying World Heritage criteria in the respective geo-historical context, to understand the supranational dimension of Spinalonga.

The comparative framework set up for the Venetian fortifications could be harnessed by the State Party to verify if Spinalonga has the potential to be included in the tentative list property of Late Medieval Bastioned Fortifications in Greece.

Features

The main features of the nominated property are the Venetian fortifications, the remains of the Ottoman settlement, the buildings of the leper colony, as well as its landscape setting.

ICOMOS observes that the proposed justification for inscription lacks necessary context for demonstrating the proposed Outstanding Universal Value of the property beyond national importance.

4 Conservation measures and monitoring

Conservation measures

In 1963 Spinalonga came under the ownership of the Greek Tourism Organization as a Public Tourist Property. In 1970 it was designated as a site of exceptional natural beauty and in 1976 received legal protection as a designated archaeological site. Since the 1970’s conservation/restoration programs have been in place. The first phase of conservation works, however, included the removal of four leper colony buildings of the interwar period, as well as some buildings from the Ottoman period used by the patients, in an attempt to eliminate the stigma associated with the site and highlight the monumental character of the Venetian fortifications. The later phases of interventions integrated the different values of the property and thus the Ottoman settlement as well as the leper colony buildings have now been included in the conservation programs and plans. Three extensive conservation and restoration programmes on the archaeological site of Spinalonga have been completed, with the fourth one in progress.

The state authorities conduct conservation works to high professional standards, ensuring that the works are preceded by the necessary scientific research and laboratory tests. Two conservation and restoration laboratories have been established on Spinalonga: the conservation laboratory of wooden artefacts and that of metal elements.

The funding of the conservation programs is provided by the state as well as regional and municipal budgets in the framework of the Regional Operational Program for Crete.

The regular maintenance of the site is ensured by the state through the Ephorate of Lasithi. All the cases for urgent measures to be taken are under the control of the regular maintenance and conservation programs.

ICOMOS acknowledges the efforts of the State Party for the conservation of the archaeological site of Spinalonga. However, given that since the 1970’s a number of conservation/restoration campaigns, that also included demolitions and later on reconstructions, have been carried out at the nominated property, ICOMOS recommends that all information available on previous,
ongoing and planned interventions be integrated into one single conservation planning instrument for keeping track of the history of the conservation and for maintenance purposes.

**Monitoring**

The nomination dossier puts forward a system of key monitoring indicators which are proposed as tools for measuring the state of conservation of the nominated property, indicating possible changes within its boundaries as well as the surrounding area, and recording factors that could pose a potential threat to the integrity and/or authenticity of the monuments of Spinalonga, either directly or indirectly. Additional indicators assess visitor behaviour and interests, information provided to visitors, educational actions, and interest in research.

Data collection will be carried out during visits to the island by specialized personnel of the Ephorate of Antiquities of Lasithi, who will be responsible for the implementation of the monitoring system and who have thus far monitored the state of conservation of Spinalonga, although not on the basis of the proposed indicator system.

Other parties which are involved are the first and second level Local Government, namely the Municipality of Agios Nikolaos and the Region of Crete, whereas in case of emergency other specialized state services intervene as well.

ICOMOS considers that the monitoring system envisaged appears adequate, although particular care should be given to the monitoring of the visitors, with special attention paid to the tourist season, and of the visitation experience.

ICOMOS considers that conservation and monitoring measures are adequate. However, ICOMOS recommends improving the conservation planning through integrating information on all interventions within a comprehensive conservation planning instrument. The monitoring system should give particular attention to visitor pressures.

**Legal protection**

The fortified islet of Spinalonga was designated as a “Site of Exceptional Natural Beauty” in 1970 (Ministerial Decision no. 9597 / 12.9.1970). The islet has been protected as an Archaeological site since 1976 (Ministerial Decision no. A / Φ31 / 24456 / 1834 π.ε. / 5.5.1976). Additionally, the most important buildings of the site were listed as protected monuments in 1998 (with Ministerial Decision no. ΥΠΠΟ / ΑΡΧ / Β1 / Φ38 / ΚΗΡ / 53979 / 2092 / 27.11.1998).

Thus, the nominated property has been under national protection by the Constitution and the Archaeological Law for a considerable period of time, which has ensured its preservation but also necessary grounds for funding and implementation of conservation programs conducted by the Ministry of Culture and Sports.

With regards to the protection of the landscape setting, the special protective zones under the national law were established in 1998: a non-construction zone (Zone A), which covers the entire nominated property and adjacent Nisi (Kolokytha) peninsula, and a zone where building and use are controlled (Zone B), which is further south of the property, outside the buffer zone proposed in the nomination dossier. Since 1982 the Nisi (Kolokytha) peninsula has also been protected as a “Site of Exceptional Natural Beauty” (Ministerial Decision no. APX / A1/ Φ24 / 5681 / 215 / 29.1.1982). Since 2003 the bay at Elounda has been declared an Underwater Archaeological Site (Ministerial Decision no. Y.A. ΥΠΠΟ/ΓΔΑΠΚ/ΑΡΧ/Α1/ Φ43/46162/3173/20-8-2003).

Furthermore, development activities within the landscape setting are controlled by the Plan of the Spatial and Settlement Organization of Open Cities of the Municipality of Agios-Nikolaos (2010), which considers Spinalonga and its surroundings a “Special Protection Zone - Archaeological Site”, specifically prohibiting any illegal urban development and imposing control of land-use, and applying restrictions with regards to building volumes, heights, morphology, roofs and the floor area ratio within the coastline areas.

**5 Protection and management**

**Documentation**

The record concerning the monumental complex of Spinalonga is included in the Catalogue of the Listed Archaeological Sites and Monuments of Greece, containing information on the legal protection of the site. The Archaeological Cadastre (digital inventory of the immovable cultural heritage of Greece) contains cartographic data and other relevant information related to the nominated property. The ongoing works of documentation, conservation, restoration and enhancement of Spinalonga’s monuments, both movable and immovable, are documented and stored by the Ephorate of Antiquities of Lasithi.

The management plan contains actions for improving documentation and access to information: namely the creation of a digital database for the documentation of the movable artefacts of the islet is one of the short-term priorities; and the creation of the digital three-dimensional documentation of the buildings of Spinalonga is one of the long-term priorities.

ICOMOS considers that the documentation work being carried out to cover all assets on the island should be continued. The creation of a GIS-based database for the organisation and management of existing and future documentation will facilitate the conservation activity and enhance the accessibility and usability of information about the nominated property.
sensitive for preservation of the visual integrity of the property. The State Party provided additional clarification with regards to the specific regulations reiterating that the volumes and appearances of the buildings in the coastal area are fully controlled by the Plan to ensure compatibility with the overall historic landscape.

**Management system**

The islet of Spinalonga and a significant part of the buffer zone are state-owned. Thus, the main body responsible for management of the nominated property is the Ministry of Culture and Sports and its Ephorate of Antiquities of Lasithi. While the Ministry ensures the control of overarching issues, the Ephorate implements daily management, conservation, monitoring, authorises interventions and provides consent to the local municipality with regards to new developments in the landscape setting.

With regards to the buffer zone, the main planning and management authority at the national level is the Ministry of Environment and Energy, and at the local level the Municipality of Agios-Nikolaos, in charge of urban and land-use planning. The consent of the Ephorate of Antiquities is mandatory when planning decisions concern the heritage-sensitive areas.

The staffing levels and expertise are considered sufficient for the management purposes described in the nomination.

The management plan provides an outline of needs and activities to be undertaken in the short-, medium- and long-term. The actions are grouped within five axes (sections): (1) protection of cultural assets with regards to the mitigation of man-made or natural risks; (2) conservation/restoration and enhancement of monuments; (3) upgrading the use of the site and its assets, through improved accessibility, infrastructure and services; (4) investigation, documentation and information; (5) management and promotion of the site and its assets, including communication and community outreach.

To improve the coordination among different levels of governance and ensure the coherent implementation of the management plan, a seven-member Steering Committee is to be established with the participation of the central, regional and local authorities of cultural heritage and spatial planning, as well as the University of Crete. Other stakeholders are to be invited on a case-by-case basis.

In its first letter, ICOMOS requested additional information as regards the implementation of the management plan, and when the Steering Committee will be operational. The State Party replied in November 2019 that the seven-member committee will be established and will become fully operational immediately.

ICOMOS notes that no exact calendar is provided for the establishment and operationalisation of the seven-member Committee, which, according to the 2019 additional information, is tasked with the implementation of the management plan.

**Visitor management**

The management plan contains information related to improving access, signage and infrastructure for visitors as well as for branding and communicating the information with a wider audience. Nevertheless, there are concerns about the control of visitor numbers as well as the new pier to be constructed for larger vessels.

The statistical data provided in the nomination dossier shows an upward trend of visitors from about 360,000 in 2011 to 413,800 in 2018, without detailed seasonal or daily analysis. With regards to the ICOMOS concerns about the potential negative impact of tourism, expressed in its first request for additional information, the State Party estimated that an increase of tourism is to be expected only during 2-3 months per year and at certain times of the day, and that the bearing capacity of the islet is about 1,000 persons simultaneously, without providing the rationale for such an estimation.

The main proposed tools for visitor flow regulation are: the arrangement of the “stop and see” and resting points; opening newly-restored areas for visitors and enhancing the routes; re-development of former leprosarium buildings for public use; and regulating the boat trips. The State Party plans to regulate the tourist flow through co-operation with the boat owners and the tourist companies to ensure the necessary interval between arrivals, to avoid overcrowding. The boats operating from Agios Nikolaos and Plaka to Spinalonga are considered small or medium-size (maximum capacity 200-300 passengers). The additional information also mentions that a study for the facilitation of visitors flow is under development.

To the request for additional information by ICOMOS, the State Party reassures that the scale of the proposed new pier is fully compatible with the national regulations for the monument’s protection and serves the safe access to the site. ICOMOS notes that a study on the extension of the pier has been realised and considered by the Hellenic Ministry of Culture and Sports, and another study on the spatial configuration of the target area of this project is underway, but no Heritage Impact Assessment has been carried out.

Based on the information provided by the State Party and the Technical Evaluation Mission’s observations, ICOMOS notes that there is an urgent need for further improving visitor management mechanisms to prevent potential negative impacts of tourism on Spinalonga. The consolidated framework for visitor management needs to be put in place based on the detailed assessment of visitation trends and the bearing capacity of the site as a whole and at specific points of interest (local carrying capacity).
Community involvement
The initiative for the nomination of the property to the national Tentative List and, later on, to the World Heritage List lies with the local and regional authorities.

There is not sufficient information as to whether the local communities living in the buffer zone had been consulted during the process, although it is evident that they have been informed about the values and importance of protection of the nominated property and its landscape setting. As the nominated property and most of its buffer zone is state-owned, there is no participation of the local communities planned in the management processes. The management plan mostly focuses on the sensitization and awareness-building of the communities of the settlements in the proposed buffer zone through school education programs, public events and art projects, which has been common practice throughout the last decades.

Evaluation of the effectiveness of the protection and management of nominated property
ICOMOS acknowledges the high level of protection and efforts of the State Party towards the conservation of the nominated property. The state ownership of the nominated property and of an extensive part of the buffer zone guarantees the preservation of the site and its immediate environment and should ensure sufficient control mechanisms for implementation of regulations for the wider setting.

A more cautious approach to conservation of the nominated property is welcome and should be continued, avoiding excessive restoration and reconstructions. The creation of a GIS-based database collecting together all previous, current and future works is highly recommended in order to facilitate the use of the accumulated documentation for knowledge and maintenance purposes.

Overall, the management system and plan provide a sufficient framework for organization and implementation of comprehensive actions in a short-, medium- and long-term perspective; however, there are some gaps, particularly with regards to the systematisation and exchange of data for future sustainable planning and coherent implementation of different activities of the plan, as well as with regards to the legal status of the management plan.

No timeframe has been presented for the actual establishment and coming into force of the envisaged seven-member committee: its operationalisation is crucial for coordinated and integrated management of the nominated property and of its buffer zone, particularly for those actions which require inter-institutional coordination and cooperation.

ICOMOS considers it urgent to strengthen the visitor management mechanisms and tools, which should be based on the detailed assessment of visitation trends and bearing capacity of the site, in order to avoid unwanted negative impacts from excessive visitor pressures.

ICOMOS considers the protection afforded to the nominated property is adequate and the protection mechanisms for its buffer zone seem sufficient to ensure the necessary added layer of protection. The management system appears adequate as it has been conceived; however the seven-member committee is to be promptly given its mandate for the implementation of the management plan for ensuring the long-term preservation and conservation of the property.

6 Conclusion
The nomination dossier is well-structured and meticulously elaborated.

Spinalonga was one of the many 16th century Venetian fortresses built in this area of the Mediterranean to ensure the control over the colonies and commercial routes held by the Republic of Venice. It was lost to the Ottoman empire in 1715 and thrived as a commercial settlement until 1898. In 1904 it was converted into a leper colony and operated as such until 1957.

Although the nomination dossier is informative about the nominated property, ICOMOS observes that the larger context within which this fortress was constructed/ reinforced and held by the Venetians could have been expanded, to present the site in the rich context of complex political, economic and social processes in the Mediterranean region in the late medieval period, with its sophisticated network of trade routes and defence systems. It could have helped contextualise the origins of the property in this part of the Mediterranean Sea, which also might have determined its future destiny.

Spinalonga has been nominated on the basis of criteria (iv) and (vi) as it is said to represent a unique monumental palimpsest, immersed in a beautiful landscape, attesting to its multicultural and multi-dimensional past, illustrating the human struggle to survive in an island environment, for either necessity or security.

However, the reasons for nomination set forth by the State Party do not offer a coherent or strong argument for how Spinalonga would stand out as an exceptional place of global interest.

The arguments stressing the exceptionality of the property as a monumental palimpsest, its multicultural, multi-dimensional and multiform character, related to the change of use and succession of occupation, are not sufficient to demonstrate the Outstanding Universal Value of the property. Given the history of the region, it does not seem uncommon for ancient complexes to exhibit different phases of construction and different
A number of Venetian fortifications fell to the Ottomans who adapted them to their purposes.

The comparative advantage of the property is not sufficiently demonstrated in respect to other similar sites, neither in terms of criterion (iv) nor in terms of criterion (vi).

The arguments provided in the justification of criterion (iv) do not seem to suggest that the nominated property can express Outstanding Universal Value on its own. These features seem to be better reflected by the Inscribed serial property of Venetian Works of Defence (Italy, Croatia, Montenegro).

With regard to the strand of significance related to the leper colony period, the nomination dossier lacks sufficient information on the respective geo-cultural context to understand whether this particular Leprosarium, established on Spinalonga, apart from its landscape peculiarities, stands out for its concept, organization, or its role in the history of the treatment of leprosy.

The integrity of Spinalonga has suffered from neglect, some demolitions during its use as a leprosarium as well as afterwards, when the site was no longer in use. Some over-restorations and reconstructions have also been carried out, although the later conservation programmes seem to have adopted a more careful approach, which should be continued in subsequent works.

Currently, the main threat to Spinalonga is represented by visitor pressures which require careful management and an ad-hoc study in order to ensure the preservation of its significance and atmosphere.

The nominated property enjoys the highest level of protection in Greece, and the buffer zone, now expanded to cover also other important archaeological sites and further portions of the setting, seem to enjoy sufficient protection mechanisms.

The key management body for the nominated property is represented by the Ministry of Culture and Sports, through its Ephorate of Antiquities in Lasithi. A management committee has been envisaged to ensure coordination and implementation of the management plan. Additional information requested by ICOMOS regarding the coming into operation of the committee has not resulted in a clear timeframe.

In summary, ICOMOS understands that the State Party considers Spinalonga differently from other fortresses of Venetian origins, due to its recent historic development as a leper colony. However, ICOMOS is of the opinion that a nomination revolving around this theme would pose considerable challenges in terms of memorialisation and comparative framework.

The similarities of Spinalonga with, and the difference from, the components of the tentative serial property of Late Medieval Bastioned Fortifications in the Tentative List of Greece might be explored through the comparative framework built for the Venetian Works of Defence to verify the potential of Spinalonga to be included in the Greek tentative series.

Even though the property is not recommended for inscription as presented, ICOMOS suggests that the State Party give consideration to establishing adequate mechanisms, strategies and plans for integrated visitor management as an immediate priority, seeking consultation and cooperation with the tour operators, agencies and other private stakeholders and the local community, and adopting a Heritage Impact Assessment approach for all major infrastructure projects, including the new pier and visitor reception, and spatial planning documents, before any decision on developments is made.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the Fortress of Spinalonga, Greece, should not be inscribed on the World Heritage List.
Revised map showing the boundaries of the nominated property (November 2019)
‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles (Italy)
No 1623

Official name as proposed by the State Party
‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles

Location
City of Padua, Veneto Region
Italy

Brief description
The nominated property is composed of eight religious and secular building complexes, within the historic walled city of Padua, which house a selection of 14th century fresco cycles. Painted between 1302 and 1397, by different artists for different types of patron and within buildings of varying function, the fresco cycles maintain a unity of style and content. The nominated property includes Giotto’s fresco cycle in the Scrovegni Chapel, considered to have marked the beginning of a revolutionary development in the history of mural painting, as well as other fresco cycles of different artists, namely Pietro and Giuliano da Rimini, Guariento di Arpo, Giusto de’ Menabuoi, Altichiero da Zevio, Jacopo Avanzi and Jacopo da Verona. These fresco cycles are presented as a serial nomination of four components to illustrate, as a group, how, over the course of a century, fresco art developed based on a new creative impetus and understanding of spatial representation.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of four groups of buildings.

1 Basic data

Included in the Tentative List
22 January 2016

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 10-13 September 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information on the selection criteria for the serial composition, the comparative analysis, and the individual contribution of each of the four component parts – and within each selected fresco cycle – to the proposed Outstanding Universal Value. ICOMOS also requested further information on the arrangements for cooperation with the existing World Heritage property of Orto Botanico in Padua.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: the authenticity of the Palazzo della Ragione frescoes, the management office structure and resources, arrangement for risk preparedness and disaster response, as well as the possibility of changing the name of the property.

Additional information was received from the State Party on 26 October, 14 November 2019 and 14 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated property named as ‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles is composed of four components parts, all located within the inner walled city of historic Padua, namely: Scrovegni and Eremitani (1); Palazzo della Ragione, Carrarese Palace, Baptistry and associated piazzas (2); Complex of buildings associated with the Basilica of St. Anthony (3); and San Michele (4).

These components are grouped as they contain 14th century frescoes, a particular type of mural paintings made of water-bound inorganic substances applied to freshly laid plaster. The selection is described as illustrating how Italian fresco paintings changed in the 14th century in response to, and inspired by, the impact of Giotto’s works, particularly the Scrovegni Chapel. The other fresco cycles included as part of the nominated property were painted by different artists for different types of patrons within buildings of varying function and are equally remarkable for their quality and scale.
Scrovegni and Eremitani (1)
This first component encompasses the Scrovegni Chapel and the Church of the Eremitani. The Scrovegni Chapel is a single nave chapel covered with a barrel vault and an underground crypt. It hosts, extending over the entire wall space, one of Giotto’s most famous and best preserved fresco cycles, composed of: 39 scenes from the Life of the Virgin and the Life of Christ occupying the side walls; 14 figures depicting Vices and Virtues, along the side walls; a star-strewn sky across the vault; and a Last Judgement on the west wall. They demonstrate his skill in the rendering of three-dimensional space and in depicting human emotions. The cycles in the Church of the Eremitani illustrate works of Guariento di Arpo and Giusto de’ Menabuoi, from the 1330s to the 1370s, exploring themes such as the lives of the saints, the planets, the seven ages of man, and the Last Judgement.

Palazzo della Ragione, Carrarese Palace, Baptistery and associated Piazzas (2)
Palazzo della Ragione was one of the largest public buildings at the time of its construction and is characterized by its distinctive keel-vault roof. In spatial terms, the building contributes the largest fresco cycle of the nomination, with more than three hundred scenes divided into two sections. It was commissioned from Giotto by the Commune of Padua and executed by Giotto (1310-1317), Giusto de’ Menabuoi (1380-90), and Jacopo da Verona (1390-97). Unfortunately, the original works were largely destroyed in a fire of 1420 but were then recreated by the artists Niccolò Miretto, Stefano da Ferrara and Antonio di Pietro in the early 15th century, whose works remain visible today. The Chapel of the Carrarese Palace contains a fresco cycle with scenes of the Old Testament by Guariento di Arpo (before 1354). The Cathedral Baptistery illustrates an interior entirely decorated with frescoes inspired by the history of human salvation. Painted by Giusto de’ Menabuoi, it is considered his masterpiece and shows further developments in the use of perspective to create the illusion of three-dimensional space.

Complex of buildings associated with the Basilica of St. Anthony (3)
Commonly known as Il Santo, the Basilica of St. Anthony is an important religious center in Padua. It contains Giotto’s earliest works in Padua, namely in the Chapter Hall, the Chapel of the Black Madonna and the Benediction Chapel, all predating his work in the Scrovegni Chapel. In this complex one also finds a large fresco cycle by Giusto de’ Menabuoi (1382) in the Chapel of the Blessed Luca Belludi, and frescoes by Altichiero da Zevio and Jacopo Avanzi in the St. James Chapel. Altichiero da Zevio also features prominently in the second building of this component, the Oratory of St. George, where he implemented a fresco cycle with scenes around the life of Christ, together with Jacopo da Verona (1379-84).

San Michele (4)
The fourth component, San Michele, contains the Oratory of St. Michael, in which the artist Jacopo da Verona created a fresco cycle around the life of the Virgin Mary in 1397. The production of all fresco cycles within the nomination falls within the 14th century, a time when Padua was a wealthy centre of trade, art, culture and education, with an established university, and was strongly influenced by the Carrarese family, who ultimately ruled the city from 1318 until 1405, when they were defeated by the Republic of Venice. Their rule marked the beginning of a new period of prosperity for Padua as a city, in which not only trade and the arts flourished but also literature and the sciences, which all benefitted from the new patronage models of a network of private sponsors.

In this historic climate different secular and religious buildings were planned and constructed, at the request of illustrious local families, the clergy, the city commune and the Carrarese court. Each of these provided the architectural backdrop for the fresco cycles applied to the completed walls. Some of these buildings and architectural interiors, such as Scrovegni Chapel, the roof of Palazzo della Ragione (which was unfortunately destroyed by fire in 1420), the interior space of the cathedral baptistery, and chapels in the Basilica of St. Anthony, were purpose-designed or modified for the frescoes they came to host, and form an integral part of the new depiction of three-dimensional space.

Boundaries
The area of the four component parts totals 19.96 ha, with a shared buffer zone of 530 ha. The boundaries of the component parts reflect the areas occupied by the eight religious and secular building complexes which contain the fresco cycles and as much as appropriate of the surrounding areas which are part of the cadastral property or access routes, such as gardens, archaeological zones and public spaces. The buffer zone covers the complete historic city of Padua intra-muros including the green or river corridors immediately outside the historic city walls. The buffer zone also includes the entire World Heritage property of the Botanical Garden (Orto Botanico), Padua, inscribed in 1997 under criteria (ii) and (iii).

ICOMOS considers that the boundaries of the four components include all the necessary elements that convey the proposed Outstanding Universal Value of the nominated property. The designation of the historic city of Padua as a buffer zone, encompassing all the component parts, provides an adequate layer of protection to the nominated property. However, ICOMOS notes that this delimitation of the buffer zone will also encompass the entire World Heritage property of the Botanical Garden. Therefore, ICOMOS considers that in order for such a model to work in a meaningful way, the management authorities of the Botanical Garden (Orto Botanico), Padua, would need to be
involved with the management of the nominated property to avoid any conflicting issues between the management of the two properties.

In its additional information submitted on 26 October and 14 November 2019 respectively, the State Party suggests to include a representative of the Botanical Garden in the Management Steering Committee in an observer capacity. ICOMOS appreciates this suggestion and recommends that this proposal is formalized and that intensive communication on matters related to buffer zone management between the Padua City Council urban planning authorities and the two site management offices is ensured.

State of conservation
The nominated property is owned by four different entities. Each of them initiates and undertakes conservation measures according to their own competences but under supervision of the Ministero per i Beni e le Attivita’ Culturali e per il Turismo. Likewise, the Istituto Superiore per la Conservazione ed il Restauro (ISCR) is a formal member of the management committee with the task of coordination and quality control of the conservation programme and initiatives. The conservation of Scrovegni Chapel has been under the authority of the Interdisciplinary and Scientific Committee for the Conservation and Management of the Scrovegni Chapel (ISCCMSC), founded in 1994.

All fresco cycles of the serial nomination have been subject to various conservation measures over the centuries. Since a full description of the history of conservation initiatives on this property would by far exceed the spatial restrictions of this report, only the latest interventions and the present state of conservation are considered. Since 2014 a systematic approach to conservation measures under a joint priority scheme aims at ensuring a consistent, high-standard and well-planned approach.

A major restoration of the frescoes and interior of Scrovegni Chapel was carried out between 1952 and 1970. A number of studies and prevention measures were implemented afterwards. In 2001 and 2002 minor consolidation works were carried out to address areas at risk of deterioration. In the Church of the Eremitani, conservation campaigns were carried out in 1999-2000 with the conservation of frescoes in the main chapel; between 2004 and 2012 there was extensive work on the overall refurbishment of the church. The fresco cycle of the Palazzo della Ragione was restored in 2000-2003. The chapel of Carrarese Palace underwent a series of interventions between 2001 and 2008 with a focus on cleaning and consolidation works. In 2008-2013, the Cathedral Baptistry underwent an overall project of restoration aimed at confronting the problems posed by: the architectural structure; the archaeological material discovered beneath the building; and the fresco cycle itself. In 2018, a restoration project for the uniformity of the fresco cycle as a whole was approved and scheduled to start in 2019, as well as restoration works on the exterior of the building, which have already started. The exterior structure was scaffolded during the ICOMOS technical evaluation mission.

The Oratory of St. George’s frescoes were restored during a campaign in 1995-1997. Works at the Oratory of St. Michael in 2016-2017 addressed damage on the building’s floor and the safety of the structure.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the overall state of conservation of the nominated property is satisfactory. The conservation methodologies and techniques used during the most recent interventions are satisfactory and based on minimum intervention approaches, mostly focused on consolidation and cleaning.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are potential disasters from fire or water (in terms of flooding) as well as humidity due to rising damp and leakages. High visitor numbers can also make it difficult to maintain constant levels of temperature and humidity. Minor negative impacts may also arise from air pollution.

The site management authorities actively prepare for these risks, although a number of components, namely the Church of the Eremitani, the Cathedral Baptistry, the Basilica of St. Anthony and the Chapel of St. George, still lack detection and monitoring systems for relative humidity or fire, and in other buildings sprinkler systems installed for fire-fighting might likewise pose a risk of water damage in the event of appropriate or accidental function. ICOMOS recommends to consequently monitor relative humidity in all components, install fire detectors also in the church-owned properties, and ensure that fire-fighting installations are tailored to cause least possible negative impacts in the event of use.

3 Proposed justification for inscription
Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The new artistic language which Giotto introduced in Padua, in his Scrovegni Chapel frescoes, initiated an artistic revolution that marked a turning-point in the history of art. The revolutionary form of the scenes depicted and architectural features interacted with the actual architecture of the building. This opened the way to a new tradition in fresco painting which would be developed in an original and independent way by other artists working in Padua,
throughout the 14th century, and is best represented by the proposed series;

- The frescoes illustrate the historical change in the relationship between commissioning patron and artist in that patrons were integrated in the scenes, playing the roles of characters in the biblical scenes, including some of the first-known cases of female patrons;
- Padua alone gathers a high number and quality of frescoes testifying to the above-presented changes in artistic style and language and the roles of patron and artist and, accordingly, needs to be seen as the ‘world capital of fourteenth-century frescoes’.

In its Interim Report, ICOMOS suggested to the State Party the need to consider changing the name of the nominated property, in order that the name of the property reflects well the proposed Outstanding Universal Value of the property. ICOMOS considered that the title “Padova Urbs picta” was not fully clear as the series of fresco cycles is neither a painted city nor do the frescoes depict the city of Padua as their prime motif. In addition, the name of Giotto within the title does not seem fully relevant as the artist contributed to just a few of the frescoes within the property. The State Party acknowledged that the name “Padova Urbs picta” does not fully correspond to the identified attributes of the property. It accordingly suggested renaming the property: “Giotto’s Scrovegni Chapel and the fourteenth-century fresco cycles in Padua”, highlighting that the name of Giotto remained of critical importance to the serial proposal.

ICOMOS acknowledges that Giotto is the most renowned artist who contributed to the Padua fresco cycles, and Scrovegni Chapel the best-known individual component, but Giotto did not contribute to all components and one architectural structure may not need to be singled out among the others. In ICOMOS’ view it would therefore be creating an imbalance within the series it considers of Outstanding Universal Value, if one component is identified with the building and artist’s name, while others are not. In consequence, ICOMOS suggests removing the notion of Giotto’s Scrovegni Chapel and retain as the name of the serial property “Padua’s fourteenth-century fresco cycles”.

Comparative analysis
The comparative analysis aims to compare the nominated property with other fresco cycles and artistic productions of a comparable chronological and regional framework, that is Mediterranean artistic production of the 14th century. The methodology further establishes that while Europe could be considered the regional scale, only the Mediterranean parts of Europe, or in fact the Italian Peninsula, created architecture which facilitated the production of larger fresco cycles. ICOMOS considers that while the international comparisons drawn in the nomination file are appropriate to highlight other larger frescoes of the 14th century, the focus on Italy as the appropriate scope for comparison is acceptable. Fresco cycles require walls of a certain size, therefore Gothic architecture in Italy was particularly suitable in this regard since it was not built to great heights and had few window openings.

Within the Italian context, the comparative analysis is structured around six aspects said to make Padua’s fresco cycles exceptional, namely: technique and composition; date; authorship; innovation in the rendition of pictorial space; innovation in the depiction of states of feeling; and the new role of a commissioning patron. ICOMOS in its request for additional information on 24 September 2019, asked the State Party to further elaborate its comparison among the most relevant fresco cycles in Northern Italy.

In its response received on 24 October and 14 November 2019 respectively, additional comparisons with the works of Giusto de’ Menabuoi in Padua, fresco fragments in Treviso, works by Altichiero da Zevio in Verona and Guariento in Venice have been added. The authors also reviewed several other northern Italian towns which were centres of influence and trade in the 14th century to illustrate that no comparable frescoes are preserved within these historic centres.

As regards the selection of the component parts of the series, ICOMOS requested information in its first letter on the rationale for the selection of the component sites within Padua. The State Party replied in the additional information submitted on 14 November 2019, with tables which illustrate that although there may be quality differences between the frescoes which form the serial nomination, all selected frescoes have the capacity to make distinct contributions to the attributes identified.

ICOMOS considers that the augmented comparative analysis has successfully demonstrated the exceptionality of the Padua ensemble of 14th century frescoes and that no equivalent collection of fresco cycles exists elsewhere in terms of quality and concentration, nor in terms of the sizeable group of talented artists working within a defined spatial and chronological context.

ICOMOS considers that the comparative analysis justifies consideration of this serial property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i), (ii) and (iii).

Criterion (i): represent a masterpiece of human creative genius;
This criterion is justified by the State Party on the grounds that the fresco cycles in the nomination of ‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles are an example of extraordinary creative genius initiated by Giotto, which resulted in rejuvenating the tradition of
fresco painting through a new depiction of pictorial space, a new attention to the portrayal of human feelings and emotions, and the adaptation of sacred art to serve the secular celebration of prestige and power.

ICOMOS considers that while the justification provided might apply to Giotto’s masterpiece of fresco cycles in the Scrovegni Chapel, it is difficult to see all components of the series as a completely new impetus to illustrations of perspective and the depiction of human feelings. Whilst applying great skills and mastery, the subsequent artists of the later works drew on initial examples of new trends in the earlier references and elaborated largely in the differences of variations and content. As such, not all the component parts and the fresco cycles included in it can be considered to reflect the same high level of creative impetus and mastery. ICOMOS considers that criterion (i) has not been demonstrated for the series as a whole.

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the nominated property illustrates the extraordinary interchange of ideas, which existed between leading figures in the worlds of science, literature and the visual arts. The courtly climate setting of the Carraresi family in Padua, which has often been described as ‘pre-humanist’, fostered also a certain competitiveness between different patrons, who might hold political or religious power, all striving to leave behind great works of art.

ICOMOS considers that the serial property indeed exhibits an important interchange of human values, both by illustrating an entirely new way of depicting allegorical narratives in spatial perspectives influenced by the latest studies in the science of optics, and a new capacity to capture human emotions. A group of artists striving for innovation gathered within a single city at the same time and within this proximity exchanged ideas and know-how leading to a new style in fresco illustration. This new fresco style not only influenced Padua throughout the 14th century but formed the inspirational basis for centuries of fresco work in the Italian Renaissance and beyond. As such it testifies to the distribution of a technology and stylistic approach in artistic production over a span of time and within a cultural area. Likewise, the ideas which the frescoes convey in relation to ‘pre-humanist’ conceptions of life and destiny had a strong influence in the development of art in the centuries to come. ICOMOS considers that criterion (ii) has been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the fresco cycles bear witness to a fundamental moment in the history of art, when Giotto initiated a rejuvenation of the ancient technique of fresco painting, in both technical and formal terms. With the exceptional technical abilities possessed by the artists who followed him, the Padua fresco cycles became a model for others which proved remarkably resistant to the passage of time.

ICOMOS considers that while the arguments presented under this criterion are largely valid, art history cannot be considered a civilization or cultural tradition as intended to be captured by criterion (iii). ICOMOS considers that notions of the influence and change in artistic technology and style as well as their model character in Padua are better recognized under criterion (ii) and that accordingly criterion (iii) is not justified.

ICOMOS considers that the nominated property meets criterion (ii) for the entire series, and that criteria (i) and (iii) have not been demonstrated.

Integrity and authenticity

Integrity

In ICOMOS’ view the fresco cycles in the four component parts proposed present an overall shared approach in terms of techniques, themes, dating and style, and bear witness to new programmes of narrative and figurative choice. The works of Giotto, Guariento di Arpo, Altichiero di Zevio, Giusto de’ Menabuoi, Jacopo Avanzi, and Jacopo da Verona, illustrate the artistic revolution in the field of mural painting throughout the 14th century.

The serial nominated property brings together a variety of narratives based on different biblical and mythological references; they combine both public and private, religious and secular structures, as well as aristocratic and merchant commissioners, both male and female. It can therefore be concluded that the series completely covers and represents the various contexts of commissioning as well as structural implementation in which this new style of 14th century fresco painting in Padua occurred.

In terms of the four serial components, ICOMOS confirms that the boundary delineation ensures that all architectural structures which carry the frescoes and all other constructional walls or supporting elements needed for their long-term preservation are within the nominated property. The intactness of the frescoes is satisfactory and the monitoring systems designed for their continuous observation are, in some cases, exemplary. ICOMOS therefore concludes that the
integrity of the serial components as well as the overall series has been demonstrated.

Authenticity

ICOMOS considers that in all components, except for Palazzo della Ragione, the property preserves fully the fresco cycles, the material support on which the frescoes are painted, the plaster surfaces, the pigments and binding agents used in genuine fresco work, and the paints themselves. Although fragments of these frescoes have in the past suffered localized detachments, for example in Scrovegni Chapel, the Cathedral Baptistery, or Carrarese Chapel, these fragments were all replaced in their original positions during past conservation treatments.

Only one of the fresco cycles was extensively altered, which is the one in Palazzo della Ragione. After a fire in 1420 the upper three bands of frescoes originally painted by Giotto were lost and subsequently reconstructed by Niccolò Miretto, Stefano da Ferrara and Antonio di Pietro in the 15th century. Accordingly, the spatial majority of the Ragione as a whole, understanding of the internal decoration of Palazzo della Ragione, the property preserves fully the fresco cycle which is the one in Palazzo della Ragione. After a fire in 1420 the upper three bands of frescoes originally painted by Giotto were lost and subsequently reconstructed by Niccolò Miretto, Stefano da Ferrara and Antonio di Pietro in the 15th century. Accordingly, the spatial majority of the fresco cycle within Palazzo della Ragione cannot be said to reflect the same time period nor has it been able to be proven beyond doubt that the present appearance is indeed a truthful recreation of the Giotto imagery or whether we may in the future find traces of earlier motifs below the present frescoes.

ICOMOS considers that while the inclusion of Palazzo della Ragione is justified as it contributes as being the only public administrative building of the series and the only fresco cycle which is not primarily based on religious motifs, ICOMOS also considers that the upper three bands of square-shaped paintings do not meet authenticity in relation to their 14th century original production. This issue was highlighted in the ICOMOS Interim Report.

The State Party reiterated that Giotto worked on the original frescoes and that these, based on 14th century texts, were illustrations of the same motifs visible today. However, no trace of these frescoes survived the fire of 1420 according to the present knowledge. Non-invasive studies have now commenced to gain a better knowledge of what lies beneath the paintings by means of mapping of the frescoed walls using structured-light 3D scanners, multi-spectrum imaging and IR thermography. Unfortunately, no results from these studies were available to be taken into consideration by ICOMOS.

The State Party highlights that, whilst not painted by Giotto and not even 14th century productions, the upper rows of frescoes complete the narrative behind the nominated serial site, and are essential to an understanding of the internal decoration of Palazzo della Ragione as a whole.

ICOMOS recommends to the State Party to highlight explicitly in the local interpretation of the property component that the upper three bands are a restoration of the original frescoes after a major fire, which reconstructed an appearance of the 14th century frescoes but may not be iconographically authentic.

In conclusion, ICOMOS considers that the conditions of integrity have been met for the series and that authenticity overall has been demonstrated. However, the upper three bands of frescoes in Palazzo della Ragione reflect reconstructions carried out in the 15th century and need to be interpreted and presented as such.

Evaluation of the proposed justification for inscription

ICOMOS considers that the serial nomination of ‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles meets criterion (ii) of the World Heritage criteria. The arguments presented for the justification of criterion (iii) are better captured under criterion (ii) and criterion (i) cannot be applied to the series as a whole. A convincing justification for the selection of the series and comparative analysis have also been presented. The nominated property meets the necessary conditions of integrity. Authenticity has been successfully demonstrated for the overall series; however, the 15th century reconstructions of the original works of Giotto, destroyed by fire in 1420 in the Palazzo della Ragione, cannot be considered authentic and must be interpreted as a later restoration aimed at recreating a homogenous appearance of the fresco cycle.

Attributes

The attributes of the proposed Outstanding Universal Value are predominantly contained within the wall and paint layers of the fresco cycles. However, the Outstanding Universal Value is not exclusively represented by layers of art work but extends into the walls and the structural architecture of the buildings which house these frescoes. Frescoes are inseparable from the walls which form their architectural base and the three dimensional perspectives of these frescoes communicate and interact with the architectural spaces around them. It is therefore in the interaction between architecture and artwork that the attributes become legible.

The specific attributes within the frescoes relate to the painting techniques, the composition of complex narratives, the innovation in the depiction of three-dimensional space, the expressive conveyance of emotions in human faces and gestures, the illustration of commissioning patrons within the cycles as part of the religious or mythological human depictions, as well as the frescoes’ artists’ attribution, including signatures and their dating to the 14th century. The 15th century reconstructions of the original frescoes in Palazzo della Ragione, although contributing to the overall significance of the property, cannot be considered as attributes of the proposed Outstanding Universal Value.
The attributes include both architectural structures and specific frescoes within four serial components, namely: the Scrovegni Chapel and the entirety of its internal frescoes; the Church of the Eremitani and its frescoes in the Great Chapel, Cortellieri Chapel, Chapel of St. Antony Abbot and Spisser Chapel; the Palazzo della Ragione and its frescoes in the lower fresco cycles up to the arched band; the Chapel of the Carraresi Palace and the fresco cycles on its western and eastern walls; the Cathedral Baptistery with the entirety of its frescoes; the Basilica and Monastery of St. Anthony and its frescoes in the Chapel of the Black Madonna, the Chapter Hall, the St. James Chapel and the Chapel of the Blessed Luca Belludi; the Oratory of St. George including its entire fresco cycle, as well as the Oratory of St. Michael with its interior frescoes.

ICOMOS considers that the nominated serial property is supported by its comparative analysis, demonstrates criterion (ii) and meets the conditions of integrity and authenticity.

4 Conservation measures and monitoring

Conservation measures
Since 2014 all conservation measures in the property have been coordinated by the nomination partners and in close cooperation with the Ministry for Cultural Heritage and Activities. Conservation activities are carried out in a systematic and coordinated manner. The Scrovegni Chapel conservation is led by the Interdisciplinary and Scientific Committee for the Conservation and Management of the Scrovegni Chapel (ISCCMSC), founded in 1994. Its members are MiBAC (Ministry for Cultural Heritage and Activities), the Padua City Council, ISCR, the University of Venice, the University of Padua, Veneto Institute for Cultural Heritage and the International University of Art. In the Management Plan, it is stated that it is envisaged that this model shall be applied to all components of the serial nomination.

Concrete conservation measures planned in the short term concern the fresco cycle at the Cathedral Baptistery. Detailed monitoring projects, with consolidation wherever required, are foreseen for the frescoes in the Chapter Hall of the Saint Anthony Basilica and the Chapel of the Carraresi Palace. The latter shall also be further researched and its iconography be explored by an international conference. ICOMOS considers that the conservation planning and coordination is acceptable and will be further improved as soon as the anticipated formal agreement with ISCCMSC has been signed and it will be involved in conservation planning of all property components.

Monitoring
The nomination file presents a monitoring system which is implemented by three tiers: the MiBAC, the ISRC and Padua City Council. Since 2018 all property components have been monitored by means of a joint monitoring system with the same monitoring categories applied to each building and fresco cycle. Only the frequencies of monitoring differ based on the vulnerability of the concerned structure.

The monitoring process, undertaken for the most part annually, considers the state of walls, doors and window frames, flooring and roofing in the buildings concerned. With regard to the fresco cycles, attention is given to paint-film cohesion, salt efflorescence, infiltrations, paint-film peeling and biological aggression. Despite the joint approach, the location of the monitoring records varies based on property ownership. However, a digitized version is compiled in a joint database (see Documentation below).

ICOMOS considers that while the areas of concern and periodicity, as well as responsible institutions, have been identified, no concrete monitoring indicators were presented. ICOMOS further notes that risks mentioned as risk factors in the nomination, such as visitor numbers, relative humidity and air pollution, are not considered within the monitoring system. ICOMOS therefore recommends that apart from investigating the condition of the frescoes, the monitoring of prevalent risk factors is integrated within the monitoring system and that measurable or qualitative indicators are developed. Streamlining the monitoring system with the Periodic Reporting questionnaire is also advisable.

ICOMOS considers that conservation planning is acceptable and that the monitoring system and its indicators should be expanded. Creation of synergies with the Periodic Reporting questionnaire is advisable.

5 Protection and management

Documentation
The eight religious and secular building complexes with painted fresco cycles which have been included in the nomination belong to four different owners, including state, private institution and ecclesiastical bodies. In the past, these owners undertook research and documentation on their own initiative. However, since the start of the nomination initiative in 2014, a joint database has been created which contains all historic information on restorations and academic studies as well as the results of ongoing monitoring exercises. This database is hosted by the Ministry for Cultural Heritage and Activities and aims at bringing together all data concerning the property, as well as all existing graphic, photographic, photogrammetric and 3D records.

Legal protection
All four component parts are submitted to the maximum protection regime provided by the Italian legislation (Legislative Decree 22 January 2004, n.42, known as the Code of Cultural Heritage and Landscape) as protected cultural properties (listed buildings). Furthermore, they must also respect regional, provincial and local (city level)
Within the four participating owner institutions, different solidify this arrangement. Site management office. In its Interim Report, ICOMOS Padua City Council’s Culture Department, acting as the coordination is to be undertaken by a Secretariat within management of the property. The management structure with multiple units are involved in the process which commenced through regular Round Tables (Tavoli di Idee), later involving other stakeholders, such as associations, communities and individual citizens. The plan develops a so-called vision and mission, introduces the governance structure and presents an action plan with a limited number of reference projects described in more detail. Projects are identified as short-, medium- or long-term. In ICOMOS’ view, it would be desirable to augment the management plan towards more concrete strategic objectives and action timeframes to allow for the assessment of its progress in implementation and to include missing subjects such as visitor management as well as risk preparedness and disaster management, as indicated by the State Party in the additional information provided in February 2020.

Visitor management
The frescoes are frequently visited, with at least two sites already at risk of potential overcrowding: the Scrovegni Chapel and the Basilica of St. Anthony, both also visited by devotional visitors in larger groups, receiving approximately 300,000 visitors annually. The serial approach is seen as a chance to redistribute visitor flows away from the places of greatest tourist affluence to the currently lesser-known buildings with fresco cycles. A visitor circuit has been developed as a tool to guide visitors to the different components and can be explored by means of a leaflet or a smartphone application.

Community involvement
In the preparation of the nomination and the drafting of the management plan, the Steering Committee made efforts to broadly involve other stakeholders beyond the members of the Committee, including community associations and individual citizens. Special open round tables were arranged when determining key priorities of the management plan and were themed around specific topics, e.g. research and conservation (53 participants), training and education (55 participants), communication and promotion (75 attendees), as well as exploitation and valorization (84 participants). Padua City Council also aims to continuously involve the public via the nomination’s website and dedicated social media channels.

Evaluation of the effectiveness of the protection and management of nominated property
ICOMOS notes that the documentation of the property is extensive and that the legal protection is adequate. The management coordination body within the Padua City Council, called the World Heritage Office, has been formally established. The management plan outlines governance processes in terms of large-scale decision-making but provides less information on its actual supervision and implementation. A restricted number of priority projects are introduced, but without clear objectives, timeframe, as well as at times responsible body and success indicators.

Important management concerns such as visitor management or risk preparedness and disaster management are completely or largely absent. The State Party has committed to include these in the

Management system
In July 2016 the owners of the eight religious and secular building complexes, Padua City Council, Accademia Galileiana di Scienze, Lettere ed Arti, Pontifical Delegation for the Basilica of St. Anthony of Padua and Diocese of Padua – along with the University of Padua, the Ministry for Cultural Heritage and Activities, and the Regional Government of the Veneto – joined forces in the “Committee for the nomination”. This Nomination Committee became the Steering Committee with the submission of the nomination and is the first nucleus of the management system, for which it elected Padua City Council as the lead body and its coordinator. In 2018, a Memorandum of Understanding for the Drafting and Implementation of a Plan of Administration for the proposed serial property was signed by all partners to solidify this arrangement.

Within the four participating owner institutions, different staff structures with multiple units are involved in the management of the property. The management coordination is to be undertaken by a Secretariat within Padua City Council’s Culture Department, acting as the site management office. In its Interim Report, ICOMOS requested the State Party to provide assurance that the coordination office is formally established and provide details concerning its exact role and permanent staff structure in the management plan. In response to ICOMOS’ request, the State Party provided further details on the formal establishment, staffing and resources of the department, which has been given the title of the World Heritage Office. In ICOMOS’ view, the data provided suggests adequate resources for management coordination among the participating partners.

The management plan was developed in a participatory process which commenced through regular Round Tables (Tavoli di Idee), later involving other stakeholders, such as associations, communities and
ICOMOS therefore recommends augmenting the management plan to include all relevant areas of concern and develop strategic objectives with measurable success indicators for assessment of the plan’s successful implementation.

ICOMOS considers that the overarching management system of the serial property is well established but that the forthcoming revision of the management plan should provide specific implementation guidance and integrate missing areas such as visitor and risk management.

6 Conclusion

The serial nomination of ‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles presents eight contexts of 14th century fresco cycles, which constitute an exceptional group of artworks and architecture, which illustrates major innovations in the artistic language and canon of fresco painting in the 14th century. In the context of a pre-humanist environment foreshadowing the Italian Renaissance, the fresco cycles of several well-known artists who worked throughout the century illustrate in an entirely new way the depiction of allegorical narratives in spatial perspectives influenced by the latest studies in the science of optics of the 14th century. They further exhibit a new capacity in capturing human figures, including individual features displaying feelings and emotions, the composition of complex narratives, and other aspects which were influential in the development of art over a span of time and within a geographical area. ICOMOS considers that the property justifies criterion (ii) and that the proposed criteria (i) and (iii) are not justified.

ICOMOS considers that the nominated property meets the conditions of integrity and authenticity whilst noting that the frescoes in the upper three bands of fresco scenes in Palazzo della Ragione are 15th century reconstructions of the earlier Giotto frescoes, which were destroyed by fire in 1420. ICOMOS recommends communicating this clearly in the site’s interpretation strategy.

The property boundaries and shared buffer zone are adequate. An existing World Heritage property, the Botanical Gardens (Orto Botanico) in Padua is part of the buffer zone of this nominated property. With both World Heritage properties located in the respective buffer zone of each, ICOMOS considers it essential to establish effective communication on management issues between the two site administrations. ICOMOS welcomes the suggestion of the State Party to make a representative of the World Heritage property Botanical Garden a permanent observer of the Steering Committee.

ICOMOS notes that the overarching management body has been well established but that the strategic management planning and implementation of management at the site’s components provides opportunities for improvement. ICOMOS notes that the envisaged Executive Secretariat or management coordination body of the property has been established under the title of World Heritage Office and is adequately resourced in human and financial terms.

The management plan should further be augmented as committed to by the State Party, to contain currently missing contexts including visitor management, risk preparedness and disaster management strategies. Disasters of fire or water constitute the most significant risks to the property and all installed fire-fighting systems should be reviewed as to their best suitability in the specific context. In view of anthropogenic risks, it is imperative that relative humidity is constantly monitored in all components of the property. The monitoring system presented would benefit from more precise indicators and the inclusion of the key risk factors in the monitoring catalogue. The facilitation of synergies with the Periodic Reporting questionnaire is advisable.

In light of the revised name suggestion submitted by the State Party “Giotto’s Scrovegni Chapel and the fourteenth-century fresco cycles in Padua”, ICOMOS suggests removing the specific mention of “Giotto’s Scrovegni Chapel” as it would create undue imbalance by singling out one architectural structure and artist in a serial nomination of several others. ICOMOS suggests retaining as the name of the serial property: “Padua’s fourteenth-century fresco cycles”.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that ‘Padova Urbs picta’, Giotto’s Scrovegni Chapel and Padua’s fourteenth-century fresco cycles, Italy, be inscribed on the World Heritage List on the basis of criterion (ii).

Recommended Statement of Outstanding Universal Value

Brief synthesis

The fresco cycles housed in eight complexes of buildings within the old city centre of Padua illustrate how, over the course of the 14th century, different artists, starting with Giotto, introduced important stylistic developments in the history of art. The eight building complexes are grouped into four component parts: Scrovegni and Eremitani (part 1); Palazzo della Ragione, Carrarese Palace, Baptistry and associated Piazzas (part 2); Complex of Buildings associated with the Basilica of St. Anthony (part 3); and San Michele (part 4). The artists who played a leading role in the creation of the fresco cycles were Giotto, Pietro and Giuliano da Rimini, Guariento di Arpo, Giusto de’ Menabuoi, Altichiero da Zevio, Jacopo Avanzi and Jacopo da Verona. Working for illustrious local families, the clergy, the city commune or the Carrarese family, they would – within buildings both...
public and private, religious and secular – produce fresco cycles that gave birth to a new image of the city.

Whilst painted by different artists for different types of patron within buildings of varying function, the Padua fresco cycles maintain a unity of style and content. Within the artistic narrative that unfolds in this sequence of frescoes, the different cycles reveal both diversity and mutual coherence.

The property illustrates an entirely new way of depicting allegorical narratives in spatial perspectives influenced by advances in the science of optics and a new capacity in capturing human figures, including individual features displaying feelings and emotions. Innovation in the depiction of pictorial space involved explorations of the possibilities of perspective and trompe-l’oeil effects. The innovation in the depiction of states of feeling is based on a heightened interest in the realistic portrayal of human emotions and the integration of the new role of commissioning patron as the patrons begin to appear in the scenes depicted, and ultimately even take the place of figures participating in the biblical narrative. In effect, the works illustrate the adaptation of sacred art to serve the secular celebration of the prestige and power of the ruling powers and associated noble families.

Criterion (ii): The Padua fresco cycles illustrate the important interchange of ideas which existed between leading figures in the worlds of science, literature and the visual arts in the pre-humanist climate of Padua in the early 14th century. New exchanges of ideas also occurred between clients commissioning works and the artists from other Italian cities that had been called to Padua to collaborate on the various fresco cycles inspired by scientific and astrological allegories or ideas on sacred history gleaned from contemporary intellectuals and scholars. The artists showed great skill in giving these ideas visual form and their technical abilities allowed the Padua fresco cycles not only to become a model for others but also to prove remarkably resistant to the passage of time. The group of artists striving for innovation who gathered within Padua at the same time fostered an exchange of ideas and know-how which led to a new style in fresco illustration. This new fresco style not only influenced Padua throughout the 14th century but formed the inspirational basis for centuries of fresco work in the Italian Renaissance and beyond. With this veritable rebirth of a pictorial technique, Padua supplied a new way of both seeing and depicting the world, heralding the advent of Renaissance perspective. The innovations mark a new era in the history of art, producing an irreversible change in direction.

Integrity

The four component parts comprise eight complexes of buildings in the centre of Padua – some publicly, some privately owned, some secular, some religious – which present an overall shared approach in terms of techniques, themes, dating and style, and bear witness to new programmes of narrative and figurative choices in fresco painting. They illustrate the complete range of the various aspects of innovation in Italian frescoes in the 14th century.

The institutional bodies (Padua City Council, the Ministry for Cultural Heritage and Activities, the University of Padua) that own the different sites have promoted research, maintenance and restoration work necessary to maintain the various fresco cycles in a good state of conservation. Such work means that each of the single parts can still be read and understood, both individually and in relation to each other.

Authenticity

The attributes of the property illustrate authenticity in material, design, in particular workmanship, setting and to a certain extent spirit and feeling in relation to the religious concepts they evoke. The authenticity is further expressed in the inseparable bond between the frescoes and the interior architectural spaces they are part of as well as the architectural construction of the historic buildings. All components retain authentic evidence of the fresco cycles, the material support on which the frescoes are painted, the plaster surfaces, the pigments and binding agents used in fresco work, and the paints themselves. Although fragments of these frescoes have in the past suffered localized detachments, for example in Scrovegni Chapel, the Cathedral Baptistery, or Carrarese Chapel, these fragments were all replaced in their original positions during past conservation treatments.

The Padua fresco cycles are still fully legible, and the iconography used within them can be identified as authentic works of known 14th century artists. All frescoes are still in their original locations, which means the very place in and for which they were painted. The overall context within which they exist – that is, the area containing the buildings which house the different cycles – is still that which was the heart of the city enclosed within the old city walls and now coincides with the centre of the historic city.

Protection and management requirements

All of the buildings and complexes of buildings which house the frescoes in the property are under the strictest protective measures laid down by Italian law (listed buildings), the main expression of which is the law decree 22/01/2004 n. 42, known as the Codice dei Beni Culturali e del Paesaggio (Code for the Cultural Heritage and Landscape). There are further protective measures in the instruments for territorial administration that exist at both regional, provincial and city level, all guaranteeing the protection and conservation of the buildings and their surroundings. The buffer zone is bound by the perimeter of Padua’s old city centre, an area that comes under special protective measures laid down in Padua City Council’s “Works Ordinance”.

Criterion (ii): The Padua fresco cycles illustrate the important interchange of ideas which existed between leading figures in the worlds of science, literature and the visual arts in the pre-humanist climate of Padua in the early 14th century. New exchanges of ideas also occurred between clients commissioning works and the artists from other Italian cities that had been called to Padua to collaborate on the various fresco cycles inspired by scientific and astrological allegories or ideas on sacred history gleaned from contemporary intellectuals and scholars. The artists showed great skill in giving these ideas visual form and their technical abilities allowed the Padua fresco cycles not only to become a model for others but also to prove remarkably resistant to the passage of time. The group of artists striving for innovation who gathered within Padua at the same time fostered an exchange of ideas and know-how which led to a new style in fresco illustration. This new fresco style not only influenced Padua throughout the 14th century but formed the inspirational basis for centuries of fresco work in the Italian Renaissance and beyond. With this veritable rebirth of a pictorial technique, Padua supplied a new way of both seeing and depicting the world, heralding the advent of Renaissance perspective. The innovations mark a new era in the history of art, producing an irreversible change in direction.

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An overall management system has been introduced, establishing close coordination between the different bodies that own the complexes of buildings which house the fresco cycles. Thus from independent management by four different bodies, a model of co-governance has been established, in which the City Council presides over a Committee whose members represent those bodies as well as representatives of the Regional Government of the Veneto, the Ministry for Cultural Heritage and Activities, the University of Padua (present as scientific consultants) and the Orto Botanico. The overall coordination of the partners is facilitated by the Council’s Cultural Affairs Department, through a specially-created agency, called the World Heritage Office, which acts as a secretariat to the management group. A Memorandum of Understanding for the joint implementation of a management plan has been signed. The management plan is under elaboration based on a first draft document submitted.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Augmenting the management plan to include concrete strategic objectives and timeframes, which allow for the assessment of its progress in implementation and to include missing subject areas such as visitor management as well as risk preparedness and disaster management,

b) Consistently monitoring relative humidity in all components, including spaces where visitors are not currently expected to cause negative impacts, and augment the monitoring system to ensure monitoring of all prevalent risk factors based on measurable or qualitative indicators,

c) Installing fire detectors also in the church-owned properties and ensure that fire-fighting installations are tailored to cause least possible negative impacts in the event of use,

d) Clearly communicating in the interpretation of the property component of Palazzo della Ragione that the upper three bands of fresco cycles reflect 15th century reconstructions aimed at recreating the content of the earlier Giotto frescoes, which were lost due to fire in 1420 and were painted by Niccolò Miretto, Stefano da Ferrara and Antonio di Pietro;

ICOMOS further recommends that the State Party give consideration to changing the name of the property to become: “Padua’s fourteenth-century fresco cycles”.
Map showing the boundaries of the nominated property
Paseo del Prado and Buen Retiro
(Spain)
No 1618

Official name as proposed by the State Party
Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences

Location
Municipality of Madrid
Autonomous Community of Madrid
Spain

Brief description
Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences is located at the urban heart of Madrid. Evolved over centuries, the nominated property reflects a number of important historical influences. It was the prototype of a Hispanic alameda (tree-lined avenue) from the 16th century, as well as an example of a new idea of urban space and of an urban development model from the enlightened absolutist period of the 18th century. Buildings dedicated to the arts and the sciences join others devoted to industry, healthcare and research in a 200-hectare cultural landscape. All collectively illustrate the aspiration for a utopian society during the height of the Spanish Empire.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a group of buildings.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019) paragraph 47, it has also been nominated as a cultural landscape.

1 Basic data

Included in the Tentative List
27 January 2015

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

Comments on the natural attributes of this property, and their conservation and management were received from IUCN on 19 November 2019 and have been incorporated into relevant sections of this report.

An ICOMOS technical evaluation mission visited the property from 6 to 11 October 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information about the justification of Outstanding Universal Value, comparative analysis, attributes, state of conservation, protection and management.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: the overall justification for inscription, criteria, comparative analysis, boundaries, buffer zone and management plan.

At its own initiative, on 23 October 2019 the State Party provided updated mapping and boundary information to correct an error.

Additional information was received from the State Party on 4 November 2019 and 28 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences is located in the centre of Madrid. Combining culture and nature, it is a designed cultural landscape in an urban environment that has evolved over centuries. The nominated property has an irregular form but is roughly a square, sloping from a high point in the northeast corner to the southwest. It has four contiguous parts: the Jardines del Buen Retiro; the Real Jardín Botánico; the Paseo del Prado and its associated streetscape; and the Barrio Jerónimos.

Jardines del Buen Retiro
The 120-hectare Pleasant Retreat Gardens is the largest part of the property. Now a public park, it is an extensive remnant of the 17th-century Buen Retiro palace (which no longer survives), along with a number of other buildings. It comprises a series of different landscaped spaces as a result of the influence of different gardening styles from the 19th century to the present day.
In addition to extensive gardens in the French, Italian and English styles are landscape elements such as the monumental 17th-century Retiro pond, the Rose Garden and the Paseo de la Argentina, also known as the Statue Walk. In the Reservado ("reserved" section) are follies such as the Casita del Pescador (Fisher’s Cottage) and Montaña Artificial (Artificial Mountain). There is a small valley or depression where the 19th-century Cristal and Velázquez exhibition palaces stand.

Real Jardín Botánico
The 8-hectare Royal Botanical Garden is located near the southwest corner of the nominated property. It is organised into three levels of terraces, the lower two of which resemble parterres but are planted with a wide range of plants. A taxonomic collection of plants is ordered phylogenetically. The garden’s large herbarium conserves about one million specimens of dried plants, and botanical drawings.

Paseo del Prado
This broad avenue and its associated streetscape runs approximately north-south, forming the western edge of the nominated property. The Paseo del Prado is the prototype of an alameda (tree-lined avenue), and its flanking buildings are major cultural, scientific, political, economic and civic institutions.

The heart of the Paseo del Prado lies between two major fountains, the Fuente de Cibeles at the northern end and the Fuente de Neptuno. The Plaza de Cibeles, perhaps the most iconic visual symbol of the city, is surrounded by prestigious buildings such as the Palacio de Comunicaciones (now Madrid City Council). The tree-lined Paseo runs south to the Fuente de Neptuno by way of two complementary monuments, the Fuente de Apolo (Apollo Fountain) and the Monumento a los Caídos (Monument to the Fallen).

The southern section of the Paseo continues with its tree-lined walk from the Fuente de Neptuno to the Glorieta de Carlos V (Carlos V Roundabout), with an extension to the Atocha railway station. The monumental landmark at the midpoint of this section is the Cuatro Fuentes (Four Fountains). This area includes important art museums such as the Museo Nacional del Prado and the Museo Thyssen-Bornemisza.

Also on the southern side of the nominated property is a small area known as the Colina de las Ciencias (Hill of Sciences), with the Museo Nacional de Antropología and Real Observatorio Astronómico.

Barrio Jerónimos
The Saint Jerome neighbourhood is an urban enclave between the Paseo del Prado to the west and the Buen Retiro park to the east. Largely residential, it has a rich variety of 19th- and 20th-century buildings that also include cultural venues such as the Museo Nacional de Artes Decorativas (National Museum of Decorative Arts) and Casón del Buen Retiro.

Historically and according to the nomination dossier, two of the major parts of the property, the Paseo del Prado and the Jardines del Buen Retiro, have links from at least 1540 to the first tree-lined walk, the Prado Viejo (Old Prado), which was close to two important religious sites, the Monasterio de los Jerónimos (Jerónimos or Hieronymite Monastery, 1505) and the Ermita de la Virgen de Atocha (Virgen of Atocha Hermitage). The walk was embraced by Madrid’s citizens of the time as means to enjoy leisure and recreation in a natural environment.

In the 1630s, Felipe IV, undoubtedly attracted by the qualities of the tree-lined walk, ordered that his new Buen Retiro palace and its extensive gardens be constructed nearby. Linking the walk and the palace benefitted from the conjunction of nature with the highest achievements of the artistic and literary virtuosi who populated the Spanish Golden Age (1580-1680). The Buen Retiro palace became the epicentre of Golden Age culture, the setting for its most remarkable artistic and literary expressions and collections.

Carlos III opened part of the gardens to the public in 1767, integrating the Buen Retiro into a general improvement plan for the city. More of the gardens were opened progressively over time until it was fully open in 1848. The Paseo del Prado was remodelled in the 1760s-1770s based on Enlightenment ideals regarding urban development, generally taking on its current form.

About 1770 a great transformation of Madrid began under Carlos III. The enlightened monarch led a major initiative to bring the sciences, healthcare and industry closer to Madrid society by locating major scientific institutions in the vicinity. This project included establishing the Real Jardín Botánico (1778), Academia de Ciencias (Academy of Sciences), Gabinete de Historia Natural (Natural History Cabinet) and Real Observatorio Astronómico (Royal Astronomical Observatory, 1790), which crowned the Colina de las Ciencias (Hill of Sciences).

A new concept of urban space thus emerged, a complex project with a clear social element that included the establishment of an innovative group of buildings and facilities dedicated to science and to educating the public, and which would also embellish the city. This urban renewal became a model that exercised special influence in Latin America.

Although the War of Independence against the French (1808-1814) led to the interruption of the mass reforms that had been planned, the nominated property maintained its artistic, scientific and leisure traditions.

The Buen Retiro palace was damaged in 1808 and later demolished. The gardens were retained, however, and from 1868 to 1876 they were transferred to the city of Madrid with the intention of maintaining a natural space for leisure activities in the dense urban environment. Development of the largely residential Jerónimos...
neighbourhood on the former palace site began in the 1860s-1870s, about the same time the Buen Retiro became a public park.

Throughout the 19th and 20th centuries the entire area benefited from the major cultural, political, social, scientific, and economic institutions that were located here, representing a dynamic society and manifesting social participation. This association of nature, arts and sciences, leisure and representation has continued to the present, with part of the nominated property being known as the Paseo de las Artes (Art Walk) due to the convergence of numerous museums devoted to the arts. The sciences are also present in the Real Jardín Botánico, the Real Observatorio Astronómico and other like institutions.

The nominated property also has a close relationship with literature. This includes the early works of the dramatist Pedro Calderón de la Barca and playwright Lope de Vega, which were performed in the Buen Retiro palace’s theatre, and the work of the Real Academia Española (Royal Spanish Academy). Leading political and economic institutions were also attracted here, such as the Congreso (Congress, 1850), Banco de España (Bank of Spain, 1881) and Bolsa de Madrid (Madrid Stock Exchange, 1893).

**Boundaries**
The nominated property has a revised area of 218.91 ha. No buffer zone is proposed.

The State Party provided updated mapping and boundary information on 23 October 2019 to correct an error and replace the maps provided in the nomination dossier.

While the nominated property boundaries incorporate many of the identified attributes that support the proposed Outstanding Universal Value, in a number of instances they do not satisfactorily address the associated urban space and associated facades. In parts, the proposed boundaries also cut through building complexes, sometimes including streets, and sometimes bisecting public spaces.

In response to the Interim Report, the State Party has revised the boundaries of the nominated property to address these issues. The revised area of the nominated area is of 218.91 ha. In relation to these new property delineation, ICOMOS considers that clarifications should be provided as regards the extent to which the buildings and facades of buildings at the edge of the nominated property are included within the revised boundaries.

The State Party does not propose a buffer zone on the grounds that existing legislation offers sufficient legal protection to the immediate environment of the nominated property, and that an additional protective zone would therefore be superfluous and even confusing. The Operational Guidelines accept the possibility that some properties may not need a buffer zone.

ICOMOS notes that the nomination dossier explains that urban context allows the understanding of the property. In its Interim Report, ICOMOS sought further information about the relationship with the urban context, if it was analysed by the State Party and documented, and also about options considered for the potential establishment of a buffer zone. The State Party advised that the relationship to the urban context has been carefully studied. It also provided details of three buffer zone options, noting the option based on the Historical Centre in the Madrid General Urban Development Plan (PGOU) is the most reasonable, being based on historical, visual and functional protection criteria. The State Party also advised it would have no objection to adopting such an option if necessary.

While existing protection may largely be effective, ICOMOS considers that given the pressures that often arise in such urban contexts, the establishment of a buffer zone that explicitly addresses the proposed Outstanding Universal Value would be necessary. ICOMOS recommends that the delineation of an adequate buffer zone be undertaken, based on the Historical Centre in the Madrid General Urban Development Plan (PGOU).

**State of conservation**
The overall current state of conservation of the nominated property is reasonably good.

The Paseo del Prado, Jardines del Buen Retiro, Real Jardín Botánico and the historic buildings in public ownership are generally in an excellent state of conservation. Less information is provided on the landscape features.

Only 18 percent of the historic buildings within the boundaries of the nominated property are privately owned. Private owners seem to be interested mainly in the conservation of their building’s facades, entrance and staircase. Typically, the private rooms of apartments have been renewed and transformed. ICOMOS requested in its first letter further information on the state of conservation of privately-owned buildings. The State Party explained that owners are addressing the conservation of their buildings under municipal supervision and that the results are considered adequate.

Information was also sought regarding whether a more recent survey of trees had been undertaken, and the State Party indicated the last survey dates from 2015/16.
Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are intensity of use, air pollution and climate change.

More than 10 million visitors to the nominated property’s main museums were recorded in 2017. The very intensive use of the Paseo del Prado and the Buen Retiro park is concentrated on Sundays.

Air pollution, caused mainly by private motor vehicles, is a major factor affecting the nominated property. This is concentrated in the area around Atocha railway station and the Paseo del Prado. The city is trying to improve the public transport system. In addition, the Paseo del Prado is closed to traffic for some hours on Sundays.

Climate change is affecting the nominated property. Trees are suffering and water consumption for the Jardines del Buen Retiro and Real Jardín Botánico is increasing. A solution to this problem will need to be found soon.

In the nomination dossier, ICOMOS noted that there is overexploitation of some areas, and requested in its first letter the State Party to provide information on the nature and extent of this exploitation. The State Party replied providing information about short-term but intensive uses which could potentially affect the nominated property, but that achieving a balance with conservation when these intensive uses are undertaken, is a management priority.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The Buen Retiro was witness to the influence of European landscape design that left traces of French classicism, English landscaping and the early 20th-century historicist style that spread throughout Europe.
- The Paseo del Prado has exercised unquestionable influence in Spanish America since it was first established, especially on the Spanish American viceroyalties where similar alamedas projects were based on the Madrid prototype.
- The close links with Latin America included shared cultural or scientific projects, such as Real Jardín Botánico’s global botanical expeditions. These close relationships are still alive in shared scientific and cultural projects and institutions.
- It became an innovative town development model of the enlightened absolutist period, and is a prototype of a new idea of improvement of the urban space with a strong social content guided by rational criteria to enhance ornamentation, hygiene and functionality.
- The Paseo del Prado and Buen Retiro park are a powerful and unique expression of enlightened ideals applied to town development projects with the unique and innovative addition of the sciences as an essential component, with a view to socialising knowledge and making it available to all citizens.
- The nominated property represents a utopian society, a melting pot of human aspirations at the height of the Spanish Empire when the democratisation of knowledge was introduced as the basis of a new world society, an idea that extended beyond Spain to the other side of the ocean.
- Its connection with the arts and sciences makes it an extraordinary receptacle within an exceptional historical context. The arts, sciences, healthcare, industry and research are all part of an exchange of human and scientific values that promotes the dissemination of knowledge and whose public and social roles have been preserved with outstanding vitality.

In its Interim Report, ICOMOS raised the complex physical form of the nominated property and its related history, and asked the State Party to briefly re-state the justification for inscription for the property as a whole. In response, a re-statement of the justification for the property was provided which reflects some re-framing or focusing of the justification, and the provision of some additional information. The key concept expressed is the introduction of nature into the urban environment.

The nomination dossier explains that the two main areas of the property: Paseo del Prado and Buen Retiro were both developed simultaneously, influencing the successive transformations of each one, whereby they cannot be separated in history. However, ICOMOS considers that this argument is difficult to sustain in the light of historical facts. When the alamedas were planted they were in the public realm, whilst the palace gardens were private. Even when permission was granted to the public to enter the gardens (something that most European rulers were doing at the time), no special provision was made for access. It was not until the changes to convert the Buen Retiro into a public park carried out in the 1870s, that major routes connecting the gardens to the Paseo were opened up. The property had little coherence as a whole until that point: the Paseo del Prado and the Jardines del Buen Retiro may have been proximate geographically, but they were developed for different reasons and in different ways, and over time they grew apart in function and character. ICOMOS considers that the justification for the property as a whole is not convincing from the historic synthesis.

Comparative analysis

The comparative analysis is structured into four parts, based on typologies linked to the proposed Outstanding Universal Value: designed evolving cultural landscapes in an urban environment; properties containing three different types of designed cultural landscapes (urban
park, tree-lined avenue and scientific garden); properties manifesting actions typical of the Enlightenment; and properties with a special relationship to the arts and sciences as part of their evolution. The analysis includes properties on the World Heritage List and Tentative Lists, and sites not on either list.

The State Party presents the nominated property as a new type of property that would fill a gap in the World Heritage List: a designed cultural landscape in evolution which is integrated into an urban environment. Further, the analysis notes that there are no other listed properties with similar key attributes, nor is there a thematic study which would inform the analysis.

In the case of designed evolved cultural landscapes, a preliminary review of 42 parks and gardens was reduced to 15 European palaces with gardens located in urban areas. The analysis argues that these properties were created at specific historical moments and represent outstanding styles of gardens, but are unlike the Buen Retiro, which has evolved and transformed through history. They are therefore not considered appropriate for comparison.

In other cases, examples are dismissed because of their different geo-cultural region or their very different character.

One designed urban cultural landscape on the World Heritage List is compared to the nominated property, Rio de Janeiro: Carioca Landscapes between the Mountain and the Sea (Brazil, 2012, criteria (v) and (vi)). The analysis concludes that this property is not entirely comparable because of the importance of its interaction with the city's natural surroundings, rather than with the designed landscape.

No comparable designed landscapes were ultimately identified which contain the different types of designed landscapes.

The analysis also considers tree-lined avenues in Europe. None are found to be comparable. One non-European treed avenue, the Paseo del Prado in Havana (Cuba), has significant similarities to the nominated property but is slightly later in date, was actually influenced by the nominated property, and lacks the urban, institutional and cultural developments in a key period, according to the analysis.

A number of urban parks are also analysed, such as Hyde Park in London (United Kingdom), as well as prototypes of urban renewal from the 18th-century Enlightenment, such as Unter den Linden boulevard in Berlin (Germany). Again, none are found comparable.

The last section of the analysis addresses designed cultural landscapes that have a special connection to the arts and sciences. Some potentially comparable properties are identified but rejected because they are not in an urban context or part of a town planning process. More detailed analyses are presented for some examples but these are also found not to be comparable.

The analysis concludes that the nominated property has unique qualities not found in any other properties, which according to the State Party supports a claim of Outstanding Universal Value and fills a gap in the World Heritage List.

ICOMOS notes that the comparative analysis is framed, in part, in terms of the nominated property being a new typology – a designed cultural landscape which has evolved to a particular point in time, and which is integrated into an urban environment. As a result, and reiterated in six main attributes highlighted in additional information provided by the State Party in November 2019, it is asserted that there are no comparable properties.

Clearly, most of the property is designed landscape which is set within and integrated with the surrounding urban fabric. However, the argument that it is a new type of designed cultural landscape in World Heritage terms is weak.

ICOMOS is not convinced by this new type or category of cultural landscape, and therefore considers that the nominated property cannot be said to fill a gap on the World Heritage List based on this new typology.

ICOMOS is also not yet convinced by the methodology used for the comparative analysis. The values and attributes chosen for the analysis are the result of a complex construct that leads to a situation where comparisons can be made only with parts of the nominated property, but not with the whole property.

The difficulty with the initial analysis arises because of the complexity of the values which, as noted below, do not yet present a satisfactory justification of Outstanding Universal Value. The clearly articulated influence of the whole property would have helped to frame a more satisfactory comparative analysis. ICOMOS also notes that uniqueness is not, on its own, sufficient to justify inscription.

It seems that the Prado’s alamedas, were always on common land, and there is evidence of the city authorities and the owners paying for their upkeep, whilst improvements were aided on occasions by Royal largesse. They were thus a very early provision of green public space.

In considering the Buen Retiro, ICOMOS notes that by the 18th century another common form of public walk was the Royal, noble or episcopal gardens of the capital cities, when thrown open to the public. The Jardines del Buen Retiro were very much part of this trend, and the nomination dossier mentions that they were thrown open to the public by Carlos III in 1767, re-opened after
the Napoleonic War in the late 1810s, and finally transferred to the city authorities in 1848. The major wave of public park creation in Europe and America was in the late 19th century. The improvements to the Jardines del Buen Retiro from the 1870s for the sake of the public were thus part of the widespread public park movement at that time.

ICOMOS requested in its Interim Report that the State Party augment the comparative analysis section in order to reflect any revised or enhanced understanding of the proposed Outstanding Universal Value, especially in terms of influence of the nominated property on other sites, and as being a model for the tree-lined avenue in Latin American cities.

The State Party provided an augmented comparative analysis, with a focus on the alamedas. The influence represented by Paseo del Prado, in different contexts is now better expressed, especially in Latin America for the different moments of the history. The State Party offered a historic presentation that reinforce the values of Paseo del Prado and also the two moments that determined the current urban configuration and social vocation of the property: 16th and 18th century. However, in those instances where examples are provided of green urban spaces, it is not clear whether the State Party has adequately portrayed their values, for example by relying on existing statements of value which might focus on architecture and planning rather than on landscaping. Such statements might not fully capture the values of the potentially comparable properties.

ICOMOS considers that the overall analysis is more convincing regarding the alamedas. The re-statement of the justification, focused on the introduction of nature into the urban environment, is also helpful to simplifying and strengthening the context for the analysis for the whole property. However, this focus on the alamedas for the comparative analysis would benefit further exploration in Latin America and beyond and support by archival and literary evidence.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iv) and (vi).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

The State Party considers that the Paseo del Prado influenced the Spanish American viceregalities, where similar alameda projects based on the Madrid model were implemented in the late 18th and early 19th centuries. Close links with Latin America also arose regarding shared cultural or scientific projects, especially the Real Jardín Botánico’s botanical expeditions there and around the world. Such shared projects continue. And finally, the State Party considers that the Buen Retiro gardens reflect the influence of European landscape design, with traces of French classicism, English landscaping and the historicist style of the early 20th century.

ICOMOS asked the State Party in its first letter to further explain the influence of the nominated property as a whole or of some of its components, and how this influence could be said to reflect an interchange of values. The State Party replied by emphasising that it is the influence of the nominated property as a whole that is important, not the separate influence of its parts.

ICOMOS considers that while the strength of the influence of parts of the property is substantial, especially the tree-lined avenue, the influence of the whole property is much less apparent. The nomination dossier does not clearly articulate how the physical assets of the whole nominated property influenced the tangible dissemination of ideas important in the history of landscape design, town planning or architecture over a span of time or within a cultural area, as demonstrated by specific major examples of that dissemination.

The Paseo del Prado tree-lined avenue, originating in the 16th century though substantially modified in the 18th century, had a strong influence in the Spanish colonies as a town development model. It was an early and important example of an alameda; an obvious example of the influence it had is the eponymous Paseo del Prado in Havana, Cuba.

ICOMOS requested clarification on the type of influence and links related to scientific research and project connections that are presented in the nomination dossier as justification of this criterion. The State Party replied that influence and links exist regarding enlightened concepts in science and culture, connected to institutions located within the nominated property, which relate to landscape design and technology.

In its Interim Report, ICOMOS also requested the State Party to augment the justification of this criterion on the basis of the identification of the major themes of the influence of the property, and specifying what are the main sites influenced by the nominated property. The State Party augmented this justification and provided a convincing argument for the influence of the alameda. However, the justification would still appear to be weak regarding the influence of the whole property, especially including the Buen Retiro.

In the case of the influence of the Paseo del Prado after the 1770s, the State Party has provided additional information about specific influences which appears convincing.
ICOMOS considers that the criterion could have potential to be justified on the basis of the influence the alameda had in the development of cities, and especially in Latin America. However, the influence of the whole property is not justified, in part because of the weakness in the comparative analysis.

ICOMOS considers that the State Party might further explore the theme of the alameda with the Paseo del Prado and its influence of being a pattern for the development of cities elsewhere in the world, and especially in Latin America.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history:

The State Party considers the Paseo del Prado and Buen Retiro designed cultural landscape to be a prototype of a Hispanic alameda and of a paseo. It is also a town development model of the enlightened absolutist period, a prototype of a new idea of improvement of urban space with a strong social content guided by rational criteria to enhance ornamentation, hygiene and functionality. The State Party concludes that the Paseo del Prado and Buen Retiro are a powerful and unique expression of enlightened ideals applied to town development projects with the unique addition of the sciences as an essential component, all with a view to the democratisation of knowledge and making it available to all citizens.

ICOMOS considers that this criterion is meant to relate to the outstanding nature of the typology of a property, nominated in the context of that defined typology illustrating one or more significant stages in history. The criterion should be used in relation to significant prototypes or strongly representative examples of a defined type of property. However, different typologies have been proposed for different parts of the nominated property, rather than conceiving it as a single property with an overarching Outstanding Universal Value.

ICOMOS therefore considers that the typology of the overall nominated property is not clear. The nomination gathers many different features from a long history without a clear and convincing connection linking them together as a specific typology of property. The multi-era context of the nominated property's development involved both the creation and destruction of features over time.

The alameda prototype from the 16th century was a significant point in the history of the development of urban landscapes. Its later development during the Enlightenment embellished the city with impressive buildings.

ICOMOS requested in its first letter further information as regards the State Party’s view of the relevant significant stage in human history. The State Party replied that the significant period is the evolution of the Spanish empire, within which there are distinct periods such as the Spanish Golden Age and the Enlightenment.

ICOMOS requested in its Interim Report additional information as regards the connection linking the many different elements together as a specific type of property. The State Party has reinforced its argument regarding the type of property, by explaining the unifying idea of creating green urban spaces in two different stages of history – from the end of the Renaissance to the Enlightenment, and the Enlightenment itself.

This simpler overarching connection has potentially greater strength, but ICOMOS has doubts that the overall nominated property can be justified as an outstanding example in this context. In particular, the Buen Retiro is a major part of the nominated property but its justification or contribution to the overall justification is weak. In addition, its justification is not supported by a robust comparative analysis.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

The State Party considers that the nominated property represents a utopian society created at the height of the Spanish Empire, when the democratisation of knowledge was introduced as the basis of colonial societies in Spanish America. Patronage of the arts by the Habsburg monarchs fostered the expansion of important art collections and the construction of numerous museums and cultural institutions over the years. Simultaneously in the 18th century, the sciences took on an extraordinary and unique level of importance, together with healthcare and industry. Thus, the arts, sciences, healthcare, industry and research form a complete cultural unit, rooted in the awareness and conscience of citizens. This was part of an exchange of human and scientific values that promotes the dissemination of knowledge, and whose public and social roles have been preserved.

ICOMOS considers that, in combining leisure, recreation, arts and sciences, the nominated property reflects the Enlightenment spirit associated with the wider dissemination of knowledge. However, the justification is not convincing that the nominated property could be considered outstanding for these associations. In addition, this might be seen as a recapitulation of some of the arguments provided under criterion (iv).
ICOMOS considers that criteria (ii), (iv) and (vi) have not been demonstrated for the entire nominated property. ICOMOS considers that the Paseo del Prado could have the potential to meet criteria (ii) and maybe (iv) as a prototypical tree-lined avenue, and that further exploration should be undertaken towards this direction, and would need to be confirmed by a strong comparative analysis.

**Integrity and authenticity**

**Integrity**

A substantial integrity issue relates to a series of interventions in the immediate surroundings of the Paseo del Prado. Over the last two decades, the cultural offerings within the nominated property have increased considerably, especially art museums. Several museum buildings have been restored, historical buildings have been transformed into museums, and ambitious enlargements have been realised. While these projects have strengthened aspects of the nominated property’s cultural infrastructure, some of the changes also challenge its integrity.

There are also three smaller issues regarding the integrity of the Paseo del Prado regarding trees, bushes and there are breaks in the tree plantings, obtrusively high bushes in the Plaza de Cánovas del Castillo, and a lack of coherence in some of the urban fabric, including pavements.

A substantial issue with the Buen Retiro park is the presence of a large sports field with buildings and high fencing.

Other issues include one residential building in the Barrio Jerónimos which is not sympathetic to the scale of the historic area, bus parking and underground carpark access.

All the important identified attributes related to the proposed Outstanding Universal Value are adequately maintained and are in good condition, and no significant neglect has been identified.

However, as the justification for inscription has not been adequately justified at this stage, it is difficult to assess the extent to which potential attributes are all included into the property’s boundaries. In addition, on principle property boundaries should include the buildings.

**Authenticity**

ICOMOS considers the nominated property overall has a high degree of authenticity.

ICOMOS requested in its first letter further information on the replacement of trees using different species to the existing. The State Party advised that while existing historical species must be used, experience has shown that certain species do not live well under changed climatic conditions. Historical species are used, although these may be selected on the basis of adaptation. The study undertaken by the State Party on the trees in the Buen Retiro Gardens in 2015-2016 provides data and recommendations for the use of certain species in different situations and location. The State Party is mindful of the balance of species in the Buen Retiro Gardens.

In general, the form and design of the existing buildings are authentic.

However, in many cases the handling of the interior structure of historical buildings is much less careful and respectful of historical elements, leading to a significant loss of authenticity.

Regarding their use and function, many of the historic buildings still preserve their original uses. Good examples along the Paseo del Prado are the Atocha railway station and the Prado museum, and many of the buildings on the Hill of Sciences are used as originally intended.

ICOMOS considers that the conditions of integrity have not been met at this stage and that the conditions of authenticity have been met.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage. The justification for inscription for the nominated property not work for the nomination as a whole does. The new type of category supported by the State Party does not appear convincing, as it gathers too many different types of elements, creating an artificial construction of arguments which do not justify consideration for inscription for the property as a whole. ICOMOS considers that there might be potential for the tree-lined avenue, for which the property could be considered as a precursor, which would have had influence throughout Latin America. The comparative analysis would therefore need to be further developed in that aspect, by exploring and researching in Latin America and beyond for other potential comparable sites, supported by archival, historic and literary evidence.

ICOMOS considers that criteria (ii), (iv) and (vi) for the entire nominated property have not been demonstrated. ICOMOS considers that the Paseo del Prado has the potential to meet criteria (ii) and maybe (iv) as a prototypical tree-lined avenue.

ICOMOS considers that the conditions of integrity have not been met at this stage and that the conditions of authenticity have been met.
Features
The identified attributes of the nominated property are all related to the proposed Outstanding Universal Value. Further information was provided by the State Party in November 2019 at the request of ICOMOS, especially on their relationship with the proposed criteria. These include, inter alia: the landscape of the Paseo del Prado; Buen Retiro park with the various elements that reflect its long evolution; the landscape and built elements of the Real Jardín Botánico; architectural elements such as the Prado and Antropología museums; monumental elements such as the fountains; and the tree-lined streets of the Jerónimos neighbourhood together with its urban form and grid.

ICOMOS considers that it is not yet possible to conclusively identify the attributes of this property without an adequate justification of Outstanding Universal Value.

4 Conservation measures and monitoring
Conservation measures
The scope of conservation measures is broad, given the size and complexity of the nominated property, with a large number of governmental and private sector owners and managers being responsible for green areas such as the Buen Retiro park as well as other parts of the public spaces, buildings and monuments. As a result, these measures are not being undertaken within a single, all-inclusive conservation program.

ICOMOS noted that there are projects for conservation of public roads, and requested the State Party in its first letter to provide information on these projects. The State Party provided a summary of these projects, noting the purpose includes the recovery of authenticity and integrity.

The state of conservation reflects efforts made to maintain and conserve the identified attributes through ongoing maintenance activities as well as individual periodic conservation projects. Substantial maintenance and conservation efforts were noted during the technical evaluation mission.

In the case of privately owned buildings, maintenance and conservation activities tend to focus on the façades and other generally accessible elements.

Monitoring
The monitoring process and indicators are closely linked to the property management system. However, there is not yet a comprehensive and integrated assessment and indicator system to support monitoring.

Each of the management administrations or entities for the nominated property carries out regular assessments of its own programs and actions, and sets corresponding indicators in cases where deemed necessary.

5 Protection and management
Documentation
Knowledge about the historical development and the current state of the identified attributes of the nominated property is very good. Archives preserve a very rich heritage and are well organised.

The three large green areas that make up the majority of the nominated property are well documented in their listings as Properties of Cultural Interest (Bien de Interés Cultural). Furthermore, some 300 individual trees are included in an inventory.

Most of the significant historic buildings within the property are also documented in their listings as Properties of Cultural Interest, although there are some gaps.

Legal protection
In Spain, responsibility for heritage property is largely decentralised. Three different institutional levels are involved in the protection of the nominated property. National level legislation provides the general framework. Regional level provisions, however, are the most important. The Autonomous Community of Madrid has the lead for listings, specific protection measures and assessments of all kinds of interventions. At the municipal level, Madrid City Council influences the development of the area.

Legislative protection has two different categories of protected areas or buildings. The higher category is composed of Properties of Cultural Interest, the lower category Properties of Heritage Interest (Bienes de Interés Patrimonial).
Every property declared of Cultural Interest or Heritage Interest has a protective buffer zone that consists of the area surrounding it, defined in the corresponding listing form.

The heritage register also contains several levels. The high level demands integral conservation of the property. The middle level limits the compulsory conservation to the structural elements of a building. The lower level is either restricted to partial elements or some specified part.

Within the nominated property, 35 buildings, parks or zones have been listed, including the major areas of the Paseo del Prado, Jardines del Buen Retiro and Real Jardín Botánico, as well as most major and important historic buildings.

There are some gaps, however, such as the headquarters of the Ministerio de Marina (Ministry of the Navy). ICOMOS requested information on that aspect in its first letter, as in a number of instances, it is said that the listing has been initiated but not completed. The State Party advised that the listings have not been expedited/finalised because the properties affected are legally protected and there is no perceived urgency. None the less, the authorities wish to make progress, and administratively the documentation is close to completion. No timeframe for finalisation has been provided.

The State Party did not propose a buffer zone for the nominated property at first, on the basis of the existing legislation offering sufficient legal protection to the immediate environment of the property. None the less, ICOMOS requested the State Party to consider the addition of the buffer zone due to the high and dynamic urban environment around the property. In February 2020, the State Party proposed three options for the establishment of a buffer zone, and ICOMOS considers that the third option related to the Historical Centre in the Madrid General Urban Development Plan (PGOUM) is the most appropriate.

ICOMOS considers the legal protection of the nominated property to be sufficient, but that the addition of a buffer zone is required.

Management system
18% of the area of the nominated property is in private ownership and the rest is public property.

No management system for the property existed prior to its nomination. However, the three administrative bodies involved in the property’s management — the State, the Autonomous Community of Madrid and Madrid City Council — have long experience with conservation, which reflects well on their future capacity. A new World Heritage office has been created within the municipality to disseminate information about the values of the property, coordinate the three levels of government, provide for management of the World Heritage Commission, Council and Board related to the property and participate in national and international meetings.

Some parts of the new management system (2018) have been implemented and tested. The system is designed to function at three different levels. At the first or strategic level it promotes engagement with the property by citizens and stakeholders. The second level involves programs and actions to be coordinated between different departments. The third level addresses implementation by three different groups: an interdepartmental World Heritage Commission (sometimes referred to as the World Heritage Committee in the nomination dossier), which is the decision-making authority (it has not yet been created); a Scientific Council formed of independent experts to advise the Commission; and an advisory Civic and Social Board formed of the representatives of relevant associations and cultural and scientific institutions.

Continued close collaboration between the three administrative levels involved will be essential. The system is not orientated towards reactive management, but encourages specific actions. The list of proposed actions is impressive, and local communities are well integrated within the management. The attempt to draw in all interested associations and institutions is an important initiative to involve the public in management actions.

ICOMOS requested in its first letter an update on the development of the tree management plan for the Real Jardín Botánico. The State Party advised that the plan has been completed, and provided an overview of the plan.

In its Interim Report, ICOMOS sought advice about whether a management plan existed for the Buen Retiro, especially to provide guidance regarding new development. The State Party advised that a master plan exists for the gardens and this includes such guidance. New construction within the park has not been allowed since 2004.

Visitor management
Many of the features within the nominated property are major visitor and tourist attractions in their own right. Accordingly, visitor management is currently addressed individually at these places. Overall visitor management for the entire nominated property, including the holistic treatment of its presentation and promotion, has not been an objective until relatively recently. Some initiatives are being undertaken, such as a visitor reception centre and videos, and further efforts are intended. However, an interpretation strategy does not exist for the overall nominated property.

Within the nominated property, the main green areas are used mostly by the city’s inhabitants.
Tourism is an important factor in Madrid in general, and in the nominated property in particular.

There are only few information panels that explain the different areas or buildings and their significance within the whole complex. The responsible authorities plan to reinforce this information if the nominated property is inscribed on the World Heritage List.

The possibility of increasing of the number of hotels within the city centre is limited.

The nomination dossier provides information on the installation of reception and information centres in a number of spaces within the nominated property. ICOMOS requested further information to the State Party in its first letter on the timetable for the implementation of such centres, and especially on the visitor reception centre at CentroCentro. The State Party replied that the centre will be opened in 2020.

Community involvement
Local communities are well integrated into management of the nominated property. This is achieved primarily through the Civic and Social Board. It is an important instrument for involving the public in management actions. Nonetheless, it is noted that the Board is seeking more trust and independence.

Evaluation of the effectiveness of the protection and management of nominated property
The documentation available regarding the property is generally good, although there are some gaps.

The legal protection of historic gardens and buildings is considered sufficient. None the less, initiated listings for some buildings should be finalised. The delineation of an adequate buffer zone that includes protection of important views and vistas should be undertaken.

A recently developed management system reflects the complexity of the nominated property and the range of stakeholders. A municipal World Heritage office has been created to coordinate between the three administrative bodies involved with the property's management. Overall, the system appears satisfactory, though the system's full effectiveness will only become clear through a longer period of implementation.

Visitor management is generally satisfactory, although the holistic treatment of the presentation and promotion of the nominated property is still developing. An interpretation strategy for the overall property should be developed within the management system.

Community involvement is well integrated within the nominated property management, although there may be scope to enhance the role of the Civic and Social Board.

ICOMOS considers that the documentation is generally good, the legal protection is sufficient, though the initiated listing of some buildings should be finalised and the delineation of a buffer zone should be undertaken, the management system appears satisfactory, visitor management is generally satisfactory although an interpretation strategy for the overall property should be developed, and community involvement is adequate, though there may be scope for enhancement.

6 Conclusion
Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences, which combines nature and culture in a 200-hectare park-like cultural landscape, includes the prototype of a Hispanic alameda (tree-lined avenue) as well as an example of a new idea of urban space and of an urban development model in the enlightened absolutist period of the 18th century.

However, ICOMOS considers that the nominated property as a whole does not demonstrate a strong and consistent unifying theme that elevates it historically or in visual or design terms to Outstanding Universal Value. The nomination dossier attempts to find such a theme, but it artificially brings together distinct areas, although close geographically, whose common history diverged 500 years ago.

The nomination dossier argues that because nowhere else could be found a property quite comparable, the property is unique and potentially the first of a 'new type' of designed cultural landscape. ICOMOS considers that the justification for that argument is weak.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage. The analysis needs to be more robust in its consideration of green urban spaces in the period. ICOMOS considers that some potential would lay in the alamedas, which would need to be further explored and substantiated by comparisons with other properties located in Latin America and elsewhere.

ICOMOS considers that criteria (ii), (iv) and (vi) for the entire nominated property have not been demonstrated. ICOMOS considers that the Paseo del Prado might have the potential to meet criteria (ii) and maybe (iv) as a prototypical tree-lined avenue. However, further exploration should be undertaken towards this direction, and would need to be confirmed by a strong comparative analysis.

ICOMOS considers that the conditions of integrity have not been met at this stage and that the conditions of authenticity have been met.
Conservation measures are adequate. The outlined structure and approach for the proposed monitoring system are satisfactory, but the full monitoring system needs to be developed and implemented, taking special care to achieve an integrated approach, given the complexity of the property.

ICOMOS considers the documentation available regarding the property is generally good, although there are some gaps. Legal protection of the property is generally sufficient, however, initiated listings for some buildings should be finalised and the delineation of an adequate buffer zone should be undertaken. Overall, the management system appears satisfactory, though its full effectiveness will only become clear through a longer period of implementation.

Visitor management appears generally satisfactory, although the holistic treatment of the presentation and promotion of the nominated property is still in development. An interpretation strategy for the overall property should be developed within the management system.

Community involvement is well integrated with property management, although there may be scope to enhance the role of the Civic and Social Board.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the examination of the nomination of Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences, Spain, to the World Heritage List be deferred in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Reconsider the nomination strategy for the property, on the basis of an expanded and augmented exploration of the concept of Hispanic alameda (tree-lined avenue) and its influence in Latin America and beyond;

- Revise the comparative analysis, the justification for inscription, the criteria, focusing on the most appropriate ones, and the boundaries, accordingly to the revised focus of the nomination;

- Ensure that the revised boundaries of the property include the buildings facing urban spaces;

- Delineate a buffer zone for the property based on the Historical Centre in the Madrid General Urban Development Plan (PGOUM).

Any revised nomination should be visited by a mission to the site.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Further developing and implementing the full monitoring system, with special care to achieve an integrated approach,

b) Completing the documentation of the historic buildings within the property, such as the headquarters of the Ministerio de Marina,

c) Finalising the listing process for all buildings,

d) Developing an interpretation strategy for the overall property within the management system,

e) Enhancing the role and independence of the Civic and Social Board as a means of ensuring community involvement;
Revised map showing the boundaries of the nominated property (October 2019)
**Arslantepe Mound**
*(Turkey)*
**No 1622**

**Official name as proposed by the State Party**
Arslantepe Mound

**Location**
Eastern Anatolia
Province of Malatya
Turkey

**Brief description**
Arslantepe Mound is an archaeological tell located in the Malatya plain, twelve kilometres south-west of the Euphrates River. The archaeological evidence of the site testifies to its occupation from at least the 6th millennium BCE up until the late Roman period. The earliest layers of the Early Uruk period are characterized by adobe houses dating to the first half of the 4th millennium BCE. The most prominent and flourishing period of the site was in the Late Chalcolithic period, during which the so-called palace complex was constructed. Considerable evidence also testifies to the Early Bronze Age period, most prominently identified by the Royal Tomb complex. The archaeological stratigraphy then extends to the Paleo-Assyrian and Hittite periods, including Neo-Hittite levels.

**Category of property**
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

1 **Basic data**

**Included in the Tentative List**
15 April 2014

**Background**
This is a new nomination.

**Consultations and Technical Evaluation Mission**
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 23 to 27 September 2019.

**Additional information received by ICOMOS**
A letter was sent to the State Party on 3 October 2019 requesting further information about the archaeological stratigraphy of the site, the State Party’s present and future plans for archaeological excavation, their relation to conservation activities, and any potential development pressures in the nominated property’s setting.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: the comparative analysis; the property's future excavation strategy; future planned conservation measures, including risk preparedness and disaster management provisions; boundaries; local management arrangements; and development plans for future visitor infrastructure.

Additional information was received from the State Party on 4 November 2019 and 24 February 2020, and has been incorporated into the relevant sections of this evaluation report.

**Date of ICOMOS approval of this report**
12 March 2020

2 **Description of the property**

**Description and history**
The Arslantepe Mound is a 30m high archaeological tell, located in the fertile Malatya plain, five kilometres north of Malatya city centre and 12 kilometres south-west of the right bank of the Euphrates River. The mound has been the subject of several excavation campaigns since the early 1960s, which brought to light a multi-layered sequence of levels ranging from the end of the 5th millennium BCE (referred to as Period VIII) to the latest Neo-Hittite phase (referred to as Periods II-III). In line with the historical layers exposed at the site, the description and history will follow the arrangement of these stratigraphic levels below in chronological order.

**Period VIII, Late Chalcolithic 1-2, 4300–3900 BCE**

This period is documented by three superimposed building levels of domestic structures, which included equipment attesting to the preparation of food, such as numerous ovens and pottery findings. The pottery is of local origin with connections to South-Eastern Turkey west of the Euphrates and hence considered part of a wider post-Ubaid ceramic context which links various areas of Upper Mesopotamia in the initial phase of the Late Chalcolithic.

**Period VII, Late Chalcolithic 3-4, 3800–3400 BCE**

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by simpler adobe houses of rather small dimensions having one to three rooms, in one case with a geometric painting on the wall composed of alternating black and white triangles. Excavations have revealed two large and monumental ceremonial buildings from the latest phase of this period (Late Chalcolithic 4, 3600-3400 BCE), which were very likely two temples. In these two temples, referred to as Temples C and D, a group of several hundred seal impressions on clay has been found, together with hundreds of pottery bowls, probably used to distribute food to people.

Period VIA, Late Chalcolithic 5, 3400–3100 BCE
Temples C and D were likely abandoned in this subsequent period, during which the religious aspects, though still present, seem to have lost their central importance, whereas public performances have begun to take place in a large courtyard, where people gathered in front of a large secular building. The largest structure identified in the excavation of this Late Chalcolithic period is the so-called “public palace”, an extremely enlarged elite residence and governance complex associated with rulership and extending over more than 3500 square metres. Wall paintings were not only for decoration but fulfilled a significant function in the palace and included figurative motifs and actual scenes painted on the doors and along the main corridor, transmitting ideological and meaningful messages to everyone entering the palace. During recent excavations a possible throne platform has been discovered which is said to illustrate evidence at Arslantepe pointing to the public accessibility of this palatial system. There are indications that the complex also attests to the centralization of economic processes and the operation of an early state system from here. The palace was destroyed by fire around 3100 BCE, which put an end to the political system related to it.

All structures belonging to this period were built on terraces along the slope, their different height levels determining the siting of buildings depending on their different functions and symbolic contexts. The buildings are set on stone foundations and constructed of thick adobe walls with wood and clay roofs. Significant archaeological findings were excavated from this period, such as pottery vessels and a group of arsenical copper weapons including nine swords, some decorated with silver inlay, and twelve spearheads.

VIIB1, Early Bronze Age IA (3100–3000 BCE)
Starting with the destruction of the so-called palace, this was a period of transition and change. Scattered wooden structures consisting of huts and fences for animals were built on the palace ruins by pastoralists. A large new adobe building of a different construction technique was built on top of the earlier destroyed structures. The period is also characterized by a distinct type of pottery which was hand-made from red-black material. The most significant find of this period is the so-called Royal Tomb, a funerary cist on the edge of the tell full of funerary gifts including metal items, weapons, tools and jewellery in copper, silver and gold.

Periods between 2950 BCE and 712 BCE
In Period VIIB (3000–2800 BCE) the site experienced a revival of the wheel-made light-coloured pottery of the Uruk style. During Periods VIC and VID (2750–2000 BCE), the settlement was organised differently, suggesting that a new population built a new settlement on the older ruins. This is referred to as the ‘second urbanization’ phase. It remains legible through the remains of an imposing town wall and semi-circular tower. Also starting with Period VID, corresponding to Early Bronze III, a new process of gradual expansion of the settlement began.

This new organisation and the site’s relationship with its environment remained largely unchanged until the Middle Bronze Age (Period VA, 2000–1750 BCE). Another prominent feature of later periods is the imposing town walls still preserved to a height of 3-4 metres, of the Period II-III (Iron Age, 1100–712 BCE). The neo-Hittite town was destroyed by Sargon II of Assyria in 712 BCE. Even though minor remains of occupation from the late Roman period and a Byzantine-era cemetery have been uncovered, it was this destruction which put an end to Arslantepe’s prosperity and centrality.

Excavations started in the 1930s with a French team and have been continued in cooperation with Italian teams from La Sapienza University since the 1960s. La Sapienza University’s excavations continue in ongoing seasonal campaigns to this day. In the past 45 years the archaeological excavations and researches have focused on the prehistoric and proto-historic levels of Arslantepe, mainly in the western and south-western zones of the mound, where the earliest settlements made up the original nucleus of the tell. In 2008, excavations in the north-eastern section of the mound were conducted to investigate the Hittite “expansion” and the transitional periods of the neo-Hittite kingdom of Malatya.

In its first request for additional information, ICOMOS requested clarification as regards the different stratigraphic levels for a better understanding of the different occupation phases. The State Party provided an illustration of stratigraphic levels as well as a map referring to different excavation levels in different areas of the mound. In addition, further information was given on the key features and identified attributes of the levels considered most significant for the proposed Outstanding Universal Value.

Boundaries
The nominated property has an area of 4.85 ha. The property boundaries are indicated as drawn around the outermost extension of the archaeological tell and known archaeological evidence. In ICOMOS’ view the boundaries of the property are well defined except in the northern, north-western and western directions, where surface surveys suggest archaeological evidence outside the presently-drawn boundaries. ICOMOS therefore recommends undertaking further surveys to determine the exact extent of archaeological evidence and, on that basis, extend in the future the property
boundaries in line with the indications of archaeological ground surveys in these directions.

The buffer zone, of 66.46 ha as indicated in the nomination dossier, has been defined on the basis of the boundaries of the 3rd Degree Archaeological Conservation Site, established in 2018. The reference for this boundary line was basically the result of an archaeological survey project conducted by the Missione Archeologica Italiana in Anatolia Orientale (MAIAO) in 2005 in an area of approximately 500 m. radius around the mound. During the ICOMOS technical evaluation mission, it was noticed that several roads indicated on the maps provided had not actually been constructed yet which appeared to provide an opportunity for an extended landscape protection in these areas. In response to these discussions on site, the State Party submitted with the additional information supplied at the request of ICOMOS on 4 November 2019, a modified map indicating a proposed extension of the 3rd degree archaeological conservation zone in the southern, south-eastern and eastern directions, constituting an extended buffer zone. In the additional information provided in response to the Interim Report on 28 February 2020, the State Party confirmed that this conservation zone extension proposal also implies a redefined buffer zone boundary. ICOMOS welcomes this extension of protection status and considers the buffer zone now appropriately defined. However, clarification would be necessary as regards the “new arrangements” which are allowed in A3 zone as mentioned in the additional information, which are not detailed.

State of conservation
The nominated property has been regularly conserved since 1961, mostly in campaigns linked to specific excavation seasons. The materials exposed during these excavation campaigns were subsequently conserved. This early and consistent combination of excavation and conservation campaigns and the introduction of annual monitoring of the property since the 1970s has left Arslantepe as one of the best-preserved earthen archaeological sites in the wider geographical region. While most of the conservation campaigns were undertaken by specialized restorers for adobe structures, the discovery of delicate wall paintings required the involvement of specialists from other disciplines, including those for the conservation of wall-paintings and frescoes.

Monitoring and observation of the condition of previous excavations has demonstrated that whilst the adobe structures that were exposed to rain and snow are showing some signs of decay and deterioration, even within short time-frames, those protected by roofing system substantially maintain their condition. This system has been provided for part of the nominated property, which is made of steel poles and multi-layered wooden panels, designed to resist heavy snowfall but not to cause any perforation of the underlying archaeological levels. The shelter remains open at their sides allowing the air to circulate, thus maintaining stable conditions of temperature and humidity. Despite its great benefits, the roofing system provides an opportunity for improvements as specific areas remain unsheltered and exposed to water run-off, as well as to other weather-related impacts.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is in general good given the challenges of conserving the ancient adobe fabric. For an archaeological property of adobe structures with delicate wall paintings, the state of conservation can in fact be considered commendable. ICOMOS recommends that the temporary shelter that was approved by the Conservation Council’s decision on the 19th of December 2019 (see 3rd paragraph in p.15/44), be submitted for technical review to ICOMOS due to the several technical challenges identified during the ICOMOS technical evaluation mission.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are negative impacts from urban development pressures, especially new housing or infrastructure developments within Orduzu village; and weather events including heavy rain and snow fall, as well as seismic risks in the area. Since the nominated property is located in a level-1 seismic zone, this type of risk should be considered carefully and given more priority. This also has implications for the way that institutions are storing and showcasing their archaeological findings, which at present do not seem adequately prepared for major seismic events.

ICOMOS considers that despite the extensive protective shelter, some of the areas in the nominated property are vulnerable to flooding resulting from heavy rain, for example on the open roof space near the stratigraphic section. Also, snow and wind may still impact the areas on the edges of the shelter. Coverage and extension or redesign need to be assessed more carefully.

In relation to the buffer zone, ICOMOS notes that there are 25 illegally constructed buildings taller than permissible height levels, which have been legalized retroactively by means of an amnesty issued on 31 December 2018. These buildings are considered to have a significant negative impact on the setting of the property.

In relation to the buffer zone area and the construction activities, ICOMOS requested information in its first letter on the measures in place to control building height and volume, and to mitigate risks of illegal construction. The State Party replied that a conservation development plan has been prepared to address these challenges and has been adopted, as explained by the State Party in the information provided in February 2020. It further indicated that as a legal basis for this plan, a 3rd degree
archaeological conservation zone had been established and again slightly revised as a result of discussions during the ICOMOS technical evaluation mission.

In addition, ICOMOS in its Interim Report requested further information on the development pressures located in Orduzu and other areas. The State Party replied that the conservation development plan had been formally adopted by the Malatya Metropolitan Municipality on 14 February 2020. According to the development plan, the maximum height of buildings within the conservation zone, which corresponds to the buffer zone, is two storeys. Less than 20% of the buffer zone is zoned for construction, mostly those areas furthest removed from the mound to the east and south. ICOMOS considers that this newly formulated development plan will significantly reduce the risk of inappropriate developments in the buffer zone.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Arslantepe illustrates the complex processes which led to the emergence of a State society in the Near East and a sophisticated bureaucratic system before writing, offering information on the early formation of a new form of society, which was at the basis of our contemporary world;
- Being located in a historic border region, the property illustrates the intensive and varying external relations and changes of various and different civilisations in the Near East;
- The archaeological findings revealed at Arslantepe include exceptional metal objects and weapons, among them the earliest swords so far known in the world, which suggests the beginning of forms of organized combat as the prerogative of an elite, who exhibited these as instruments of their new political power.

Comparative analysis

The nomination dossier presents a comparative analysis which is divided according to three main themes, considering (1) sites of early state formation in the 5th and 4th millennium BCE; (2) archaeological sites providing testimony to urban societies of the Mesopotamian world; and (3) other sites with an extensive presence of adobe architecture. Initially mentioned in the introduction to the comparative analysis but later not explicitly compared were the testimonies to population movements in the Anatolian and South-Caucasian mountains in the 3rd millennium BCE, and testimonies of the Central Anatolian Hittites in the 2nd millennium BCE and the Assyrian cultural world in the 1st millennium BCE.

Among the Late Chalcolithic Greater Mesopotamian settlements which can provide evidence for social complexity and centralization, the State Party draws on the comparison of archaeological sites in Turkey, Syria, Iraq and Iran including, but not limited to, Hacinebi Tepe, Tell Brak, Tell Hamoukar, Uruk-Warka, Ur, Eridu and Susa. The comparison points out that early state formation was not an isolated phenomenon but occurred in different locations in the late 5th and early 4th millennium BCE. Uruk was the largest and first city in the ancient world (covering almost 200 ha in the 4th millennium BCE), which also documents the processes of state formation. It was often considered a capital at this time where not only pictographic references but also a first form of writing developed. Upon direct comparison Arslantepe has the advantage of better documentation and research, easier accessibility and a better state of conservation. Whilst Arslantepe is a unique local expression of a regional phenomenon, which established one of the earliest centralized and hierarchical formations of a prehistoric ‘early state’ society in the region, it is not an independent first development of such a system at a larger regional scale. Similar contexts can be found in other sites, namely Tell Brak, Hassek Höyük, Hacinebi, Tepe Gawra and one most important, Mersin-Yumuktepe, which was not mentioned in the initial comparative analysis.

In its additional information submitted in response to the Interim Report, the State Party added further comparative details on the sites of Tell Brak, Tepe Gawra, Hacinebi and Hassek Höyük as well as Mersin-Yumuktepe, focussing predominantly on their features testifying to the Late Chalcolithic period. The State Party further added ground plans of the excavated structures at these sites at identical scale to illustrate the comparatively large size of the palace structures at Arslantepe.

As a result of the added analysis, the State Party concludes that Arslantepe is indeed not outstanding as a singular example of early state formation but exceptional because it presents the only example of a new type of monumental public architecture, called the public palace. It further concludes that Arslantepe constitutes the largest unitary complex so far known illustrating the late Chalcolithic period and highlights the incomparable state of conservation of Arslantepe, which cannot be paralleled by any of the other sites analysed.

With regard to the comparison of testimonies of urban societies, the comparative analysis illustrates that Arslantepe was far less urbanized than other, often considerably larger, sites of its time in Mesopotamia. This is in fact considered one of the specificities of Arslantepe as a centre of state outside a highly urbanized environment. The limited urban expansion was likely influenced by its unique border location in the Upper Euphrates valley and the nature of the local societies, which included nomadic and transhumant groups. Among the other compared earthen sites are
Tchogha Zanbil, Ashur, the Proto-Urban Site of Sarazm and the Archaeological Ruins at Moenjodaro, Pakistan.

While several of the claims for representativeness of Arslantepe, such as its exceptional representation of State formation or early administrative systems, could not be confirmed, Arslantepe indeed stands out in presenting an impressively level of conservation and legible remains of the Late Chalcolithic 5 level (Period VIA, 3400-3100 BCE), through the very high level of conservation of the palace complex, including wall paintings and objects which have been discovered. This is due to the fact that the palace complex at Arslantepe was destroyed in a single catastrophic fire which caused the structures to collapse in on themselves, sealing a significant portion of the complex and its contents. As such, Arslantepe can be seen as an exceptionally well-preserved testimony of this early period of establishment of governance and administration systems, which does not stand out in terms of its innovation when compared to other ancient early centres of state, but is impressive in its state of preservation, which allows for a much deeper and more detailed insight into the short period between 3400 and 3100 BCE, when Arslantepe was a centre of governance in the region.

ICOMOS considers that the augmented comparative analysis and additional research undertaken confirm the impressive state of preservation of the Late Chalcolithic evidence of Arslantepe, when compared to other settlements of the time. This justifies consideration of this property for the World Heritage List.

**Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (ii), (iii) and (iv).

**Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;**

This criterion is justified by the State Party on the grounds that Arslantepe presents an interchange of human values from its plurality of cultural expressions as a result of both the intensity of interactions and encounters between cultures and societies, and the uninterrupted succession of diverse periods and cultural developments, from the 5th to the 1st millennium BCE, which have significantly transformed Arslantepe society across time. The State Party further argues Arslantepe was located at the crossroads of population movements, political and cultural contacts, transhumance and trade routes, all making Arslantepe a “cosmopolitan” economic and political centre where diverse communities lived together.

ICOMOS considers that while the nominated property indeed documents several successive uses by populations with different traditions and building styles, it is characterized not by a significant value exchange over time but rather by at times radical transformations from one era to another. This suggests that rather than documenting a value exchange and adaptation over time, the settlement location and some of its historic materials were used to create something new.

While Arslantepe was located in a border location and for this reason was a place of more considerable cultural exchanges than several other archaeological sites in the same region, it has not been demonstrated convincingly in which way the physical remains of the nominated property in situ can testify to these intercultural and trade exchanges and in what way these illustrate the site’s claimed multiculturalism at any historic time. Although Arslantepe, like other settlements, demonstrates how widely and quickly social links, trade routes, technologies and social control ideologies spread over the region before and after the first development of forms of writing, it appears that other sites which were centres of script development illustrate more significant traces of multiculturalism and trade records. ICOMOS considers that criterion (ii) has not been justified.

**Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;**

This criterion is justified by the State Party on the grounds that Arslantepe presents an exceptional testimony to the first emergence of state society in the Near East, which, although it is related to the 4th millennium Uruk civilization, presents an original form. The State Party considers that its uniqueness when compared to other Uruk culture centres lies in the extensive material in situ, which has made possible the reconstruction of the characteristics of this civilization and the life of these first elites, their activities and relations with the rest of the population, with incomparable details, throwing light on the emergence of a centralized government in a non-urban centre, controlling the basic economy of the surrounding population.

ICOMOS considers that Arslantepe presents an exceptional testimony to the life of early administrative elites and their relationship with the wider public. The archaeological evidence is exceptional in terms of its state of conservation. Whilst other properties likewise represent early and earlier forms of state formation and at times more complex systems of administration and bureaucracy, the level of detail in architectural and archaeological evidence found at Arslantepe is highly unusual. As the result of a catastrophic and perhaps even violent event that led to the sudden destruction of the palace complex and other structures and thereby caused a sealing of evidence in the debris and rubble under collapsed walls, the nominated property provides a complete and vivid picture of society and daily life of the early administrate elites in the Late Chalcolithic period. ICOMOS considers that criterion (iii) has been justified.
Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history:

This criterion is justified by the State Party on the grounds that Arslantepe’s adobe architecture, due to its antiquity, advanced technology, and state of conservation, is an outstanding example of a traditional building system representative of Near Eastern communities in the 4th millennium BCE, which documents a sustainable and successful human interaction with the environment, well in keeping with the local climatic conditions and easy to maintain. In addition, the State Party highlights that the so-called palace complex is an outstanding example of a new type of monumental public architecture, as it is said to be the earliest known example of a public palace.

ICOMOS considers that whilst the adobe architecture of Arslantepe is indeed in an impressive state of preservation, it does not constitute an impressive type of technology, urban or architectural design or building structure which is innovative or stands out at a regional comparison. With regard to the so-called palace complex being a specific new typology called a public palace, which is said to have occurred here for the first time, ICOMOS notes that this claim is not substantiated by the documentation provided and cannot be backed by contemporary archaeological research in the wider region. Several settlements of the same period and slightly earlier show representative structures with a suspected administrative and power function. Despite the rich archaeological evidence at Arslantepe, it is difficult to fully support a scenario of use that significantly differs from evidence at other settlements which could single out the complex at Arslantepe as a first typological evidence of state governance. ICOMOS considers that this criterion is not justified at this stage.

Integrity and authenticity

Integrity

The physical remains of the nominated property show an impressive state of preservation, which confirm the unusual intactness of the Late Chalcolithic period level (Late Chalcolithic 4-5, 3600-3100 BCE), despite a number of challenges which need to be addressed through risk management processes. However, the excavated walls and houses of later periods, and in particular the public monumental buildings from Periods I and II, located in the northeast of the mound, are exposed to the weather and remain without protection. Whilst the physical fabric of these two different Neo-Hittite periods is still in an acceptable state of preservation, additional measures to protect them should be rapidly considered, given that they remain exposed to all weather conditions, since 2015 and 2016 respectively.

In terms of completeness, the present documentation and information provided raises questions as to which levels of the nominated property are intended to remain in situ and which later levels are anticipated to be removed by future excavations aimed at unearthing earlier levels. The key reference periods of the stratigraphic levels VI and the various VI, and their adobe remains, are well protected by the old and new temporary roof and it appears that the State Party is determined to undertake further excavations to expose these specific historic levels.

With regard to the future plans for excavation, ICOMOS is concerned that excavations that are envisaged aim at removing historical layers which contribute to the proposed Outstanding Universal Value. It appears that the archaeologists consider this appropriate, as long as all removed remains are adequately documented. ICOMOS however is concerned that such actions will undermine the significance of the nominated property as a testimony to the multi-layered historic record described in the nomination dossier. Therefore, ICOMOS requested the State Party to provide a single survey map which illustrates the envisaged conservation of archaeological levels and remains in the future, to ensure that a cautious approach is taken to future excavations and that no levels contributing to the justification of the proposed Outstanding Universal Value will be removed. ICOMOS further requested the State Party in its Interim Report to submit a detailed excavation plan for the following decades. In its response submitted on 24 February 2020 the State Party noted ICOMOS’ concerns and requests for non-invasive methods of scientific research but highlighted that the excavation team headed by the Italian Archaeological Mission had always paid and continued to pay great attention to the conservation of unearthed remains and that the excellent state of conservation of Arslantepe should be seen as evidence of this ongoing commitment. The State Party added a revised map indicating four specific areas of the mound that are considered to illustrate key attributes and where no further excavation will be undertaken, as well as areas where future excavations are planned.

ICOMOS notes that the excavation programme anticipated cannot be seen as non-invasive. The areas marked where no future digging will be undertaken are those where excavation has already unearthed the lowest levels of significance or where very important findings are situated in later levels, such as the Early Bronze Age Royal Tomb or town wall. No “undisturbed” area was included in the zones indicated to remain as they are. With regard to the areas scheduled for future excavation, area C is particularly problematic as the archaeological team aims at exploring even lower levels than the present key level of attributes, in particular earlier vestiges than those of the Late Chalcolithic (4/5)
palace. ICOMOS recommends revising the excavation programme towards a more cautious approach and that entirely undisturbed areas are designated as no excavation zones.

In terms of visual integrity, ICOMOS have some concerns regarding the height of the constructions in the south and southwest of the buffer zone, where at least two buildings surpass height restrictions. Unfortunately, more buildings appear under construction and might exceed the permitted limits, with several illegal constructions previously retroactively legalised. Despite the additional information provided in February 2020 and the assurances of the State Party that the responsibility for building permissions and control of construction activities has been moved to a higher authority, ICOMOS remains concerned about these ongoing and potential future constructions in the buffer zone.

ICOMOS considers that to protect the nominated property in the long-term and commit to the high expectations of legal protection under the World Heritage Convention, it is essential that the new legal provisions are strictly enforced and that no additional constructions will be tolerated while illegally surpassing height, density or volume limitations.

**Authenticity**

The nominated property is considered to meet the conditions of authenticity with regard to a number of qualifying conditions. The palace complex remains preserved in its adobe structures and illustrates several original wall paintings. Both the architectural structure and surface decoration testify the authenticity in material, workmanship and - apart from a few traces of collapse - authenticity in form and design.

ICOMOS considers that the findings are important associated elements to the archaeological site, which can testify to its authenticity in terms of material remains, allowing evaluation of the availability of source materials and capacity for artistic and cultural production at different times. In this context, ICOMOS notes that there is a lack of risk management provisions in relation to the archaeological findings, in terms of storage and natural risks. Security measures for key archaeological findings presented in Malatya Museum should be reinforced in this regard.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met but are vulnerable and conservation management measures to reduce vulnerabilities should be strengthened.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that Arslantepe presents a unique window into the Late Chalcolithic period, recording a specific moment in time which testifies to elite life and early forms of state administration. As a result of the sudden and violent destruction of the palace and settlement in the late 4th millennium BC, Arslantepe has preserved archaeological evidence with an impressive state of preservation when compared to other settlements within the region. ICOMOS considers that Arslantepe meets criterion (iii) as an exceptional testimony to the life of early administrative elites. Whilst other properties represent similar and earlier forms of structures illustrating early processes of, and at times more complex, systems of administration and state formation, the level of detail in archaeological and material evidence found at Arslantepe is highly unusual. ICOMOS considers that the identified attributes of the nominated property demonstrate both integrity and authenticity. However, both conditions are vulnerable and require stronger commitments in terms of risk and buffer zone management, as well as a very cautious approach to future excavations.

**Attributes**

The attributes of the Outstanding Universal Value focus on the physical in-situ remains of the Late Chalcolithic period, with a focus on the evidence of layers VII and VIA of the excavation stratigraphy. The attributes include the settlement plan and ground plan of individual buildings, the construction technology, style, layout and thickness of walls, as well as their surface treatments in the form of plaster and wall paintings. The Late Chalcolithic is manifested in at least four main levels of the stratified deposits. This implies that the attributes are likewise multi-layered in the stratigraphy and include elite residences, a ceremonial public area and two temples from period VII, as well as residential structures, and a palatial complex extending over more than 3000 square metres, including a monumental structure referred to as an audience building and a large open courtyard of period VIA. Subsequently, further structures including storerooms and temples were added. The attributes include specifically those elements which preceded the catastrophic events which destroyed this administrative centre around 3000 BC.

ICOMOS notes that, while the later levels of the nominated property, in particular the Early and Late Bronze Age, as well as the Early and Middle Iron Age levels, including the evidence of Neo-Hittite settlements, are not attributes of the Outstanding Universal Value, this by no means implies that these are not significant in their own right and can therefore be removed as part of future excavations. ICOMOS considers that these levels are highly important at national and regional levels and contribute with significant elements to the understanding of these later civilizations. It is therefore even more essential that the property benefits from the latest available and future investigative technologies which allow for non-intrusive investigation of lower levels of archaeological evidence in multi-layered archaeological sites.

ICOMOS considers that the identified attributes are relevant to convey the Outstanding Universal Value of the property.
4 Conservation measures and monitoring

Conservation measures
As indicated above, the general state of conservation of the nominated property surpasses many other archaeological sites with adobe structures in the region. This is mostly the result of two factors: a specific catastrophic event which destroyed the settlement of period VIB; and the commendable excavation approach, which combines archaeological investigations with in-situ conservation works. The scientific archaeological team of La Sapienza University arranges for a conservation team, usually composed of four persons combining different specializations, two conservators and two restorers, to be on site during their excavation seasons and to undertake site conservation and movable restoration, in parallel with the excavation works. This cooperation and combined approach make it possible to pay immediate in-situ attention to the very fragile remains being excavated. ICOMOS commends this cooperative approach.

Different protective approaches have been applied to stabilize as much as possible the surrounding conditions of the site. For instance, permanent and temporary roofing structures, water collectors throughout the roofing system for the drainage of rainwater, protective curtains to avoid exposure to direct sunlight of the wall paintings, vertical shields against snow, and wooden bracing to stabilize steep excavation slopes, amongst others. The nominated property illustrates a clear focus on preventive conservation and only in exceptional circumstances is conservation intervention undertaken, by means of compatible materials and a minimum intervention approach.

ICOMOS considers that the fact that the adobe structures do not have too much of a deterioration problem, reveals that the preventive approach in place is effective. This is also facilitated by low humidity, as one of the major factors of rising deterioration in earthen archaeological remains. This absence also implies that there are few to no microorganisms and plants growing on the site. Whilst the shelter structures are beneficial to the site’s state of conservation, in general, they pose some conservation challenges, as in some cases their weight is upon historic archaeological remains. The State Party proposes a new shelter, of which drawings were presented during the ICOMOS technical evaluation mission. In ICOMOS’ view, these had technical weaknesses, as it would not fully protect the archaeological evidence underneath in terms of interrelation of both roofs, and presents issues related to the design which should consider a three-dimensional approach rather than a bidimensional. The documentation presented should be further detailed in relation to providing more views of different sections, in relation to the connection between the old and new roof and how the new roof will address places where the rain water mostly accesses the site. ICOMOS therefore recommended to reconsider the design of the proposed new shelter and to submit the revised designs to ICOMOS for further review. In its response to ICOMOS’ Interim Report the State Party did not provide any updated information regarding revised plans for new shelter.

ICOMOS further considers that apart from the seasonal conservation campaigns, a long-term conservation strategy, separate from the development plan, which the State Party refers to as a conservation development plan, for the site is needed. The definition of a conservation plan which is interlinked with future excavation plans, will help to define a desired state of conservation for the property and determine protocols and procedures for all forms of intervention, including monitoring, preventive conservation, maintenance, consolidation, conservation, and risk preparedness. In its Interim Report, ICOMOS therefore asked for information concerning future conservation measures planned, in particular in terms of risk preparedness and disaster response measures. In its response of 24 February 2020, the State Party indicated that risk preparedness measures in place are satisfactory as it considered this was proven during the recent 6.8 magnitude earthquake on 24 January 2020, which did not damage any of the archaeological structures and during which only a temporary shelter was affected by a small-scale land slide. The State Party further described its approaches and methods during the seasonal excavation and conservation campaigns but did not commit to the preparation of a comprehensive conservation strategy or a risk preparedness and disaster response plan. ICOMOS nevertheless considers these essential to the systematic long-term risk preparedness and conservation of the property, and recommends that a comprehensive conservation plan including sections on risk preparedness and a disaster response be prepared.

In addition, ICOMOS requested information in its Interim Report on any envisaged future archaeological campaigns and excavation programs. The State Party replied with provision of a map of four areas in which it anticipates future excavation campaigns, as well as other already excavated areas in which no further excavation is planned. ICOMOS considers that a more cautious approach to research is necessary, which should be largely based on non-invasive methodologies and to designate as yet undisturbed areas which will not be excavated in the near- or medium-term. ICOMOS considers that this more cautious excavation strategy should be developed in line with the overall conservation strategy.

Monitoring
The nomination dossier presents monitoring indicators which are largely focused on potential changes in the archaeological fabric, such as cracks in the adobe structures, fractures, inclination of walls, insect presence, intensity of colour in wall paintings, detachment of plaster, etc., as well as a few generic indicators related to external factors such as visitor numbers, temperature and humidity and condition of the roofing system. The indicators are named but not introduced in terms of benchmarks and verifiable sources. They are merely grouped by periodicity of the monitoring exercise, which is most often annually, with the exception of human or animal disturbances and
presence of water infiltration from the roof, which is monitored monthly.

ICOMOS considers that while monitoring indicators could be further detailed and benefit from attribution of local responsibility, the areas considered within the selection of aspects monitored are sufficient. ICOMOS further recommends extending the monitoring efforts to areas of the buffer zone, which have yielded surface archaeological evidence, to ensure that no construction and invasive agricultural activities are undertaken until the recommended surveys (see boundaries section) and a potential extension of the property boundaries have been considered. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

ICOMOS considers that the development of a conservation strategy including a risk preparedness and a disaster response plan, as well as a cautiously designated excavation programme, is essential to the future conservation of the property. The monitoring indicators provided address all relevant areas but would benefit from more detailed designation of verifiable sources and local responsibilities. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

5 Protection and management

Documentation
The archaeological excavations, the findings and the conservation initiatives in the context of the annual campaigns are documented in text and images. This documentation is usually written in Italian with only some parts translated into English. ICOMOS notes that the Italian documentation is not fully accessible to the local team, due to language differences. Documentation is stored as a paper copy at Arslantepe site or in the Malatya Museum, which is the office of the site management unit, and as a digital copy in Istanbul at the Ministry of Culture and Tourism. The Sapienza University in Rome retains all original documents in paper and digital versions.

As Arslantepe is located in a zone of high seismic risk, it seems essential to improve the level of documentation of both archaeological remains and excavated objects as a baseline reference for the monitoring system and in case of any major disasters. ICOMOS recommends undertaking a detailed photographic documentation not just of objects but also of all the site structures and, where needed, augment these by drawings indicating positions and exact features of elements of specific significance.

Legal protection
Arslantepe archaeological site is scheduled as a 1st Degree Archaeological Conservation site by the decision of Adana Regional Conservation Council dated 20 January 1989. This provides it with the highest level of protection at a national level. The boundaries were later enlarged by a decision 2145 of Sivas Regional Conservation Council dated 23 December 2010.

The immediate setting of the site, which is proposed as the buffer zone, was defined as a 3rd Degree Archaeological Conservation site by the decision 4081 of Sivas Regional Conservation Council dated 24 January 2018. This 3rd degree archaeological conservation site boundary corresponds to the conservation development plan boundary. In its additional information submitted on 4 November 2019, the State Party suggested a modification of the southern boundary of this 3rd degree archaeological conservation area, extending it slightly to cover additional areas for protection. In the additional information the State Party submitted in response to the Interim Report on 24 February 2020, it also confirmed the extension of the buffer zone boundary in line with the 3rd degree archaeological conservation zone. ICOMOS welcomes this initiative, which contributes to the long-term protection of the property’s setting. ICOMOS however notes that it is essential to adhere to the legal restrictions for urban development, not tolerating any form or type of illegal construction.

Management system
The nominated property is managed by means of the cooperation of multiple institutions. At the local level, two institutions are responsible for the protection and management of the site: the site management unit, which facilitates the management processes, in particular all coordination processes at the national, metropolitan or municipal level and which also coordinates the implementation of the site management plan, and the Malatya Museum, which supervises the cultural heritage resources of the region, including Arslantepe Mound. The museum is responsible for security, visitor access, cleaning and maintenance of the site and houses the collections of archaeological findings discovered during excavations. In its response to the ICOMOS Interim Report, the State Party indicated that a site manager would soon be appointed by the Ministry of Culture and Tourism. In ICOMOS’ view the appointment of a site manager is essential to provide guidance and supervision to the ongoing management processes.

A third partner at an international level is the Excavation Director and Scientific Coordinator based at La Sapienza University in Rome, Italy. The Italian team is responsible for planning the excavation seasons and active conservation measures but also acts as a management advisor all year round to the local team. Financial resources for the site include resources for the annual excavation seasons provided by the Italian archaeological mission through the Italian Ministry of Foreign Affairs and an annual administration and maintenance budget provided by the Ministry of Culture and Tourism.
A site management plan prepared by the team of La Sapienza University in cooperation with the local offices and stakeholders has been submitted as part of the nomination dossier. The management plan (2019-2024) provides a detailed description and analysis of the site but very limited management guidance. While formulating a vision and six generic management objectives, it provides merely summarized and tabular guidance with regard to the actions and activities which need to be implemented to achieve these objectives. Although action fields are attributed to local institutions, the plan contains no information on the local management structure, decision-making procedures or responsibilities, and needs to be augmented to provide better guidance on local processes and mechanisms.

ICOMOS therefore enquired about the local management arrangements in its request for additional information as part of the Interim Report. The State Party explained that the authority for management is shared between the Italian excavation team and the Malatya Museum Directorate. Decisions on excavation, conservation and monitoring are under the authority of the excavation team and submitted for approval to the Ministry of Culture and Tourism annually. The Museum Directorate is responsible for administration and storage of findings, collecting entrance fees and recording visitor numbers, providing security, cleaning and interpretation and organizing awareness-raising measures among the local community. The duties of the site manager to be appointed by the Ministry of Culture and Tourism will further include supervision of the implementation of the management plan, preparation of the annual budget, supervision of maintenance, repairs and visitor security, as well as ensuring cooperation between institutions and preparing annual audit reports. ICOMOS considers that this extended specification for a local site management coordinator will be important to enable conservation and monitoring decisions as well as year-round implementation of the management plan. Therefore, ICOMOS recommends that a site manager is appointed as soon as possible.

The management plan contains limited information on risk assessment or disaster management despite the fact that the nominated property is in a zone of high seismic risk. In its additional information provided in response to the Interim Report on 24 February 2020, the State Party explained that seismic activity is a serious risk and has therefore already been taken into consideration in the conservation and management approaches as well as the design of the shelter structures. The State Party also reported that during the recent 6.8 magnitude earthquake of 24 January 2020, no damage occurred to the archaeological structures, which is said to prove the effectiveness of the present system.

ICOMOS recommends that as part of completing and detailing further the management plan as well as the conservation strategy, a risk preparedness and disaster response plan should be developed. This should include a water, wind and snow impact assessment, considering frequency, velocity and quantity, to avoid unexpected damage. Given that seismic risk has not been addressed in detail in the present management plan, ICOMOS considers that adequate benchmark documentation needs to be prepared and a detailed risk preparedness and disaster response plan developed, which should include a routine scenario for seismic events and potential damage arising from tremors.

Visitor management
The nominated property is open to the public during official opening hours and visits can be addressed free of charge. The mound has a specially built non-invasive pathway system for visitors, who must follow these paths and be accompanied by a guide at all times, who takes visitors in small groups. During excavation seasons the guided tours also include viewing and explanation of excavation works taking place. Site interpretation is provided on site by means of several explanatory panels. ICOMOS recommends that further interpretation is provided to assist visitors in understanding the site stratigraphy and the chronology of levels, which are visible in different parts of the excavation.

The State Party is planning a new visitor centre, which is designed to replace a former elementary school building in the southern buffer zone, adjacent to the nominated property boundary. An initial design was considered too modern and did not integrate with its surroundings. No alternative design has been presented so far but ICOMOS enquired in its Interim Report on the current status of plans and if the latest design could be made available. The State Party responded on 24 February 2020 that within the approved development plan, a location and regulations concerning the construction of the visitor centre have been approved. The design has not yet been initiated but is committed to be made available shortly, together with a Heritage Impact Assessment report. According to the definitions of the development plan regulations, the visitor centre will have a maximum height of 7.50 metres and be constructed of adobe as its primary building material. ICOMOS recommends that the revised designs should be provided once they are further advanced and that, as indicated by the State Party, a Heritage Impact Assessment is undertaken before any decision is reached to assess the potential impacts of the visitor centre on the nominated property.

Community involvement
A small residential community lives in the buffer zone of the nominated property whose main source of livelihood is based on agriculture. There have been some recent issues with illegal constructions in the village to the south of the site and the State Party has assured that control of construction activities has been applied with greater scrutiny since. Although not having been actively involved in the nomination preparation, the community supports the nomination of Arslantepe to the World Heritage List and they hope for direct revenues and secondary benefits...
with the anticipated increase of visitor numbers. The management plan furthermore foresees a closer integration of the community in management and interpretation efforts at Arslantepe.

**Evaluation of the effectiveness of the protection and management of nominated property**

While a local site management unit is operational and a management plan was submitted, it appears that several aspects of local decision-making processes and planning supervision are not fully elaborated. A site manager is yet to be appointed by the Ministry of Culture and Tourism. Significant responsibility falls to the foreign archaeological team of La Sapienza University, not only in terms of their presence and actions during the annual excavation and conservation seasons but also as permanent advisors to the site management authorities. In ICOMOS’ view, whilst this cooperative system is somewhat effective, it would be desirable to strengthen local management capacity and coordination of risk management tasks.

ICOMOS considers that while a management team and framework is operational, the appointment of a site manager at local level will increase management capacity and that the management plan should be revised to include risk preparedness, disaster response and visitor management mechanisms.

**6 Conclusion**

The Arslantepe Mound presents a unique window into the Late Chalcolithic period, recording a specific moment in time, which testifies to elite life and the earliest forms of state administration. Due to an apparently sudden and violent destruction of the so-called public palace complex and surrounding structures in the late 4th millennium BC, Arslantepe has preserved archaeological evidence of an exceptional state of preservation when compared to other settlements within the region. In-situ remains of several layers attributed to the Late Chalcolithic period (3900-3100 BCE) include the settlement plan and layout of individual buildings, the construction technology, arrangement and thickness of walls as well as their surface treatments in the form of plaster and, where evident, wall paintings. Archaeological findings, which however are not stored in situ but exhibited in the Malatya Museum, provide additional detailed evidence as to the lifestyle of elites in the Late Chalcolithic.

ICOMOS considers that Arslantepe Mound meets criterion (iii) and demonstrates both integrity and authenticity. However, both conditions are vulnerable and require stronger protection, conservation and management commitments, most specifically risk and buffer zone management, as well as a very cautious approach to future excavations. For this reason, a detailed excavation and future conservation strategy and a comprehensive conservation plan are needed. While the property enjoys an adequate level of protection, areas to the north and west of the property presently used for agriculture should be further surveyed as they appear to present surface traces of archaeological evidence and may hold important archaeological underground remains. The degree of protection of the enlarged buffer zone, which corresponds to the 3rd degree archaeological conservation area for which a conservation development plan was adopted on 14 February 2020, is adequate but requires rigorous implementation of the development plan regulations, in particular in terms of building density and height as well as land-use attribution.

While a local management unit exists in the Malatya Museum, a site manager is yet to be appointed by the Ministry of Culture and Tourism. Once the appointment of a site manager has happened, the property will benefit from further local capacity and better definition of management roles and responsibilities. The management plan submitted should be augmented to capture the specific responsibilities of the different management partners in line with actions and activities envisaged to achieve the strategic objectives formulated. ICOMOS recommends that within the management plan, important additions, which are not presently covered, be prepared, most importantly risk preparedness and disaster management but also visitor management approaches. ICOMOS further recommends that a comprehensive conservation strategy and plan be developed and linked to a future cautious excavation strategy for the property, which is based primarily on non-invasive methodologies and designates undisturbed areas which are not planned to be excavated in the short- or medium-term.

**7 Recommendations**

**Recommendations with respect to inscription**

ICOMOS recommends that the nomination of Arslantepe Mound, Turkey, be referred back to the State Party in order to allow it to:

- Prepare a conservation strategy and plan for the site, which determines protocols, priorities and procedures for all forms of conservation and maintenance interventions needed;
- Prepare within the context of the conservation plan a cautious strategy for anticipated archaeological researches and excavations in the next decades, predominantly based on non-invasive research methodologies, and the designation of undisturbed areas, which are not planned to be excavated;
- Augment the management plan to include local management roles and responsibilities, decision-making processes, a comprehensive risk assessment and risk preparedness plan;
• Strengthen the local management capacity through the appointment of a local site manager;

• Provide clarifications on the new arrangements allowed in A3 zone with the enlargement of the buffer zone;

• Reconsider the design of the proposed new roof shelter by providing more views of different sections, detailing the connection between the old and new roof and how the new roof will address places where the rain water mostly accesses the site; and submit it for further review.

**Additional recommendations**

ICOMOS further recommends that the State Party give consideration to the following:

a) Undertaking further surveys to determine the exact extension of archaeological findings towards the north and west of the property and on that basis, if necessary, extend the property boundaries in line with the indications of archaeological ground surveys in these directions,

b) Studying unsheltered areas previously excavated and the edges of the present protective shelter to ensure minimum exposure of earthen architectural remains to weathering phenomena,

c) Undertaking a periodical detailed photographic documentation of all the site structures and objects, where needed, augmented by drawings indicating positions and exact features of elements of specific significance, as a baseline for monitoring and risk and disaster management processes,

d) Undertaking Heritage Impact Assessments for any new visitor infrastructure or museum buildings before any decision is taken, to assess their potential impacts on the Outstanding Universal Value of the property;
Revised map showing the boundaries of the nominated property (November 2019)
IV Cultural properties

A Arab States
   New nomination

B Asia – Pacific
   New nominations

C Europe – North America
   New nominations
   Extension

D Latin America and the Caribbean
   New nominations
Dutch Water Defence Lines  
(The Netherlands)  
No 759bis

Official name as proposed by the State Party  
Dutch Water Defence Lines

Location  
Provinces of Noord-Holland, Utrecht, Gelderland, Noord-Brabant, and Zuid-Holland  
The Netherlands

Brief description  
The Dutch Water Defence Lines represents a defence system extending over 200 km along the edge of the administrative and economic heartland of Holland. It is comprised of the New Dutch Waterline and the Defence Line of Amsterdam. Built between 1815 and 1940, the system consists of a network of 96 forts, dikes, sluices, pumping stations, canals and inundation polders, working in concert to protect Holland by applying the principle of temporary flooding of the land. It has been developed thanks to the special knowledge of hydraulic engineering for defence purposes held and applied by the people of the Netherlands since the 16th century. Each of the polders along the line of fortifications has its own inundation facilities.

Category of property  
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this a nomination for an extension of a serial property of sites, monuments, and groups of buildings.

1 Basic data

Included in the Tentative List  
17 August 2011

Background  
This is a nomination of an extension of the World Heritage property Defence Line of Amsterdam (DLA), inscribed in 1996 on the basis of criteria (ii), (iv) and (v). In 2017, a minor boundary modification of the DLA proposing a few additions and reductions was submitted by the State Party but the World Heritage Committee did not approve those modifications. In 2015 an ICOMOS Advisory Mission visited the DLA and New Dutch Waterline (NDW) to provide advice on the feasibility of the extension.

Consultations and Technical Evaluation Mission  
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 2 to 14 September 2019.

Additional information received by ICOMOS  
A letter was sent to the State Party on 24 September 2019 requesting further information about boundary modifications and mechanisms of protection; rationale for the buffer zone; and methodology for the area analysis of highly dynamic areas.

An Interim Report was provided to the State Party in December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including protection and management mechanisms for the areas proposed for exclusion; clarifications on the rationale for the buffer zone; and additional information and examples of the area analysis for highly dynamic areas.

Additional information was received from the State Party on 23 October 2019 and 25 February 2020, and it has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report  
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history  
The nominated extension proposes to add the New Dutch Waterline (NDW) to the existing Defence Line of Amsterdam World Heritage Site (DLA), to become the Dutch Water Defence Lines World Heritage property (DWDL). This nomination also proposes a number of small extensions and reductions to the boundaries of the Defence Line of Amsterdam World Heritage property.

The proposed serial extension consists of one large component including the New Dutch Waterline, to be connected with the DLA and which encompasses two previously separated component parts of the existing World Heritage property (759-004 Advanced fort near Vijfhuizen and 759-008 Fort Kijkuit) and of three smaller component parts.

These will be examined further below.

The World Heritage property DLA (built between 1883 and 1920) is a continuous system of fortifications, canals, dikes, and inundation polders that surrounds the City of Amsterdam, creating a defensive circle of about 135 km in length, with 46 main fortifications. The NDW is a similar system that stretches 85 km in length from the Markermeer (north) to the Waal River (south) and...
contains 45 main fortifications; moreover, the nominated extension includes the Crooked Rhine river (Kromme Rijn), the Tiel Inundation Canal (Inundatiekanaal) and Fort Pannerden, which are located up to 50 km from the main defence line which are part of the NDW.

The nominated extension and the World Heritage property illustrates a single military defence system, which was based on inundation fields, hydraulic installations and on a series of fortifications and military posts.

Inundating fields to knee height was a well-tested means of defence up until the Second World War for low-lying areas of the Netherlands, as it denied the passage of enemy troops either on foot or by boat. This system was based on the high level of knowledge of water management developed by the residents of these marshy lands. To turn marshes into farmland and grow crops, removing the water from the land and controlling its level in the canals and ditches was crucial. Polders, that is partitioned parcels of land separated from other parcels by canals, ditches and artificial watercourses, have been progressively created; pumping stations drained the water from the polders into the watercourses, which were connected either to a river or a larger canal. If water could be removed from the land, it could also be brought back to flood the polders: the Dutch water defence system was based on this principle.

The first waterline – the Old Dutch Waterline – originated at the time of the Eighty Years War (1568-1648) when the Spaniards built a dyke to cross inundated fields and which protected the centres of Amsterdam and The Hague for many years.

The construction of the New Dutch Waterline began in 1815 to protect the town of Utrecht; it was continuously modified and adapted to accommodate new defence requirements until 1940. The New Dutch Waterline consists of one system with nine inundation basins, extending over a distance of 85 km roughly in a north-south/south-west direction. Forts and other defensive structures, all built in concrete or reinforced concrete, as a response to the development of high-explosive shells.

Where existing dykes could not be used, new military dykes were constructed, such as in the Zuidwijkmeer Polder or in the Harlemmermeer Polder.

The NDW extends from the IJsselmeer (at the time called the Zuiderzee) at Muiden to the Biesbosch estuary at Werkendam. The extension consists of the enlargement of the major component part of the existing serial property by adding the defensive system of the NDW, and the addition of three smaller components: Fort Werk IV, the Tiel Inundation Canal and Fort Pannerden, near the German border.

The landscape through which the NDW runs determined the construction of this defence line. The defensive system was based on inundation fields and harnessed the potential offered by the natural and impoldered landscape features for defence purposes, in combination with the construction of ditches, canals, pumping stations and sluices and fortifications to protect vulnerable points (e.g. non inundatable sections).

There are three key features of the system of the NDW:
- the strategically deployed landscape
- the water management system
- the military fortifications

The strategically deployed landscape
The NDW was built along the boundary of the portion of Dutch territory located above sea level and that which lies below sea level: the difference in level could be used for inundation purposes. Existing elements in the landscape, including dykes, quays, ditches, basins and polders were used within the defensive system. Fortifications erected to protect vulnerable points were complemented by strict building restrictions within Prohibited Circles, which are still recognisable today. The construction of infrastructure also had to respect defensive criteria for their location and provided with defensive structures. The use of the landscape features to create the defensive system had a double result: it made inundation possible and also provided camouflage to military installations. The strategically deployed landscape includes five types of landscape which are described in the nomination dossier.

In addition, the ‘urban landscape’ of the fortified cities and towns contributes to shaping the strategically deployed landscape, which is still recognisable today, thanks to the preservation of its key features, most of which had multiple functions.

The water management system
The area where the NDW was constructed is crossed by a number of large rivers. Structures and measures have been developed throughout the centuries to control water and to use it for agriculture and transport. The polder system with its dykes, ditches and sluices represented the basis of the NDW, which was augmented through ad-hoc structures and management mechanisms in order to rapidly achieve the inundations and direct the water where needed.
Military fortifications
Military fortifications were created in elevated locations and places where inundation was not possible or could be avoided by the enemy. Different types of defensive structures were built between 1815 and 1940, to respond to different military engineering, weapons and strategies. A number of existing fortified structures were adapted and modernised, including medieval fortresses and towns, which were already included in the Old Dutch Waterline. The seven phases of construction from 1815 to 1963 are described in the nomination dossier.

A standard type of fortification was adapted in terms of size and shape depending on its position and local situation. Among the many forts, the nomination dossier explicitly mentions Fort Spion and Fort Vuren, as examples of forward forts, and Fort Everdingen as a fort protecting multiple access points.

The three following components are also part of the proposed extension:

**Fort Werk IV**
This fort is the only surviving structure of a system of five forts known as the Naarden Offensive which was built to protect the fortified town of Naarden, when increased firepower made the existing fortifications vulnerable. Fort Werk IV exhibits a combination of a polygonal layout, a dry moat, brick crenelated walls and small crenelated bastions.

**Tiel Inundation Canal**
This canal, 3 km-long, connects the Waal and the Linge rivers in order to transport water from the first to the second, thus making it possible to use the water from the Linge to inundate polders in the Culembergerwaard and Tielerwaard. Its construction was triggered by the outbreak of the Franco-Prussian War in 1870.

**Fort Pannerden**
This fort was built between 1869 and 1871 at the fork of the Waal and the Pannerden Canal, near the German border, in order to protect the supply of water which this canal could provide and which the inundation system of the NDW was dependent on.

**Boundaries**
The area of the 4 components forming the nominated extension totals 38,446.57 ha, the proposed reduction totals 1,242.99 ha, bringing the whole proposed significant boundary modification to 37,203.58 ha.

The State Party proposes a buffer zone for the World Heritage property and the proposed extension that extends 10 km from the external border of the property, covering essentially the outer side of the fortified system, that is to say on the side that was watched to prevent attacks from enemies. The buffer zone in the inner side of the property is limited to a 50 m wide strip of land. The buffer zone totals 191,722.63 ha.

The major addition proposed by the State Party consists of one large component comprising the New Dutch Waterline (37,723.01 ha), complemented by three small additional component parts and some minor additions and reductions.

The proposed boundaries include the entire fortification line made up of forts and dikes and the connected elements, namely:

- some fortified cities and other remains of ancient defensive systems;
- the forts with their ditches and immediate surroundings;
- smaller fortifications, shelters and other defensive works and devices (including trenches that were damaged or have disappeared but have been restored or reconstructed) that are scattered over a large area, often distant from the forts;
- the water control system aimed at inundating fields for defensive purposes, composed of canals, dikes, sluices, gates and connected works;
- the inundation fields, which are still well visible on open land used for pasture and agriculture;
- some lakes or permanently inundated lands that were part of the defensive system.

A few general parameters recur in the definition of the boundaries:

- maintaining open land in front of the forts and visibility towards the countryside that used to be inundated;
- maintaining portions of the open land that extends also on the inner side, that is to say between the fortification line and the cities that it was meant to protect (more an exception than a rule due to integrity issues);
- following the limits of natural and artificial features, e.g., dikes, roads, river banks;
- following town limits and excluding urban areas.

In fact, ICOMOS has observed that the proposed extension extends mainly on the outer side; on the inner side it is often reduced to a thin strip of land just behind the dikes that connect the forts.

ICOMOS notes that the rationale adopted with regards to the inclusion of the inundation fields is not always clear. As a general rule, the proposed extension covers the area from the fortifications to the limits of the inundation fields, but the actual situation is more complex. Inundation fields and military installations are located on the outer side. However, at specific locations, e.g., in the area of Utrecht (part of the proposed DWDL) a first line of fortifications is located within the inner side, along the city margins, therefore inundation land seems to have existed in the inner side as well. In some cases, open fields inside the inner zone are not included within the boundaries of the proposed extension, although it would be advisable that they were, as they can still
illustrate the relationship between the defence line and the inner landscape at the time of its construction. Additionally, the designed landscape and the hydraulic system that contributes to the Outstanding Universal Value (criterion vi) of the proposed extension extend both internally and externally. It can be noted that near Utrecht the boundaries of the nominated extension are very tight around individual defence features of the waterline.

ICOMOS therefore considers that the boundaries of the nominated extension in the area near Utrecht should be revised and include all elements illustrating the defence system and their relationships.

Minor additions and reductions
Below further details are provided of the areas that are proposed for addition and removal from the existing World Heritage property.

The nomination dossier proposes the inclusion of three new areas that the State Party considers could contribute to and strengthen the Outstanding Universal Value of the Defence Line of Amsterdam.

Each of these is proposed in order to improve the visual integrity and coherence of the boundary by adding inundation lands. They are Starnmeerolder (A1), Spaarnwoude (A2), and the inundation field in the vicinity of the Vöörstelling near Vlijthuizen (A3).

Two areas which were proposed for addition in 2017 through the minor boundary modification procedure are now included in the largest component proposed as an extension of the DLA World Heritage property.

At the same time, seven areas are proposed for removal from the existing World Heritage property. They are articulated into two groups: B1 and B2.

Group B1 includes five areas (referred to as B1.1 to B1.5) which are proposed for exclusion from the current DLA World Heritage property; because developments were included in plans or approved before 1996 and have been subsequently completed. According to the State Party, these areas should not have been included in the original nomination; additionally no important attributes of Outstanding Universal Value would be affected by these exclusions.

- B1.1 (-156 ha) - Broekpolder, municipality of Heemskerk, was an area of inundation fields for the DLA, which was designated as a residential area in 1993 and the housing estate of Broekpolder was developed from 1996 onwards.
- B1.2 (-97.5 ha) - Wijkermeerpolder west of the A9, municipality of Beverwijk, is an industrial port estate which was built here in the 1990s according to the ‘De Pijp Industrial Plan’ (approved in 1964).
- B1.3 (-202.7 ha) - Eastern side of Haarlem, municipality of Haarlemmerliede/Spaarnwoude and Haarlemmermeer contains two industrial estates (De Liede and Polanenpark) which were built between 1981 and 1997.
- B1.4 (-113.9 ha) - Floriade site Vlijthuizen, municipality of Haarlemmermeer, was designated as a future residential area in 1993, and the area has been completely built on since 2002.
- B1.5 (-27.4 ha) - Vrijzicht Noord, Hoofddorp, municipality of Haarlemmermeer, was developed for a housing estate from 1994 onwards based on a zoning plan approved in 1993.

The State Party justifies the reductions in relation to the loss of integrity and authenticity and to the fact that no attribute supporting the Outstanding Universal Value would be included in the areas proposed for removal.

Group B2 covers the proposed exclusion of two areas, on the basis that irreversible developments have occurred on them since 1996, including those associated with the nearby Schiphol Airport. The State Party considers that no important attributes of Outstanding Universal Value will be affected by these exclusions.

- B2.1 (-22.8 ha) - Edam business estate is located partly inside the boundary of the World Heritage property, a result of the Plabeka Implementation Strategy adopted in 2011, after the inscription of the DLA, and escaped control due to the different alignment between the national protected landscape and the World Heritage Property.
- B2.2 (-622 ha) - Geniedijk and surrounding area, municipality of Haarlemmermeer, are located on the south-western side of the Defence Line of Amsterdam, south of Schiphol Airport. The Schiphol Airport zone has a national economic priority, therefore pressure exists to facilitate expansion of developments near the airport. The Schiphol Logistics Park is currently under construction; no high-rise or residential buildings will be allowed. Other developments exist or are being planned. A recreational park – Geniepark – is being developed: it includes the individual attributes of the DLA – fort, canal, dyke and associated line of trees. The proposed reduction in this zone will reduce the property essentially to the Geniepark.

ICOMOS notes that the proposed reductions, even though not extensive in their size compared to the whole of the inscribed property and of the nominated extension, are several and may set precedents for further similar proposals – within this property but also with reference to other World Heritage properties.

ICOMOS observes that the State Party does not inform about specific measures for the areas proposed for removal. Only some of the reductions, namely the ones on the outer side of the property, will be included in the buffer zone. On the other hand, the areas lying in the inner side will not be covered by any buffer zone, as on
the inner side only a 50m buffer zone is proposed for the DWDL.

The State Party has also explained that in most cases, the development was already approved at the time of inscription, even if not implemented yet in all cases. It has informed that the legal framework has been modified (See Protection and Management sections) and today this prevents the World Heritage property and the nominated extension from being vulnerable to development proposals.

ICOMOS regrets that such developments could not be stopped and understands that the State Party has recently acted upon its legislation in order to prevent further threats to the property. ICOMOS however observes that no specific mechanisms have been envisaged for the proposed reductions to avoid their further depletion and, where possible, their partial recovery, e.g. through ad-hoc design measures.

ICOMOS also observes that some portions proposed for removal show higher sensitivity than other ones, e.g. in the vicinity of Schiphol Airport, because the proposed reduction may reduce significantly the width of the Defence Line of Amsterdam.

The dyke near Schiphol Airport presents overall a good state of conservation, although infrastructure developments and high-rise buildings on the inner side of the dyke have negative impacts. The inundation field on the outer side is still visible but industrial buildings are scattered in the open land, which is designated for further developments: the landscape is becoming here definitely urban and only a very accurate disposition of the buildings, their architecture and the landscaping of green areas alongside the dyke may preserve the continuity of appearance of the defence line.

Additionally, in this case, some developments have not taken place yet, therefore there might be some opportunity to reduce their impacts, on both sides of the DLA.

ICOMOS therefore considers that six out of seven proposed reductions – B1.1 to B1.5 and B2.1 – might be acceptable, only on the condition that they are all included in the buffer zone and are equipped with specific protection mechanisms so as to avoid further depletion of their residual heritage significance, and to revert, at least partially, the negative effects of the already realised developments, in the medium-/long-term, e.g. in case of redevelopment.

On the other hand, ICOMOS considers that the reduction of B2.2 cannot be accepted, because the integrity of the DLA would be undermined, as its width will be too much reduced and for a too long stretch. ICOMOS also considers that the development along the outer side of the defence line at Geniedijk should be modified in order to keep it at a further distance than the one that is presently proposed, to avoid further negative impacts on this side of the DLA. On the inner side, within the Schiphol Airport zone, consideration should be given to devising possible measures for the mitigation of negative effects of development and/or, at least, partial recovery of the integrity of the area, in the medium- to long-term.

Buffer zone

The buffer zone extends for 10km on the outer side of the DWDL, whilst on the inner side it is limited to a 50m strip of land.

ICOMOS observes that a buffer zone based on a simple distance rationale appears too mechanical and does not correspond to any element supporting the defence line. Additionally, its boundaries do not coincide with any physical or administrative delimitation, or property limits (e.g. cadastral parcels). Furthermore, it is not clear what specific protection measures are established for this large buffer zone.

ICOMOS further observes that, whilst such a large buffer zone is proposed for the outer side of the defence lines, a 50 m wide strip of land is proposed as a buffer zone for the inner side. However, pressure and demand for new developments are generally much higher on the inner side.

ICOMOS requested additional information on the matter from the State Party, who explained that in the buffer zone the legal and planning framework, which puts at its centre the preservation of heritage resources, applies as a protection mechanism. The State Party also explained that the difference in extension between the outer, generous buffer zone, and the inner, tight buffer, depends on the historic function of the DWDL: it was not forbidden to build within the inner side of the water line, whilst on the outer side, the land needed to remain unobstructed for defence purposes. This approach has guided the delineation of the buffer zone.

ICOMOS considers that the legal and planning frameworks are important general instruments; however, what is necessary in a buffer zone are specific regulatory mechanisms, deriving from the general law, that guarantee the necessary added layer of protection and ensure that no further potentially already approved developments threaten the DLA and the proposed extension. These specific mechanisms are not adequately explained.

ICOMOS further considers that applying the same rationale for developing the buffer zone as the way in which the inner and outer territory was used does not appear correct. The DWDL are no longer a defence system, as they have lost this function and have become a heritage system. Therefore the buffer zone required today cannot be based only on the rationale of construction and use of the DWDL but should consider the specific role it has to play in each and every circumstance, to provide an added layer of protection at a large-scale heritage infrastructure. Additionally, the
nomination dossier explains that in the inner side of the waterline grazing and farming land was also included, to supply food in time of war.

ICOMOS considers that the buffer zone on the inner side must be expanded, on the basis of ad-hoc considerations related to the specific sections of the DWDL to be protected, their local vulnerabilities and taking into account historical elements (e.g. the Prohibited Circles, lines of sight, etc.).

On the outer side, the buffer zone also requires further specifications, particularly in what concerns the delineation of the boundaries, and the articulation in sub-zones, equipped with the necessary planning regulations to ensure effective protection. In particular, the boundaries should be made to coincide with physical elements (e.g. geographical or landscape features, infrastructures, etc.) or administrative and property delimitations (e.g. cadastral parcels, planning zones, other designated zones, etc.) in order to guarantee certainty and effectiveness of application of protection measures.

ICOMOS concludes that a thoroughly revised buffer zone is needed. This should include all Prohibited Circles which are not included in the nominated extension (the maximum radius - 1km), the entirety of the inundation fields all around the fortresses, regardless of their position and distance from the fortresses, as well as those rural areas that could contribute to maintaining the visual and historical relationship between the fortified elements and the surrounding landscape, which is considered an attribute of the Outstanding Universal Value.

Finally, ICOMOS considers that the buffer zone should include the area of Maarschalkerweerd, which is a residual open land facing the Lunettes and has retained partial agricultural use, for it is one of the few places where a substantial visual continuity and relationship between the inner and outer rings of protection of Utrecht is still maintained.

State of conservation
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is overall good, although a number of areas are vulnerable due to high development pressures.

On the other hand, in the inscribed property some parts have lost their heritage features to the extent that the State Party has found it necessary to propose boundary reductions.

Active conservation measures and maintenance are being put in place particularly for the fortified structures and for the water management system. On the other hand, the landscape needs similar attention through careful planning and design.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main current factor affecting the property is high development pressure.

However, climate change also represents an important factor affecting the low-lying area where the Dutch Water Defence Lines are located. Coping with its effects will also cause changes in the living environment and the adaptation of the water management system to new challenges.

The inscribed property and the nominated extension are located in a densely populated and very dynamic area. Since the 1960s, Randstad Holland, the string of cities which stretches from the IJsselmeer to the mouth of the Rhine in the central Netherlands, has been described as one of the major metropolises of the world. In many places alongside the DWDL, expectation and demand for new developments are increasing.

Pressure for reusing this area for recreational purposes has been positively directed to restoring the forts and maintaining the adjacent green areas; in this area good examples exist and a common practice is somehow established. Pressure for new developments and infrastructure near the forts and in the inundation fields tends to overwhelm protection measures – as it actually already has in several cases. If a piece of open land is built upon, the damage is complete and practically irreversible.

The property is very large, dotted with many forts, and the inundation area is vast: it might appear that one case of disappearance of inundation fields or the impossibility to perceive any longer the relationship between one of the forts and its pertinent territory might only slightly affect the property as a whole. But if these cases multiply, and the pressures are significant, the integrity of the World Heritage property and proposed extension is at risk.

Aside from the proposed corrections of the World Heritage property border, the State Party informs about projects that are located inside the World Heritage property itself and that could threaten Outstanding Universal Value. The ICOMOS technical evaluation mission visited some of the sites where projects are being planned. These cases are all delicate and need to be dealt with carefully and separately from the overall evaluation process of the proposed extension. However, preliminary considerations may be offered for some of them.

Motorway junction A8-A9
The planned junction will connect the A8 and A9 to complete the new ring road all around the city of Amsterdam. To connect the A8 and A9, it is necessary to cross the property for its entire width; the junction will occupy a large space inside the property. The area is
rural but the presence of the A9 has visual and noise impacts on the property and namely on the Veldhuis Fort.

Opinions on this proposal are divided and some citizens and associations are opposing it.

An ICOMOS advisory mission visited the site in October 2017 and focused on three alternatives; ICOMOS gave its final advice in December 2017, calling for an investigation of new alternatives and indicating that restoration of the Defence Line landscape was necessary even without the A8-A9 junction. At the moment this report was finalised, the favourite option seemed to be to build the junction inside an area that nowadays is a golf course and redesign it in order to reduce impacts and compensate for the presence of the motorway with better arrangements.

ICOMOS recommends that any updated proposal for the A8-A9 junction be transmitted to the World Heritage Centre and ICOMOS for consideration.

Housing development near Woudrichem
Very close to the fortified town of Woudrichem lies an industrial area to be decommissioned and replaced by a residential neighbourhood (partially dedicated to social housing). In theory, the transformation might offer the opportunity to improve the quality of the environment. Unfortunately, the project plans a large octagonal building facing the walls of the old town and a massive one on the opposite side of the area: the resulting impact could be even worse than the present one.

ICOMOS recommends that this design solution be reconsidered expeditiously.

High dynamic area around the city of Utrecht
Utrecht was protected by a double ring of forts. Nowadays there is strong pressure for new spatial developments that will affect the property directly and indirectly. In general, the area of Utrecht deserves special attention: further reduction of the open land and isolation of the forts in this area are a major threat to the integrity of the NDW as a whole and to the credibility of the extension.

Several projects are under development or study in the Utrecht area and here the nominated extension appears already fragmented. Two areas are particularly exposed.

Science Park and Laagraven area
The Utrecht Science Park is located on the fringes of the city and borders the property. It is the largest science park in the Netherlands and hosts a very important medical centre. There is a project to build an extension to an existing hospital.

Not far from here, the open land of Laagraven is subject to strong pressures. This site is partially surrounded by urban areas and flanked by motorways on two sides; for this reason, it was chosen as a sample area for detailed analysis, according to the indications of the Management Plan. ICOMOS considers that the analysis has demonstrated the sensitivity of the area, its importance for explaining the defensive function of the waterlines and concludes that its designation as green open land is to be confirmed to enhance the relationship between the city and the countryside.

Business park south of Houten
South of Houten, along the canal connecting the Port of Amsterdam with the Lek, the ICOMOS technical evaluation mission visited some examples of compromises between heritage protection and new development (e.g. near Beatrix lock).

These cases cannot be models to be applied for future developments. When new projects potentially affect attributes of the Outstanding Universal Value, unique or highly representative elements, the integrity of heritage cannot be a matter of negotiation.

Nevertheless, they are examples of conflict management and related mediations between opposite interests that can be useful in the revised definition of the buffer zone.

In conclusion, existing pressures highlight the need for the enlargement and adaptation of the proposed buffer zone in the inner side of the World Heritage property and the proposed extension.

ICOMOS finally recommends that for the highly dynamic area of Utrecht it would be more efficient to adopt a propositional strategy and a comprehensive detailed master plan where the different needs and requests can be integrated and their capacity to match the aim of heritage protection be assessed, through a strategic Heritage Impact Assessment approach, instead of assessing each project on an individual basis.

The Area Analysis report for Laagraven, transmitted with the additional information in February 2020, makes it evident that local planning should protect this sensitive site from urban pressure and Laagraven itself should be the object of a territorial project aimed at requalifying this open land, enhance the quality of its landscape, and reinforce the mutual visibility of the forts.
3 Proposed justification for inscription

Proposed justification
The nominated extension is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The New Dutch Waterline exceptionally reflects the way in which geographical, geomorphological and hydrological characteristics as well as artificial features of the landscape were masterfully harnessed for defence purposes;
- The New Dutch Waterline illustrates multiple generations of exceptional water management facilities and structures and of military fortifications, as well as their adaptation to increased destructive weapon power;
- The New Dutch Waterline (1815-1940) predates the Defence Line of Amsterdam World Heritage property, which was constructed later (1883-1920) as a second inner redoubt of the NDW, the two waterlines forming one single defence system, based on the same principle of field inundation;
- The addition of the New Dutch Waterline to the World Heritage Property Defence Line of Amsterdam supplements and enhances its Outstanding Universal Value as together the Dutch Water Defence Lines completely illustrate the development and perfecting of the national defence system of Holland.

Comparative analysis
The comparison has been preceded by a preliminary exercise which has examined properties, inscribed or not on the World Heritage List, and exhibiting similar sets of values and characteristics – strategically deployed landscape, water management system, and military fortifications – and has identified properties relevant for the purpose of the comparative analysis. This preliminary exercise has looked at the national, regional and global contexts. Finally, the nominated extension has been compared with 11 properties, four from the Netherlands, six from the European context and one from Canada.

The comparative analysis has concluded that the waterlines examined within the national context can be considered as forerunners for the NDW and the DLA, which, however, together express the apex of the defence system based on inundation.

At the European level, no other property or site is comparable with the DWDL, the only ones exhibiting some similarities are the Defence Line of Antwerp and the fortifications of Copenhagen, although they differ in terms of hydraulic engineering, landscape features and scope.

At the global level, only the Rideau Canal World Heritage property (Canada, 2007, (i) and (iv)) has been found relevant for the comparison; however, its water management structures were not used for defence, as the Canal is not a defence system based on inundation.

ICOMOS concurs with the findings of the comparative analysis presented in the nomination dossier.

ICOMOS considers that the comparative analysis justifies consideration of this extension to the DLA for approval in the World Heritage List to become the Dutch Water Defence Lines.

Criteria under which inscription is proposed
The Defence Line of Amsterdam was inscribed on the World Heritage List on the basis of cultural criteria (ii), (iv) and (v). The proposed extension therefore is nominated under the same criteria.

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the already-inscribed property and the nominated extension illustrate in its most advanced and extensive form the technology and arrangements that the Dutch developed to control inundation. Although inundation for defence had been used since the Middle Ages in the low-lying parts of north-western Europe, the Dutch brought the system to an unprecedented level of advancement and scale. The DWDL were not the last to be built; the knowledge developed here was applied and further elaborated to build other defence lines in Europe in the 1930-40s, such as the French Maginot Line, the German Pomeranian Line and, later, in the 1950s, the Ijssel Line in the Netherlands.

ICOMOS considers that this criterion is justified by the nominated extension and that the NDW supplements and reinforces the justification of this criterion of the World Heritage property.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the NDW illustrates an ingenious system of defence which has achieved the integrated use of landscape features, careful water management and control for inundation fields, and military fortifications to protect the vulnerable points. In particular the nominated extension offered, due to the very nature of the land morphology, larger opportunities to harness the landscape characteristics. Due to the presence of several rivers, which were points of access for the
enemy and needed therefore to be defended, many forts were built for this purpose.

The NDW also illustrates the development of military architecture in the 19th and early 20th centuries as well as the transition from brick to concrete construction. The rich collection of forts comprised within the NDW exceptionally illustrates the continuous adaptation of military engineering to new defensive challenges and complements the DLA with further attributes, thereby reinforcing the justification of this criterion.

ICOMOS considers that the identified attributes included within the nominated extension are numerous and many are exceptional in their own right and therefore contribute to reinforcing the justification of this criterion.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the nominated extension represents an ingenious use of the topography and hydrology of the landscape for defence purposes. The knowledge developed over several centuries to manage water for farming purposes was perfected and put to the service of the defence of the country, with the aid of pumping stations, watercourses, sluices, ring canals and dykes, to ensure rapid and precise control of the water flow. Several structures that were built for civil use were integrated into the military defence system. The nominated extension will enhance and complement the Outstanding Universal Value of the DLA as a model of the military system that has ingeniously perfected the use of landscape features and water management to achieve a defensive system of large territorial scale.

ICOMOS concurs with the findings of the nomination dossier that the nominated extension will reinforce and amplify the justification of this criterion of the World Heritage property.

ICOMOS considers that the nominated extension meets criteria (ii), (iv) and (v) and will enhance the justification of the Defence Line of Amsterdam World Heritage Property to become the Dutch Water Defence Lines.

Integrity and authenticity

The nomination dossier explains the modality of the assessment of the integrity and authenticity of the nominated extension. The year 1940 was adopted as the point of reference since from that date no new structure was added to the system. The following main categories of attributes of the nominated extension were identified: the Strategically Deployed Landscape, the Water Management System and the Military Fortifications. The identified attributes have been grouped in categories and in some cases further subdivided. For the majority of the features an individual assessment was carried out. For complex features, an assessment of the presence of all elements was made. The main defence line was not assessed as a single object but was articulated according to the generations of defence lines. Smaller features could not be assessed individually due to their high number, and their integrity and authenticity was assessed in conjunction with the cluster they belong to.

Integrity

According to the State Party, the extension of the Defence Line of Amsterdam through the addition of and unification with the New Dutch Waterline forms a coherent and complete system but each of them had a specific function to play. The extension would add landscape and historical coherence to the existing World Heritage property. The boundary of the extension includes all attributes necessary to reflect the proposed Outstanding Universal Value, including the three individual component parts.

The nominated extension includes a large number of identified physical attributes. All forts are included within the boundary of the nominated extension and none has been destroyed. The identified attributes of all categories are said to be in good condition, although the area of the defence line near Utrecht has lost the inundation basins, which were very narrow in this area due to its elevation.

ICOMOS concurs with the State Party that the proposal of merging the DLA and the NDW into one single property will increase the level of integrity because the proposed new property DWDL would include almost the whole fortified water system conceived for the defence of the core urban area of the Netherlands.

The water management system (a complex network of canals, dikes, gates, sluices) is still in use and its maintenance is assured as far as it is necessary for the safety of large cultivated and inhabited areas.

ICOMOS however notes that the strategically deployed landscape is still well visible but its extension is notably reduced and its degree of integrity is uneven. Especially (but not only) on the inner side of the defence lines, urban growth has often overwhelmed rurality and the visual relationships between the forts and the environment have been undermined. On the outer side (the side watched over by the forts), some new developments have occurred and scattered buildings and groups of trees have modified the aspect of the landscape and the visibility of the “Prohibited Circles”.

Negative impacts from new developments and large infrastructures can be found in the western portion of the DLA World Heritage Property, in the central portion of the NDW, and at the junction between the DLA and NDW, that is to say, next to the cities of Amsterdam, Haarlem and Utrecht, where the defence line passes through dense urban areas. There, fortifications, related ditches, canals and dikes have been preserved but the landscape
has changed significantly and several inundation fields have been built upon or are no longer visible. Nowadays these portions of the property are exposed to strong pressure for further transformation.

ICOMOS considers that the extent of the proposed extension of the property, the abundance of its elements, the strong presence of the rural landscape where it still exists, the effectiveness of the current actions of care and maintenance, can secure the integrity of the property. However, in the area near Utrecht the boundaries of the nominated extension need to be revised and widened, whereas currently they are drawn tightly around individual defence features. Pressure for new developments has already produced adverse effects and must be taken accurately under control.

The State Party proposes to add three areas to the Defence Line of Amsterdam: two – A1 and A3 – are still-preserved inundation fields and one – A2 – is a wooded recreational area which would reinforce the continuity of the DLA and contribute to strengthening the integrity of the already inscribed property.

ICOMOS concurs with the proposal of the addition of these three areas.

The State Party also proposes to exclude from the inscribed property seven areas where new developments have occurred after the inscription or were already envisaged in plans adopted before the inscription of the World Heritage property.

As explained in the boundaries section of this report, ICOMOS considers that only six out of seven proposed reductions might be approvable, under the conditions that all reductions are included within the buffer zone and ad-hoc measures will be put in place to guarantee that in the future some element of the past could be restored through careful design and landscaping, in particular in case of redevelopment.

On the other hand, B2.2 (Geniedijk and surrounding area) should not be accepted because this reduction would impair the integrity of the DLA.

ICOMOS recommends that the State Party give priority to the preservation of the attributes of the Outstanding Universal Value in the planning process and in the procedures of project approval, whilst also ensuring strict monitoring.

To guarantee that the integrity of the proposed extension and of the extended property as a whole is adequately sustained and, where necessary, enhanced, ICOMOS considers it crucial that the buffer zone be thoroughly revised as explained in the boundary section of this report.

**Authenticity**

ICOMOS considers that the physical attributes of the proposed extension reflect credibly the proposed justification for inscription through their form and design, their materials, their reciprocal interrelations and relationships with the landscape setting. Although the military use and defence function have ceased, the primary agricultural use of the landscape has been retained alongside the introduction of recreational use.

ICOMOS considers that several sources exist that can demonstrate the authenticity of the property, including bibliographical and archival sources. The physical attributes demonstrate and support the justification for inscription, reflecting the values and the historic development of the property. Restorations and repurposing of the forts have contributed to maintaining near the main military structures the spirit of the military past of the defence line territory. However, the modifications to the landscape and the developments have, in some zones, reduced conditions of authenticity.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the proposed extension and minor additions to the existing World Heritage property will be met when the boundaries near Utrecht are revised and made more generous on the inner side. In certain areas the nominated extension and the World Heritage property are subject to considerable development pressure that requires an expanded buffer zone on the inner side and a more precise delineation of the boundaries on the inner and outer sides, with careful monitoring and proactive management measures.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the proposed justification for inscription of the nominated extension is coherent with the justification and the Outstanding Universal Value of the Defence Line of Amsterdam.

The nominated extension contributes to make evident that the purpose for creating the DLA and the NDW and the principles of their construction were the same: when in use, the Dutch Water Defence Lines worked as an integrated system.

The proposed extension would overall contribute to enhancing the integrity and authenticity of the DLA; however, it will meet the conditions of integrity once the boundaries are revised and enlarged in the area near Utrecht. The inscribed property and the proposed extension suffer from high development pressures. Therefore it is essential that strict monitoring is exercised of the high dynamic areas and that the proposed buffer zone be reconsidered and adapted to cover also in an adequate manner the inner side of the DWDL. Its boundaries should be more precisely determined and the area provided with regulatory mechanisms, possibly based on specific zonings, in order to guarantee the necessary added layer of protection.
ICOMOS regrets that developments have occurred within the boundary of the inscribed property and that the State Party has felt obliged to propose some reductions. ICOMOS considers that only six out of seven proposals might be acceptable but only on the condition that they are all included in the buffer zone, which is not the case at the moment, and that ad-hoc measures for avoiding their further depletion and for their possible partial recovery in the medium- or long-term are set up.

With regard to the B2.2 area, in this section the width of the DLA is already very narrow and any further reduction will put at risk the integrity of the property and therefore this reduction should not be approved. The development planned on the outer side of the waterline should be kept further away from the waterline. On the inner side, at least partial recovery of areas developed and under development near the waterline, in case these might be in the future be less or no longer used, should be planned.

Attributes
The nomination dossier describes carefully and extensively the attributes supporting the proposed Outstanding Universal Value, therefore it should be regarded as the major source of information on the attributes of the property.

The attributes of the inscribed property and of the nominated extension forming the Dutch Water Defence Lines are organised in three large categories:

- the Strategically Deployed Landscape
- the Water Management System
- the Military Fortifications

These are further articulated into attributes.

The Strategically Deployed Landscape includes the main defence line, inundation basins, basin barrages, accesses, prohibited circles and wooden houses.

The Water Management System includes inundation quays, rivers, inundation and supply canals, discharge and seepage basins, main inlets, culverts, locks, log sheds, pumping stations.

The Military Fortifications include the fortified towns, the forts and batteries, the positions and dispersed structures, groups of shelters, casemates, and other military objects.

Further attributes which emerged during the study on the integrity of the nominated extension include the following:

- Linearity of the main defence line
- Landscape openness of the inundation fields
- Prohibited Circles of military fortifications
- Successive historical phases of construction and adaptation of the fortifications and military structures.

ICOMOS considers that the nominated extension is coherent with the Outstanding Universal Value of the Defence Line of Amsterdam inscribed property and, with its attributes, will complement and augment the Outstanding Universal Value of the DLA.

4 Conservation measures and monitoring

Conservation measures
A complex set of policy, planning and direct conservation measures exist to ensure the conservation of the attributes of the nominated extension.

With regards to the strategically deployed landscape, the inundation basins are, in the main, still used as agricultural land and are therefore covered by the rural zoning plan which does not permit construction and change of use. This is complemented by the Common Agricultural Policy, which sets conditions for the allocation of subsidies in relation to the use of pasture, and by international or national nature conservation designations.

Provinces and municipalities have implemented the relevant national legislation in the matter through their by-laws and plans, and the management of nature reserves is carried out by professional organisations.

Most of the attributes related to the water management system are still in use for civil functions and are maintained and managed by water authorities and municipalities.

A Subsidy Scheme for the Preservation of Monuments exists and owners can apply for a 50% maximum subsidy on the basis of a 6-year management plan.

A large amount of financial resources has been allocated in the last 15 years and further funds are secured for the immediate future.

ICOMOS notes that many initiatives for conservation and reuse have already taken place, and, having proved successful, they continue: cases, situations and actors differ from one case to another as well as the outcomes. The major challenges for conservation derive from two features of the forts: their structure and their interior apportionment. The old concrete structures do not correspond to present requirements for energy saving and ambient quality of the interiors; and their internal spaces designed for military purposes are not easily adapted to new uses.

The restored forts present a great variety of uses that have stimulated different arrangements and technical solutions; however, many of them are interesting examples of the encounter between old military and contemporary civil architecture. As a general positive effect, restorations have allowed conservation of the forts, have improved their condition and made them available to a large public. Experience in this field has been
accumulated and the State Party is encouraged to continue.

ICOMOS recommends continuing with the policy for gradual restoration and conversion to new uses of the forts, by easing and supporting the initiatives of local administrations, private entrepreneurs, and citizens. The nominated extension already offers positive examples that can be regarded as good practice and can become the basis for guidelines for future management. The active protection that has been applied to the water management system and the military fortifications should be extended to the strategically deployed landscape, particularly to the rural environment and where the visual and functional relationships with the water management system and the fortifications can be more clearly understood.

Monitoring
The nomination dossier informs that the development of a monitoring system was begun in 2017 and will continue in 2020. An online database is being created to gather and organise all relevant information for the management and monitoring of the property.

The key aims of the monitoring system are the timely identification of developments with possible impacts on the Outstanding Universal Value of the property, the continuing appraisal of the management, maintenance and repurposing of the attributes of the property, the monitoring of the progress in managing the property, and organising and issuing the periodic reporting.

Relevant factors that might impact on the property have been selected among the 14 indicated in the periodic reporting exercise. A database exists for the registration of incidents related to protected heritage – the Database of Cultural Heritage Incidents – which is managed by the Cultural Heritage Agency; in addition, a Heritage Monitor collects systematic data on 171 indicators.

ICOMOS observes that the monitoring system being developed is based on already existing and well-gearied monitoring instruments, which suggests that, when completed, this will be an effective monitoring tool. ICOMOS therefore recommends that it is expeditiously completed and applied.

ICOMOS considers that a range of effective conservation measures are in place for the nominated extension, particularly for the water management system and the military fortifications, and they have yielded positive results. More active conservation measures should be extended also to the landscape attributes to guarantee their preservation. The monitoring system for the extended property is under elaboration and seems to be based on existing monitoring practices and instruments. ICOMOS recommends that it is finalised and implemented.

5 Protection and management

Documentation
The nomination dossier contains the results of very detailed studies developed on each element of the Dutch Water Defence Lines (DWDL). It also informs that several studies have been carried out in recent years on the defence lines and that historic documentation exists on the property.

Legal protection
The legal framework for heritage and landscape protection and spatial planning is under reform in the Netherlands. From 2021 a revised set of laws, by-laws, strategies and regulations will apply.

Currently, World Heritage properties’ attributes and Outstanding Universal Value are given consideration at all national, provincial and local levels through the provisions of the Spatial Planning (General Rules) Decree, Dutch acronym Barro, issued in 2011, which identifies core qualities of the properties inscribed on the World Heritage List or included in the Tentative List. These qualities must be maintained or enhanced in plans and spatial developments.

The Barro provisions will be incorporated into the new Environment and Planning Act (2016), which stipulates that regulations for the preservation of the Outstanding Universal Value of World Heritage properties and the implementation of the World Heritage Convention must be developed.

The Spatial Planning Decree, Dutch acronym Bro, stipulates that municipalities must take into account cultural history when elaborating spatial plans.

All military and many water management structures of the proposed extension have been designated national monuments as per the Heritage Act (2016). On the other hand, in the DLA, heritage designations were issued on the basis of the Monuments and Historic Buildings Act (1988); additionally a number of attributes are covered by provincial designations, based on the Ordnance of the Province of Noord-Holland, which is considered equivalent to national designation.

The fortified towns of the NDW are designated urban conservation areas and no development that can impair their heritage character is permitted. According to the Monuments and Historic Buildings Act and the Heritage Act, municipalities must elaborate protection zoning plans for conservation areas, thereby complementing the protection afforded to individual heritage structures.

In addition to legislation, national, provincial and municipal policy documents provide for priorities and objectives with regards to cultural heritage.
The Environment and Planning Act stipulates that spatial developments may not jeopardize the Outstanding Universal Value of a World Heritage property, regardless of its location. Furthermore, a Spatial Quality Advisory Team has been established: it issues opinions and recommendations to ensure that the Outstanding Universal Value, integrity and authenticity of the property are not endangered by development proposals.

Around the inscribed property and the nominated extension various protection regimes apply that have protective effects on the setting of the Dutch Water Defence Lines (DWDL); these include Natura 2000 areas, National Nature Network, provincial urbanisation buffer zones in Noord–Holland, Schiphol Airport Zoning Decree, and valuable landscape designations.

These afford protection to the setting of the DWDL and form the basis for the establishment of the buffer zone on the outer side of the whole property.

The municipal zoning plan has legal binding force and is the key instrument for implementing protective measures.

Provinces are responsible for describing the ‘core qualities’ of existing or proposed World Heritage properties and for developing rules for their preservation. These rules are included in provincial by-laws and inserted in municipal zoning plans. In case provinces do not comply with the above provision, the national government has the right to prescribe the rules that must be included in provincial by-laws. Similarly, if municipalities fail to comply with provincial by-laws, a province may give ‘reactive instructions’.

The government and the provinces have the right to prepare government-imposed zoning plan amendments, as long as a national or provincial interest is at stake (such as in the case of World Heritage or heritage preservation). These amendments have the same legal value as municipal zoning plans.

The rural zoning plan is the central instrument for the protection of the agricultural land and therefore of the inundation fields. Provincial by-laws prevent construction outside building locations identified by provinces, and agricultural land cannot be turned into buildable land. The application of sustainability principles also require that urban developments must occur in existing urban areas. The necessity to deviate from this principle must be explicitly demonstrated.

Quality handbooks have been prepared by the provinces to assist applicants and municipalities in achieving a higher quality of development proposals.

The responsibility for the implementation of the Heritage Act falls upon several actors, including provinces and municipalities, clearly defined in the Act itself.

The Cultural Heritage Agency is responsible for two government subsidy schemes that support conservation and repurposing of protected monuments; since 2012 the provinces have been responsible for restoring national monuments.

The assurance of the quality of new developments is also an important factor complementing development restrictions. A Spatial Quality Advisory Team was established in 2005 for the New Dutch Waterline; it provides solicited or unsolicited advice on developments, challenges and trends affecting the NDW at a larger scale. Since 2016 it has a new composition and a new task: issuing opinions (e.g. on energy transition, quality assurance principles, terms of reference for HA’s) to ensure the balance between spatial development and the heritage value of the NDW. It has drawn up a memorandum on Visual Integrity of the NDW.

Once the NDW and the DLA become one single property – the Dutch Water Defence Lines (DWDL) – the Spatial Quality Advisory Team will extend its scope of responsibility to the whole property, including the DLA.

For highly dynamic areas – three have been identified by the State Party which amount to 20% of the area of the DWDL – more focused area analyses have been devised and are being elaborated to examine what is the capacity of the property, under what conditions and where, to accommodate developments carried out in a way to support or enhance the integrity of the property and where this might pose challenges. In addition, in its Interim Report, ICOMOS requested additional information on the highly dynamic areas. The State Party has transmitted one sample Area Analysis for the Laagraven area, south of Utrecht, between two urban areas – Houten and Nieuwegein. ICOMOS observes that it is a notable model study for other sensitive areas. It highlights that Laagraven is a residual green area which still preserves its rural character and the continuity of the DWDL in a metropolitan area, where the waterline has already been seriously impacted.

ICOMOS considers that the results of the area analyses should be used as the basis for a strategic Heritage Impact Assessment approach for the development projects.

Management system
In 2014 the four provinces of Noord–Holland, Gelderland, Noord-Brabant and Utrecht signed an administrative agreement for the extension of the DLA. As per the Joint Arrangements Act, the four provinces have signed a partnership agreement that establishes they will act jointly as the site-holder and the existing management entities for the DLA and NDW will eventually be fully merged into one single overarching management office as of 1 July 2020. A small portion of the NDW falls within the Province of Zuid-Holland. The five provinces have agreed that the four provinces where the majority of the DWDL is located will look after the small section in Zuid-Holland. However, the
Province of Zuid-Holland will continue to perform its spatial-planning and protection tasks.

The site–holder office will be managed by the four provinces under the direction of an independent Chair, with a representative of the Cultural Heritage Agency as advisor. The site-holder will rely on the human resources of the Knowledge Centre of the waterlines, the Spatial Quality Advisory team. External support will also be provided by the Cross-Waterline Entrepreneurship Foundation, which supports entrepreneurs in and around the DWDL. The think tank Line Expert Team – 16 experts in 8 different subjects – is supported by two Provinces and offers expertise and advice to owners, managers and operators, including municipalities and water authorities.

The collective site-holder has developed a road map to achieve six key management objectives, among which is the preparation of a joint management plan, from 2021.

The current management plan covers the period 2018–2020 and outlines the cooperation agenda, based on the six above-mentioned objectives, and on strategic goals. A calendar for implementation of the tasks related to the six objectives is presented.

**Visitor management**

A range of opportunities, including visitor centres, museums, publications, educational programmes, events etc, exists and has recently been further developed to present and communicate the value and meaning of the DWDL.

Professional and volunteer organisations take care of the interpretation and communication of the values of the property. Professional training is organised for volunteers to ensure that the interpretation maintains high standards. Children and young people are the focus of many educational programmes, including digital kits.

Bicycle and walking routes have been developed along which specific themes related to the DWDL can be experienced.

A promotion strategy based on the motto ‘Water as an ally’ is being implemented through different means and channels with the support of different partners. Activities are gathered into one single website for ease of reference.

**Community involvement**

Although there is no specific section on this aspect, from the nomination dossier it emerges that the proposed extension would not be possible without the support of the local communities, particularly in relation to the way in which the management system has been envisaged.

**Evaluation of the effectiveness of the protection and management of nominated property**

Protection designations and mechanisms exist. The main challenges derive from the negotiations that might occur in the implementation of the protective measures and balancing of different interests, considering that the nominated extension is located in a very dynamic urban conurbation, prone to significant pressures.

The State Party has the capacity to run a complex management system; however, there have been precedents where coordination mechanisms, communication and management aspects have not been effective, which have resulted in developments negatively impacting on the Outstanding Universal Value of the DLA and have triggered the proposal for reductions.

The main issue in this regard relates to the successful implementation of coordination/concertation mechanisms related to development and the role given to heritage preservation.

Planning provisions in the inner part of the DWDL, which appears to be the more exposed to pressures, need further clarification: the whole potential of the legal and planning framework is to be harnessed to ensure more robust protection. A thorough analysis of the current planning provisions would assist in clarifying where plans and envisaged developments might require an assessment of their impact on the property’s attributes, and potential reconsideration or mitigation.

In some cases, e.g. in the Utrecht area, several development projects exist and they need to be addressed all together through planning, coordinating the various projects, seeking for alternatives that impact less on the Outstanding Universal Value, integrity and authenticity of the nominated extension and eventually mitigating their potential impacts.

The governance and management frameworks appear adequate to the task, given the complexity of the property, the innumerable actors and stakeholders. Due to the high dynamicity of the region, effective coordination and communication mechanisms are crucial to ensure the effective preservation of the already-inscribed property and the nominated extension, as well as meeting development needs.

ICOMOS considers that the protection and management frameworks are adequate to ensure the protection of the proposed Outstanding Universal Value of the proposed extension, its integrity and authenticity, and to deal with the challenges posed by the great pressure for development existing in the region. Given the sheer size of the proposed extended property, ICOMOS however observes that a considerable coordination, communication and management effort will need to be deployed by the site–holder and by the State Party. In this regard, ICOMOS considers that special planning instruments might be needed in specific areas, in particular in Utrecht, in order to address comprehensively development pressures and potential impacts.
6 Conclusion

ICOMOS commends the State Party for the proposed extension, that can be considered very challenging, taking into account that the territory in which the inscribed property and its proposed extension are located is overall highly dynamic.

However, due to its complexity and sheer size, this proposal also faces some challenges: the need for revision of the delineation of the boundaries of the nominated extension in some stretches, the revision of the buffer zone, which does not appear adequate at this stage to provide the added layer of protection to the existing property and to the nominated extension, both on the inner and outer sides of the waterline, as well as the difficulties posed by the request for some reductions.

ICOMOS regrets that some inappropriate developments have occurred in some minor areas of the inscribed property such that their integrity and authenticity have been compromised, and understands the reasons why the State Party has decided to propose their removal. ICOMOS has carefully weighed all seven requests and has come to the conclusion that only six might be acceptable. However, before considering them approvable, ICOMOS needs to see important conditions fulfilled: they should all be included in the buffer zone and should be equipped with specific ad-hoc mechanisms that can restore some memory of their past role, through careful design and landscaping, and conditions in the medium- or long-term.

ICOMOS also considers that no further proposals for reduction can be accepted for this property.

The removal of the zone B2.2 – Geniedijk, cannot be accepted as, in this stretch, the section of the DLA is already very narrow, and this proposed further reduction would diminish the integrity of the whole property. In this area proposed developments need to be revised, e.g. on the outer side, the planned complex should be kept further away from the waterline.

For the nominated extension, the area near Utrecht appears to be the most problematic due to high development pressures. There, the boundaries of the nominated extension need some local revision in order to include all elements reflecting part of the memory of their past conditions through careful design and landscaping.

ICOMOS welcomes the delineation of a buffer zone for the DLA and the proposed extension. However, the current rationale for the delineation of the boundaries – a 50m strip of land on the inner side and 10km of buffer zone on the outer side - appears rather mechanical and not tailored to the specific needs of the different sections of the DLA and the proposed extension. ICOMOS considers that the buffer zone should be thoroughly revised and equipped with ad-hoc mechanisms and differentiated zoning in order to guarantee the necessary added layer of protection. The whole legislative framework, with the recent reforms, represents a robust basis for establishing specific regulatory and planning measures for the buffer zone.

Since 2011 and 2016, the legal framework has been strengthened and the new Environment and Planning Act, which will come into effect in 2021, along with the Draft National Strategy on Spatial Planning and Environment, appear adequate to address the challenges of reconciling the protection and conservation of heritage and the need for development.

However, a survey and assessment of existing planning previsions and their coherence with the need to ensure the protection of Outstanding Universal Value of the property and its extension would be necessary to guarantee that no similar situations to those that generated the request for removal will happen in the future. This will strengthen specific protection measures which will be applied to a revised buffer zone.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the nomination of the extension of the Defence Line of Amsterdam to include the New Dutch Waterline and become the Dutch Water Defence Lines, the Netherlands, be referred back to the State Party in order to allow it to:

- Revise the boundaries of the proposed extension in the section near Utrecht in order to include all elements that make up the waterline and the reciprocal visual relationships between these elements;
- Exclude from the proposal for reduction the area B2.2 – Geniedijk;
- Include all other six proposed reductions within the buffer zone and provide them with ad-hoc mechanisms that prevent further pressures and offer the opportunity to recover in the medium- or long-term, at least part of the memory of their past conditions through careful design and landscaping;
- Revise thoroughly the boundaries of the buffer zone, both on the inner and outer sides of the property, by expanding it on the inner side, including all prohibited circles and the inundation areas; as well as the area of Maarschalkerweerd, one of the few places where the continuity and visual relationship between the inner and outer ring of Utrecht is still perceivable, redefining the boundaries on the outer side in order to make them coincide with physical elements or administrative and property delimitations;
• Equip the buffer zone with ad-hoc protection measures, if and where necessary by making use of distinct zoning, so as to ensure an effective added layer of protection;

• Make an inventory of all current planning previsions in force for the inscribed property as well as the nominated extension and the whole buffer zone, and assess whether they are coherent to sustain the Outstanding Universal Value of the Defence Line of Amsterdam and the proposed Outstanding Universal Value of the extension.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Strengthening the protection of the landscape dimension, particularly in key sections of the Dutch Water Defence Lines, e.g. in the Utrecht area and Laagiven especially, through ad-hoc plans that enhance the historic landscape features and mutual visibility among the defence elements,

b) Revising as a matter of urgency the project of the housing development near Woudrichem,

c) Providing the World Heritage Centre and ICOMOS with upcoming projects, including the final option for the A8-A9 junction, for review,

d) Finalising all sensitive area analyses and embed their conclusions in planning instruments,

e) Strengthening the visibility and interpretation of the Defence Line of Amsterdam and its proposed extension;
Map showing the boundaries of the proposed extension of the property
IV Cultural properties

A Arab States
   New nomination

B Asia – Pacific
   New nominations

C Europe – North America
   New nominations
   Extension

D Latin America and the Caribbean
   New nominations
Sítio Roberto Burle Marx
(Brazil)
No 1620

Official name as proposed by the State Party
Sítio Roberto Burle Marx

Location
District of Barra de Guaratiba
City of Rio de Janeiro
State of Rio de Janeiro
Brazil

Brief description
Sítio Roberto Burle Marx, located in the west zone of the City of Rio de Janeiro, comprises extensive landscape gardens and buildings set between mangroves and native Atlantic forest in a mountainous area of the district of Barra de Guaratiba.

The property was a 'landscape laboratory' for landscape architect and artist Roberto Burle Marx (1909-1994). Over a period of more than forty years, he experimented fusing artistic Modernist ideas with native tropical plants to create garden designs as living works of art.

The Sítio reflects Burle Marx’s experimentation but also the key characteristics that came to define his landscape gardens, such as sinuous forms, exuberant mass planting, architectural arrangements of plants, dramatic colour contrasts, use of tropical plants, and the incorporation of elements of traditional Portuguese-Brazilian folk culture, all of which influenced the development of the modern tropical garden.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019) paragraph 47, it is a cultural landscape.

1 Basic data

Included in the Tentative List
30 January 2015

Background
This is a new nomination.

At the request of the State Party, an ICOMOS Advisory Process was carried out in January 2018. The outcomes of this process and ICOMOS recommendations have been taken into account by the State Party and incorporated in the nomination dossier.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 8 to 13 September 2019.

Comments on the natural attributes of this property, and their conservation and management were received from IUCN on 19 November 2019 and have been incorporated into relevant sections of this report.

Additional information received by ICOMOS
A letter was sent to the State Party on 10 September 2019 requesting further information about landscape plans, the identification and inventory of potential attributes, the art collections, justification for inscription, comparative analysis, boundaries, buffer zone, state of conservation, protection and management system/plan.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: landscape principles, evidence of experimentation, documentation about the development of the property, the development of modernist landscapes, comparative analysis, legal protection and disaster risk management planning.

Additional information was received from the State Party on 4 November 2019, and 28 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Sítio Burle Marx is an extensive landscape garden developed over forty years by Burle Marx as a laboratory for his design ideas. What Burle Marx was trying to achieve was an integration of artistic expressions into landscape design so that parks and gardens became living works of art, not static but emerging from growth. The successful experiments in the Sítio were replicated in the parks and gardens Burle Marx designed, and also
came to influence the development of modern tropical gardens of the 20th century.

Sítio Roberto Burle Marx is located on Estrada Roberto Burle Marx in the district of Barra de Guaratiba in the west zone of the city of Rio de Janeiro, some 50 kilometres from the city centre. It is on the west slope of Serra Geral de Guaratiba, on the hill of Santo Antônio da Bica. The portion of the nominated property above 100 metres in elevation is part of the Pedra Branca State Park, a dense ombrophilous forest that is part of the Atlantic Forest. The nominated property covers over 40 hectares and comprises extensive landscape gardens, clustered on the sloping land and above native forest. About 40 percent of the property has been transformed into landscape gardens.

By the time he purchased this land in 1949, Burle Marx had already carried out large-scale public and private landscaping projects. He had visited Europe in 1928 to study the Modern Movement in Art which had begun in the early 1900s. There, he was influenced by artists such as Picasso, Matisse and Kandinsky. When he returned to Brazil in 1930 and started his landscape career, he used his own European inspired abstract paintings as a basis for the design of his commissions.

Burle Marx was also an important collector of native tropical plants, which he gained from special expeditions. These ornamental plants needed to be acclimatised, tested to understand their habits, and experimented to see how they might be used to create landscape artworks. This was the rationale for the acquisition of the property, which became a kind of laboratory of landscape experimentation that was essential to the aesthetic and botanical development of Burle Marx’s designs.

In the development of the Sítio, Burle Marx distributed species on the ground, applying their volumes, colours and textures in arrangements, based on modern aesthetic principles and architectural ideas, tempered by the specific characteristics of the flora and his own extensive botanical knowledge.

Accordingly, the Sítio gardens were developed organically, without following a previously elaborated design. The gardens materialize both the landscape principles present in the work of Burle Marx and the processes of analysis, cultivation, and experimentation.

The nominated property includes eight modern and traditional buildings (Administration Building, Stone House, Main House, Loggia, Chapel, Stone Kitchen, Laundry and Atelier) and seven lakes, all permeated and integrated by the landscape gardens.

The Sítio today houses one of the most extensive and rare botanical collections of ornamental plants coming from Brazil and the tropical and subtropical regions. The property also includes a number of plant nurseries, including covered nurseries for plants that require special environmental conditions.

The 1949 purchase was the first of three acquisitions of land that now forms the nominated property. The second was in 1952 and the third in 1960, both of which reflected the need for more space to develop the botanical-landscape collection.

By the end of the 1960s, the nominated property housed the most representative collection of Brazilian plants, as well as rare species from the tropics in general. The collection of living plants became one of the most important in the world, whether considered by the number of individuals or by the diversity of the preserved species. The 3,500 cultivated species, with an emphasis on tropical and subtropical flora, live in harmony with the native vegetation of the region, which includes species belonging to the mangrove swamp, restinga (a distinct type of coastal tropical and subtropical moist broadleaf forest) and Atlantic Forest.

Work on the built components of the nominated property began in the early 1950s, when Burle Marx began transforming the simple but deteriorated existing Main House on the property. The last works on this building occurred in the 1990s.

Listing of “Sítio Santo Antônio da Bica” as state heritage began in 1983 and was completed in 1988; listing of the property as national historic and artistic heritage commenced in 1985. Burle Marx donated the property to the Federal Government in 1985, and it was renamed Sítio Roberto Burle Marx in compliance with the deed of donation. Burle Marx continued to live on the property and became its first director. The commercial activities of Sítio Roberto Burle Marx were transferred to a neighbouring farm in 1987.

The 1990s saw the construction of the Atelier, intended for the production of visual arts and as a space for exhibitions, classes and other activities. This period also saw the inauguration of the Administration Building.

Burle Marx died in 1994, and public visitation to the property began in 1995. Sítio Roberto Burle Marx is today a public property, a special unit of the National Institute of Historic and Artistic Heritage (IPHAN) linked to the Brazilian Ministry of Culture.

In the first decade after Burle Marx’s death the management of the property was directed at trying to sustain the idea of experimentation, following what were considered to be his principles. This approach has now been reversed and the landscape gardens are managed to perpetuate Burle Marx’s own experimentation and what that achieved. The outcomes define the key landscape characteristics that he used in designs for over two thousand gardens and landscapes, and they were also influential in the wider development of modern tropical gardens of the late 20th century.
**Boundaries**
The nominated property has an area of 40.53 ha, and a buffer zone of 575 ha.

The property boundaries incorporate all the potential attributes of the proposed Outstanding Universal Value.

The boundaries of the nominated property correspond to the estate formerly owned by the landscape architect and artist Roberto Burle Marx.

The boundaries of the buffer zone follow the local geomorphology on the southeast and northwest, the lines of three streets to the northeast, and a small hill to the southwest.

In its letter dated 10 September 2019, ICOMOS requested information on the reasons why there is no buffer zone to the south-eastern boundary of the nominated property. The State Party replied that this is because this is a ridgeline with a protected area beyond.

**State of conservation**
In general, the state of conservation of the nominated property is good.

In the absence, though, of a detailed survey and inventory of the designed areas of the garden as they are today, and without available comparisons with archive material, it is difficult to assess completely satisfactorily how far conservation has succeeded in sustaining Burle Marx’s designs.

The botanical collection (and nurseries) is generally in very good condition, and benefits from conservation measures and regular maintenance by skilled staff.

Some of the nursery buildings are in fair condition. The ICOMOS technical evaluation mission noted that the strategic plan includes actions to improve the condition of the nurseries, and work was already under way. Ongoing work follows the original pattern of nurseries and their locations.

The lakes are in good to very good condition, and work is being undertaken to improve them as part of the annual action program. The ICOMOS mission noted that leaks that were noted in the nomination dossier have been repaired, and there is otherwise regular maintenance.

While the nomination dossier identifies a number of buildings in bad or fair condition, the State Party has since improved the state of conservation in these cases, and this was confirmed during the ICOMOS mission. The buildings are now generally in very good condition.

In the case of the gardeners’ work shed, the condition is fair. As the nomination dossier notes, five buildings (Main House, Loggia, Chapel of Santo Antônio da Bica, Stone Kitchen and Atelier) are subject to a higher standard of conservation.

As for the museological and bibliographic collections, the latest assessment of their state of conservation (2012-2013) indicated that some elements were in fair condition. These are being restored as part of the annual Action Plan.

In the additional information provided in response to the Interim Report, the State Party provided an update about the state of conservation of various potential attributes including buildings and collections, and brief details about the service block.

**Factors affecting the property**
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main external factors affecting the property are fires, reliable water supply, urban expansion, and real estate speculation, while the main internal factor is the lack of a clearly defined rationale for conservation interventions in the aesthetic elements of the gardens.

Urban expansion and real estate speculation pressures in the vicinity of the property are significant factors affecting the visual integrity of the property. There is an urgent need to better regulate urban growth and speculation in the buffer zone, and to revise the existing urban plans covering the buffer zone in order to take into account in their guidelines the attributes and values of the site.

Understanding of the cultural value of the property should be improved, and a shared vision that underpins the conservation and protection of the property should be developed. This should also address the access road and urban fabric in the vicinity.

Providing an adequate water supply for the property has also been an ongoing issue. However, the installation of two artesian wells is expected to provide a long-term solution and guarantee the water supply for the foreseeable future.

Forest fires and uncontrolled burning are significant issues that are identified by the State Party in the nomination dossier, and observed during the ICOMOS technical evaluation mission. The State Party advises that the boundaries of the nominated property are cleared to prevent or slow the spread of fire from outside the property. There are also warning and communication systems, and firefighting capacity in the property.

In its Interim Report, ICOMOS requested information about options envisaged to strengthen preventive measures, including potential plans to consider or adopt such measures. The State Party indicated that a risk preparedness plan is included in the management plan. There has been some further consideration of risk management in relation to fire protection, in particular a comprehensive analysis of the property, and a project has been prepared although this is not specifically...
aimed at fighting forest fires. A partnership with the State Environmental Institute will also be formalised. Further work to strengthen risk preparedness within and in the setting of the property is urgently needed.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The property is globally an outstanding example of an important interchange of human values developed through study and landscaping experimentation with tropical flora. The property was crucial to the development of a new language of landscape design which has largely influenced the shaping of parks and gardens since the mid-20th century in Brazil and throughout the world. Sítio Roberto Burle Marx was a laboratory for the modern tropical garden, a place for fostering landscaping, artistic and botanical knowledge, and for the development of an ecological approach that articulates preservation and vitality, and nature and culture. It provides a unique experience, in both educational and aesthetic terms, of tropical flora and of Brazilian and Latin American culture, with important messages about the environment and cultural heritage.

- Sítio Roberto Burle Marx reached its final configuration through an experimental process, revealing an ecological conception of form as a process including social collaboration which is at the basis of the struggle for environmental and cultural preservation. The property was a lively gathering place for scholars and artists from a wide variety of fields and origins. Understood as a landscaping laboratory, it was shaped out of a productive dialogue with different strands of Brazilian, Latin American and international modernity practice and thought. It is the unique result of the convergence of these different perspectives: the modern abstract form, the exuberance of tropical flora, local and international landscape traditions, the traditional Portuguese-Brazilian constructive typology, and various European and Latin American classical and popular art expressions. Drawing from all these sources, Sítio Roberto Burle Marx became the place for testing and developing the modern tropical garden, an important expression of the Modern Movement in the field of landscape design.

Comparative analysis

The comparative analysis is structured into five parts: cultural landscapes; botanical gardens; World Heritage properties with integrated historical gardens and parks; landscape design and 20th century heritage; and the existing representation of Burle Marx-designed properties on the World Heritage List.

The analysis considers existing cultural landscapes on the World Heritage List, in particular those created intentionally, and the different schools, traditions and models they reflect. The analysis notes a number of points of convergence and difference with the nominated property and these examples.

Despite identifying specific similarities with other properties, the analysis argues that the unique qualities of the nominated property underpin the claim for Outstanding Universal Value. These includes the nature of its botanical collection and formal features, the use of volume and colour of vegetation, the play of light, and other qualities. Importantly, none of the existing World Heritage cultural landscapes represent a synthesis of tropical or modern landscape, as can be found at the nominated property. This arises from its function and purpose. The other landscapes were undertaken as expressions of power and wealth, as well as aesthetic sensibilities.

The two botanical gardens on the World Heritage List reflect different moments and styles of landscape, associated with botanical studies and the economic use of plants from different ecosystems. The analysis argues that landscaping plays an important but supplementary role in these examples. In the case of the nominated property, landscaping is not just a way of organising the collection, it is the reason for developing the collection and determining its display.

The World Heritage List also includes gardens and parks of different historical eras and cultural traditions, almost always integrated with landmark buildings, groups of buildings or historical urban centres. These properties represent the main global trends in the history of landscape design but none was developed as a landscape laboratory, nor are any considered a modern tropical garden or express tropical characteristics.

The analysis of twentieth-century properties on the World Heritage List notes that these have core elements in common that link them to the discourse on modernity related to the nominated property. While in some of these cases the underlying landscape principles are similar, the analysis notes differences such as the nominated property’s innovative ecological perspective for configuring cultural landscapes, as well as its fundamental role as a laboratory.

The analysis also considers examples of the Modern Movement inscribed on the World Heritage List. However, in none of these examples does a garden play a key role in the justification for inscription.

The final part of the analysis considers other examples of the work of Burle Marx in properties already on the World Heritage List, such as Brasilia. Burle Marx was prolific and many of his designs are considered to be works of art as modern tropical landscapes. However, one fundamental difference between these examples and the nominated property is that the nominated
property is a departure point for these other designs, a laboratory for research and experimentation.

In conclusion, the analysis finds that the nominated property is the laboratory for research and experimentation where the principles of the modern tropical garden matured. It enabled the application of these principles in many landscape projects elsewhere.

ICOMOS considers the comparative analysis successfully demonstrates that there are no properties currently on the World Heritage List which demonstrates the same value and attributes as the nominated property.

The analysis is weak, though, in relation to considering comparison with properties not on the World Heritage list.

This concern was shared with the State Party in the ICOMOS letter of September 2019 and in the Interim Report. The State Party provided a brief additional appreciation of a range of potentially comparable properties related to modern landscapes from the period. It argued that no other sites include all the attributes of the property.

Given the wealth of documentation on the development of Modern gardens, ICOMOS expected a more thorough analysis that could have positioned more accurately the Sítio in its regional and global context. Such a wider analysis could not only have strengthened the justification for inscription but added to a better understanding of precisely what should be sustained in the property.

The Modernist Arts movement that developed in Europe in the 1900s quickly spread to other disciplines with Modernist ideas in architecture soon being echoed in the landscapes that surrounded the buildings. But this spread to landscapes had a strong geographical dimension with South America being a key focus, and within that region, Burle Marx was a key proponent. How Burle Marx’s idea were developed and how widely they were spread deserved more attention.

Although influenced by Europe, Burle Marx’s landscape creations were distinctly Brazilian and in turn influenced Brazilian architecture. He also directly influenced individual designers such as Raymond Jungles from Florida. But it was the sheer size and scope of his output – some 2,000 public and private projects in 20 countries around the world – that ultimately had the greatest influence as his work found favour not only amongst designer and private owners but, most importantly, amongst the general public – for whom he said he designed parks ‘to provide dignity for the masses’. Burle Marx could be said to have launched a popular revolution in garden design with the Sítio being where the seeds of that revolution were developed.

ICOMOS considers that while the comparative analysis should have been more extensive, it is none the less sufficient to justify consideration of the property for the World Heritage List.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

The State Party considers the nominated property is globally an outstanding example of an important interchange of human values developed through study and landscaping experimentation with tropical flora. The property was crucial to the development of a new language of landscape design which has largely influenced the shaping of parks and gardens since the mid-20th century in Brazil and throughout the world. Sítio Roberto Burle Marx was a laboratory for the modern tropical garden, a place for fostering landscaping, artistic and botanical knowledge, and for the development of an ecological approach that articulates preservation and vitality, nature and culture. It provides a unique experience, in both educational and aesthetic terms, of tropical flora and of Brazilian and Latin American culture with important messages about the environment and cultural heritage.

In its first request for additional information, ICOMOS requested the State Party augment the justification to reinforce the claims of influence, demonstrating its importance and providing examples beyond the work of Burle Marx. The Interim Report also sought further information about the history of the development of modern tropical landscapes, and other gardens that could reflect Burle Marx’s landscape principles. In response, the State Party listed the important qualities of the nominated property including general indications of influence. A range of references were also provided supporting the importance and influence of Burle Marx.

ICOMOS considers the property demonstrates an important interchange of ideas on landscape design related to the importation of ideas of the Modernist art movement from Europe, the shaping and adaptation of these to landscape forms based on the use of native tropical flora, and the way these new forms made manifest in over two thousand parks and gardens around the world, which have had a profound impact on the development of Modernist Tropical garden design around the world.

ICOMOS considers that this criterion has been justified.
Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history:

The State Party consider that Sítio Roberto Burle Marx reached its final configuration through an experimental process, revealing an ecological conception of form as a process including social collaboration which is at the basis of the struggle for environmental and cultural preservation. The nominated property was a lively gathering place for scholars and artists from a wide variety of fields and origins. Understood as a landscaping laboratory, it was shaped out of a productive dialogue with different strands of Brazilian, Latin American and international modernity practice and thought. It is the unique result of the convergence of these different perspectives: the modern abstract form, the exuberance of the tropical flora, local and international landscape traditions, the traditional Portuguese-Brazilian constructive typology, and various European and Latin American classical and popular art expressions. Drawing from all these sources, Sítio Roberto Burle Marx became the place for testing and developing the modern tropical garden, an important expression of the Modern Movement in the field of landscape design.

ICOMOS considers that the nominated property is an outstanding example of a landscape that demonstrates the development of a new type of landscape design that fused creative ideas of the Modern art movement with local typologies and tropical plants to create a style that ultimately became known as the modern tropical garden.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that criteria (ii) and (iv) have been demonstrated.

Integrity and authenticity

Integrity

The nominated property contains all the potential attributes that are central to the proposed Outstanding Universal Value. It corresponds to all the land acquired by Roberto Burle Marx for his landscaping activities, and it is of an adequate size.

Authenticity

The authenticity of the nominated property is related to its form, design, and materials, including living plant materials, the interaction between all of these to create artistic works, and the ideas that they convey.

Although ICOMOS considers these attributes adequately convey the Outstanding Universal Value of the property, their documentation needs to be greatly improved to guide conservation in order to ensure there is no gradual erosion over time.

The historical role of the gardens as a laboratory for the development of the modern tropical garden has ended and it is therefore essential that there is a clearer understanding of the full scope of the attributes and how they will be sustained.

ICOMOS considers that the conditions of integrity and authenticity have been met, although the attributes are vulnerable to incremental change over time.

Evaluation of the proposed justification for inscription

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

ICOMOS supports the proposed justification of Outstanding Universal Value. It considers, though, that what needs to be stressed is the aesthetic conception of the gardens rather than an ecological conception. Although Burle Marx campaigned to save natural areas, and introduced a large number of new species to garden cultivation, his designs were outstanding for the way they reflected abstract paintings, where every detail mattered and where nothing was left to chance. They were certainly a fusion of art and nature but this cannot be said to be exceptional for the way they reflect “ecological conception of form as a process including social collaboration which is at the basis of the struggle for environmental and cultural preservation.” Burle Marx introduced the aesthetics of painting to landscape design: the Sítio is where he worked out how to achieve this. His designs were primarily artistic conceptions rather than primarily ecological conceptions.

ICOMOS considers that criteria (ii) and (iv) have been demonstrated and the conditions of integrity and authenticity have been met.

Attributes

Key attributes of the Sítio are the artistic compositions of the various part of the gardens and how plants have been arranged as living paintings in terms of colour, shape, volume or statuesque form. The attributes include Burle Marx’s key characteristics, such as sinuous forms, exuberant mass planting, architectural arrangements of plants, dramatic colour contrasts, use of tropical plants, and the incorporation of elements of traditional Portuguese-Brazilian folk culture and pacifically how the various parts of the garden reflects different permutations of these.

A much more detailed articulation of these key attributes is needed.

The State Party proposed that the art collections at the nominated property should also be considered as an attribute. These movable collections are similar to museum collections and archives and need to be considered as supportive material rather than as part of Outstanding Universal Value as attributes. Artworks that are specifically related to the design of the gardens are
clearly of key importance in understanding the creative processes and in defining attributes.

ICOMOS considers that the attributes have been broadly defined and a more detailed articulation of these attributes is needed. The art collection should not be considered as an attribute, but as a supportive material to the Outstanding Universal Value of the property.

4 Conservation measures and monitoring

Conservation measures
The nominated property has been under the care and responsibility of the National Institute of Historic and Artistic Heritage (IPHAN) for over 30 years. The primary management objective has been conservation, which is undertaken by staff in accordance with annual Action Plans and in the context of a strategic plan. This has involved continuing preservation and conservation of the planted and constructed features of the property.

The one area that needs strengthening is the conservation and maintenance of the designed form of the gardens in terms of the way plants were laid out. Currently there appears to be more of a focus on the conservation of plant collections – which are nevertheless extremely important - than on the way those plants were assembled as components of living paintings. Both are important, but it is the artistic creations that are the focus of this nomination and their symbiotic relationship with the massive variety of native tropical plants collected, cultivated and nurtured by Burle Marx.

Conservation of the designed landscape is a major challenge as plants grow and compete with each other. Artistic creations using massing and specific positioning of plants become chaotic without maintenance that respects the underlying intentions of the designer. What needs to be set out much more clearly are the guiding principles that Burle Marx used, the intentions behind his experimentation and the clear outcomes as a basis for current maintenance and conservation and, where appropriate, reinstatement.

The gardens are no longer experimental as has been confirmed by the State Party. As time goes by the links with Burle Marx will become weaker. It is thus essential that as much as possible information is gathered on his design and experimentation processes to establish a firm basis for the justification of interventions. Without such evidence, the gardens could very quickly metamorphose into something completely different from Burle Marx’s intentions.

Currently there is inadequate documentation to allow precise consideration as to how the gardens today relate to their form in Burle Marx’s lifetime. A much more detailed inventory of the aesthetic and plastic aspects of the gardens is needed to set out what existed in Burle Marx’s lifetime compared to and what exists now.

Once such a clear baseline has been established, this should form the basis for the development of a Conservation Plan that sets out how the conservation of Burle Marx’s designs will be approached.

The gardens’ living plant collections are subject to daily conservation and management actions involving maintenance of the limits of flowerbeds and of the species arranged in them, phytosanitary treatment, quarantine of species, propagation, pruning, cleaning, soil preparation, nutrition, irrigation and planting. A large team of experienced gardeners is involved in this work.

The seven lakes within the gardens are also subject to ongoing maintenance, both in terms of conservation and handling of water-plant species and fish, as well as their physical form. In recent years, electrical systems, plumbing and waterproofing have all been renewed or repaired.

The collection of buildings is also subject to ongoing conservation and maintenance. Work in recent years has included restoration of the roof of the Administration Building, conservation of floors, painting and roof maintenance of the Stone House, repairs and general painting of the Main House, maintenance of the lime plaster and whitewash of the Chapel, and demolition and reconstruction of the concrete roof slab of the Stone Kitchen.

Fire prevention and firefighting are also important activities at the property.

Monitoring
There are two programs planned for the assessment and monitoring of the property’s state of conservation. One program will be overseen by a management committee, and the other will be undertaken at an institutional level.

Although a detailed schedule of key indicators has been developed and includes a timetable for monitoring and list of who is responsible for undertaking the monitoring, this is not yet clearly related to baseline plans that show precisely what aspects of the garden are being preserved.

Before effective monitoring can be undertaken, there needs to be a detailed analysis of the form of the gardens at the end of Burle Marx’s life, the precise rationale behind his creative ideas for each of the different areas of the gardens, what now survives and where interventions are needed.

ICOMOS considers that until such a baseline is in place, it is difficult to define a clear rationale for monitoring.
ICOMOS considers the conservation measures should be reinforced by the development of a Conservation Plan that sets out how the conservation of Burle Marx’s designs will be approached. In the case of monitoring, detailed analysis is required to provide a suitable baseline.

5 Protection and management

Documentation
While the nominated property has been extensively studied over time, there are no original plans due to its evolutionary and experimental history. Likewise, there is no current detailed landscape plan for the nominated property (although one is in preparation), nor any mapping of the key landscape characteristics of the property to assist with its understanding, conservation and management. A geo-referenced inventory of the botanical-landscape collection is being prepared. In addition, a detailed study prepared in 2015 focuses on the garden of the Main House.

None of this documentation is adequate for detailed conservation purposes.

There is a need to document in detail the historical development and phases of the property, including comprehensive documentation on the experimentation with the plants within nurseries. Important views from the property into the surrounding landscape also need to be documented, with a goal to achieve their protection.

In its Interim Report, ICOMOS requested a range of additional documentation or information related to the mapping of the key Burle Marx landscape principles, details about the proposed plant inventory including a sample of the data collected, records of oral sources about the development of the property or planned research into this, and evidence of experimentation, its correlation to the property’s form and plantings, and a sample of such documentation. In response, the State Party provided considerable detail about the development of the inventory and mapping. In the case of oral histories, these have been undertaken and recording further testimonies is proposed. However, no details about the evidence of experimentation are provided, apart from an overview of the experimental work undertaken. The State Party did provide documentation regarding important internal and external views.

ICOMOS considers that it is a priority to delineate in detail, on the basis of a collaborative multi-disciplinary approach, the attributes of the property and their degree of intactness on the basis of an analysis of the maps, surveys and illustrative materials related to the property at the time of Burle Marx’s death and at the present time. Further research should also be undertaken with analysis on the archives and the art collection.

Legal protection
The nominated property is legally protected at all available levels. At the national level it is protected by the National Institute of Historic and Artistic Heritage (IPHAN). At the state level it has protection under the State Institute of Cultural Heritage (INEPAC). At the local level the property and buffer zone are integrated into the Rio de Janeiro State Conservation Strategy. There is also a municipal law regarding urban development, and a draft bill regulating a Neighbourhood Impact Study, which is planned for finalisation in 2020. The latter would address urban pressure around the property.

In its first letter seeking additional information, ICOMOS requested details about the coordination of the various existing and proposed protection measures, progress with the finalisation and implementation of municipal laws regarding urban development, the impact of a program related to environmental standards, a proposed ordinance and its timeframe, the role, relationship and timeframe of a draft bill regulating the neighbourhood impact study and the Guaratiba structuring plan, and the status of the freeze on urban expansion. No information has been provided by the State Party in response.

In its Interim Report, ICOMOS requested information on the timetable for the finalisation and implementation of this draft bill. The State Party has provided an update on the development of protective measures. However, no clear timetable for completion is provided, and this may be complicated by elections to be undertaken and the replacement of the legislative and executive branches.

Management system
There are effective management structures and processes in place for the property and buffer zone at the three levels of government, with offices and personnel experienced with heritage properties and urban planning. A proposed new management plan will update and improve the existing Strategic Plan (2012-2018), which is operationalised through annual Action Plans. The new plan, scheduled for completion in 2020, is intended to embody World Heritage principles and concepts. What is essential is that this management plan is based on a clear understanding of the attributes of Outstanding Universal Value – which remains to be clearly defined.

In its first letter seeking additional information, ICOMOS sought details about the status and timeframe of the management, and information about the global architectural masterplan and any potential impacts. The State Party provided details about the management plan, including its scheduled completion date of May 2020. However, no information was provided regarding the masterplan.
The State Party proposes to create a management committee involving IPHAN and a range of relevant institutions for the property and buffer zone, including those from the non-governmental sector, civil society and external experts. This will consolidate the current coordination, and create a formal mechanism to improve monitoring and decision-making. This will be a decision-making committee for the property, in coordination with other parties.

The objective of the proposed management system is to articulate different initiatives and actions in the property, involving other institutions, so that planning allows for greater synergy, integration and responsibility-sharing for effective management. It will also relate to the establishment of monitoring indicators for the plan.

The nominated property is adequately resourced, including with appropriate staff.

Visitor management
The nominated property is the only cultural tourist attraction in the area, and visitors come mainly from Rio de Janeiro. The current visitation rates are well below the property's carrying capacity.

While the current presentation of the nominated property includes some aspects of the proposed Outstanding Universal Value, more can be done to provide information about its role as a laboratory for the development of modern tropical landscapes.

Visitor management issues to be addressed include improvements to the visitor reception area, and better parking for both cars and buses.

Community involvement
There appears to be general community support for the property. One aspect of community involvement is the strong connection between the property and nursery businesses in the vicinity.

Evaluation of the effectiveness of the protection and management of nominated property
While there is documentation about the property, one particular gap is the availability of detailed landscape plans for the property – although the State Party advises that these are now being prepared – and the mapping of landscape principles. There is also a need to better document the history of development and evidence of experimentation.

Although the property is legally protected at national and state levels, and its buffer zone is integrated into the Rio de Janeiro State Conservation Strategy, there remain concerns about the effectiveness of these measures in relation to urban expansion, given the current freeze. Proposals for municipal laws on urban development and the Guaratiba structure plan need to be progressed to ensure more effective protection for the setting of the property and its views.

The management system for the property is adequate, with appropriate structures and processes for the property and buffer zone. Proposed updates and changes to the system will enhance management. The property has adequate funding and staff.

Visitor management is satisfactory, although visitor amenities could be improved, and the property is currently operating well below its carrying capacity. Improvements could be made to the presentation of the property in order that there can be a much better understanding of Burle Marx's principles in relation to the characteristics of the gardens.

Community involvement with the property and support appear satisfactory.

ICOMOS considers that although the property is protected at national and state levels, and its buffer zone is integrated into the Rio de Janeiro State Conservation Strategy, proposals for municipal laws the Guaratiba structure plan need to be progressed to ensure more effective protection for the setting of the property and its views.

A major concern is the lack of clearly defined attributes and an adequate baseline data to inform a conservation approach for the property and its presentation. When both are in place they need to form the basis of a Conservation Plan.

The management system is generally adequate although the proposed revisions of the management plan need to be based on clearly defined attributes.

6 Conclusion

The Sítio is a remarkable survival as a landscape laboratory that illuminates the way one of the great landscape designers of the 20th century developed his influential designs. Sustaining it, though, is a complex challenge.

Burle Marx can be said to have introduced the aesthetics of painting to landscape design. Drawing inspiration from the key founders of the Modern Art movement, he created abstract paintings that included modernist images based on abstractions of Portuguese/ Brazilian folk culture, and used these as a basis of garden designs in which plants became components of three dimensional living works of art. As he himself said: “A garden is a complex of aesthetic and plastic intentions; and the plant is, to a landscape artist, not only a plant – rare, unusual, ordinary or doomed to disappearance – but it is also a color, a shape, a volume or an arabesque in itself”.

Burle Marx can also be said to have popularised the use of native tropical plants, many of which he collected and cultivated.
The Sítio is thus important as a physical manifestation of Burle Marx’s approaches, his principles, and his plant collections and for the way it allows an understanding of the key designs that characterised his work that were used again and again in his creations, such as sinuous forms, exuberant mass planting, architectural arrangements of plants, dramatic colour contrasts, a focus on tropical plants, and the incorporation of elements of traditional Portuguese-Brazilian folk culture. Movement is also an important element of how his landscapes should be experienced.

While ICOMOS considers that the Sítio does manifest all of these approaches, principles and characteristics, it is of concern that currently they are not sufficiently well articulated, conserved and presented. The primary focus of the garden’s conservation and documentation is the plant collections rather than the way those collections were used by Burle Marx in an experimental way to create art forms.

Although ICOMOS has requested details from the State Party on these aspects, they have not been forthcoming in any meaningful way. Compiling a detailed analysis of what existed at the end of Burle Marx’s life and from that developing a schematic, detailed, three dimensional survey of what exists now, and where interventions are needed to take the property forward, cannot be undertaken quickly. And the starting point for such analysis and documentation should be a clear understanding of the key attributes of Outstanding Universal Value which is also currently lacking.

ICOMOS considers that it is important as a way forward to allow the State Party to develop this material with, if necessary, advice from ICOMOS. Defining attributes for a landscape that conveys layers of meaning, combines several art forms, is based on living parts, and needs to be experienced through motion is challenging. The exercise needs a collaborative multi-disciplinary approach. Such an exercise should also provide a firm base for the development of a Conservation Plan that sets out approaches to the conservation of the designed landscape, and for the revision of the Management Plan to ensure that the cultural design aspects of the property are given at least equal weight to plant collections. It should also help to deepen understanding of the property and inform the way it is presented to visitors.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that Sítio Roberto Burle Marx, Brazil, be be inscribed on the World Heritage List, as a cultural landscape, on the basis of criteria (ii) and (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

Sítio Roberto Burle Marx, located in the west zone of the City of Rio de Janeiro, comprises extensive landscape gardens and buildings set between mangroves and native Atlantic forest in a mountainous area of the district of Barra de Guaratiba.

The property was a ‘landscape laboratory’ for landscape architect and artist Roberto Burle Marx (1909-1994). Over a period of more than forty years, he experimented with fusing artistic Modernist ideas and native tropical plants to create garden designs as living works of art.

Burle Marx introduced the aesthetics of painting to landscape design. Drawing inspiration from the key founders of the Modern Art movement, he created abstract paintings that included modernist images based on abstractions of Portuguese/ Brazilian folk culture, and used these as a basis of garden designs in which plants became components of three dimensional living works of art. Burle Marx popularised the use of native tropical plants, many of which he collected and cultivated.

The Sítio is thus important as a physical manifestation of Burle Marx’s approaches, his principles and his plants, as well as for the way it allows an understanding of the key design characteristics that he used again and again in his designs such as sinuous forms, exuberant mass planting, architectural arrangements of plants, dramatic colour contrasts, a focus on tropical plants, and the incorporation of elements of traditional Portuguese-Brazilian folk culture.

The Sítio is a remarkable survival as a landscape laboratory that illuminates the way one of the great landscape designers of the 20th century evolved his influential designs. That led to the development of what became known as the Modern tropical garden, an important expression of the Modern Movement in the field of landscape design and one that has largely influenced the shaping of parks and gardens since the mid-20th century in Brazil and throughout the world.

Criterion (ii): Sítio Roberto Burle Marx demonstrates an important interchange of ideas on landscape design related to the importation of ideas of the Modernist art movement from Europe, their shaping and adaptation through experimentation to a landscape form based on the use of native tropical flora, and their use in a huge number of parks and gardens around the world, which together have had a profound impact on the development of what is now known as Modernist Tropical garden design.
Criterion (iv): Sítio Roberto Burle Marx is an outstanding example of a landscape that demonstrates the development of a new type of landscape design that fused creative ideas of the Modern art movement with local typologies and tropical plants to create a style that ultimately became known as the modern tropical garden.

Integrity
The property contains all the attributes that are central to the Outstanding Universal Value. The boundaries enclose all the land acquired by Roberto Burle Marx for his landscaping activities, and the property is of an adequate size.

Although none of the attributes are under threat, they are vulnerable to incremental change in the absence of Conservation Plan, based on clear documentation of the property and on a detailed delineation of the attributes.

Authenticity
The authenticity of the property is related to its form, design, and materials, including living plant materials, the interaction between all of these to create artistic works, and the ideas that they convey.

The documentation related to the attributes needs to be greatly improved to guide conservation to ensure there is no gradual erosion over time.

The historical role the property had as a laboratory for the development of design ideas has ended and it is therefore essential that there is a clearer understanding of full scope of the attributes and how they will be sustained.

Protection and management requirements
The property is legally protected at all available levels. At the national level it is protected by the National Institute of Historic and Artistic Heritage (IPHAN). At the state level it has protection under the State Institute of Cultural Heritage (INEPAC). At the local level the property and buffer zone are integrated into the Rio de Janeiro State Conservation Strategy. These protective measures will be supplemented by a municipal law on urban development, and regulations to address urban pressure around the property.

There are effective management structures and processes in place for the property and buffer zone at the three levels of government, with offices and personnel experienced with heritage properties and urban planning.

A proposed new management plan will update and improve the existing Strategic Plan (2012-2018), which is operationalised through annual Action Plans. The new plan, scheduled for completion in 2020, is intended to embody World Heritage principles and concepts.

It is proposed to create a management committee involving IPHAN (National Institute of Historic and Artistic Heritage) and a range of relevant institutions for the property and buffer zone, including those from the non-governmental sector, civil society and external experts.

The property is adequately resourced, including with appropriate staff.

To address the vulnerability of the attributes to incremental change over time, there is a need to develop a Conservation Plan.

Additional recommendations
ICOMOS further recommends that the State Party give urgent consideration to the following:

a) Delineating in detail, through a collaborative multi-disciplinary approach, the attributes of the property and their degree of intactness on the basis of an analysis of:
   ○ Maps, surveys and illustrative materials relating to the property at the time of Burle Marx’s death,
   ○ Maps, surveys and photographic documentation of the property at the present time,
   ○ Research and analysis of archives and art collections,

b) On the basis of completed definition of attributes of Outstanding Universal Value, producing a Conservation Plan for the designed landscapes of the property,

c) Strengthening the Management Plan to reflect the defined attributes and to ensure that the cultural design aspects of the garden are taken into consideration in the management of the property,

d) Strengthening risk preparedness within the property, and in the setting of the property, especially in relation to fire prevention,

e) Strengthening protection for the buffer zone and the immediate setting of the property to control urban development pressures and to ensure protection of views from the property into the surrounding landscape,

f) Ensuring that Heritage Impact Assessments are undertaken for any proposals that might have the potential to impact on the Outstanding Universal Value of the property and submit these to the World Heritage Centre for review in line with paragraph 172 of the Operational Guidelines;
ICOMOS recommends that the State Party be requested to submit a report outlining progress with the above to the World Heritage Centre by 1 December 2023, for examination by the World Heritage Committee at its 47th session in 2024.

ICOMOS would be ready to offer advice on the above measures, if requested by the State Party.
Maps showing the boundaries of the nominated property
Historical and Archaeological Site of La Isabela (Dominican Republic) No 1628

Official name as proposed by the State Party
Historical and Archaeological Site of La Isabela

Location
Province of Puerto Plata
State of Luperón
Dominican Republic

Brief description
The archaeological site of La Isabela is located on the north coast of the Dominican Republic. It contains the remains of a small settlement founded in 1494 by the Spanish and the admiral Christopher Columbus, who a year earlier, had established their first settlement of La Navidad to the west of La Isabela, which was destroyed.

The new settlement was established as a fortified trading settlement for the exploitation of the resources of the hinterland, particularly minerals such as gold. It was small, surrounded by an earthen defensive wall, with houses built of local wood and straw, and public buildings, including a Christian church, constructed of stone.

After only four years, it was abandoned in favour of New Isabela on the east of the Ozama river; founded in 1496, which was then moved to the west bank in 1502, and later became Santo Domingo. Among the remains of La Isabela are the foundations of the more substantial buildings, which have been excavated and re-buried, and evidence for a quarry, port and harbour.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

1 Basic data

Included in the Tentative List
5 February 2018

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 19 to 25 August 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 4 October 2019 requesting further information about the justification for inscription, the boundaries, the protection, the management, tourism use and on-site interpretation. Finally, some documents, which were mentioned in the nomination but not supplied in the annexes, were requested.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: the general narrative of the nomination, the property boundaries, in relation to the interaction between the Spanish and indigenous populations, and on the extent of archaeological research, the involvement of local communities, site conservation and presentation as well as management.

Additional information was received from the State Party on 4 November 2019 and 28 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
What is nominated is part of the known remains of the small and short-lived settlement of La Isabela, founded by the Spanish Admiral Christopher Columbus in 1494.

Two years earlier, Columbus had reached the American continent for the first time. Before returning to Spain, he founded a fort, naming it La Navidad, on the island of Hispaniola. During his second voyage to the “New World” between December 1493 and January 1494, he discovered that the fort had been destroyed by the local Taino population. He then founded the settlement of La Isabela, together with a group of approximately 1500 men and some women. Columbus’ aim was to establish a fortified trading settlement to exploit the resources of the hinterland, particularly gold.

However, the settlement was not a success. It was overwhelmed by two hurricanes, a fire that consumed most of the town, diseases that afflicted the colonists with half dying, and those that decimated the local Taino population, and the expected gold and other mineral did...
not readily materialise. After only four years, La Isabela was abandoned. What can be seen of Columbus’ fortified house, a church with a cemetery that includes Spanish and indigenous burials, a powder house or treasury, a market building, a tower and a defensive wall. Outside the walls, the site of a dock and shipyard have been identified as has the quarry, where the stones used for the main buildings of the settlement were mined. Preliminary investigations in part of the bay have indicated the presence of several vessels, which probably sunk during the 1495 and 1497 cyclones.

Outside the buffer zone is Las Coles, the site of what has been identified as the second nucleus of the settlement and an artisanal-agricultural area.

In the additional information received by ICOMOS on 4 November 2019, settlements of the indigenous population – with which it is presumed the conquerors had contact – are mentioned. They are situated approximately 5 km outside the buffer zone.

After the abandonment of the original site, New Isabela was founded east of the Ozama River. In 1502 it was moved to the west bank, and later renamed Santo Domingo. Today the city is the Dominican Republic’s capital. Santo Domingo was inscribed in 1989 as the ‘Colonial City of Santo Domingo’ for the way it reflects the “First permanent establishment of the ‘New World’ – the place of departure for the spread of European culture and the conquest of the continent. It is the site of the first cathedral, hospital, customs house and university in the Americas. This colonial town, founded in 1498, was laid out on a grid pattern that became the model for almost all town planners in the New World”.

Interest in the site of La Isabela was rekindled during the preparations of the celebrations of 400 years of the Discovery of America, in 1892, and the Chicago World Fair of 1893. Following its abandonment, only the shipyard activities seem to have continued for a while, due to the favourable natural conditions and the amount of good timber in the region. In the 17th century the area became a shelter for pirates and was later used by cattle herders.

In 1944 the site was declared a National Monument, and its interest of conservation was seriously affected by aggressive cleaning activities in preparation of a presidential visit. During the 1940’s and in the second half of the 20th century, several archaeological excavations were conducted at the site. Squatters that lived on the site were removed in the 1980’s. In 1992 the site was opened as a historical and archaeological park and infrastructure for services and a museum were added, referred to in the nomination dossier as “the camp”.

In its first request for additional information, ICOMOS suggested the State Party might consider widening the scope of the nomination in order to provide a more balanced narrative on the impact of European conquest in relation to engagement with, and impact on, the local Taino population. The additional information submitted by the State Party in November 2019, provided some information on settlements of the indigenous population, with which it is presumed the colonists had contact, situated approximately 5 km outside the buffer zone.

In its Interim Report, ICOMOS highlighted again what it considered to be the importance of including a more nuanced and wider treatment of La Isabela to show the interaction between the Spanish and indigenous populations and how its demise and abandonment – both of which are evidenced in the physical record – reflect why it failed and how that failure ultimately led to change.

The State Party responded by providing additional general information on the indigenous settlements outside the nominated property, a slightly wider boundary delineation and a revised justification.

**Boundaries**

The property as it was nominated originally did not include some of the elements repeatedly mentioned as part of the key features of the site: the dock and shipyard to the north, the quarry and the artisanal-agricultural area at Las Coles to the south. Furthermore, it did not include any evidence of the indigenous population, apart from some of the graves found at the site.

In answer to ICOMOS’ request in the Interim Report to reconsider the extent of the nomination, the boundary has been slightly enlarged to a polygon that contains the area occupied by the ruins of La Isabela, the dock, the shipyard and the quarry; plus a strip of 75 meters to the east of the albarrada and 300 meters in the marine area from the coastline in front of the settlement. The submerged areas were included, since they contain “vestiges of the city, underwater remains and wrecks” (Add. Inf. 2020, p. 14). No further information is supplied on these elements. This polygon covers a total area of 44.13 ha.

A revised buffer zone has been provided. It reaches route No. 29 (Carretera Regional Sal. Mao - Ent. Luperón) to the east, and to the west in the bay, it coincides with part of the border of the Hispaniola National Park. The northern boundary reaches the limits of the La Isabela Historical Park and the southern limit reaches the central axis of the Bajabonico River. This polygon covers a total area of 278.81 ha.

The revised boundaries now include the dock, shipyard and quarry, but still do not include all the key features mentioned in the proposed Outstanding Universal Value. The agroartisanal area at Las Coles, noted in the additional information as the second nucleus of the settlement, is still not included. Other elements, for example indigenous settlements and the Paso de los Hidalgos, are also excluded. The State Party explains the exclusion of these sites and of Las Coles in relation to the loss of their integrity but without providing any details.
The current boundaries do not include sufficient elements to illustrate the functioning of the settlement as a self-contained unit, nor are any sites included that relate to engagement with the indigenous population, apart from the cemetery.

**State of conservation**

In the second half of the 20th century, several excavation campaigns unearthed the archaeological remains of the settlement. The wall foundations of the more permanent stone buildings were left uncovered and consolidated for appreciation by visitors. The remains of Columbus' house are the most complete and reach a height of up to 0.70 m. They are constructed with rammed earth (tapia) over a stone base and conserve some of the original mortar. The inside of the house was paved with cement in modern times, and a thatched roof was constructed to protect the ruins from rain and direct sunlight.

To increase the visibility of the buildings identified on the site, the walls were delineated with loose stones. The same was done with the outlines of the graves that were identified in the cemetery. However, ICOMOS noted during its technical evaluation mission that in some cases the outlines do not coincide with actual archaeological evidence.

The *alhóndiga* was a building used to store all the merchandise that came from Spain for the consumption and use of the inhabitants of the town and nearby settlements, as well as all the merchandise destined to be transported to Spain. Although the length of the building is not completely defined, the vestiges found can be about 48 meters long and 13 meters wide, with two rows of columns to sustain the roof. The areas where the column bases "should have been" were delimited with cement frames. The different constructions found at the site have been connected with concrete walkways for visitors.

In 1991 the Spanish Association for Ecodevelopment and Defense of the Environment (AEMA) carried out consolidation and restoration work on the site. All plants on the ruins were removed with a desiccant herbicide and the walls were consolidated with an acrylic resin. To consolidate the plaster on walls and the edges of pavements, a mortar of lime, sand and white cement in low proportion was used.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the nominated property are floods, coastal erosion, landslides, hurricanes, seismic movements or earthquakes, drought, forest fires, loss of native vegetation and penetration of invasive and exotic species.

Furthermore, in the last decades the Dominican Republic is being impacted by climatic change and extreme weather conditions. The erosion of the coastline is directly affecting the house of Columbus, which is close to the sea. While no direct negative impacts of development pressure are reported, ICOMOS considers that this issue, as well as rising tourism numbers, has to be monitored closely in the future.

### 3 Proposed justification for inscription

**Proposed justification**

A revised version of the initial justification for inscription as presented in the nomination dossier was submitted in February 2020.

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- La Isabela is the ruins of the first urban settlement made for the colonization of the American continent;
- It was the first Spanish experiment of American colonization, establishing a commercial company controlled by the Crown;
- It is the only known example of a coastal settlement laid out by Christopher Columbus;
- It is the place from where the first conquest expeditions started and the evangelizing task encouraged by the Spanish Crown began, extending to the rest of the New World, and where the first Christian mass celebrated by Fray Bernardo Boyl was celebrated;
- It is where the first exchanges from the local indigenous population and European colonizers happened;
- It has an exceptional landscape that attests how the settlement and merchandise were protected, how the surrounding native populations were
protected and managed, and how the supply of the necessary services was organised;

- It marks the beginnings of the European presence in the New World, where the intense and unstoppable process of biological, religious and cultural miscegenation began between Europeans and indigenous people.

The justification presented represents a predominantly European perspective of La Isabela’s importance. Although the native populations are mentioned, evidence for their existence is confined to the cemeteries in the boundaries property.

The phrase “Abandoned but never forgotten La Isabela persists in the dream of the conquest of American soil” is used in the nomination dossier (p. 6) as well as in the last additional information (p. 5). Colonisation and evangelisation are presented as a story of success.

The presence of indigenous villages in the vicinity of the nominated property is noted and bodies of indigenous origin are mentioned in relation to the cemetery at La Isabela. However, the information given on the indigenous inhabitants of the island, including the additional information submitted in February 2020, is very general and in most cases not directly connected with the nominated property.

**Comparative analysis**

The nominated property is first compared with the site of Concepción de La Vega, inscribed on the State Party’s Tentative List, which was the second settlement founded by Christopher Columbus within the Dominican Republic.

The comparative analysis then considers other properties in the region that can be said to share similar characteristics, namely having been the ‘first’ settlement in a respective country. The comparisons presented by the State Party in the nomination dossier include:

- La Concepción de La Vega (1495-1562), (on the Tentative List) the first settlement in the interior of the Spanish island; and the remains of where buildings were constructed of mud and bricks;
- Puerto Real (1503-1578), the first settlement of the western side of the island (today Haiti);
- Santa María la Antigua de Darién, Colombia (1510-1524), the first settlement in the continental American lands;
- Nuestra Señora de la Asunción de Baracoa (1511-1515), the first settlement in the island of Cuba;
- Panamá la Vieja, (1519-1671), City of Panama, (inscribed) the first settlement of the American Pacific Coast;
- León el Viejo, Nicaragua (1524-1610), city without alterations of the 16th century;
- San Augustín de la Florida (1565-1572), the first settlement in the United States of America.

No comparison is made with Santo Domingo, which is the closest comparable property.

Comparing settlements in terms of whether they are the first settlements of one sort or another or in one area or have similar plans does not help to differentiate their very different values. Unless the surviving form of a settlement is in some way outstanding, simplifying all of this to the form and siting of settlements misses too much. La Isabela’s form might be unique but that is not sufficient to justify Outstanding Universal Value.

A more nuanced approach is needed to understand how La Isabela and other sites relate to the early colonisation process, its impact on people and how it evolved. Ideally a much more thorough comparative analysis would have been helpful to chart the complex interactions involved in the early history of colonisation.

The State Party concludes by acknowledging that La Isabela was not a successful settlement, and that the remaining evidence is slight, but it does point out that the site needs to be seen as an historical document that reflects significant change. ICOMOS would agree with that but unfortunately no such exploration has been offered that might allow a wider understanding of the historical importance of La Isabela – not just arising from its foundation and form, but also from the reasons for its quick demise, and what that lead to.

Rather than seeing La Isabela as merely offering ‘firsts’, it would be preferable to show how its demise and abandonment – both of which are evidenced in the physical record - reflect why it failed and how that failure led to change. But all of this would need to be related to contact with local communities, and a wider canvas than that currently proposed.

ICOMOS considers that the comparative analysis does not justify consideration of the nominated property for the World Heritage List.

**Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (ii) and (v). A slightly revised justification for criterion (ii) was submitted in February 2020 but no revised justification for criterion (v) was provided.

**Criterion (ii):** exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that La Isabela illustrates the beginning of what is now considered Latin American culture and civilization, in a rapid and intense process of transculturation, through the transformation of customs, food habits, language, religious beliefs, flora and fauna between two continents, which transformed the course of the history of the American and European continents.
and led to distinctive feature of the idiosyncrasies of Hispanic American countries. It is the place where the intense and unstoppable process of biological, religious and cultural miscegenation that characterizes the ethnic profile of Latin America began.

ICOMOS considers that this is difficult to justify all of the above as arising from one place, La Isabela, when it is acknowledged that it was a failure as a settlement, and the little that survive cannot be said to convey all of the complex messages that are presented relating to interaction between continents and communities as well as the exchange of ideas and goods, particularly when the boundaries only encompass the Spanish settlement.

The colonization of the American continent is one of the most dramatic interchanges of human values history has witnessed. But this interchange has to be related to incremental change over time with many sites contributing to the way the process started, was modified, and how it eventually prospered with many intended and unintended consequences.

The crucial thing that needs to be established is what specific part La Isabela played in this far-reaching process and this has not been set out.

The narrative put forward in the nomination dossier is focused on the European experience and the archaeological evidence that conveys the idea of a Spanish presence, but does not explain the transformation or interaction, violent or otherwise, between two cultures, or what evidence exists to substantiate such fusion or annihilation.

The additional information supplied by the State Party in February 2020 supplements the information on the indigenous population and the interaction with the Spaniards in general, but does not manage to connect it effectively with the physical evidence at the site.

ICOMOS considers that criterion (ii) has not been justified.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that La Isabela was the first permanent European settlement on American soil. It is the place where the first American colonization experiment was carried out according to the tactics of medieval conquest. The town, with its Catholic Church, cemetery, powder house or treasury, market building (alhondiga) and defences, was structured like its medieval European counterparts. It was the starting point of the first colonization experiment on the American continent.

ICOMOS considers that La Isabela cannot be seen as a traditional human settlement shaped by its environment; as its form was Spanish but planted on land which had no connection with Spanish traditions.

ICOMOS does not consider that criteria (ii) and (v) have been justified for the nominated property.

Integrity and authenticity

Integrity

In the statement of integrity, the State Party indicates that the archaeological investigations at the site have resulted in the identification of the archaeological remains of the five most important structures built by the Spaniards, in addition to a large number of objects that allow to understand the time of the establishment of the settlement. The State Party furthermore highlights the importance of the site for understanding the initial exchange between the native population and the Spaniards.

ICOMOS considers that while the main buildings at the site reflect the very early stages of the colonisation of the Americas, the property does not include all necessary elements to understand how the settlement functioned in terms of activities or in terms of its relationship with the indigenous populations.

The additional information supplied by the State Party in February 2020 offers slightly amended boundaries that include the dock, the shipyard and the quarry, but not the agro-artisanal settlement complex at Las Coles, and does not include any additional evidence for the indigenous population that might provide the attributes necessary to demonstrate the beginnings of an interchange between two continents.

The site is highly vulnerable to sea erosion as well as to exceptional climatic conditions, such as hurricane Iram that struck in 2017, but also, as set out in the nomination dossier, to the high degree of deterioration due to lack of protection and conservation of the archaeological remains. Little conservation appears to have been undertaken since the 1990s.

Authenticity

A slightly revised statement of authenticity was provided in February 2020. In it, the State Party highlights that the archaeological and historical studies carried out between 1986 and 1996 have demonstrated the veracity and credibility of the attributes that convey the proposed Outstanding Universal Value of the property. But what remains unclear is the precise location of these attributes as no clear identification, description and mapping of sites has been provided. The authenticity of archaeological evidence for the plan of the settlement and the location of buildings has not been substantiated. Given the several disasters that befell the settlement, such as fire, hurricanes, etc., it remains quite unclear how
much of Columbus’ settlement remains beneath the ground and whether what is marked on the surface reflects earlier archaeological evidence.

Some of the efforts to prepare the site for presentation to the public seem to have impacted on the authenticity of what masonry remains, in particular the measures to consolidate masonry remains with an acrylic resin and to stabilize plaster on walls and the edges of pavements with a hard cement mortar. The presence of exotic tree species, is a further concern.

In answer to ICOMOS’ request, the State Party supplied additional information in November 2019, on the preparation of an Ecological Rehabilitation Plan for the flora and fauna of the area. The plan is expected to be implemented beginning in 2020. In the Management and Sustainability Plan of the Historical Park, currently under revision, the substitution and redesign of the walkways is foreseen, as well as the correction of the stone-markings. The State Party proposes to surround the buildings with gravel and fill the interior floor surfaces with a grainy material of reddish hue, maintaining the visibility of only the five main buildings and the stone path that connects the arsenal and the tower. On the rest of the site’s surfaces, inside the protective wall, it is proposed to sow grass. The additional information supplied in February 2020 did not add new elements to this information.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have not been met.

Evaluation of the proposed justification for inscription
What has been nominated is part of the footprint of the small Spanish enclave of La Isabela. What has been put forward as justification for Outstanding Universal Value is a complex and far-reaching narrative that tries to show how the property played a crucial role in shaping the beginnings of the European presence in the New World, as the place where the first exchanges from the local indigenous population and European colonizers happened, and which attests to an interchange between colonists and the surrounding native populations. La Isabela as nominated cannot be seen to convey this message. The site presents evidence for a small ultimately unsuccessful trading settlement, but no evidence for how it interacted with local indigenous settlements.

La Isabela was short lived, ultimately unsuccessful and had little permanence. Its remains alone cannot be seen to demonstrate the first permanent planned settlement in the Americas, particularly as the Colonial City of Santo Domingo was inscribed on the World Heritage List as such in 1989. Nor can La Isabela be seen to demonstrate the beginning of an acculturation between continents. La Isabela was unsuccessful: it failed not just because of natural disasters but also as a result of rebellions by both settlers and the local population. If La Isabela is to demonstrate a key role in the colonisation of the

Features
In the framework of the present nomination, the features are: the archaeological remains of the settlement, including especially its layout, the buildings of stone as well as of other materials and the graves; the features associated with the functioning of the settlement, including the quarry, the dock and the shipyard.

ICOMOS considers that Outstanding Universal Value has not been demonstrated for the nominated property.

4 Conservation measures and monitoring
Conservation measures
The last excavations at the site were carried out in 1999 by members of the University of Florida and were well documented and published. An inventory of 6,773 objects of the collection of more than 180,000 archaeological artefacts from the site was prepared in 2014-2015.

At the site, the most fragile elements, the rammed-earth (tapia) walls belonging to Cristopher Columbus’ house and some other elements including floors and mortars, received a conservation intervention in the early 1990’s. Also, a palm roof was built to protect the remains of Columbus’ house. Since then, there seem to have been only minimal interventions, apart from the clean-up measures after the hurricane Irma and storm Maria in 2017.

The concrete walkways and the loose stones, used to mark buildings and grave sites, have raised concerns on various occasions, and the 2019 Management and Sustainability Plan foresees the resolution of these problems. In 2018 Technical Assistance was requested from UNESCO for the consolidation of the earthen walls, the plasters and the cliff on which Columbus’ house is located.

According to the ICOMOS technical evaluation mission, maintenance of the site is carried out by on-site staff on a regular basis, resulting in an acceptable level of maintenance. The additional information submitted by the State Party in February 2020 specified that the conservation and maintenance activities will be supervised by the Management Committee of the Historical Park and accompanied by members of nearby communities. However, the nomination dossier acknowledges a lack of resources and personnel and, furthermore, it highlights that the site presents a high
degree of deterioration, due to the lack of protection and conservation of the archaeological remains. In the Management and Sustainability Plan of the Historical Park the State Party indicates the need to elaborate a conservation and maintenance manual for the Park, in order to set out clear guidelines and criteria for the conservation, restoration and maintenance of the site. In the additional information supplied by the State Party in February 2020 a table is presented with the title Conservation Action Plan La Isabela 2020-2025. It contains lists of activities for (a) Infrastructure maintenance, (b) Archaeological site conservation, (c) Environmental conservation and (d) Community integration. While ICOMOS welcomes this information as a step in the right direction, it is lacking important detail concerning criteria for decision making, periodicity, and funding, among others.

Monitoring
In the past the state of conservation of the site was monitored, but not on a regular basis. At present, monitoring is mainly limited to the daily visual inspection carried out by the site administrator, who reports any problems to the National Direction of Monumental Heritage. The installation of a formal monitoring system is foreseen under the new Management and Sustainability Plan and mentioned in the nomination dossier. Indicators will be used to measure the state of conservation of the coast line (especially close to Christopher Columbus’ house), the architectural remains of the 15th century buildings, as well as of the park administration, research and visitor facilities. Beyond the state of conservation of the remains and facilities, it is foreseen to monitor several elements pertaining to the functioning and the management of the park. ICOMOS is concerned that some of the indicators mentioned in the documents, including those for the archaeological remains, are too general and need further elaboration.

ICOMOS considers that the state of conservation of the nominated property is highly vulnerable due to numerous factors and that further maintenance and conservation efforts are needed. A conservation strategy as mentioned in the Management and Sustainability Plan of the Historical Park and in the additional information of February 2020 needs to be elaborated in detail and implemented. ICOMOS also considers that the monitoring programme needs to be developed further and implemented.

5 Protection and management

Documentation
Extensive historical documentation exists from the Spanish chroniclers onwards regarding the location and nature of La Isabela. Furthermore, scientific research, off and on the site, for over a century has resulted in significant body of scientific literature on the nature and context of the site as it is presently found. However, as mentioned in a previous section, an inventory of 6,773 objects of the collection of more than 180,000 archaeological artefacts from the site was prepared in 2014-2015. Considering the small percentage of the inventoried objects of the collection, the potential for future investigations of these materials seems to be great. The Management and Sustainability Plan contains a section on Investigation (15.6), which is interesting but not detailed enough. For that reason, ICOMOS requested information concerning proposals for future investigation and archaeological exploration in the Interim Report.

As part of the additional information submitted in November 2020 the State Party presents La Isabela Archaeological Action Plan 2020-2025. The document mentions the goals for the plan in five stages / years. The goals include registration and analysis of already excavated materials, the survey of the site and its surroundings, the geophysical investigation and excavation. For the last stage capacity building and dissemination activities are foreseen.

ICOMOS suggests to refrain from further excavations in the area, until a much more detailed investigation programme (including the identification of necessary collaborations, funding and clear objectives for every intervention, among others) has been elaborated and the archaeological potential of the already excavated material has been critically reviewed.

Legal protection
In 1944 the site of La Isabela was declared a National Monument, a declaration which was repeated in 1967. In 1968 Law 318 on National Cultural Heritage is approved, and one year later, the site is declared National Monument for the third time by Law 492 (1969). The archaeological site was then declared La Isabela Historical Park by Law No. 654 of 1974. Decree 158-86 (1986) declares that the acquisition of the historic zone of La Isabela, Puerto Plata, is of public use and social interest.

The Sectorial Law of Protected Areas No. 202-04, in its Article 38, decrees that the area corresponding to the Historical Park of La Isabela must be administered by the Secretary of State for Culture (now Ministry of Culture-MINC) through the Office of Cultural Heritage (today National Directorate of Monumental Heritage-DNPM), with all the protection and rights granted by this law to the National Protected Areas. In 2009, with Decree No. 571-09, the La Isabela Historical and Archaeological Park was created as a territorial extension of the original La Isabela Historical Park, with the main purpose of conserving the cultural heritage of La Isabela.

An additional level of protection is established in 2009 by Decree 571 (Art. 5), which creates the National Park La Hispaniola. The site belongs to the Category II of the National System of Protected Areas. The uses allowed in this category include: scientific research, education, recreation, nature tourism or ecotourism, recreational infrastructure, protection and research, infrastructure for
public use and ecotourism with the specific characteristics defined by its Management Plan and authorized by the Ministry of Environment and Natural Resources, as well as traditional uses and activities, according to the Management Plan and zoning. In 2013 the agreement for the transfer of 240,433.55 m² of protected area of La Hispaniola National Park is made between the Ministry of Environment and Natural Resources (MIMARENA) and the Ministry of Culture (MINC), and a co-management agreement is signed. The MINC, through the DNPM, is responsible for the protection and maintenance of archaeological ruins and visitor service structures, and MIMARENA for the protection and conservation of natural resources within the historical park.

In the additional information submitted in November 2019 the State Party highlights that “the Historical and Archaeological Park of La Isabela is protected by the La Hispaniola National Park, which becomes a larger buffer zone, with the protection conferred by the National System of Protected Areas, benefiting from the laws that protect them” (p. 19).

ICOMOS noted that there is a disagreement regarding the ownership of a fraction of the nominated area. The State Party clarified in additional information that no solution has been reached so far.

Management system
The protection and management of cultural heritage in the Dominican Republic is the responsibility of the National Office of Monumental Heritage (DNPM for the name in Spanish), which is a dependency of the Vice Ministry of Cultural Heritage of the Culture Ministry. The archaeological site receives an annual budget, which is executed by the DNPM. The Ministry of the Environment and Natural Resources (MIMARENA for the name in Spanish) and the Ministry of Tourism (MITUR for the name in Spanish) are responsible for the natural and tourism dimension of the site respectively.

In 2012 a Management and Sustainability Plan (Plan de Puesta en Valor y Gestión Sostenible del Parque Histórico La Isabela) was elaborated for the Historical and Archaeological Park of La Isabela, in collaboration with the Spanish Agency for International Cooperation and Development (AECID). The elaboration process was participatory and included the local communities. The plan was approved by the President in 2017. Currently, the plan is being reviewed and updated. The revised plan as well as a Risk Management Plan were supposed to be implemented starting in 2019.

Given the complexity of the historical park and its cultural importance, a multi-sectoral and multidisciplinary Management Committee has been set up, called Sustainable Management Committee of the Historical Park of La Isabela. It is composed of three committees: the Honour Committee, the Executive Committee and the Operating Committee. All of the staff necessary for the management of the Park, including the director, will be named by the Ministry of Culture. The information supplied by the State Party in February 2020 includes an organization chart that is different from the one in the Management Plan. It includes an Operating Committee and the La Isabela Historical and Archaeological Park Community Committee. It is unclear if one of these committees is the same as the Sustainable Management Committee mentioned in the Management Plan. It is furthermore unclear how decision making works and how different tasks are divided amongst all of these committees. It is mentioned that the State Party is in the process of drawing up the rules of operation of the Community Committee. No clear statement is made concerning the status of the Management Plan.

The funding of the site is in part secured through the annual national budget. Furthermore, the Management Plan proposes that the funds generated by entrance fees and the use of the dock, should be available for reinvestment in the Park. The additional information supplied in February 2020 details that the funds, even including the entrance fees and the money charged for the use of the dock, are not sufficient for a sustainable management. For that reason, the State Party proposes installing a souvenir shop, designing a program of promotion, dissemination and marketing of the park, holding concerts, guided tours and summer camps for children, among others.

ICOMOS advises to take great care with the uses the archaeological site is subjected to, in order not to endanger its integrity or authenticity.

The Management Plan still needs to be approved and the management system operationalised.

Visitor management
The nomination dossier specifies that currently visitors enter the site through the area to the north referred to as “the camp”. The facilities located here include a parking lot, ticket booth, toilets, snack and souvenir shop, the site museum as well as administrative and research facilities. Most were damaged by the last hurricanes. One of the two museum buildings had to be closed due to the damage it sustained, and the collection of pre-Hispanic and colonial exhibits are now presented together.

At the site itself, information and interpretation is almost completely lacking. It should be noted that plans have been made to rectify the signage and site information issues (Signage Plan for Site Interpretation of La Isabela) and that there are plans to construct a new museum. The ICOMOS evaluation mission states that the present museum facilities are programmed to be converted into a restaurant for the visitor complex.

The tourism potential of the La Isabela site is highlighted in the nomination dossier. The site is not only interesting for its archaeological and historical aspect, but it is also a pilgrimage site for the faithful who gather annually to commemorate the location of the first Christian service held in the New World. Additionally, the site is regularly
visited by schools and international tourists disembarking at the nearby cruise ship port of Puerto Plata.

Additional information supplied by the State Party in November 2019, mentions the plans for a new Interpretation Center of La Isabela, including a museum at the entrance to the site, placed in front of the Temple of the Americas. The relocation of the museum has been recommended because the current site does not guarantee the safety and integrity of the collection in the event of a natural disaster, due to its proximity to the coast. The additional information provided by the State Party in November 2019 also mentions the installation of an “indigenous village”. The latest additional information submitted in February 2020 specifies that the new facilities would be located within the buffer zone of the property. The State Party also indicates that archaeological research will clear the area impacted by the planned installations and that visual integrity of the site will be taken into account.

ICOMOS expresses concern at the potential impact of these proposals in areas that could contain important archaeological evidence and also questions the relevance and desirability of developing an indigenous village which could confuse the historical record. It recommends that these proposals should be re-assessed as a matter of urgency.

Community involvement
The Management Plan that is currently in the process of being updated, was produced in a way that is described by the State Party as participative and in consensus with the communities. ICOMOS appreciates the involvement of the local communities in education activities and work at the site. However, the inclusion of local population in decision making processes and planning still needs to be addressed by the State Party. In its Interim Report, ICOMOS requested information on how the local communities are currently involved in the planning, management, presentation, conservation and investigation of the site, and how this situation will evolve in the future. The State Party replied with a description of the activities currently carried out, including archaeological workshops and donation of printed information to schools. Furthermore, the Coordinator of the Community is being included in the Operational Committee of the Sustainable Management Committee. No further information was supplied concerning the way the coordinator was selected or what her or his duties and powers are to be.

Evaluation of the effectiveness of the protection and management of the nominated property
The property is protected as a National Monument and forms part of the National System of Protected Areas. This means that the overall legal protection of the property is adequate, with general laws and specific decrees protecting cultural heritage in general and the property in particular.

However, specific information is lacking concerning the permitted and restricted activities in the different areas of the property and its buffer zone. The management system as well as the distribution of legal responsibilities for the property are multi-institutional. While ICOMOS welcomes the inclusive approach to site management, it is not quite clear how the different levels of legislation and branches of government work together and how decisions are made. Furthermore, as stated in the additional information supplied in November 2019, there seem to be unresolved ownership issues for some parts of the property.

ICOMOS considers that the legal protection of the site is adequate. The management system needs to be clarified and the revised Management Plan needs to be approved and fully implemented.

6 Conclusion
What has been nominated is part of the site of La Isabela, the second site to be established on the Americas by the Spanish. La Isabela was established in the hope that it would develop as a trading centre from which the exploitation of minerals could be organised. La Isabela was not a success: within four years it had failed and been supplanted by New Isabela. Over half the colonists died while the indigenous Taino population were decimated mainly by new diseases brought by the colonists.

La Isabela is undoubtedly part of the colonization of the American continent, one of the most dramatic interchanges of human values in history. But alone, with the slight evidence remaining, it cannot be said to reflect in any meaningful way how Europeans re-shaped the New World, or be seen as the place where the first exchanges from the local indigenous population and European colonizers happened, nor to attest to an interchange between colonists and the surrounding native populations, as suggested in the justification for inscription.

La Isabela only reflects the Spanish community and this only one half of the equation that brought together the culture of two continents. The archaeological remains highlighted in the nomination dossier and most of the general narrative mainly present the European perspective, neglecting the point of view and / or the role played by the indigenous population. La Isabela is considered to be reminiscent of the “dream of the conquest of American soil” and hardly any reference is made to interaction with local communities and the vibrant cultures of a continent or to their devastation.

La Isabela did not exist in isolation from the wider island of Hispaniola. The colonists established degrees of control over the local Taino population in relation to the supplies of food and other goods, albeit in the face of hostile opposition from their leader. In the four years of
La Isabela’s existence, Columbus made trips to the interior using existing routes, and for the collection of taxes established the forts of La Magdalena, La Esperanza and La Catalina along the route from La Isabela to Santo Tomás, remains of at least one of which survives. These expeditions started the process of exchange with local communities in terms of knowledge of crops and their economic importance. And the sites of some of these local villages have been identified a few kilometres from La Isabela.

ICOMOS considers that the fundamental premise of the current nomination to concentrate only on the Spanish settlement does not allow any sort of meaningful or acceptable narratives to be conveyed in relation to the re-shaping of cultures in the Americas, and what survives of the site cannot be said to reflect an interchange of ideas or to be outstanding example of a type of settlement. ICOMOS considers that the property does not justify Outstanding Universal Value and cannot be recommended for inscription.

Nevertheless, ICOMOS does consider that there might perhaps be the potential for a quite different nomination that reflect the complex relationship between colonists and indigenous communities, the reasons why La Isabela failed, and the long-term ramifications of that failure. Such a new nomination would need to encompass the Spanish settlement, Taino settlements and local routes.

In the conclusions to the comparative analysis, the State Party acknowledges that La Isabela was not a successful settlement, and that the remaining evidence is slight, but it does point out that the site needs to be seen as an ‘historical document that reflects significant change’. ICOMOS supports this idea but considers that it needs to be extended to cover also sites associated with the indigenous communities who were in contact with La Isabela.

La Isabela’s failure was linked not just to natural disasters but to the anger of settlers and oppressed local communities, both of whom rebelled. All of these seem to have provoked a change of approach by the Spanish that is reflected in the way that new settlements developed after 1500 CE reflecting more of a fusion of ideas between settlers and local communities, and the need for settlers to adapt to their environment using the knowledge of local communities: ultimately this changed the whole colonial project from trade to colonisation.

But what precise narrative a wider nomination of La Isabela and part of its hinterland might convey needs more thought. Beyond the simple narrative suggested to justify the currently proposed Outstanding Universal Value, La Isabela with its hinterland could be said to have many conflicting values, which have not been fully aired in the nomination dossier, although they are certainly readily present in the literature.

It would appear to be important to acknowledge that La Isabela with its hinterland is seen by many as reflecting negative as well as positive outcomes. Colonial expansion and the fusion of cultures brought benefits but also dis-benefits. It resulted in conflicting values, such as the benefits from scientific technology, literacy and the Christian religion versus the dis-benefits of forced conversion and elimination of native American belief systems; or the benefits of the cradle of ‘Hispanidad’ versus the annihilation of parts of Caribbean Indian society. To ignore these ‘alternative’ values could be to simplify the meaning of the place as a historical document. Careful consideration would need to be given as to how some of this complexity might be reflected in any new nomination.

In conclusion, ICOMOS considers that the current nomination does not justify Outstanding Universal Value and cannot be recommended for inscription. But it does recommend that the State Party explore the possibility of an alternative nomination that might take a different approach, involve a series of component sites that relate to both the Spanish and the Taino, and offer a wider narrative linked to the specificities of La Isabela and its hinterland and how its failure impacted on the wider colonisation processes.

7 Recommendations

ICOMOS recommends that The Historical and Archaeological Site of La Isabela, Dominican Republic, should **not be inscribed** on the World Heritage List.

ICOMOS further recommends that the State Party consider requesting advice to help identify an appropriate focus for a new nomination; ICOMOS would be ready and willing to work with the State Party in a format to suit their needs.
Revised map showing the boundaries of the nominated property (February 2020)
Chankillo Solar Observatory and ceremonial center
(Peru)
No 1624

Official name as proposed by the State Party
Chankillo Solar Observatory and ceremonial center

Location
Ancash Province and district of Casma Peru

Brief description
The Chankillo Solar Observatory and ceremonial center is a prehistoric site, located on the north-central coast of Peru, in the Casma Valley, comprising a set of constructions in a desert landscape that, together with natural features, functioned as a calendrical instrument, using the sun to define dates throughout the seasonal year. The nominated property includes a triple-walled hilltop complex, known as the Fortified Temple, two building complexes called Observatory and Administrative Centre, a line of thirteen cuboidal towers stretching along the ridge of a hill, and the Cerro Mucho Malo that complements the Thirteen Towers as a natural marker. The ceremonial centre was probably dedicated to a solar cult, and the presence of an observation point on either side of the north-south line of the Thirteen Towers allows the observation both of the solar rising and of setting points throughout the whole year.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

1 Basic data

Included in the Tentative List
18 January 2013

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

Comments on the natural attributes of this property, and their conservation and management, were received from IUCN on 18 November 2019 and have been incorporated into the relevant sections of this report.


Additional information received by ICOMOS
A letter was sent to the State Party on 3 October 2019 requesting further information about archaeological sites and features that the Chankillo complex is connected with, component parts, legal protection, infrastructure development, factors affecting the property, conservation projects, management, funding and research.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: clarification on heritage category, Chankillo within the Casma Valley; interpretation; tourism and visitor control; local community; management system; land use; conservation and funding.

Additional information was received from the State Party on 5 November 2019 and 28 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Located on the north-central coast of Peru, in the Casma Valley, the archaeological site of Chankillo is composed of two components: Chankillo, and the Cerro Mucho Malo. The visible main features of the property are the following: the Thirteen Towers, an alignment of cuboidal constructions built of stone and mortar situated on top of a natural hill, that have been interpreted as astronomical markers; the Fortified Temple, which includes two round keeps and a rectangular building, known as the Temple of the Pillars, all of which together are encircled by three concentric ovoid wall constructions, with large baffled gates; the Observatory Building, with the Western Observing Point and an entrance facing the Fortified Temple, located at the foot of the hill with the towers; the Administrative Centre, with a U-shaped atrium and a series of courtyards and constructions, presumably where the public rites and ceremonies of solar worship were performed. The property also includes a natural component, the Cerro Mucho Malo, whose southern slope becomes a natural marker, as seen from the Western Observing Point, when it intersects the artificial profile of the Thirteen Towers to form a continuous astronomical horizon.
The dates obtained through dendrochronology and $^{14}$C analysis has defined Chankillo's occupation between 250 and 200 B.C. This locates the property in a narrow occupation window of only fifty years at the upper part of the very long chronological sequence of the Casma Valley. The buffer zone of the property includes further archaeological sites (for example, El Purgatorio, Moxeque/Pampa de las Llamas, Las Haldas, Manchan, and Pampa Calavera) on which ICOMOS requested information from the State Party in its first letter of October 2019. The State Party provided a map and pictures of some of the sites located in the buffer zone and outside it. In answer to the information requested in the Interim Report, the State Party submitted in February 2020 a description of the sites of Pampa de las Llamas/Moxeque, Sechin Alto, Sechin Bajo, Serro Sechin, Taukachi-Konkán, Las Haldas, Pampa Rosario and La Cantina.

After several investigators had worked in the Casma Valley starting in the 1930s, archaeologist Rosa Fung excavated in Chankillo during the 1960s, with the collaboration of architect-conservator Víctor Pimentel, who verified the authenticity of the Fortified Temple. Since 2001 the Instituto de Investigaciones Arqueológicas (IDARQ), through the Chankillo Project, has carried out 25 studies aimed at discovering, protecting and preserving the property's physical attributes. The project is carried out with the authorization of the Ministry of Culture and with sponsorship and financial support from various national and foreign institutions. The Chankillo Program, started in 2011, has excavated to date in all sectors and almost every building.

**Boundaries**

The nominated property is composed of two components: Chankillo, of 2,112 ha, and Cerro Mucho Malo, of 2,368 ha. They are surrounded by a single buffer zone of 43,990 ha. The boundaries of the two components of the nominated property were defined on the basis of archaeoastronomical considerations. Separating the two parts is a strip of agricultural fields that are linked to the bed of the Casma River, which forms part of the buffer zone.

ICOMOS appreciates the rationale put forward by the State Party for the delineation of the nominated property boundaries. It considers that the Casma Valley is home to many important archaeological sites that merit attention for their great age, specific cultural expressions or very early examples of certain crops (e.g. potatoes). The inclusion of any one of these sites would enrich the nomination and probably help to convey a more complete image of the Casma Valley cultures. However, it would also take the focus off the astronomical theme chosen by the State Party for the present nomination. A further problem with a more inclusive approach is the apparently rather basic information available on most of the sites, which is also probably in need of further discussion and confirmation.

The boundaries proposed by the State Party protect the constructions central to the astronomical theme (the Chankillo component), as well as the main natural markers (Cerro Mucho Malo) that complete the constructed horizon of the Thirteen Towers. Surrounding these two components is a large buffer zone that helps to protect the visual integrity of the property, as well as the general setting (including winds that come from the ocean to clear the clouds and a low general luminosity).

For that reason, ICOMOS concludes that the boundaries are adequate. ICOMOS also encourages the State Party to advance archaeological research in the buffer zone, and to consider the option of extending the property in the future, in case information comes to light that completes the picture of the development of astronomical knowledge in the Casma Valley region.

**State of conservation**

The property has been investigated by archaeologists and, since 2011, a research and conservation project has been developed.

Time has caused the deterioration of the constructions, particularly the stability of walls and their mud finish/plaster. Some parts of the walls are missing completely, mainly the tops and faces. In the case of the Thirteen Towers and the east side of the Fortified Temple, both built on steep slopes, the stability of the walls is affected. Displacement has also been detected, due to structural pressures on the constructions, bulging of the masonry, overload and lack of stability of the support for the stone blocks, loss of verticality and partial collapse in the upper third of the walls. In some places, the presence of deep cracks affects the integrity of the walls. The stones themselves are also affected by, for example, detachments, fissures and cracks, weathering, fragmentation, disintegration or shelling and exfoliation. In the case of the construction joints, the mortars used to lay the stone blocks, and architectural fills, the main types of deterioration are fractures, detachments, missing parts, disintegration, erosion and biological attacks. The wooden lintels at the Fortified Temple are also showing signs of deterioration: there are traces of rotting, attacks by xylophagous insects, crushing of the end of the lintel, deformation (bending) due to overloading, and cracks. Sand and silting also constitutes an important element of deterioration and burial of the archaeological structures. Detailed studies have been conducted to identify the type and extent of deterioration in the different areas of the structures. Conservation interventions are urgently needed at nearly all of the main constructions identified at the property.

The state of conservation of the monuments of the property, especially of the Thirteen Towers, is a matter of concern. ICOMOS requested additional information from the State Party in its letter dated 3 October 2019, on the project “Chankillo Revalorization and Sustainable Development Project”. This project is supported by the World Monuments Fund, in collaboration with the Instituto de Investigaciones Arqueológicas.
de Investigaciones Arqueológicas (IDARQ), and the Ministry of Culture of Peru, and is aimed at elaborating an integral conservation and preventive measures on the Thirteen Towers at the property. Following the receipt of additional information on 5 November 2019, detailing the three-phased operation carried out on the Thirteen Towers, ICOMOS requested further information in its Interim Report on the short-, medium- and long-term plans for the conservation of the property as a whole. The State Party replied on 27 February 2020 that the conservation efforts had three stages: the comprehensive condition survey from 2011 to 2013; the development of the Nomination Dossier and Management Plan from 2015 to 2018; and the current stage, initiated in 2017 and projected through 2022, which was designed to carry out urgent conservation interventions focused on the Thirteen Towers. The towers were chosen due to the fact that they are central to the proposed Outstanding Universal Value and they were identified in the condition survey as the structures at greatest risk of damage. For the above-mentioned reasons, they were also prioritized in the contingency plan, which forms part of the Management Plan. The interventions are consolidating the towers as structures, following a methodology authorized by the Ministry of Culture. Although the conservation project is not yet officially approved by the World Monuments Fund, a letter signed by the Interim Chief Executive Officer confirms the availability of funds and the commitment to continue the collaboration with IDARQ. The State Party notes that the Chankillo project plans to extend the procedures and criteria developed during current interventions to address the conservation of other sectors and structures at risk, such as the Fortified Temple. This will depend on continued support from the private sector, but mostly on the initiation of conservation interventions funded by government at all its levels.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the property needs constant maintenance and some urgent conservation interventions in order to stop the progress of the collapse of the walls. The conservation studies that have already been realized, which are mentioned in detail in Appendix III of the Management Plan, will help to guide the prioritisation of future interventions. ICOMOS considers it essential that the State Party secure the necessary funds to continue the consolidation work at the property in the future.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development and environmental pressures. The latter are mainly caused by weathering and other natural processes: strong winds that transport abrasive sand, transitory rains and rain due to the El Niño phenomenon, great temperature changes, annual seasonal floods in the Casma River, marine factors, geodynamics, and seismicity. The impacts of these pressures are worsened by intrinsic deficiencies of the construction: the lack of homogeneity in the conformation of the walls; the arrangement of stone blocks without following a construction logic according to their shape and size; the use of friable materials for the blocks; the absence of efficient ties between the blocks, and between them and structural fills; the lack of structural connection between different sections of the same wall; and deficiencies in the transmission of loads due to the irregularities in the way the stone blocks are laid. Some superficial archaeological remains are situated within the relict dry forest, and there is a risk caused by the local practice, now under greater control but still happening, to burn the forest.

Furthermore, the Peruvian coastal valleys, including the Casma Valley, are prone to development pressures. The main risks of alteration of this landscape are from the expansion of cultivated fields; overlap with mining claims; human settlement with the installation of associated basic services; and infrastructure developments that produce conspicuous features in the landscape, such as elevated drinking water tanks, power lines in neighboring settlements, and the installation of electricity pylons within the visual fields, as is the case of the slope of Cerro Mucho Malo, where electricity pylons disturb the visual integrity of the property. Additionally, the expectation of the population regarding tourist development in the area increases the risk of constructions near the nominated area and buffer zone.

Other important factors affecting the nominated property are vandalism and looting.

In its letter sent to the State Party on 3 October 2019, ICOMOS requested information on whether a risk preparedness strategy exists to face the threats, also identified by the State Party in the nomination dossier. The State Party replied on 5 November 2019 that the National Disaster Risk Management System (SINAGERD) has been created by Law No. 29664, as an inter-institutional system to identify and reduce the risks or minimize their effects. Specifically, for the case of site invasion, the State Party mentioned Law No. 30230 which facilitates rapid eviction of persons and removal of constructions. It seems as well that a Risk management plan is under consideration in the management plan of the property.

In addition, ICOMOS requested information related to the control of quarries and mining activities, as well as the measures implemented to face the polymetallic illegal mine, in the first letter request for additional information. The State Party replied that risks due to mining activity have been minimized by the approval of the Territorial Conditioning Plan of the Province of Casma 2017-2037, which prohibits mining in the buffer zone of the property. The State Party furthermore highlights that the areas with potential interest for mining are located outside the property and its buffer zone. Regarding the information about informal mining in the
area, the Ancash Regional Office of the Ministry of Culture does not report mining activity in the area in recent years, but states that at the level of the Ancash region there are currently 40 cases of illegal mining that have been investigated by the Public Ministry of El Santa (covering the provinces of Santa, Casma, Huarmey, Pallanca, Corongo and Conchucos), with research to determine the degree of environmental pollution and establish responsibilities; five of the cases already have an effective sentence.

ICOMOS considers that the threats the property faces are serious and have to be confronted with determination and strict application of the law. The detailed studies concerning the state of conservation of the property will help to focus future restoration interventions. It will be essential to set aside the necessary funds to be able to continue the important work that has already been initiated.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Chankillo is a prehistoric (250-200 BC) ceremonial centre in northern Peru with astronomical, ritual, defensive and administrative functions.
- It contains a Solar Observatory, composed of the Thirteen Towers and the Western and Eastern Observation Points, from which the towers’ profile spans the annual sunrise and sunset arcs, respectively.
- Chankillo is an outstanding example of ancient landscape timekeeping, which incorporates a “complete” solar horizon calendar, using built and natural markers to track the progressive passage of the sun along the horizon throughout the entire year. Furthermore, it is the only site where this was achieved on a monumental scale and where all the key component elements are still extant and functional.
- The nominated property also embodies an accumulation of knowledge about natural and astronomical processes and their connection to the solar cult, expressed masterly in the integration of the skyscape to the natural and built environment. Besides the Solar Observatory, a wider set of monuments forming the ceremonial centre likewise took advantage of both constructed and natural targets to define dates.

Although the nomination mentions the connection of the observatory with the surrounding elements (e.g. other sites) and the landscape, the approach chosen for the justification is principally centred on the monumental elements directly connected with the astronomical interpretation of the Chankillo complex. In addition, the uses of the property for calendrical purposes are accepted by the scientific community, but the uses related to the observation of the sky remain to be further explored, in particular in relation to the ceremonial and religious functions. Therefore, ICOMOS considers that due to the current knowledge of the property, it would be better not to include the term “observatory” in the title of the nomination. ICOMOS also considers that adding the term “complex”, as already proposed by the State Party in the Tentative List entry, would be more appropriate to reflect all the elements of the property and its wider archaeological context.

Therefore, ICOMOS suggests that the name of the property be changed to “Chankillo Archaeoastronomical Complex”.

Comparative analysis

The comparative analysis takes into consideration two thematic studies produced by ICOMOS in conjunction with the International Astronomical Union (IAU), the UNESCO–IAU Portal to the Heritage of Astronomy, the Springer Handbook of Archaeoastronomy and Ethnoastronomy (Ruggles 2014), as well as the World Heritage List and national Tentative Lists. The sites for the comparison are selected on the basis of two main thematic criteria; archaeoastronomy and ethnoastronomy, and more particularly on the basis of two of four sub-themes defined in the ICOMOS Thematic Study (2010): properties which by their concept and/or their environmental situation have significance in relation to celestial objects or events; and/or observatories and instruments.

The comparative analysis in the nomination dossier at the international level includes sites from, for example, Mexico, Ireland, Egypt and China. It compares the development of these sites in relation to the observation of the sky in the Andean cultures.

ICOMOS considers that the comparative analysis is exhaustive, scientific and covers a wide range of sites and time periods. It manages to highlight the specificities of the nominated property in comparison with other astronomical sites/observatories.

ICOMOS concurs with the State Party that, in general, the Chankillo calendar is distinguished from the other examples of archaeoastronomical sites by its great age, the size, the credibility (as defined by one of the ICOMOS-IAU Thematic Studies) and by the fact that the line of several towers spans the entire solar rising and setting arc, so that it functions throughout the year, rather than simply marking particular dates such as one of the solstices.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.
Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i) and (v).

Criterion (i): represent a masterpiece of human creative genius.
This criterion is justified by the State Party on the grounds that the solar observation device, known as the “Chankillo Solar Observatory”, incorporated in the Thirteen Towers, permits the time of year to be accurately determined not just on one date but throughout the seasonal year. This is considered to be unsurpassed as an example of ancient landscape timekeeping. Unlike architectural alignments upon a single astronomical target found at many ancient sites around the world, the line of towers spans the entire annual solar rising and setting arcs as viewed, respectively, from two distinct observation points, one of which is still clearly visible above ground.

ICOMOS considers that the archaeoastronomical complex is outstanding and stands out for its size, age and state of conservation. The choice of its location, the layout of the whole complex in relation to the astronomical movements, as well as the amount of work dedicated to its completion, express human creative genius.

ICOMOS considers that the use of criterion (i) is justified.

Criterion (v): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

Chankillo was in use for a relatively brief period of time between 250 and 200 BC, during a late phase of the Early Horizon Period (500-200 BC) of Peruvian prehistory, after which it was destroyed and abandoned. The Chankillo Complex is a very particular type of building representing an early stage in the development of native astronomy in the Americas. It shows great innovation by using the solar cycle and an artificial horizon to mark the solstices, the equinoxes, and every other date within the year with a precision of 1-2 days. It is thus a testimony of the culmination of a long historical evolution of astronomical practices in the Casma Valley.

ICOMOS considers that the nominated property does not meet criterion (v), but that it meets criterion (i) and criterion (iv).

Integrity and authenticity

Integrity

The Chankillo Solar Observatory and the wider setting of related monuments that form the property take advantage of built and natural horizon markers to track the progressive passage of the sun along the horizon throughout the entire year. The natural environment and climatic conditions, that are the basis of the good visibility needed for astronomical observations at the site, are maintained to a large extent. The viewsheds that contain the main astronomical sightlines are generally unobstructed, but their preservation has to be monitored closely. Also, the visual integrity of the general setting of the property has to be maintained. Any infringement on the property by, for example, urban development or expansion of agricultural areas, has to be avoided.

The advancing collapse of structural elements, with the loss of clear edges (e.g. at the tower buildings and the observatories), jeopardises the exactness of the astronomical observations.

ICOMOS considers that the conditions of integrity have been met, since all the elements necessary to express the proposed Outstanding Universal Value centred on calendrical observations of the sun are included within the nominated property boundaries. In case the information from future research indicates relationships of the central monuments with other elements of the property and beyond, a boundary adjustment should be considered. ICOMOS also notes that some of the conditions (the low luminosity and good visibility, the viewsheds and sightlines, as well as the monumental elements) necessary to maintain the property’s values, are very
4 Conservation measures and monitoring

Conservation measures
The nomination dossier contains a detailed analysis of the factors affecting the nominated property and a diagnostic of the state of conservation of the different architectural elements. Part of this diagnostic is a classification of the types of risk that affect the architectural structures as well as an overall quantification of the walls in relation to their level of risk. The Management Plan indicates that 20.4% of the reviewed walls of sectors I, II and III have "elevated levels of deterioration". Until now, the most important conservation intervention at the property was realized with several World Monuments Fund collaborations, focused on architectural conservation in general and on the restoration of the Thirteen Towers in particular. In 2017, conservation work was started at the Thirteen Towers, following the principles of minimum intervention, respect for a building's history, and reversibility of the materials applied. All conservation was done using the same materials used in the construction of the property, which have been recycled whenever possible. However, a big part of the efforts until now were concentrated on an analysis of the state of conservation rather than on interventions. More conservation activities are planned, and ICOMOS requested detailed information in its Interim Report. The State Party replied in February 2020, giving an overview of the conservation efforts currently focused on the Thirteen Towers (already mentioned in more detail in the section on the State of conservation).

The Management Plan mentions the need for the establishment of a long-term conservation program which should include, for example, preventive actions such as reinforcements and construction of temporary roofs. ICOMOS agrees with this necessity and considers that it should also include conservation, restoration and maintenance works, and, according to intervention phases, specific procedures, follow-up routines and monitoring. Furthermore, ICOMOS considers that the conservation activities need to be reinforced since the general state of conservation is fragile.

Monitoring
The Archaeology and Conservation Unit, which forms part of the Management Structure of the property, is responsible for the periodic monitoring of the state of the architectural structures throughout the property, in order to detect impacts and modifications in a timely manner, as well as to prioritize the conservation actions that are required. The monitoring of the deterioration processes, as well as of the effectiveness of restoration interventions, constitutes a permanent activity whose goal is to update the risk map and establish intervention priorities.

The property's Management Plan proposes routine monitoring, and the establishment of periodic reviews for early detection of changes in the structural situation of the buildings. Connected with the monitoring results, as mentioned above, the need for the elaboration of a long-term conservation program is expressed in the Management Plan. The Nomination Dossier also
mentions the monitoring of the application of different programmes and their impact on the property, the society and the environment. For the monitoring of the state of conservation of the buildings, the information generated during the registration of the site 2011-2013 can be used as baseline data. While this baseline information seems to be very complete, it is not clear if the Archaeology and Conservation Unit is already operational, monitoring the property and the application of the different programmes periodically.

ICOMOS considers that the conservation challenges the nominated property faces have been clearly identified and that the efforts towards the analysis of its state of conservation made it possible to gather very good baseline data. However, ICOMOS considers that concrete conservation and maintenance actions are necessary to avoid further deterioration of the main elements of the nominated property.

5 Protection and management

Documentation
The recollection of the early mentions and descriptions of the site and the Casma Valley in the works of chroniclers and travellers, as well as the synthesis of the first archaeological and conservation interventions, is considered important.

The documentation of the state of conservation and the inventory of the nominated property itself are also considered to be very good, at least for the central parts. Several surveys registered the elements of the property, using a combination of data from differential GPS and Total Station surveys, which were georeferenced using terrestrial and aerial (LiDAR) laser-scanning data. The information was used to generate plans in AutoCAD and produce a GIS, which was completed with photos and descriptions of the different elements. Most of this work seems to have been completed between 2011 and 2013. The detail and the quality of the diagnostic are good and will function in the future as solid baseline data. However, it is not clear how much documentation was done on elements other than the four main buildings. In general, it has to be mentioned that the information on the cultural context of the nominated property (for example, sites in the buffer zone and beyond) and the development of the astronomical aspects over time, is rather scarce or non-existent.

ICOMOS recommends to improve this situation with further research in the area.

Legal protection
The nominated property has been declared as National Cultural Heritage, through National Direction Resolution 075/INC of January 18, 2008. As such, its legal protection is assured by the State, supported by Article 21 of the Political Constitution as well as by Article 6 of the General Law of National Cultural Heritage (No. 28296), which asserts the ownership of the Peruvian State over all Pre-Hispanic properties, independently of their private or public condition.

According to Article 195 of the Political Constitution, local governments are responsible for "the conservation of archaeological and historical monuments". In accordance with the provisions of Articles 28 and 29 of the General Law of National Cultural Heritage, Regional Governments are responsible for providing "assistance and cooperation to the pertinent organizations for the execution of research, restoration, and conservation projects, and dissemination of the integral properties of the National Cultural Heritage in its jurisdiction". Other laws at regional and municipal level also highlight the cooperation between the different levels of government in matters of cultural heritage.

The limits of the property, represented in the Delimitation Plan PP-027-MC-DGPA/DSFL-2015, were prepared by the Ministry of Culture. The "Chankillo Solar Observatory and Ceremonial Center" includes the "Chankillo Monumental Archaeological Zone" and "Cerro Mucho Malo" as unalterable zones.

The nominated property is reinforced by a buffer zone that extends around the property and includes part of the San Rafael Valley, Cerro Mongón, Lamac Las Haldas, Pampa Los Médanos, Cerro Manchán, Cerro San Francisco, and Cerro Monte Grande. The inscription of the property and its boundary in the Public Registry of Peru was still in process when the nomination was submitted. This step, however, is particularly important. In the additional information supplied in answer to a letter sent by ICOMOS on 3 October 2019, the State Party explained that the ownership and registration of the property in the name of the Peruvian State (Public Registry) are mandatory requirements for all types of official recognition of an archaeological site, that is, for the approval of the property and its buffer zone as well as for the development of public investment projects. In the additional information submitted in February 2020, the State Party confirmed that the property has been inventoried nationally by the Ministry of Culture, and was registered in the National Superintendence of Public Registry (SUNARP) on 20 February 2020. With this step, the process of legal physical sanitation of Chankillo has been concluded.

In its letter asking for additional information ICOMOS had also requested clarification of the differences of protection between the buffer zone and the proposed property. In response the State Party indicated that the Management Plan of the property contains maps and descriptions of the sub-zones of the nominated property and buffer zone. Part of the descriptions is detailed information on the permitted, conditioned and prohibited uses of the zones. In addition, the Provincial Municipality of Casma has approved a Territorial Conditioning Plan (PAT) 2017-2037, which recognized the proposed boundaries of the nominated property and its buffer zone.

204
ICOMOS considers that the general legal protection of the nominated property is adequate and recommends that as the Management Plan has been approved through Ministerial Resolution No. 077-2020-MC, dated 24 February 2020, the observance of the activity restrictions detailed in the zoning description should be closely monitored.

Management system

For the conservation, management and promotion of the nominated property and its buffer zone, the Ministry of Culture, in cooperation with the local municipality and other institutions, convened a multi-disciplinary team of professionals for the development of a Management Plan, as an instrument for the investigation, conservation, and social use of the Chankillo Solar Observatory.

The Management Plan foresees the participation of professional, technical and administrative personnel, dedicated to the direct administration of the programs, projects and 104 activities of the “Chankillo Solar Observatory and its Ceremonial Center”. The personnel of the Decentralized Directorate of Culture – Ancash, of the Ministry of Culture, and of the Provincial Municipality of Casma, designated to support the implementation of the Management Plan, are added to this work team. In the additional information submitted in February 2020 in response to the request for clarification in ICOMOS’ Interim Report, the State Party highlighted that within the Ministry of Culture three different options are examined for an institutional formalisation of a management system for the management of the property. These are the Special Projects, the Management Unit and the Executing Unit. The choice between these options will be evaluated and made at the time of the implementation of the Management Plan. The additional information states that the Executing Unit option is the institutional format adopted within the Ministry of Culture.

The Management System in general is designed in two levels: the Management Committee, and the Board of Trustees of the Chankillo Solar Observatory. The first is multi-sectorial, which guarantees a coordinated vision within the administrative system. Secondly, the Board of Trustees of the Chankillo Solar Observatory constitutes a social coordination body that is designed to guarantee rationality and social commitment. It also establishes three Line Units that cover the different technical and administrative aspects involved in the protection, conservation and management of Chankillo as an archaeological site.

The “Management Plan of the Chankillo Solar Observatory: Management of an ancient astronomical landscape in the Casma Valley 2018-2028” identifies the current conservation and management conditions of the property and its context, the risks and threats to the cultural and natural features of the nominated property and its surroundings, and establishes the policies that govern conservation and heritage management, the strategies and protection measures and the regulation of the use of the property and its buffer zone through zoning, as well as the programmes and projects focused on sustainability in the conservation of the property. In order to mitigate and eliminate the threats and vulnerabilities that affect the nominated property, the Management Plan strategically establishes the execution of 49 projects over a ten-year horizon, comprised of 14 programs.

The plan is multi-sectorial, decentralized and participatory; it includes government branches as well as members of civil society (community organizations, universities, etc.). In the additional information submitted in February 2020, the State Party informed ICOMOS that the Ministry of Culture, through Ministerial Resolution No. 077-2020-MC, dated 24 February 2020, approved the Management Plan for the Chankillo Solar Observatory: Management of an Ancient Astronomical Landscape in the Casma Valley 2020-2030.

ICOMOS considers that the approval of the Management Plan and the registration of the property in the National Superintendence of Public Registry (SUNARP) – both in February 2020 – finalized the necessary steps in order to complete the legal protection and the establishment of the Management System of the property. The State Party has to secure the necessary funds to keep the Management Plan with its projects on track, and the different levels of government have to apply the protective legislation in order to assure the conservation of the property.

Visitor management

At the moment, the Ministry of Culture manages the nominated property centrally, and relies on the infrastructure of the site at Cerro Sechin – which does not form part of the nominated property or its buffer zone – for controlling Chankillo. No staff are present at Chankillo and the property is not yet officially opened for public visits. At present, hardly any interpretation or signage is offered at the property.

Nevertheless, the approved Management Structure of the property includes a Participation, Communication and Tourism Unit, which will be responsible for the implementation of the tourism programmes. Annex XII of the Management Plan is a Public Use Plan, which includes the outline of a tourism strategy for the region, the proposal of two visitor circuits at the property, and the calculation of the property’s carrying capacity. The State Party clarified that before detailed planning of the visitor facilities, more archaeological survey and research will be necessary in order to select locations for the installations that do not endanger pre-Hispanic remains.

In the additional information supplied by the State Party on 5 November 2019 it was mentioned that the Ministry of Culture approved the 4-year conservation and infrastructure development program for research, visits and interpretation of the site. Furthermore, the Archaeological Research Institute submitted a proposal to the World Monuments Fund for the conservation of the Thirteen Towers and funding to develop the infrastructure.
plans for research and interpretation of the site as well as other facilities for visitors, such as walkways, signage, parking, bathrooms, etc.

ICOMOS considers that the cautious approach to the development of visitor facilities is commendable and should be maintained. However, once the property is included in regional tourism itineraries, the number of visitors might rise sharply. ICOMOS urges the State Party to take necessary measures to face potential increased visitation to the property and considers that the State Party should undertake a Heritage Impact Assessment before any infrastructure project is implemented.

Community involvement
In addition to the national and local legal framework for the protection of the nominated property, as described previously, there is a protection mechanism in operation on the ground since 2015, consisting of the surveillance of the “Chankillo Solar Observatory and ceremonial center” by staff from the Provincial Municipality of Casma. This activity is also used to promote awareness in the local community regarding the need to avoid damaging the property, as well as preventing the unregulated passage of vehicles and people.

While these activities indicate the will of the authorities to be inclusive and participatory, the local population seems to lack a traditional connection with the regional cultural heritage, due to an abandonment and a rather recent repopulation of the area in the 1950’s. The main interest seems to be in tourism development.

ICOMOS recommends that the State Party emphasize the participation of local communities in future planning, protection and conservation efforts of the nominated property.

Evaluation of the effectiveness of the protection and management of the nominated property
In general terms the legal protection of the nominated property, especially its main elements, is considered sufficient. In this context ICOMOS commends the State Party for the approval of the Management Plan and the registration of the property in the National Superintendence of Public Registry (SUNARP). The effectiveness of the management system will have to be proven in practice. The State Party should emphasize the participation of local communities in future planning, protection and conservation efforts, which will be key in avoiding any negative impacts through, for example, inadequate tourism development.

ICOMOS considers that most of the elements for the protection and management of the nominated property are adequate. However, many of them are not yet operational. The property itself, for example, is far from being sufficiently prepared for receiving tourists in greater numbers.

6 Conclusion
The nomination dossier and the large amount of information that was supplied by the State Party as additional information helped a lot in the understanding of the property and its protective and management system.

ICOMOS recognises the Outstanding Universal Value of Chankillo as an archaeoastronomical complex, on the basis of cultural criteria (i) and (iv), and encourages the State Party to continue the archaeological research and analysis of the data for a better understanding of the complex itself within its wider environment. Important and urgent conservation interventions are still needed, especially on the Thirteen Towers, and ICOMOS encourages the State Party to develop a long-term conservation program which should include preventive actions such as reinforcements and construction of temporary roofs, as well as conservation, restoration and maintenance works, and, according to intervention phases, specific procedures, follow-up routines and monitoring. It is also essential for the State Party to ensure that funds will be secured to continue the conservation strategy. Legal protection and management system are in place and the State Party should further involve the local community within the management of the property. The tourism development and infrastructure installations should be cautiously managed.

ICOMOS suggests that the State Party consider the change of name of the property to “Chankillo Archaeoastronomical Complex”.

7 Recommendations
ICOMOS recommends that the Chankillo Solar Observatory and ceremonial center, Peru, be inscribed on the World Heritage List on the basis of criteria (i) and (iv).

Recommended Statement of Outstanding Universal Value
Brief synthesis
The Chankillo Solar Observatory and ceremonial center is a prehistoric site, located on the north-central coast of Peru, in the Casma Valley, comprising a set of constructions in a desert landscape that, together with natural features, functioned as a calendrical instrument, using the sun to define dates throughout the seasonal year.

The property includes a triple-walled hilltop complex, known as the Fortified Temple, two building complexes called Observatory and Administrative Centre, a line of thirteen cuboidal towers stretching along the ridge of a hill, and the Cerro Mucho Malo that complements the Thirteen Towers as a natural marker.
Criterion (i): Chankillo Archaeoastronomical Complex is an outstanding example of ancient landscape timekeeping, a practice of ancient civilizations worldwide, which used visible natural or cultural features. Incorporated in the Thirteen Towers, it permitted the time of year to be accurately determined not just on one date but throughout the seasonal year. Unlike architectural alignments upon a single astronomical target found at many ancient sites around the world, the line of towers spans the entire annual solar rising and setting arcs as viewed, respectively, from two distinct observation points, one of which is still clearly visible above ground. The astronomical facilities at Chankillo represent a masterpiece of human creative genius.

Criterion (iv): Chankillo was in use for a relatively brief period of time between 250 and 200 BC, during a late phase of the Early Horizon Period (500-200 BC) of Peruvian prehistory, after which it was destroyed and abandoned. The Chankillo Complex is a very particular type of building representing an early stage in the development of native astronomy in the Americas. It shows great innovation by using the solar cycle and an artificial horizon to mark the solstices, the equinoxes, and every other date within the year with a precision of 1-2 days. The solar observatory at Chankillo is thus a testimony of the culmination of a long historical evolution of astronomical practices in the Casma Valley.

Integrity

All the elements necessary to express the Outstanding Universal Value of Chankillo Complex centred on calendrical observations of the sun are included within the property boundaries. Chankillo and the wider setting of related monuments that form the property take advantage of built and natural horizon markers to track the progressive passage of the sun along the horizon throughout the entire year. The natural environment and climatic conditions, that are the basis of the good visibility needed for astronomical observations at the site, are maintained to a large extent. The viewsheds that contain the main astronomical sightlines are generally unobstructed, but their preservation has to be monitored closely. Also, the visual integrity of the general setting of the property has to be maintained. Any infringement on the property by urban development or expansion of agricultural areas has to be avoided.

The advancing collapse of structural elements, with the loss of clear edges (e.g. at the tower buildings and the observatories), jeopardises the exactness of the astronomical observations. The conservation of monumental elements is fragile and needs to be closely monitored in the future.

In case the information from future research indicates relationships of the central monuments with other elements of the property and beyond, a boundary adjustment should be considered.

Authenticity

The position of the Western and Eastern Observation Points in relation to the Thirteen Towers at Chankillo, identified by archaeological excavation and geophysical survey, and supported by archaeoastronomical data, suggests that the primary purpose of all these structures was to act together as a calendrical instrument. Since the 3rd century BC the sun has shifted slightly at and around the solstices, less at other times in the year. This small change has a negligible effect on the solar and possibly lunar alignments around the site but does not affect the ability of a present-day spectator to observe and understand the way in which the Chankillo functioned. Some aspects of the archaeoastronomical interpretations of the property may need further discussion.

Since no invasive conservation and reconstruction campaigns have changed the material substance of the property, the conditions of authenticity in terms of material and form, are met.

Protection and management requirements

The property has been declared as National Cultural Heritage, through National Direction Resolution 075/INC of January 18, 2008. The property has been inventoried nationally by the Ministry of Culture and is registered in the National Superintendence of Public Registry (SUNARP). The property is reinforced by a buffer zone that extends around the site and includes part of the San Rafael Valley, Cerro Mongón, Lomas Las Haldas, Pampa Los Médanos, Cerro Manchán, Cerro San Francisco, and Cerro Monte Grande.

The Management Plan, recently approved, identifies the current conservation and management conditions of the property and its context, the risks and threats to the cultural and natural features of the property and its surroundings, and establishes the policies that govern conservation and heritage management, the strategies and protection measures, and the regulation of the use of the property and its buffer zone through zoning, as well as the programmes and projects focused on sustainability in the conservation of the property.

The effectiveness of the management system will have to be proven in practice. Participation of local communities in future planning should be reinforced, and protection and conservation efforts, which will be key in avoiding any negative impacts through, for example, inadequate tourism development, should be closely monitored.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Developing a long-term conservation program which should include preventive actions such as reinforcements and construction of temporary roofs, as well as conservation, restoration and maintenance works, and, according to intervention
phases, specific procedures, follow-up routines and monitoring.

b) Implementing the Management Plan and setting in motion all the elements of the Management Structure,

c) Securing the necessary funds to ensure the implementation of the conservation measures for the property,

d) Taking the necessary measures to face potential increased visitation to the property and undertake a Heritage Impact Assessment before any infrastructure project is implemented,

e) Involving local communities in the protection, conservation and promotion of the property, as well as in all of the planning processes,

f) Continuing archaeological research and analysis of the data for the understanding of the wider archaeological context of the area;

ICOMOS further recommends that the name of the property be changed to: “Chankillo Archaeoastronomical Complex”. 
Map showing the boundaries of the nominated property
The Church of Atlántida (Uruguay) No 1612

Official name as proposed by the State Party
The work of engineer Eladio Dieste: Church of Atlántida

Location
Department of Canelones
Estación Atlántida
Uruguay

Brief description
The Church of Atlántida with its belfry and underground baptistery is located in Estación Atlántida, a low-density locality, 45 km away from Montevideo. Inspired by Italian paleo-Christian and medieval religious architecture, the Church complex, all built in exposed brick, exhibits forms dictated by the effort to achieve greater robustness with limited resistant sections and use of material. The Church has a rectangular plan and one single hall, with lateral undulating walls supporting an equally undulating roof, composed of a sequence of Gaussian vaults, all in reinforced brickwork. The cylindrical bell-tower rises on the right of the main façade, 7m apart, and is built in openwork exposed brick masonry. The underground baptistery is located on the left side of the parvis, accessible from a triangular prismatic entrance and illuminated via a central oculus.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a group of buildings.

1 Basic data

Included in the Tentative List
6 May 2010

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.


Additional information received by ICOMOS
A letter was sent to the State Party on 12 September 2019 requesting further information about the justification of the proposed Outstanding Universal Value, management of the property, and development projects.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report on the following points: nomination strategy; justification for inscription, criteria and attributes; comparative analysis; documentation; integrity and boundaries; buffer zone; development projects and financial support.

Additional information was received from the State Party on 18 October 2019, and on 18 February 2020, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated property is located in Estación Atlántida, a village on the outskirts of the sea resort town of Atlántida, some 45 km from the capital city of Montevideo.

It consists of a church, whose ground plan is approximately rectangular, a circular underground baptistery, and a cylindrical bell tower.

Atlántida was established in 1911; at that time the connection with Montevideo was only by train and the surroundings of the railway station became the area of residence for the labourers who worked in the construction of the buildings of the sea resort. Estación Atlántida continued to be the place of residence of workers and farmers. Since then, the village has preserved its characteristic of a lower middle-class housing area, currently housing some 3,000 inhabitants.

The consolidation of Estación Atlántida as a permanent suburban neighbourhood made necessary to build a church to serve the spiritual needs of the inhabitants, most of them Roman Catholics. The first chapel, dedicated to Cristo Obrero (Labourer Christ) was erected in 1942: the building was quite small and modest, with some Neo-Colonial features on the main façade. By 1957, the project of constructing a new, larger church emerged. A couple of benefactors, Alberto...
Giudice and Adela Urioste, donated the plot and provided funds, and the engineer Eladio Dieste accepted the task of overseeing the design and the direction of the construction works.

Dieste conceived the church as an ensemble of separate components: the church itself, the baptistery, and the belfry, an idea inspired mainly by Italian medieval religious ensembles. Dieste’s basic idea for the church was drawn from warehouses covered by medieval religious ensembles. Dieste’s basic idea for the church was drawn from warehouses covered by vaults, a type of building that the firm Dieste-Monteñez had already designed and constructed. The Church project, however, allowed Dieste to experiment with innovative structural solutions, including the use of reinforced ceramic (cerámica armada) and the undulating lateral walls marrying structural necessities and aesthetic effects.

Reinforced ceramic is a component of reinforced brick masonry. The bricks are joined by structural mortar of sand and cement. The structural reinforcement of the composite material is made via steel bars placed in the mortar joints. Although Dieste is not the only engineer to have used this system, he managed to take it to unprecedented limits, by combining them with the use of catenary curves and external tensors that absorb forces and balance the system.

Church
The church has just one nave. Its footprint, approximately rectangular, is 33m long and 16m wide. A continuous set of surfaces curving both vertically and horizontally create vaults of reinforced bricks covering the nave. The vaults’ shape is defined by the catenary curve resulting from the distribution of the weight of the ceiling. The material used is reinforced brick, with steel bars inserted in the joints. The weight of the vaults is supported by the lateral walls, whilst two horizontal curved beams receive and transfer the horizontal forces to steel bars, which are lodged within the vaults.

Both side walls – made out of two contiguous solid masonry layers joined by structural mortar - are generated by the movement of a generatrix along a horizontal straight line at ground level and an undulating line at the top of the wall. Reinforcement steel bars are placed in the horizontal joints of the walls and in the inner mortar filling. At the upper zone of the walls small rectangular windows with coloured glass let natural light in towards the altar.

The front wall has straight and curved stretches placed under the choir level (mezzanine). Wall openings filled with onyx allow diffused sunlight into the church. Inside, the interior is a simple rectangular space featuring undulating un-plastered brick walls, the chancel area defined by independent enclosing walls. Daylight comes in from windows in the side walls and is directed into the chancel.

Baptistery
The baptistery is an underground construction placed outside the church. A circular wall (diameter 4.52m, height 2.26m) is covered by a spherical dome of reinforced brick. On the top of the dome a cylindrical skylight lets the natural light fall on the baptismal font. The structure is founded on small concrete pilings placed under the round wall. The baptistery is reached via a staircase and an underground corridor. From the baptistery a second corridor and stair lead to the inside of the church.

Bell-tower
The bell-tower is a pierced reinforced brick tower (diameter 2.80m, 15m high) and is crowned by a depressed conical dome from which the bell hangs. In the inside, a spiral staircase with floating brick steps leads to the bell.

The belfry was inspired by Dieste’s previous designs for water tanks, consisting of slim cylindrical brick towers.

Dieste imagined the possibility of demolishing the previous chapel to provide further open space to the ensemble, however this did not occur. The construction of a school was already envisaged on the neighbouring plot and Dieste devised that the building could be integrated with the ensemble as a sort of religious, educational and social core of Estación Atlántida.

There was an additional element, the parish house, which no longer exists.

ICOMOS requested additional information about this element in its Interim Report. The State Party has explained that the small building was erected at the back of the complex and it was not included in the project itself nor in earlier plans; it was built in 1962 but it was not directly overseen by Dieste. Never used for its original function, a few years after construction (1965) it was demolished to build a catholic school and residences. Its characteristics in terms of typology and construction can be seen in Dieste’s house built in the same period, as well as in some rural schools.

At the same time, Dieste conceived the ensemble as a sort of plaza, where the component parts would be separated by green spaces.

The church was constructed between 1958 and 1960 and inaugurated with some details still missing. Throughout the first decade after construction, the building was not properly maintained and was the target of some actions of vandalism, e.g., the breaking of the coloured glass in the windows and the rail of the choir. During this first period, the original marble onyx ‘windows’ were also destroyed.

After a period of some decay, works of maintenance and repair started, in part due to the direct participation of Dieste’s family, especially his son Esteban, an architect himself. At the same time, the building started to be
acknowledged as a fine piece of architecture, especially because of the conjunction of structural design, shape and space, and published in books and architectural magazines at international level; it also became a popular destination for architects, engineers, students and the general public from all over the world. The church was designated as a Historic Monument in 1997, being the first example of Dieste’s work to reach the maximum degree of heritage protection in the country; the belfry attained the same designation in 2018.

**Boundaries**

The nominated property had an initial area of 0.42 ha, and a buffer zone of 44.98 ha. Following the modifications which occurred throughout the evaluation process the updated size of the nominated property is now 0.54 ha, whilst the size of the buffer zone has increased to 69.5 ha.

The nominated property covers two distinct cadastral parcels: no.208 and no.19. The church and the baptistery are located in parcel no.208, whilst the belfry stands in plot no.19, where also the School of the Congregation of Our Lady of the Rosary was later built. All the identified attributes proposed by the State Party to convey the potential Outstanding Universal Value of the property are included within the boundaries of the nominated area.

For ease of management ICOMOS considered it advisable that: a solution be devised so as to ensure that the belfry be transferred to the ownership of the Bishops or, at least, under its management responsibility; and that the plot of land corresponding to parcel no.17 be included within the perimeter of the nominated property.

The proposed buffer zone encompasses 9 urban blocks of the village of Estación Atlántida, surrounding the nominated area, at the edge between urban and rural areas. Beyond Route 11, the original buffer zone included only a strip of land 150m wide running parallel to the highway.

The buffer zone has been established by Decree of the Government of Canelones within the framework of the Costa de Oro territorial arrangement plan and was approved by Act L48-P2-10 in 2016 which includes management arrangements.

The boundaries of the buffer zone are clearly delineated in the area corresponding to the urban sector. Conversely, in the semi-rural area beyond the highway, ICOMOS considered it advisable to modify its perimeter to coincide with that of the rural plots. A request in this regard was made in the Interim Report, alongside clarification on the protection mechanisms in place in the buffer zone.

The State Party replied positively to the above-mentioned points: it has submitted the ministerial decision Res. 094/020 to protect under the national legislation parcel no.17 to guarantee the necessary protection; it has taken steps in order to integrate the belfry portion of parcel no.19 into parcel no.208, and it has informed that the government of Canelones has issued a decree (no. 20/00692 of 7 February 2020) establishing that all parcels adjacent to Route 11 are included in the buffer zone.

An added layer of protection is provided by their inclusion in the management plan for urban control and risk for the nominated property (Plan de gestion pour l’environnement de l’église).

**State of conservation**

Based on the information provided by the State Party and the observations of the ICOMOS Technical Evaluation mission, ICOMOS considers that the state of conservation of the nominated property is overall acceptable. However, even if the main body of the church exhibits a very good state of conservation, a few conservation problems have been detected in the outside part of the niche containing the image of Our Lady of Lourdes, caused by humidity, organic agents and deposits. Repairs are planned to be carried out in the near future.

The inner space of the church is in a very good state of conservation.

The underground baptistery exhibits a poor state of conservation, due to leakages from the water table, which has changed its level, possibly due to the deforestation of the land in front of the church. This effect increases on occasions of heavy rain. The vaulted roof of the baptistery also exhibits some damage; in this case crevasses and cracks, apparently caused by the ingress of water from outside but also by the high degree of interior humidity. Conservation works to remedy the current situation are planned for execution in the near future and include a project to remove water from the baptistery via a pumped drainage system.

The outer surface of the tower is affected by grime and some biological agents. Some of the slabs are in a poor state of conservation, due to the corrosion of the metallic bars that anchor the slabs to the tower’s structure.

The open spaces of the plots exhibit different states of conservation. The entrance terrace in front of the church, brick-floored, is in a good state of conservation. The lateral and rear open spaces are overgrown with grass and not enough maintained.

However, the conservation problems have been identified and recorded and are included in the conservation management plan among the works to be executed to improve the state of conservation of the property.

**Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS Technical Evaluation mission, ICOMOS considers that the main factors affecting the property include decay phenomena
on the architectural structures caused by moisture and rising damp (especially in the baptistery). Potential development pressures along Route 11 might be induced by the expanding conurbation of Montevideo.

Whilst the decay factors of the architectural elements have been identified and measures, to reduce their effects or to repair damaged components, have been undertaken or planned, the potential effects of development pressures require the establishment of mechanisms to assess impacts on the nominated property. In particular, ICOMOS considers that the views from the church’s entrance terrace to the rural landscape beyond the highway should be kept unobstructed.

The region where the property is located is subject to the possibility of heavy rains or storms that could increase in frequency and strength due to the impact of global climate change. Recent studies include an assessment of the structural reaction of the nominated property against strong winds, using a virtual wind tunnel.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Eladio Dieste’s work offered to humanity a construction innovation based on reinforced brickwork, collecting and reinterpreting a millenary tradition of brick construction through an updated scientific and technological knowledge;
- The Church of Atlántida may be considered as one of the best artistic-architectural expressions attained through the application of this technique;
- The Church of Atlántida demonstrates in an exceptional manner that appropriating a building tradition implies not only knowing and practicing it well but also revisiting and innovating it to achieve new spatial, plastic and construction accomplishments.

Comparative analysis
The comparative analysis has been elaborated on the basis of the main attributes identified by the State Party of the nominated property - the reinforced brickwork, the resistant form - and of the following parameters: the parallel with Antoni Gaudí’s work; the updating of ecclesiastical architecture, with a special focus on Niemeyer’s Church of St. Francis in Pampulha and on Le Corbusier’s Notre Dame du Haut in Ronchamp; and, finally, the positioning of the nominated property within the national context.

For each attribute and parameter the comparative analysis discusses Dieste’s work antecedents and successors and highlights the commonalities with others’ work and Dieste’s work specificities.

ICOMOS observes that the comparative analysis offers an interesting insight into the structural, architectural and spatial quests emerging between the late 19th and the 20th century in the Americas and in Europe, and the responses from engineers and architects of the time.

However, ICOMOS considers that the comparison with the Escuelas of the Sagrada Familia by Antoni Gaudí is only partially appropriate as this building appears formally similar but is in fact very different structurally and geometrically.

In its Interim Report, ICOMOS requested the State Party provide additional arguments for the selection of this property among Eladio Dieste’s work, and to present an expanded comparative analysis focusing on Eladio Dieste’s surviving works.

The State Party has expanded the comparative analysis of the nominated property with six more of Dieste’s works which have received state protection as heritage buildings: two exemplify the structural system of the Gaussian vault; one represents the use of the free-standing vault; one tower exemplifies the same building principle as the belfry at Atlántida; his house, representing the construction system adopted for the parish house; and one church, the result of a rehabilitation project for a damaged building.

The State Party concludes that the nominated property is the only one where Eladio Dieste was fully engaged from the architectural and structural design to the implementation phases, the one which best illustrates the construction system invented by Dieste.

ICOMOS concurs with the State Party’s conclusion of the expanded comparative analysis.

ICOMOS considers that the expanded comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criterion (iv).

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that Eladio Dieste’s work implies a construction and technological innovation – the reinforced brickwork coupled with the mobile formwork – that opens up structural and formal opportunities in architecture impossible to conceive and achieve up to that date with traditional masonry. It is an architecture that draws from tradition, whilst reinterpreting and innovating it. The Church of Atlántida represents the highest spatial and aesthetic expression of this innovative building technique. The nominated property embodies the post-
war search for a renewed architectural language, expressing a modernity rooted in tradition and in the vernacular. It also reflects the locale and its people, who built it. The church illustrates the confluence of geometry, of the static conception of the building, of the form expressed by the chosen building material.

ICOMOS considers that the justification is adequate and reflects the wording of the selected criterion, which is well grounded and argued.

ICOMOS noted that the criterion (iv) chosen for this nomination, does not correspond to the initial Tentative List entry, which was focused around Eladio Dieste’s work and presented on the basis of criteria (i) and (ii).

ICOMOS requested additional clarification from the State Party on this point in its Interim Report.

The State Party responded that the shift from criteria (i) and (ii) to criterion (iv) is motivated by the reconsideration of the potential of an individual nomination to justify the originally chosen criteria. The State Party has deemed criterion (iv) is the most appropriate for the Church of Cristo Obrero in Atlántida because it is an eminently appropriate of a type of construction illustrating a significant period of the history of architecture in Latin America, which expresses the search for social equality, austerity in the use of resources and has resulted in a remarkably rich œuvre in terms of form and space.

Following careful assessment, ICOMOS concurs with the State Party's view.

ICOMOS considers that the nominated property meets criterion (iv).

Integrity and authenticity

Integrity

The nomination dossier explains that the main elements of the ensemble designed by Eladio Dieste remain intact. Nevertheless, it admits that the parish house, a humble building erected in the plot near the church was demolished only a few years later to give space to the construction of the school. The nomination dossier also reports that in the first decade after its construction, the church suffered from lack of proper maintenance and some acts of vandalism (destruction of the coloured glass and of the onyx elements of the openings of the baptistery, of the niche and of the back entrance). Only in the 1990’s and 2000’s, the first restoration works were planned and carried out carefully on the basis of adequate documentation. The adaptation of the presbytery to the norms established by the 2nd Vatican Council has not affected the expressivity of the Church.

The nomination dossier maintains that the property has retained its essential elements able to express its original values.

In September 2019, ICOMOS requested clarification as regards to the decision of nominating one individual property against a serial nomination, as envisaged in Uruguay’s Tentative List entry. The State Party explained that the present nomination has to be considered as a standalone project. However, Uruguay did not exclude the possibility of extending this nomination in the future, on the basis of paragraph 139 of the Operational Guidelines, if considered necessary.

In its Interim Report, ICOMOS asked for further clarification on this point and in response, the State Party confirmed that the present nomination will not be subject to extension in the future. However, the State Party will continue the study and the improvement of the conditions of protection for Dieste’s works which have been designated at the national level.

ICOMOS observes that the nominated property was conceived as a complex, including also a baptistery, a bell tower, a parish house, demolished soon after its construction, and a plaza which was not built. ICOMOS considers that the loss of the parish house has had a minor impact on the integrity of the ensemble in relation to the proposed justification for inscription.

ICOMOS further notes that the presence of the remains of the former chapel have some impact on Dieste’s conception of the layout of the ensemble, as the belfry was meant to stand isolated. However, this was also the original conditions in which the complex was built.

ICOMOS considers that all identified attributes supporting the proposed justification for inscription are included within the perimeter of the nominated property, which exhibits an acceptable state of conservation, the factors affecting it being known and mainly under control.

Authenticity

The nomination dossier explains that the comparison between the rich archival documentation preserved for the conception and execution of the work, and the results of recent investigations on the church, demonstrates that the church was realised respecting the initial conception, with only some modest dimensional variations.

The church still performs its original function: even though created before the changes in the rite introduced by the 2nd Vatican Council, it already reflected in its internal layout the aspirations of a more communitarian Church. The setting of the nominated property remains almost unmodified, both in physical and social terms.

The construction and technical methods and their link with the brick building tradition can be read in the work and the effort to optimise the utilized resources can be appreciated.
The Church of Atlántida expresses in a synthetic and synchronic manner the philosophy of its ‘creator’ and the specific conditions under which it was conceived, designed and built. ICOMOS considers that only limited changes have occurred to the nominated property and to the original complex as implemented by Dieste. Most of its original substance has been preserved and the archival documentation attests to the consistency of the conception and implementation of the project. The degraded condition of the baptistery currently make it impossible to use it, which brings some change in the use of the church, but plans exist to bring the baptistery back into use. All attributes identified by the State Party bear credible witness to the proposed justification for inscription. Overall, ICOMOS concurs with the State Party that the conditions of authenticity of the nominated property are met, despite the loss of the parish house. In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met.

Evaluation of the proposed justification for inscription
The Church of Atlántida with its baptistery and bell-tower has been nominated as an individual property under criterion (iv) because it illustrates a construction and technological innovation which has been used to achieve an architectural work inscribed in the European tradition of brick construction and religious architecture, whilst at the same time interpreting the needs and aspirations of the regional and local context. ICOMOS requested additional clarification on several aspects while evaluating the nominated property:

- Reasons for an individual nomination when the Tentative List entry refers to a serial property,
- Reasons for the choice of one nominating criterion (iv) instead of the two identified in the Tentative List – (i) and (ii),
- specifications of the proposed attributes supporting the justification for inscription and the criterion,
- delimitations of the nominated property and of the buffer zone,
- comparative analysis within Dieste’s works to understand the choice of this specific work for nomination;

The State Party has responded satisfactorily to all ICOMOS’s requests. In particular, the comparative analysis has been augmented and the selection of the Church of Atlántida as an individual nomination made clear; the discussion on the attributes has been supplemented and they are now more clearly related to the nominated property. The boundaries of the nominated property and of the buffer zone have been adjusted according to ICOMOS’s recommendations, and clarification on the protection mechanisms of the buffer zone have also been offered.

Attributes
The nomination dossier presents as attributes supporting the proposed justification for inscription the following:

• The work of Eladio Dieste implies a technological and constructive innovation: reinforced ceramic.
• The Church of Atlántida expresses its time, place, and the culture of its people.
• The Church of Atlántida is an integration of form, matter and space.
• The Church of Atlántida is a synthesis of modernity and tradition.

ICOMOS considered that only the first attribute was specifically related to, and expressed by, the nominated property, whilst the other three appeared too general.

In its response to the Interim Report, the State Party provided further explanations contributing to make property–specific the three general attributes. In particular, the attribute “the Church of Atlántida expresses its time, place, and the culture of its people” has been explained in relation to the search for use of local resources, their optimization, the combination of modernity – the science of construction – with tradition – in terms of building site organization, execution, community involvement, particularly immigrant workers from Europe, who contributed their skills in the realisation.

The attribute “the Church of Atlántida is an integration of form, matter and space” rests on Leon Battista Alberti’s principles of firmitas (solidity), utilitas (use, function) and concinnitas (beauty as harmony/congruity of all parts): the nominated property is the best artistic expression imbued by technical and constructive innovation and by social and spiritual inspiration.

The attribute “the Church of Atlántida is a synthesis of modernity and tradition” can be inflected as an interpretation of a thousand-year long tradition of brick construction in the light of the contemporary scientific and technological knowledge to achieve a new composite material with great potential for architectural expression and structural performance.

ICOMOS considers that the nominated property justifies consideration for the World Heritage List on the basis of criterion (iv) and that it meets the conditions of integrity and authenticity through its attributes, following the expanded explanation. The boundaries of the nominated property and of the buffer zone are now adequate and equipped with the necessary protection mechanisms.
4 Conservation measures and monitoring

Conservation measures
Active conservation measures have been carried out over the past few years. The most important is represented by the restoration of the roof, in 2017. The work was designed and conducted by professionals of the Dieste y Montañez architectural firm, which is still active. The works were oriented to prevent the roof leaking and to ensure the adequate functioning of the structure. The works were preceded by studies and recorded. ICOMOS is of the opinion that the theoretical and technical approaches have been adequate and satisfied the expected results.

A conservation management plan was elaborated in 2016 with the participation of several experts from the country and abroad. It includes a set of projects to be carried out in the short-, medium- and long-term, according to available technical and financial resources. Further details are given in the management section of this report. The plan envisages a maintenance cycle of the nominated property and identifies actions and responsible organisations and staff.

ICOMOS considers that the conservation management plan is a robust document that can effectively assist the conservation of the nominated property, provided that adequate financial, organisational and human resources are allocated regularly. Additional information on this aspect was requested in ICOMOS’s Interim Report.

The State Party replied that financial resources are available based on previous decisions and will be provided in the future. The financial needs are established by the management unit. The main financing bodies include the Ministry of Education and Culture, which will earmark funds through the quinquennial budget law 2021-2026, in force from 1 January 2021, the Bishopric of Canelones, the government of Canelones, through the regional budget 2021-2026, the Eladio Dieste Foundation, as well as other organisations such as the Ministry of Tourism.

ICOMOS considers that an adequate budget is indispensable and should be earmarked for the nominated property and the implementation of its management conservation plan at the national and regional level in the next budgets (period 2021-2026) and steadily after that.

ICOMOS recommends that the historic documentation preserved about the design and construction of the Church of Atlántida be digitized according to international standards for digital archiving and stored in multiple locations as a risk management measure. It is also recommended that the storage place of original documentation be provided with all necessary safety measures and equipment.

Monitoring
Indicators are envisaged within the management plan, including for means, finances and performance as well as a complex indicator of results, based on other partial ones, e.g. one dealing with the perception of the conservation and appropriation of the values of the Church by visitors. The general indicator is named Index of the Conservation of the Church of Atlántida (ICEDA) and is measured yearly; the financial and achievement indicators are measured when projects are implemented.

ICOMOS considers that this monitoring system covers adequately the effectiveness and efficiency of management but appears not sufficient to monitor the state of conservation of the nominated property, as there is no link with the attributes of the nominated property, and with identified threats. In this regard ICOMOS recommends that a set of indicators related to the attributes and reflecting the questionnaire of the Periodic Reporting might assist in carrying out both state-level monitoring and the Periodic Reporting exercise.

ICOMOS considers that the programme of conservation measures is well outlined and its implementation should continue. A wealth of original documentation exists and its preservation must be guaranteed through appropriate measures, to avoid its potential loss. The monitoring system needs to be integrated with indicators useful for assessing the state of conservation of the attributes. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

5 Protection and management

Documentation
Original plans and photos recording the construction process of the Church of Atlántida form a robust documentation basis for the nominated property, which has also been the subject of inventories and research, since 2014.

The most complete inventory of the nominated property was carried out within the elaboration of the conservation management plan in 2016. This includes extensive documentation of the property; study of materials and their pathologies and structural study; modern techniques of study and recording that have been applied. The documentation is part of the conservation management plan. At the same time, staff of the Dieste y Montañez firm were trained for the conservation of archives and photos.

These inventories and documents have been the basis for elaborating the plan and to define interventions oriented to maintenance and conservation; they constitute an invaluable data baseline for the future.

Legal protection
The nominated property is protected at both national and local levels. At national level, the building was designated a Historic Monument in 1997 – the highest
property. The Management Unit is composed of an October 2018, establishing the Management Unit for the representing the State of Uruguay, was signed on 11 between the Bishopric of Canelones and the CNCH, nomination to the World Heritage List, an agreement the CNCH. In the framework of the process of as a Historic Monument, falls under the supervision of the property is owned by the Diocese of Canelones and, and a Deliberative Committee. Executive Committee, a Technical Executive Committee includes a representative of the CNCH, a representative of the Diocese of Canelones and the President of the CNCH; it has decision-making and implementing power for conservation and use of the property; it advises the Executive Committee. The Deliberative Committee includes both local and non-local actors: the Congregation of the Rosarian Nuns, the municipality of Atlántida, the City Council of Atlántida, the government of the Department of Canelones, the Department Council of Canelones and the sport and social institutions of Atlántida, the Eladio Dieste Foundation, universities, and the Dieste y Montañez architectural firm. This committee has an advisory capacity; no regular meetings are envisaged. Besides those three bodies, the management structure also includes the possibility of participation of other organizations. The co-sponsors include the Ministries of Education and Culture and of Tourism, the Society of Architects of Uruguay and the Episcopal Conference of Uruguay. Facilitating organizations include international organizations that could play a prominent role in the identification of programmes and projects oriented to obtain extraordinary resources for getting advice or for projects related to maintenance and conservation of the property. In September 2019 ICOMOS requested additional information on the management plan. The State Party has informed that in the framework of the “Keeping it Modern” Getty Foundation Programme, a conservation management plan was elaborated between 2016 and 2017, with the participation of 50 national and international experts. It was approved by the Commission for National Cultural Heritage on 3 May 2017. The plan includes several projects, which are grouped in different programmes and strategic lines. Strategic line B is related to interventions on the building itself and include: the improvement in the evacuation of rainwater, internal and external lighting, rehabilitation of the window fills in marble onyx, rehabilitation of the baptistery, intervention on the lateral walls of the church, conservation of the niche containing the image of Our Lady of Lourdes, repair of the tower and staircase of the belfry. Training and expertise of professionals and technical staff allow confidence that the projects will be elaborated in the framework of accepted theoretical and operational approaches related to heritage conservation. Although not specifically related to active conservation measures for the property itself, the portfolio also includes projects related to the buffer zone and, especially, the immediate surroundings of the property: the burying of the system of cables, the closure of the plot containing the property towards the street, the landscape treatment of the free area of the plot, a parking area next to the church, the improvement of the public space between the church and the railway station, the construction of a plaza in the plot facing the church, tree-planting along the highway and streets, signage, regulation of advertising and of use of colours, an
information centre and a cultural centre dedicated to Eladio Dieste. Some projects are planned for implementation in the next 5 years. However, no details were provided either in the nomination dossier or in the conservation management plan.

ICOMOS requested additional information in its Interim Report.

The State Party responded that the projects under approval are two: the “Use plan for the public use of the Church” and the lighting system for the interior of the Church – funded by the Bishopric – and for the exterior – funded by the regional government of Canelones.

ICOMOS recommends that, once the projects are elaborated, the State Party informs the World Heritage Centre providing relevant documentation. ICOMOS also recommends that a Heritage Impact Assessment mechanism be adopted for the evaluation of their potential impacts on the Outstanding Universal Value, integrity and authenticity of the nominated property.

The national and local governments and the Diocese of Canelones can count upon human resources that ensure the possibility of appropriate maintenance and conservation of the property. The Commission for National Cultural Heritage includes a Department of Architecture, whose staff has the required capacity to deal with heritage buildings and ensembles. The Department of Canelones employs staff specialised in urban and territorial planning, important for the management of the buffer zone and the wider setting of the church.

Neither the nomination dossier nor the conservation management Plan seem to address how potential risks for the nominated property will be managed.

Visitor management
The Diocese of Canelones considers that the Church of Atlántida is primarily a religious space, habilitated for Catholic religious practices and, only secondarily, a tourist attraction.

Guided tours are available twice a week. There is also the possibility of self-guided tours and the Department of Canelones proposes tours to other examples of Dieste’s work located in the territory of the Department. There is no shop or information office next to the church. Restrooms are available at the nearby parish hall that can be used by visitors when the church is open. Besides this, there are no other facilities or services for visitors.

According to available statistics, the property received 737 visitors in 2017, 1,478 in 2018 and 673 in the first 7 months of 2019.

The nomination dossier informs that the Management Unit will approve a plan for public use of the nominated property in agreement with all parties, in order to address the most urgent needs.

ICOMOS welcomes the focus given to the religious function of the nominated property; however it notes that potential increase of tourists following inscription might occur anyway and needs to be actively managed, to avoid negative consequences that may derive from unmanaged visitation. It is therefore suggested that some simple facilities be provided (e.g. waste bins, toilets, information on the Church, on opening hours and visitors expected behaviour, etc.).

Community involvement
The nomination dossier mentions that surveys among different sectors of the local population have been carried out and the results will inform the actions within the Management Plan. Educational material on Eladio Dieste’s work was prepared in 2014 – 2015, within a UNESCO programme for participation.

Evaluation of the effectiveness of the protection and management of nominated property

Overall ICOMOS considers that the protection measures in place for the nominated property and the buffer zone are adequate and effective, provided that impact assessment mechanisms are established and implemented before any project is approved and carried out.

At the executive and technical executive levels, the composition of the management unit can be considered adequate; the roles and responsibilities are clearly defined and the possibility of getting advice from members of the Deliberative Committee enhances the guarantee of an appropriate management of the property. The members of the Deliberative Committee are invited to the yearly presentation of the annual report of the management Unit.

However, ICOMOS notes that the role of the Deliberative Committee and the scope of its advice could be better defined to ensure its active participation in the management structure.

ICOMOS considers that the staffing levels, expertise and training are sufficient to ensure the appropriate conservation of the property.

The required financial resources for implementing the management conservation plan in the short- and medium-term have been calculated. The additional information received in February 2020 clarifies that funds are allocated through the State and regional government budget laws for the quinquennium 2021–2026, the bishopric of Canelones, and the Eladio Dieste Foundation.
ICOMOS considers it essential that actors responsible at the different levels for the protection and management of the nominated property make all efforts to guarantee a regular flow of financial resources for the implementation of the management conservation plan, beginning with the next budget period (2021-2026).

Despite the local community being somehow represented by social and sports organizations, there is no formal inclusion of the local community in the management structure. Since the property is closely linked to the history and memories of the local community, it should be given a more active and formal role in the management structures and processes.

Therefore, it is recommended that the State Party introduces mechanisms for formalising the participation of local communities in the protection and management structures.

ICOMOS considers that the legal protection in place is adequate, provided that Heritage Impact Assessment mechanisms are established and regularly implemented. The management system can be considered adequate, although a clearer role for the Deliberative Committee and mechanisms for regular participation of local communities in the management process would be recommended. A steady flow of financial resources is necessary to ensure the possibility of implementing the conservation management plan, beginning with the next budget period (2021-2026).

6 Conclusion

The Church of Atlántida has been nominated for inclusion in the World Heritage List on the basis of criterion (iv) as it may be considered one of the best artistic-architectural expressions attained through the application of the innovative reinforced brickwork construction technique, and demonstrates in an exceptional manner that appropriating a building tradition implies also revisiting and innovating it to achieve new spatial, plastic and construction accomplishments, while taking into account the specific context.

ICOMOS commends the State Party for nominating the Church of Atlántida and acknowledges the efforts deployed by the State Party in responding to the several requests made by ICOMOS to strengthen the nomination and the protection of the nominated property.

The boundaries of the nominated property and of the buffer zone are now adequate to ensure the integrity of the Church of Atlántida and its effective protection; the attributes of the Church have been further refined and will therefore be a robust basis for its protection and management. The comparative analysis has fully justified the selection of this individual work among many that survive by Dieste.

The Church of Atlántida enjoys legal protection and adequate measures for the implementation of this protection, although it is recommended that impact assessment mechanisms are established and implemented before any project is approved and carried out.

At executive and technical levels, the composition of the management unit is adequate; the roles and responsibilities are clearly defined and the possibility of getting advice from members of the Deliberative Committee enhances the guarantee of an appropriate management of the property. Therefore, it might be useful to define more clearly the scope of its advice and its link with the management structure. Similarly, it is suggested that mechanisms for the participation of local communities in the management be sought and applied.

A conservation management plan exists, its action plan identifies the required financial resources for its implementation in the short- and medium-term. ICOMOS considers it essential that a regular flow of financial means be guaranteed to ensure the effectiveness of the management.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that The work of engineer Eladio Dieste: Church of Atlántida, Uruguay, be inscribed on the World Heritage List on the basis of criterion (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

The Church of Atlántida of engineer Eladio Dieste with its belfry and underground baptistery is located in Estación Atlántida, a low-density locality, 45 km away from Montevideo. Inspired by Italian paleo-Christian and medieval religious architecture, the Church with its belfry and baptistery, all built in exposed bricks, exhibit forms dictated by the effort to achieve greater robustness with limited resistant sections and use of material.

The property is an emblematic example of the application of a new building technique, reinforced ceramic, which Dieste developed by drawing on a thousand-year long tradition of brick construction, while applying modern scientific and technological knowledge, and thus opening up new structural and expressive possibilities for architecture.
Designed from the outset to be built with local materials by local people, the Church of Atlántida, located in a lower middle-class semi-rural community, has its roots in long-established building traditions, while embodying the scientific and technical achievements of modernity. The Church of Atlántida reflects efforts to optimise the use of resources and ensure sustainability. The property is imbued with the humanistic principles that constantly guide the spatial and material concepts of engineer Dieste.

**Criterion (iv):** The Church of Atlántida of engineer Eladio Dieste represents the highest spatial and aesthetic expression of a construction and technological innovation – the reinforced brickwork coupled with the mobile formwork – that draws from tradition, whilst reinterpreting and innovating it, and opens up structural and formal opportunities in architecture impossible to conceive and achieve up to that date with traditional masonry. The property embodies the post-war search for a renewed architectural language, expressing a modernity rooted in tradition and in the vernacular in Latin America and worldwide. It also reflects the locale and its people who built it. The church illustrates the confluence of geometry, of the static conception of the building, of the form expressed by the chosen building material.

**Integrity**

The Church of Atlántida includes all the elements linked to the history of the location and the period over which the building has been functioning. Its dimensions are sufficient to provide a comprehensive representation of the characteristics and processes that embody its Outstanding Universal Value. The church, which is in constant use, is currently in a good state of conservation. Thanks to a recent conservation programme, the building does not face any risks, and the pathologies affecting it can be treated.

**Authenticity**

The property is authentic in terms of location, time, construction materials, surroundings, and the substance of its creation and liturgical use.

**Protection and management requirements**

Requirements for the protection of the property are linked to its designation as a National Historic Monument by virtue of Heritage Law no. 10.040 of August 1971, amended in 2008 and 2015, and of Regulatory Decree 536/72. Conservation is the responsibility of the Heritage Commission, under the Ministry of Education and Culture. The Partial Land Use Plan for the commune of Atlántida and Estación Atlántida, which constitutes the legal land use instrument, recognises the heritage property status of the Church of Atlántida. Ownership is currently shared by the Bishopric of Canelones and the Congregation of the Rosarian Nuns, two institutions of the Catholic Church; however, steps have been undertaken to gather all elements of the property into the Bishopric’s ownership.

The Church is administered by the Management Unit, which incorporates an Executive Committee, and a Deliberative Committee consisting of a set of institutional and social stakeholders who ensure the participation of citizens in the management of the heritage property. The Executive Committee, which takes decisions relating to intervention of all types on the property, is composed of the Ministry of Education and Culture, the Heritage Commission and the Bishopric of Canelones. The Deliberative Committee provides direct support to the Executive Committee; it consists of stakeholders involved in the routine management of the church as regards operational and material matters and its surroundings. The technical, administrative and economic resources are provided by State institutions and by the Catholic Church.

**Additional recommendations**

ICOMOS further recommends that the State Party give consideration to the following:

a) Digitizing according to international requirements the historic archival documentation of the design and construction phases of the property,

b) Ensuring a steady flow of financial resources for the implementation of the management conservation plan, beginning with the next budget period (2021-2026),

c) Strengthening the role of the Deliberative Committee within the Management system,

d) Considering a more direct participation of the local community of Estación Atlántida in the property’s management structure,

e) Including, in the management structure, a heritage impact assessment mechanism for projects that could have an impact on the Outstanding Universal Value of the property and on its integrity and authenticity,

f) Developing indicators useful for the monitoring of the state of conservation of the property,

g) Strengthening the visitor management and provide simple facilities for them;
Revised map showing the boundaries of the nominated property (February 2020)
V Cultural properties

A Asia – Pacific
   Referral back nomination

B Europe – North America
   Referral back nominations
   Minor modifications to the boundaries
   Creation/modification of buffer zone

C Latin America and the Caribbean
   Creation/modification of buffer zone
Quanzhou
(China)
No 1561rev

Official name as proposed by the State Party
Quanzhou: Emporium of the World in Song–Yuan China

Location
Quanzhou City
Fujian Province
China

Brief description
The serial property illustrates the role played by Quanzhou as a maritime emporium during the Song and Yuan periods (10th - 14th centuries AD) and its interconnection with its hinterland. It encompasses religious buildings, archaeological remains of administrative buildings, archaeological sites of ceramic and iron production, elements of the transportation network and bridges, pagodas, and inscriptions.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 22 monuments, groups of buildings and sites.

1 Basic data

Included in the Tentative List
The nominated property was included in the Tentative List on 28 March 2008 as part of a much larger serial property covering a wider historic period: Chinese Section of the Silk Road: Land routes in Henan Province, Shaanxi Province, Gansu Province, Qinghai Province, Ningxia Hui Autonomous Region, and Xinjiang Uygur Autonomous Region; Sea Routes in Ningbo City, Zhejiang Province and Quanzhou City, Fujian Province - from Western-Han Dynasty to Qing Dynasty.

Background
This is a referred-back nomination. In 2017, the State Party of China submitted a nomination for “Historic Monuments and Sites of Ancient Quanzhou (Zayton)”. The ICOMOS recommendation was not to inscribe the property on the World Heritage List.

The World Heritage Committee, in its Decision 42 COM 8B.18, decided to refer back the examination of the nomination and recommended the State Party to:

Decision: 42 COM 8B.18

The World Heritage Committee,

1. Having examined Documents WHC/18/42.COM/88 and WHC/18/42.COM/INF.8B1,
2. Refers the nomination of the Historic Monuments and Sites of Ancient Quanzhou (Zayton), China, back to the State Party, taking note of the high potential to meet criteria (ii), (iii) and (vi), in order to:
   a) Further refine and focus the justification for criteria (ii), (iii) and (vi),
   b) Better describe the boundaries and buffer zones of each of the nominated property components in relation to their ability to enclose and protect the nominated serial property,
   c) Strengthen the coordination of management between the components of the serial property,
   d) Consider a stronger engagement of maritime and port organizations within the management system;
3. Recommends that the State Party consider further integrating the significance of the Minnan Culture, of which Quanzhou is considered to be the birthplace and centre, in the attributes that convey the values of the property;
4. Also recommends that the State Party continue its important support and contribution to the Thematic Study on Maritime Silk Routes, and further recommends that the World Heritage Centre, in collaboration with the Advisory Bodies, give special attention towards the preparation of a comprehensive Thematic Study on the Maritime Silk Routes, and encourages the development of a transnational dialogue on this theme.

The State Party of China represented by the People’s Government of Quanzhou City decided to request advisory assistance by ICOMOS based upon the World Heritage Committee Decision.

The objectives of the ICOMOS Advisory process were the following:

• Further refine the justification for inscription of the nomination through documentary and other evidence in order to explore the significance of Ancient Quanzhou during the Song and Yuan Dynasties within its geo-cultural context […]
• Consider key areas/components of potential value in relation to how they reflect the greatest period of prosperity of the city and its key characteristics through its cultural and economic exchanges and developments;
• Better describe the boundaries and buffer zones of each of the nominated property components in relation to their ability to enclose and protect the nominated serial property;
• Discuss the state of conservation of Quanzhou and the conditions of authenticity and integrity;
• Consider whether this nomination might, on the basis of this further work, have the potential to demonstrate Outstanding Universal Value and what might be the supporting attributes and suitable World Heritage criteria.

The ICOMOS Advisory process (January – July 2019) included desk reviews and one mission, held by one ICOMOS advisor and one expert on Asian ports and maritime exchanges.
Consultations
In 2017, ICOMOS consulted its International Scientific Committee on Underwater Cultural Heritage, on Historic Towns and Villages, and several independent experts.

Technical Evaluation Mission
An ICOMOS technical evaluation mission visited the nominated property from 24 to 29 September 2017.

Being a referred-back nomination, the timeframe for the evaluation did not allow for seeking additional desk reviews. No mission was deemed necessary by the 2019 November ICOMOS Panel, as in October and November 2019 the State Party submitted further information on the research and activities carried out since the end of the Advisory process.

Additional information received by ICOMOS
Being a referred-back nomination, the timeframe for the evaluation did not allow additional information to be requested from the State Party.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and the documentation provided during and after the Advisory process contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and History
Quanzhou is located on the central southern coast of China. It has grown up on narrow plains formed by the Jinjiang and Luoyang Rivers delimited to the north by the impenetrable Daiyun and Wuyi mountain ranges and to the south by the ocean. This stretch of coast is rather jagged and it forms a deep bay at the end of which Quanzhou is located.

The revised nomination provides for a specific geo-historical background context to explain the key role played by Quanzhou (known as Zayton in Arabic and western texts) in the 10th – 14th centuries AD and sets out the factors that made Quanzhou excel as a maritime emporium in the Song–Yuan period, a highly significant period for maritime trade in Asia, and clearly links these factors to the nominated component parts.

The initial nomination included sixteen component parts. Through its revision six component sites and contributing elements have been added to the series. A more contextual approach has been adopted in the revised nomination dossier and, on the basis of the wealth of scholarly research on Quanzhou, six key factors have been identified as crucial for the flourishing of Quanzhou as a successful port:

- Institutional guarantee
- Multi-cultural communities
- Structure of the city
- Production sites
- Transportation network
- Overall Layout

Each of them is further articulated into simpler elements.

For this reason, the following description of the components presents them according to the above-mentioned factors, being aware that both components and contributing elements reflect more than one factor, as clearly illustrated in the nomination dossier.

The revised nomination has modified the boundaries of the nominated components so as to reduce the fragmentation that characterised the original nomination. For instance, in the Old Town of Quanzhou, seven contributing elements have been connected through key urban stretches, surviving stretches of the Bagua Ditch and of the East Moat, which delimited the town in the relevant historical period, thus forming one single component site. The Estuary docks’ contributing elements have been merged into one single component with the Zhenwu Temple.

Institutional guarantee factor
An effective institutional system was necessary for a port to thrive as a maritime hub. In Quanzhou this system has two facets; the Imperial official trade institutions and the local sea god beliefs.

Jiuri Mountain Wind-Praying Inscriptions
This component, already included in the previous nomination, records prayers and ceremonies for smooth sea voyages, and reflects the uncertainty of navigation at the time. Ceremonies were organised to pray to King Tongyuan, god of the sea. There are 10 well-documented carvings, the earliest dated to between 1174 and 1266, reflecting sailing traditions during different seasons of the year.

Site of Maritime Trade Office
This is a newly-added contributing element, which resulted from recent archaeological research and excavations. The Maritime Trade Office was known from archival sources, but its archaeological remains have only recently been discovered. The establishment of this Office in 1087 was key to boosting Quanzhou’s growth as a hub of maritime trade and cultural exchanges, granting the city the right to take part in international exchange. It was located in the southern part of the city along the Jinjiang riverbank. The archaeological excavations are ongoing but have already yielded abundant archaeological evidence.

Site of Deji Gate
This contributing element, also known as ‘south city gate’ and already included in the initial nomination, is an excavated archaeological site, located in the southern part of Old Quanzhou. Built in 1230 (Song Dynasty), with
repaids in the Yuan, Ming and Qing Dynasties, this is the only site remaining of the seven gates of Quanzhou. Archaeological excavations in 2001 revealed the extent of the site, as well as carvings relating to Hinduism, Nestorianism, Islam and Buddhism during the Song and Yuan Dynasties.

Tianhou Temple
This is the oldest and most important existing temple for worship of the sea goddess Tianhou (or Goddess Mazu). The temple was constructed in 1196. The Song Dynasty stone foundations remain, and the wooden structure preserves the original features of the Qing Dynasty. The Temple was restored in the 1990s with money from government and private funding.

Zhenwu Temple
This contributing element was already included in the previous nomination. It was used for the worship of Emperor Zhenwu, a Taoist deity and god of the sea. Constructed between 967-990 (Song Dynasty), the preserved Song Dynasty features include the stone foundations, platform base, section of pavement, and carved lions on the staircases. The wooden features were restored in the Qing Dynasty.

The multi-cultural communities factor
The prosperity of Quanzhou as a maritime emporium owed much to the presence of foreign merchants and their communities which, along with the imperial clans, local elites and Chinese traders, formed the social fabric of the city and projected it into a global trade dimension.

Site of the Southern Clan Office
This archaeological site is a newly-added contributing element. The arrival of the Zhao-surnamed Imperial Clan of the Song Dynasty and the relocation to Quanzhou of their Office gave a strong political status to the city and further stimulated its economy through high demand for luxury products and direct involvement in trade of the clan's members. The site yielded important information on the imperial clan.

Confucius Temple and School
Located in the centre of the ancient city, this contributing element features architectural elements of the Song, Yuan, Ming and Qing Dynasties in south-east China. Constructed from 976, the complex was the highest educational institution in Quanzhou, which turned out the intellectual and political elites. Its religious and educational activities continue to be carried out to this day.

Kaiyuan Temple
This contributing element was already included in the initial nominated series. This temple is notable because it incorporates Asian and western cultural influences, including Buddhist and Hindu elements. The temple was built in 686 (Tang Dynasty), but its layout has changed over time. The complex includes a scripture repository with 27,000 texts. The Houzhu shipwreck is also preserved at the premises of the temple, attesting to Quanzhou's ship-building technology.

Statue of Lao Tze
A Stone Statue of the founder of Chinese Taoism made in the Song Dynasty is located in a scenic reserve outside Quanzhou. It represents the cultural diversity of this area.

Qingjing Mosque
Located in downtown Quanzhou, the Masjid al-Ashab is one of China's earliest mosques and demonstrates the introduction of Islam to China via the maritime trading routes. Constructed in 1009 (Song Dynasty), the mosque was restored by Ahmad hen Muhammad Quds and the famous al-Hajj Rukn al-Shirazi, in 1310. Inscriptions demonstrate that the mosque was built by business-people involved in maritime trade.

Islamic Tombs
The tombs are located in the foothills of Lingshan Mountain. They are believed to be the resting places of two Muslim people who reached Quanzhou in the 7th century AD. They were renovated in 1322 (Yuan Dynasty) and restored in 1962.

Statue of Mani in Cao'an Temple
This monument is the world's only remaining stone statue of Mani, the founder of Manichaeism or Zoroastrianism, which was introduced to China around the 6th-7th centuries. Originally built as a thatched building, the stone temple was built in the Yuan Dynasty. Some Yuan Dynasty features remain, and other elements were rebuilt in the modern period.

The structure of the city factor
The structure of the city is well illustrated by the urban component which connects, through the street network, the ditch and the moat, seven contributing elements – the Site of the Maritime Trade Office, the Site of the Southern Clan Office, Kaiyuan Temple, the Confucius Temple and School, the Qingjing Mosque, Tianhou Temple, the site of the Deji Gate - which also reflect other factors underlying Quanzhou's success as an emporium.

The production sites factor
Key for the success of an emporium was the capacity to produce large volumes of commodities that could be sold or exchanged competitively in overseas markets. Quanzhou's main export products included silk, cloth, porcelain, ceramics, copper, iron, silver and gold, although silk, porcelain and iron were the most important and widespread ones.

Sites of Cizao Kilns
The Kiln Sites at Jinjiaoyi Hill were built in the 10th century and abandoned in the 14th century. They are evidence of the prosperity of trade in these periods. Quanzhou has a high density of such kilns - more than 150 are known. Cizao kiln products have been found in archaeological excavations in South-east Asia, South Asia and East Africa, and in shipwrecks in the Xisha
Sites of Dehua Kilns (Weilin-Neiban Kilns, Qudougong Kiln)
The Weilin-Neiban Kilns and the Qudougong Kiln are a newly-added. They are located some 70km northwest of Quanzhou, in the Daiyun Mountains, which offered abundant and high-quality resources for porcelain production. Different types of kiln have been excavated, including a multi-chambered dragon kiln, and porcelain clay-processing workshops as well as remains of green-white and white porcelain. The products were transported by water through tributaries of the Jingjiang River.

Xiaocaopu Iron Production Site of Qingyang Village in Anxi
This newly-added component part represents the production of iron which was traded from Quanzhou port. The site is located some 70km northwest from Quanzhou and was connected via waterways to the port. The site includes a mine and a smelting plant (bloomy smelting and blast furnaces). It is one of the few sites where a complete production system can be found.

The transportation network factor
The success of Quanzhou as a global emporium could not be achieved without an efficient water-land transportation system to distribute rapidly the merchandise as well as a sufficient number and types of docks to load and unload the cargoes from the ships.

Shihu Dock
This dock is located in the outer port of Quanzhou and is believed to have been constructed between 713-741 (Tang Dynasty). The dock has an important strategic position, facing the mouth of the main channel. In 1068 (Song Dynasty) a fortress was built over the water here, along with a bridge, paths and stairs. The dock was restored several times during the Song Dynasty, and the Song Dynasty stone foundations remain.

Wanshou Pagoda
This is a five-storey stone pagoda constructed between 1131-1162 (Song Dynasty), situated at the highest point of Quanzhou Bay. The State Party considers that it acted as a navigation marker for the port. A ‘calabash’-shaped top was added in 1981.

Liusheng Pagoda
This is a five-storey stone pagoda overlooking Shihu Dock. Its construction began in 1111 (Song Dynasty), and a restoration financed by a maritime businessman occurred in 1336-1369 (Yuan Dynasty), reflecting the prosperity of Quanzhou in the 14th century. The nomination dossier illustrates how the pagoda acted as a navigation marker for the main channel. The pagoda was restored in 1982.

Estuary Docks
The Meishan Dock and Wenzing Dock (Estuary Docks) were built in the Song Dynasty and are located at the juncture of the river and the sea. These stone docks were important for commerce and the coastal defence of Fashi Port, one of the most prosperous of Quanzhou’s ancient ports. Surveys in the 1950s and 1980s have found a shipbuilding site, stone anchors and several stone Islamic tombs in this area. There is one shipwreck located within the land area of this component. These docks were restored in 2002.

The Luoyang Bridge (Wan’an Bridge)
This component was built between 1053 and 1059 (Yuan Dynasty) and was the first flat-beam sea-crossing stone bridge in China. The bridge made land-sea transport possible and brought Fuzhou and other cities within the reach of Quanzhou port. The Song Dynasty foundations are preserved, along with Ming Dynasty restorations, and further restorations in 1993-1996.

Anping Bridge
This is a newly-added component site. The bridge (2,255m long) is located some 30km south of Quanzhou city and it was the main connection with Zhangzhou and Guangzhou to the south and Anhai port, which was part of the regional maritime infrastructure of Quanzhou. It was built between 1128 and 1152 AD.

Site of Shunji Bridge
This newly-added component site was the main access to the ancient commercial district in Quanzhou and facilitated the transportation of goods. It was built near the Deji Gate to cross the Jinjiang River towards the south. It was built in 1211 and it remained in use until the 20th century. It partially collapsed in 2005-2006 due to the impact of floods.

Between the 10th and 14th centuries across maritime Asia, a complex and intense maritime network flourished into what scholarly research has defined as the “first global system”. Within this system Quanzhou served as the focal point of the trade, rapidly surpassing Guangzhou, which had dominated maritime trade since the Tang Dynasty.

The beginning of the growth in importance of Quanzhou as the most prosperous port during the Song and Yuan dynasties cannot be fully traced, according to scholars. Some consider that early signs of maritime trade developments emerged as early as the 8th-9th centuries. However, from the 10th century onwards Quanzhou witnessed important growth in maritime trade that turned it into an important emporium.

This success was achieved thanks to geographical conditions, such as the deep waters of Quanzhou Bay, the accessibility to the city waterfront through the Jinjiang river, complemented by the presence of Persian, Arab and Indian merchants, and consciously-pursued efforts, e.g., making available docks at different locations in the bay and along the river, improving the north-south transportation system, exploiting the hills behind the port-
city for ceramic and metal production, and using the rivers for goods transportation. Eventually a Maritime Trade Office was created (1087 AD) which granted Quanzhou the privilege of becoming an official zone for foreign economic and cultural exchanges. Later, the Southern Imperial Clan Office was also established, further contributing to the flourishing of the maritime trade.

The Yuan Dynasty further boosted maritime trade and the success of Quanzhou, strengthening connectivity among ports along the southern coast of the continent and giving prominence to foreign merchants and achieving a concentration of wealth and power in the hands of a few people.

With the collapse of the Yuan Dynasty, and the rise of the Ming Dynasty, many merchants fled to South-east Asian and Quanzhou declined.

**Boundaries**

The area of the 22 nominated components and contributing elements totals 536.08 ha, with buffer zones totalling 11,126.02 ha.

The nomination dossier describes the rationale adopted to delineate the boundaries of the nominated components.

The buffer zones have been established generously, to protect the immediate setting, important views and other attributes functionally important for the protection of the components. The nomination dossier also includes larger delineated wider setting zones.

The protection measures established for the buffer zones derive from protective designations and conservation plans. Further details can be found in the relevant section of this report.

However, ICOMOS notes that the maps provided in the revised nomination dossier distinguish component parts of the series from contributing elements that are located within each of them. In addition, some of the maps, in particular the one presenting the Old Town of Quanzhou shows 8 individual component parts – as presented in the Identification of the property section of the nomination dossier, with their own surface area – but which seem, on the maps, connected altogether, except for one of them, through a network of streets, bridges, canals, as if they were forming a unique and individual component part. Furthermore, ICOMOS notes that some captions of the maps are not clear enough when presenting what constitutes the component part in itself, and what are the contributing elements of the component (this is the case for the map related to the Zhenwu Temple and the Estuary docks, for example).

ICOMOS considers that the setting of all components and contributing elements should be closely monitored to avoid further changes that can negatively affect their them as well as the ability to understand their value and meaning, as has happened with some components.

On the other hand, the wider setting of the nominated series has changed dramatically since the 1980s, due to rapid socio-economic transformation, development and population increases.

**Factors affecting the property**

Based on the information provided by the State Party and on the observations of the 2017 ICOMOS technical evaluation mission, ICOMOS observes that the state of conservation of the component parts that could be visited at the time can be considered overall good, although all are subject to several processes of restoration and reconstruction, especially architectural monuments. The documentation transmitted by the State Party in October and November 2019 suggests that the measures recently undertaken at newly-added sites are in line with the ICOMOS Advisory process recommendations.

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**Factors affecting the property**

Based on the information provided by the State Party and on the observations of the ICOMOS technical evaluation mission carried out in 2017 to the initial nominated series, ICOMOS considers that the main factors affecting the property are:

- Development pressures, particularly those components located in the urban or peri-urban contexts, which are subject to urban renewal, upgrading of infrastructure, changes in land-use and spatial organisation, and housing construction;
- Vulnerability to climate change, particularly the Shihu and Estuary Docks as well as the bridges; lightning might be a danger for the Pagodas, whilst termites might threaten the wooden structures.
The State Party has put in place a variety of protection systems, including flood control measures, lightning protection and fire control systems, disaster prevention and early warning systems.

Although Quanzhou has experienced increasing visitor numbers - in 2014 44.283 million visitors were recorded and in 2016 some 10 million people visited 16 out of the 22 nominated components – the State Party considers that the nominated components are not among the most visited sites. However, plans for tourist management, flow monitoring system and improvement of visitor services, based on carrying-capacity indicators, have been developed to prevent potential impacts from an increase of visitors.

ICOMOS considers that the boundaries of the nominated property and of the buffer zone are adequate. The state of conservation of the components of the nominated series is overall good, although less so for the setting of some of them. The major factors affecting the property are urban development, infrastructures, climate change, particularly floods and storms, and potential visitor pressures. The State Party has prepared strategies and measures to counteract these factors.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Quanzhou was the fulcrum of a vast trade system across maritime Asia in the 10th-14th centuries AD as well as the gateway to Song–Yuan China and from it to the outside world;
- The serial nomination reflects in an exceptional manner the factors that made it possible for Quanzhou to become a global maritime emporium in the 10th-14th centuries: a highly integrated territorial system, combining production and efficient transportation, institutional support, cosmopolitanism, and interchange between agricultural and commercial civilisations.

Comparative analysis
The comparative analysis has been developed on the grounds of the following parameters:

- Port cities and maritime emporia throughout the world
- Period of development (10th – 14th centuries – the “first global trade system”)

The conclusion of the comparative analysis is that no property from Asia is inscribed on the World Heritage List under this theme and for this period. Quanzhou would complement the depiction of the Asian maritime trade system illustrated by World Heritage properties and tentative list entries and would illustrate the flourishing of a global maritime trade system before the arrival of the Europeans in the region. The other two Chinese ports examined by the comparative analysis are seen as complementary.

Although Quanzhou has experienced increasing visitor numbers - in 2014 44.283 million visitors were recorded and in 2016 some 10 million people visited 16 out of the 22 nominated components – the State Party considers that the nominated components are not among the most visited sites. However, plans for tourist management, flow monitoring system and improvement of visitor services, based on carrying-capacity indicators, have been developed to prevent potential impacts from an increase of visitors.

ICOMOS considers that the boundaries of the nominated property and of the buffer zone are adequate. The state of conservation of the components of the nominated series is overall good, although less so for the setting of some of them. The major factors affecting the property are urban development, infrastructures, climate change, particularly floods and storms, and potential visitor pressures. The State Party has prepared strategies and measures to counteract these factors.

The twenty-two components and contributing elements have been selected as the best or only surviving tangible components reflecting one or more of the key factors underlying the success of Quanzhou as a global maritime emporium. The nomination dossier provides a detailed justification of the rationale that was followed to select the component parts and the contributing elements.

ICOMOS observes that the comparative analysis could have developed further the analysis of port cities active in the relevant historical period inscribed on the World Heritage List from other regions. It could also have considered other port cities in China, particularly Hangzhou (Lin’an), the capital city during the Southern Song period. ICOMOS also notes that the conclusions are oriented not only to demonstrate the relevance of Quanzhou for the World Heritage List but also to outline a distinct profile for all three cities – Quanzhou, Guangzhou and Ningbo.

Notwithstanding the shortcomings highlighted above, ICOMOS considers that the nominated serial property justifies consideration on its own merit.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.
Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the nominated serial property would reflect in its spatial structure economic and cultural interchanges between the agricultural civilisation of the Eastern Asian Empire and the maritime commercial civilisations in the Asian trade network between the 10th – 14th centuries; it would exhibit, in its architecture and landscape, blending Chinese and foreign styles, cultural interchanges among cultures - the Chinese Empire mainstream, the local and foreign cultures.

ICOMOS considers that only some of the surviving physical monuments of the serial property demonstrate some interchange of human values as reflected by both local and imported influences, primarily in terms of architectural elements. On the other hand, most of the component parts reflect the values of specific cultures, rather than a materialisation of cultural interchange. Additionally, it is difficult to see how the few tangible examples of this interchange can be seen as significant in a World Heritage context, or how the serial property as a whole demonstrates this criterion, as component parts only reflect specific aspects of the system. Other places in the world exhibit similar cultural interchanges during this and other periods that have had a fundamental rather than incidental influence on their physical form.

ICOMOS further considers that the interchange between the Chinese agrarian civilisation and the local and foreign maritime trade-based civilisations might be reflected by the historical and economic story of Quanzhou as an emporium, but it cannot be said that the serial property is able to reflect as a whole such interchange.

ICOMOS does not consider that criterion (ii) has been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the property would provide a full picture of a successful maritime trade system which was put into effect in the 10th – 14th centuries and made Quanzhou a window for economic and cultural exchanges; it would bear witness to the great tradition of maritime trade defined by diversity and common prosperity, which emerged in Quanzhou, by balancing official and unofficial institutions, cross-sectoral and inter-regional development, sharing of economic opportunities, inclusive coexistence of different cultures.

ICOMOS considers that the first argument put forward to justify this criterion is better reflected by criterion (iv) than criterion (iii).

The second set of arguments presented to support criterion (iii) does not appear specific to Quanzhou but commonplace for most of the successful port cities and emporia throughout the world – inscribed or not on the World Heritage List - and at different moments in history. Cultural coexistence in the name of economic prosperity and advantages, regional interconnection and complementarity, balanced regulating role of institutions, are common traits of several similar properties throughout the world and would not make Quanzhou (or any of the other ones) stand out compared to several other similar properties.

ICOMOS does not consider that criterion (iii) has been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that Quanzhou would be an outstanding example of an emporium which played a role as the fulcrum and the engine of maritime trade in Asia between the 10th and 14th centuries. Quanzhou exhibits an integrated regional and territorial structure featuring a production dimension, connectivity and transportation, and marketing functions.

ICOMOS considers that the nominated serial property reflects in an outstanding manner through its components, their reciprocal location and related function, the territorial organisation and integration into one system of the key factors and their tangible manifestations (institutional offices, religious buildings, production sites, transportation infrastructure elements, harbours and docks) that made Quanzhou excel as a maritime emporium in the Song–Yuan period, which was crucial in terms of the global development of maritime trade in Asia and beyond.

ICOMOS considers that criterion (iv) has been justified.

ICOMOS considers that the nominated serial property meets criterion (iv), whilst criteria (ii) and (iii) have not been demonstrated.

Integrity and authenticity

Integrity

The nomination dossier maintains that the nominated serial property includes all components and contributing elements that illustrate their reciprocal functional,
spatial, social and cultural links. They reflect as a whole a set of processes and key tangible elements and intangible factors of Quanzhou’s success as a global maritime emporium in the 10th – 14th centuries AD. The nomination dossier then analyses the specific level of integrity of each component part and contributing elements also in relation to the role of the buffer zones and of the wider setting.

ICOMOS considers that the rationale for the serial nomination has been strengthened in the revised nomination dossier; the role of each component in contributing to the series has been explained, thereby resolving the major issues raised with regard to integrity of the initial nominated series. The initial fragmentation and disconnection of the components of the series has been reduced, by grouping contributing elements in larger component parts and by providing an overall narrative that strengthens the functional links among components. Therefore, the revised nominated series can be said to illustrate the key factors that made Quanzhou a prosperous international hub of maritime trade between East Asia, Europe and the Arab region and to convey its proposed Outstanding Universal Value, although not under all proposed criteria.

The assessment that was carried out by ICOMOS on the basis of the 2017 technical evaluation mission of the original nomination is still valid for some components, particularly with regard to the visual impacts suffered by some components due to developments or substantial restoration works. Urban development pressure still represents an important affecting factor that must be kept under control: a system for management and protection has been set up for clearly demarcated areas (buffer zones and wider setting zones).

Authenticity

The nomination dossier holds that the nominated series truthfully and credibly reflects the overall territorial layout, the historical functions, social structure and historical chronological information of Quanzhou as a global-level maritime emporium during the Song and Yuan Dynasties. All component parts and contributing elements reflect in a credible manner the proposed justification for inscription through their original location, the information yielded through archaeological research, their form and materials, traditional maintenance systems, and technical systems reflected in the physical remains.

ICOMOS considers that the revised nomination dossier has considerably expanded the overall description and contextualisation of Quanzhou as a maritime emporium and has clarified the contribution of each component part and contributing element as a tangible reflection of the key factors that turned Quanzhou into a successful global hub for maritime trade with commercial outreach in South-East Asia, the Arab Region and beyond.

For some components the assessment made by ICOMOS in the evaluation of the original nomination is still valid, particularly with regard to extensive restoration or reconstruction. On the other hand, newly-added archaeologically researched component parts seem to exhibit a high capacity to yield authentic information on the production processes.

For some component parts, no visit could be made during the advisory mission; however, the work carried out at these sites has been considered by ICOMOS in line with the Advisory process recommendations.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met for the whole series, although there is a need to ensure robust protection from potential further urban development that might undermine the understanding of the role of each component and to provide for a strong presentation and interpretation programme for the whole series at each component part.

Evaluation of the proposed justification for inscription

The revised nomination dossier has been able to provide an overall and specific geo-historical background context that explains how Quanzhou flourished and excelled as a global-level maritime emporium in a period – the 10th - 14th centuries – which was highly significant for maritime trade in Asia and was defined as the “first global system” by scholars.

The revised nomination has been able to tie together the nominated components through one single narrative that explains the key factors of Quanzhou’s success as a wealthy maritime hub. The addition of further components and contributing elements also expand the facets of this economic and territorial system that developed to turn Quanzhou into a competitive emporium.

The comparative analysis suffers from some shortcomings in terms of methodology, but its conclusions are overall adequate.

The proposed Outstanding Universal Value appears coherent with the narrative presented in the nomination dossier and with the nominated components forming the series. However, out of the three proposed criteria – (ii), (iii) and (iv) – only criterion (iv) has been justified by the series as a whole and by the contribution offered by each component part. Criterion (ii) could be applicable to some of the components, but not to all of them, and where this interchange is materialised it appears ‘incidental’, e.g., limited to individual architectural elements, rather than substantial. The arguments presented to support criterion (iii) appear to be commonplace among port cities or emporia, across the world and the centuries, and do not suggest that Quanzhou would be unique or exceptional.
Efforts have been made to reduce the fragmentation of the components, by grouping some of them into larger components, thereby overcoming the major issues concerning the integrity of the series. Expanded buffer zones contribute to strengthening the integrity of each component part. However, considering the dramatic changes suffered by the wider setting of most of the component parts of the nominated series, careful control to prevent further modifications to the immediate or wider contexts of the components is necessary. Also, a careful interpretation programme is needed to facilitate the understanding by the public of the territorial system of this emporium at the time of its apogee. Long-term archaeological research will also contribute to enriching the comprehension of the nominated series and of the system as a whole, in combination with the wealth of scholarly research that has been accumulated and will continue, thanks to the rich archives. In this regard, active protection of still-surviving ancient documents and archives is crucial for enriching the understanding of Quanzhou as a maritime emporium.

**Attributes**

The geo-morphological setting of Quanzhou Bay, the Jinjiang and Luoyang Rivers, against the backdrop of high mountains, are the natural conditions that favoured the flourishing of several ports and docks at different locations, facilitating loading and unloading of cargoes. The construction of bridges and roads improved the connectivity between the port area and the inland, and the presence of the rivers facilitated rapid transportation of products from the hinterland to the port. All component parts and the contributing elements are essential to understanding this territorial system as well as their setting and the reciprocal visual relationships. This holds true particularly for the two pagodas, whose inter-visiblity, where this survives, with other port elements and the sea must be maintained and enhanced. Within the urban component comprised within the Old Town of Quanzhou, the orthogonal intersection between the two main urban stretches, the Bagua Ditch, and the East Moat, is a key attribute for the understanding of the urban layout of Quanzhou. As a matter of fact, the whole of Quanzhou Old Town, in the buffer zone, includes attributes that are functionally important as a support to the property and its protection as well as its understanding.

The almost intact setting of the hinterland production sites is also very important for the understanding of the functional role of these components, as well as any elements related to the ancient transportation system. ICOMOS considers that the proposed justification for inscription is consistent with the historic development of Quanzhou and the tangible and intangible evidence that is reflected by the components of the nominated serial property. Only criterion (iv) among the proposed three has been justified. The conditions of integrity and authenticity of the series have been met, although the dramatic changes to their settings require strong control over possible further modifications and a robust interpretation programme for the whole series. The management entity is aware of these needs and has set up measures to avoid further depletion of the setting of the components of the nominated series.

### 4 Conservation measures and monitoring

**Conservation measures**

The revised nomination dossier informs that routine maintenance and monitoring are regularly implemented and that conservation interventions have been carried out at several component parts.

Conservation principles – and the definitions of repair and restoration – are established by the national law for cultural heritage as well as relevant international texts, the Beijing Document (2007) and the ‘Principles for the Conservation of Heritage Sites in China’ (2015).

The dossier presents a synoptic table summarising the main conservation and maintenance measures carried out at the various component parts in the late 20th and 21st centuries in relation to the main specific impacting factors. Some component parts and contributing elements have conservation plans developed (e.g. Kaiyuan Temple, Confucius Temple and School, the Site of the Dehua Kiln); for other components, conservation plans are being prepared and at newly-added components conservation has been improving.

Traditional conservation skills have been maintained and these prove useful for maintenance and repair of the components.

The management entity and its dedicated structures has elaborated a long-term plan for archaeological research and protection. The remains discovered in 2019’s archaeological surveys have been protected.

ICOMOS considers that the assessment ICOMOS made for some of the component parts already included in the original nomination are still valid today, particularly with regards to past restoration interventions and the high standards applied to more recent conservation work.

For the sites that could not be visited by the advisory mission, ICOMOS considers that the newly-developed work is fully in line with implementing the recommendations of the Advisory process, on the basis of the updated documentation provided by the State Party in November 2019.

**Monitoring**

The monitoring system links monitoring objectives, monitoring targets and indicators. Complex indicators are broken down into simpler ones. The system envisages the appropriate cycle and responsible entity. The aspects being monitored include the overall spatial structure and landscape setting of the components, their heritage fabric, the links between the nominated series and its social context, and tourism. Specific administrative
arrangements have been set up: different departments of the municipal administration are assigned to monitoring tasks and report relevant data and information to the Quanzhou Heritage Protection and Management Centre which aggregates the data. Quarterly working meetings on heritage conservation are organised to update the Management Group of the nominated property.

ICOMOS considers that a comprehensive monitoring system has been established for the nominated property, which takes into account key complex attributes and impacting factors. Streamlining monitoring indicators, affecting factors and World Heritage Periodic Reporting questionnaire would facilitate this exercise and facilitate comparability of data.

ICOMOS considers that conservation measures in place are adequate to ensure that the conditions of integrity and authenticity of the component parts and of the contributing elements are sustained over time. The monitoring system is adequate for the nominated series.

5 Protection and management

Documentation
The revised nomination dossier is based on extensive documentation of the component parts and contributing elements, deriving from research and conservation interventions. This documentation is being augmented through further archaeological research and monitoring activities. It is of the utmost importance that conservation of the documentation of conservation and maintenance work is kept for future works and consultation.

Legal protection
The Law of the People’s Republic of China on the Protection of Cultural Relics (latest revision 2017) and its implementing regulations set out protection requirements for State Priority Protected Sites. Eighteen among the component parts and the contributing elements enjoy this type of designation. At the provincial level, the Regulations of Fujian Province for the Protection and Management of Cultural Heritage (1996, revised 2009) provides for protection and management frameworks for protected cultural heritage. Four component parts are protected at the provincial level.

The Regulations of Quanzhou City for the Conservation of Historic Monuments and Sites Relating to the Maritime Silk Road defines responsibilities at different levels.

Quanzhou historic town is protected as National-level Famous Historical and Cultural City. For this type of protected property regulations exist at the national and provincial levels. Some components are also protected as national scenic areas, whilst other ones are included within marine conservation zones.

Components protected as priority protected sites enjoy ad-hoc management plans (e.g. Kaiyuan Temple, Confucius Temple and School, Dehua Kilns, Famous Historical Cultural City of Quanzhou, Scenic Area of Qingyuan Mountain).

A four-tier administrative system for implementing protection measures exists from national to site levels.

Protection and management entities exist for all components/contributing elements. The national, provincial and municipal levels provide for guidance and supervision through regulations. Protection and management implementation is exercised at the county, city and district levels.

Management system
The legal and institutional frameworks at the national, provincial, municipal and township/district levels provide for the overall governance framework.

Quanzhou Municipal People’s Government has established a working group involving representatives from 12 relevant municipal departments and 9 administrative divisions (county level), responsible for coordination, management and decision–making.

Direct management responsibilities fall on different administrative divisions which oversee the offices directly responsible for the daily management of the different components and contributing elements. A coordinating meeting is held quarterly to align criteria, ensure coherence of action in implementing plans, and discuss results on the basis of the existing legal and planning framework.

The management plan for the originally-nominated serial property was revised in 2019 to add the additional components and it has been streamlined with conservation plans for specific components, attaining approval in 2020. The management plan summarises the management objectives for the overall series, the background documents, the current state of the management, the management needs, requirements and measures for each component, and the management entity responsible for implementing those. The management plan also includes an outline of the objective for a research plan.


Religious places are managed following State Regulations on religious affairs (revised 2017) and on the basis of the Quanzhou management system for
eight religious places, covering a variety of management tasks.

For each of the component parts, a management system has been set up addressing heritage safety, archival management, maintenance/repair, visitor safety, patrolling, emergency plan, and visitor regulations.

In total, 16 different management entities are responsible for the daily management of the components and contributing elements. These management units are coordinated by a different department of Quanzhou Municipal People’s Government.

Risk and emergency management is addressed at the component level by ad–hoc instruments.

Visitor management
Various components enjoy visitor facilities such as parking lots and restrooms, and most of them offer exhibitions, signage and brochures. The Quanzhou Maritime Museum presents permanent exhibitions on different facets of the history and significance of the nominated property. Also religious places offer a variety of cultural events and proposals, beyond their religious functions. The nomination dossier details the visitor offers at different components. The main forms of presentation are museum and on-site presentation.

To ensure that the nominated serial property is promoted in coherence with its proposed Outstanding Universal Value but also to stimulate the participation of private organisations in this undertaking, the presentation of the nominated property has been included in the evaluation index of the City’s tourism department.

Community involvement
This aspect has not been specifically addressed by the revised nomination dossier; however, information on the consultations held with residents was provided for the original nominated series. At that time, ICOMOS did not identify any significant issue on community involvement.

Interpretation and presentation programmes explicitly address local society.

ICOMOS recommends however that communities living in the surrounding areas of newly-added components, particularly those located in the hinterland, be adequately informed about the nomination process and the values of these sites as part of the nominated series.

Evaluation of the Effectiveness of the Protection and Management of nominated property
All components and contributing elements of the nominated series enjoy protection designations according to national or provincial legislation on heritage protection. A number of them are covered by multiple designations. Protective measures are established through a multi-tiered regulatory framework and planning instruments. Conservation and maintenance are programmed through ad-hoc plans, either existing or under preparation.

The management system is multi-tiered from the national to the county/district level. Pivotal to the management system is the Quanzhou Municipal People’s Government which has set up a working group meeting quarterly for coordination and implementation purposes.

An updated Management Plan for the Serial Property of Quanzhou has been prepared and approved and it has been streamlined with other planning documents.

ICOMOS considers that legal protection and protection measures are well articulated and adequate.

ICOMOS observes that the management system set up is very articulated and comprehensive. Given the high number of administrative structures involved and the multiple tiers of governance, proactive coordination and communication efforts will be needed to guarantee its effectiveness.

The management plan outlines the key management elements, and it represents a sound basis for coordinated management implementation. However, further work would be needed to specify further the attributes and, from a management perspective, a more explicit link between the existing or planned specific conservation/management plans for individual components and the overall management plan and its objectives would assist in effective implementation. The plan for research, particularly archaeological investigation, would need to be further developed.

ICOMOS considers that legal protection and protective measures are adequate. The management system is adequate but, given its complexity and numerous actors, would require continuous coordination. The management plan for the nominated serial property represents a good basis for coordinating management implementation but would need further work on attributes, strengthening the interlinkages with specific plans for individual components, and expanding the archaeological research programme. Also closely monitor visitor pressures and implement measures to reduce them if and when needed.

6 Conclusion
Quanzhou: Emporium of the World in Song–Yuan China is a revised and augmented serial nomination that reflects the way in which Quanzhou arose as a global maritime emporium and trade nexus between the 10th and 14th centuries.
The State Party has made a remarkable effort to revise the initial nomination in line with the World Heritage Committee recommendations and has fully harnessed the Advisory process. The revision of the nomination has helped augment the number of components and contributing elements and has provided an overall geo-historical narrative, both of which have greatly improved the legibility of the whole system that the series intended to reflect.

The revised nomination has been able to tie together the nominated components through one single narrative that explains the key factors of Quanzhou’s success as an exceptional maritime hub in the Song-Yuan period. The addition of further components and contributing elements also expand the facets of the economic and territorial system that developed to turn Quanzhou into a competitive emporium.

The proposed Outstanding Universal Value is coherent with the narrative presented in the nomination dossier and with the supporting attributes of the nominated components forming the series. The conclusions of the comparative analysis are overall justified and justify consideration of the revised series for the World Heritage List.

However, out of the three proposed criteria – (ii), (iii) and (iv) – only criterion (iv) has been justified by the series as a whole through the contribution of each component part. Criterion (ii) is not reflected by all components, and, where it is, is limited to minor elements. The arguments presented to support criterion (iii) appear to be commonplace among port cities or emporia, across the world and the centuries, and do not suggest that Quanzhou would be unique or exceptional.

To reduce the fragmentation of the previous nominated series, some contributing elements have been grouped into larger components and this has improved the overall integrity of the series. The expanded narrative has strengthened the credibility of the revised nominated series.

Expanded buffer zones contribute to strengthening the integrity of each component part. However, considering the dramatic changes suffered by the wider setting of most of the component parts of the nominated series, careful control to prevent further modifications to the immediate or wider contexts of the components is necessary. Also, a careful interpretation programme is needed to facilitate the understanding by the public of the territorial system of this emporium at the time of its apogee.

The major affecting factors for the nominated series include urban and infrastructure development, effects of climate change, and visitor pressures. The management authorities are well aware of these factors and mechanisms have been set up to control their evolution and potential negative effects.

Protective designations at different levels cover all component parts and protective measures are in place according to the legal and regulatory framework existing at the national, provincial and metropolitan levels.

The management system is multi-tiered from the national to the county/district level and includes several administrative divisions: it will require proactive coordination and communication efforts to guarantee its effectiveness.

An updated Management Plan for the Serial Property of Quanzhou has been prepared and approved: it represents a sound basis for coordinated management implementation. However, further work would be needed on attributes, and on strengthening the link between the overall management plan and the management instruments in place for individual components. The plan for research, particularly archaeological investigation, would need to be further developed.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that Quanzhou: Emporium of the World in Song-Yuan China, China, be inscribed on the World Heritage List on the basis of criterion (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

Located on the southeast coast of China, the serial property Quanzhou: Emporium of the World in Song–Yuan China reflects in an exceptional manner the spatial structure that combined production, transportation and marketing and the key institutional, social and cultural factors that contributed to the spectacular rise and prosperity of Quanzhou as a maritime hub of the East and South-east Asia trade network during the 10th – 14th centuries AD. The Song-Yuan Quanzhou emporium system was centred and powered by the city located at the junction of river and sea, with oceans to the south-east that connected it with the world, with mountains to the far north-west that provided for production, and with a water-land transportation network that joined them all together.

The components and contributing elements of the property include sites of administrative buildings and structures, religious buildings and statues, cultural memorial sites and monuments, production sites of ceramics and iron, as well as a transportation network formed of bridges, docks and pagodas that guided the voyagers. They comprehensively reflect the distinguishing maritime territorial, socio-cultural and trade structures of Song-Yuan Quanzhou.
**Criterion (iv): Quanzhou, Emporium of the World in Song–Yuan China outstandingly illustrates, through its components, the territorial integrated structure and the key institutional, transportation, production, marketing and socio-cultural factors that turned it into a global-level emporium and key commercial hub during a highly prosperous stage of Asia's maritime trade in the 10th - 14th centuries AD. The property demonstrates Quanzhou’s great contributions to the economic and cultural development of East and South-east Asia.

**Integrity**

The serial property includes the necessary components and attributes that reflect Quanzhou as a premier maritime emporium of the world of the 10th - 14th centuries AD. The components and contributing elements maintain close functional, social, cultural and spatial links with each other, altogether illustrating the integrated territorial system and key facets and factors of Quanzhou’s maritime trade system in the Song and Yuan periods. The immediate setting of the property, important views and other supporting areas or attributes, are all included in the buffer zone; areas sensitive to visual impacts and background environments demonstrating overall association with the serial property are all contained in demarcated wider setting areas and placed under effective protection. Urban development pressures, impacts from climate change, natural threats, and tourism pressures appear under effective control, through a set of protective and management measures.

**Authenticity**

The series as a whole, comprised of its components and contributing elements, credibly conveys the overall territorial layout, functions of the historical trade system, historical social structure, and historical chronological information of Quanzhou as a global maritime emporium in the Song and Yuan periods. Surviving original locations; information of historical functions that can be clearly recognized and understood; historical information of forms, materials, processes and traditional maintenance mechanisms and technical systems reflected in physical remains and their historical records, as well as surviving beliefs and cultural traditions that these monuments and sites carry; all testify to a high degree of authenticity and credibility of the components. The physical evidence can be confirmed by a wealth of historical documentation and Chinese and international research results.

**Protection and management requirements**

All the component sites of the serial property of Quanzhou are subject to the protection of relevant laws and regulations at the national and provincial level (Law of the People’s Republic of China on the Protection of Cultural Relics and its Implementation Regulations and the Regulations of Fujian Province on the Protection and Management of Cultural Property). They are all owned by the state and granted with often multiple protective designations as per laws and regulations governing Famous Historical and Cultural Cities, religious affairs, marine affairs, and Scenic Areas. Traditional maintenance and conservation mechanisms also play an active role in this regard. For protection and management effectiveness, the buffer zone and the wider setting have been incorporated into the property's protection and management system and are covered by the Management Plan for the Serial Property of Quanzhou, prepared and implemented, and the Rules of Fujian Province for the Protection and Management of Historic Monuments and Sites of Ancient Quanzhou (Zayton), as revised.

The property's management system is designed following China's administrative mechanism for cultural heritage and incorporated into the four-level administrative framework at national, provincial, city/county, and property levels. It is based on the principles of responsibilities designated at different levels, localized administration, and active community participation. A coordinated management system at the municipal level integrates management measures and implementation plans for each component. A management working group meets quarterly and guarantees overall coordination. Management entities provide sufficient financial, human and technical guarantees and enable continuous and proper conservation of the authenticity and integrity of the serial property as a whole and each of its component sites. A long-term protection and management strategy, indicating specific requirements, has been prepared for the series and its progressive implementation is crucial for the overall management effectiveness.

**Additional recommendations**

ICOMOS further recommends that the State Party give consideration to the following:

a) Providing the real extent of the component parts areas, as some of the provided surfaces are related to a contributing element only, and not to the whole surface of the component forming the series,

b) Further developing the analysis of the attributes expressing the Outstanding Universal Value of the property for management purposes,

c) Strengthening and making more explicit from an operational point of view the links between the overall management plan for the property and the other plans existing for individual components or other designations,

d) Further developing the archaeological research programme and implementing it,

e) Closely monitoring visitor pressures and implementing redressing measures where necessary,
f) Implementing steadily the Long-Term Protection and Management Strategy and providing a progress report on the implementation of the above and of the strategy itself to the World Heritage Centre for review by ICOMOS by 1st December 2022;
Maps showing the location of the nominated components (February 2020)
V Cultural properties

A Asia – Pacific
   Referral back nomination

B Europe – North America
   Referral back nominations
   Minor modifications to the boundaries
   Creation/modification of buffer zone

C Latin America and the Caribbean
   Creation/modification of buffer zone
Frontiers of the Roman Empire  
(Austria, Germany, Hungary, Slovakia)  
No 1608rev

Official name as proposed by the States Parties  
Frontiers of the Roman Empire – The Danube Limes  
(Western Segment)

Location  
AUSTRIA  
Federal State of Upper Austria (Oberösterreich):  
Administrative districts (Verwaltungsbezirke and Städte)  
of Schärding, Grieskirchen, Eferding, Linz, Land, Linz  
Federal State of Lower Austria (Niederösterreich):  
administrative districts (Politische Bezirke) of Amstetten,  
Melk, Krems, St. Pölten, Land, Tulln, Wien, Umgebung,  
Bruck an der Leitha  
City of Vienna (Wien): administrative district (Bezirk) of  
Innere Stadt

GERMANY  
Free State of Bavaria (Bayern):  
Regions (Regierungsbezirke) of Lower Bavaria  
(Niederbayern), Upper Palatinate (Oberpfalz); counties  
and municipalities (Landkreise and Städte) of Kelheim,  
Regensburg, Straubing, Deggendorf, Passau

HUNGARY  
Counties (megyék) of Győr, Moson, Sopron, Komárom,  
Esztergom, Pest, Fejér, Tolna, Bács-Kiskun, Baranya  
Budapest capital (főváros) and its III, V, XI, XXII districts  
( kerületek)

SLOVAKIA  
Bratislava Self-governing region (Bratislavský  
samosprávny kraj); administrative district of Bratislava  
Nitra Self-governing region (Nitriansky samosprávny  
kraj); administrative district of Komárno

Brief description  
The Danube Limes (Western Segment) extends to some  
997km along the upper reaches of the River Danube. It  
encircles most of the fortresses of the Roman Empire  
that formed the northern and eastern boundaries  
of the Roman provinces of Raetia (eastern part),  
Noricum and Pannonia.

First defined in the Flavian dynasty (69–96 AD) and later  
further developed, the fortifications along the Western  
Segment consisted of a continuous chain of military  
installations along the southern banks of the river rather  
than a continuous artificial barrier. Legionary fortresses,  
forts, fortlets, and watchtowers were laid out between 10  
and 30 kilometres apart. They were linked by an access  
road and serviced by the Pannonian fleet that patrolled  
the River Danube. Around the six legionary fortresses  
and some forts, sizeable civilian towns were developed  
to serve the soldiers and to spread Roman culture to the  
edges of the Empire.

Although primarily for defence, in peaceful times the  
Limes also controlled trade and access across the river  
with, in the west, Germanic tribes and, in the east,  
Iranian Sarmatians with whom the Roman Empire had  
diplomatic treaties.

What characterises this section of the Roman Frontiers  
in contrast to others, apart from its riverine setting, is  
the way the military strategies that evolved to counter  
threats emanating from sustained large-scale migrations,  
particularly in the later years of the Roman Empire,  
are reflected in surviving remains, such as  
temporary camps, bridgeheads and closely spaced  
watchtowers in what is now Hungary.

The remains of 175 structures have been nominated,  
including those of all six Legionary fortresses.

Over the last 2000 years the river has changed its course  
in places as a result of natural causes, interventions to  
improve the flow of water, and, more recently, the  
construction of dams and reservoirs. This has led to  
the partial or total destruction of a few forts and in places  
the separation of sites from the river. During the same time,  
many of the forts have become the nucleus of later  
settlements.

Category of property  
In terms of categories of cultural property set out in  
Article I of the 1972 World Heritage Convention, this is a  
serial trans-national nomination of 175 component sites.

1 Basic data

Included in the Tentative Lists  
Austria: 09 February 2015 as “Frontiers of the Roman  
Empire”;  
Germany: 04 February 2015 as “Frontiers of the Roman  
Empire - Danube Limes”;  
Hungary: 26 June 2009 as “Frontiers of the Roman  
Empire – Ripa Pannonica in Hungary”;  
Slovakia: 16 June 2002 as “Limes Romanus - The  
Roman antique monuments on the Middle Danube”.

Background  
This is a referred back nomination.

The nominated property was first nominated for  
inscription on the 2019 World Heritage List. In March  
2019, the State Party of Hungary sent a letter to  
ICOMOS informing them of possible reconstruction  
plans for the remains of Aquincum Palace on Hajógyári  
Island, across the Danube River, from the legionary  
fortress of Aquincum in what is now Budapest. As this  
letter was received after the statutory deadline of 28
February 2019, its contents could not be taken into account by ICOMOS in its first evaluation.

The ICOMOS evaluation recommended that the series, as nominated, should be inscribed.

In June 2019, almost immediately before consideration of the serial nomination by the World Heritage Committee, the State Party of Hungary informed the World Heritage Centre that it wished to withdraw the Aquincum Palace site; no reasons were provided. As this request was received after the statutory deadline of 28 February 2019, it could not be accepted, and only could be noted.

The World Heritage Committee adopted the following decision (43 COM 8B.23):

The World Heritage Committee,

1. Having examined Documents WHC/19/43.COM/8B and WHC/19/43.COM/INF.8B;
2. Refers the nomination of the Frontiers of the Roman Empire – the Danube Limes (Western Segment), Austria, Germany, Hungary and Slovakia, back to the States Parties in order to allow them to take appropriate measures with regard to component part 1608-133 (WHC/19/43.COM/8B, p.60), previous component part 70a;
3. Recommends the States Parties to invite the Advisory Body (ICOMOS) to review the situation with an advisory mission to Hungary to take place before the end of 2019.

The State Party of Hungary invited an ICOMOS Advisory Mission and this was undertaken on 11 and 12 November 2019. The mission report acknowledged the very high importance of the Aquincum Palace site and recommended that if it is removed from the series, it should be adequately protected and managed in ways that might allow in the future the possibility of re-incorporating it into the series through a minor boundary modification. This means that it must remain protected at the highest national level and that the site and its setting be managed as part of a Management Plan.

Consultations and Technical Evaluation Mission

Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 25 September – 08 October 2018.

Additional information received by ICOMOS

An Interim Report was provided to the State Parties on 21 December 2018 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including:

- Revision of boundaries of 11 nominated components in relation to the way they express their proposed outstanding Universal Value;
- Revision of the Buffer zone for 11 components and for many of the component sites in Hungary;
- Links between the components sites and the River Danube;
- Legal Protection for Carnuntum Legionslager;
- Conservation statements for component sites in Hungary;
- Summary Action Statement for components sites in Austria and Germany (Bavaria).

In February 2020, a revised nomination dossier was submitted that omitted the Aquincum Palace site.

Date of ICOMOS approval of this report

12 March 2020

2 Description of the property

Description and history

The Danube Frontier (Western Segment) covers just less than half (997km) of the whole Danube frontier that extended around 2,400km from its source in what is now Germany to the Black Sea. And the Danube frontier was just one part of a much larger frontier of the whole Roman Empire that encircled the Mediterranean Sea.

Under the Emperor Augustus in 1st century CE, most of the regions along the southern flanks of the river Danube were annexed by the Romans and boundaries of new provinces were demarcated along the river. The Western Segment of the Danube Frontier constitutes the northern and eastern boundaries of those new provinces of Raetia (eastern half), Noricum, and Pannonia. The first permanent legionary fortresses were established at the time of the creation of these provinces in the early 1st century CE at Vindobona (Vienna), Carnuntum (Bad Deutsch-Altenburg, Brigetio (Komárom) and Aquincum (Budapest).

During the Marcomannic Wars (167–180 CE) against incursors, two further legionary fortresses were established at Regensburg and Enns. After this war, the frontier was repaired and strengthened at a time of considerable prosperity. During the 3rd century CE the frontiers were again damaged as a result of more major invasions from the north and east, and subsequently again repaired and re-organised. A century later, in expectation of more severe assaults, the military fortifications were remodelled and strengthened, with new watchtowers and bridgeheads being added. The last significant overall military building process took place at the end of the 4th century, when massive watchtowers, such as Bacharnsdorf, were constructed. The Western Segment is characterised, especially, by this significant phase of late Roman activity.

In spite of these reinforcements, by the early 5th century, the frontiers finally succumbed to attacks by the Huns. And after the fall of the Western Roman Empire in 476CE, this Western Segment of the Danube Frontier was completely abandoned. Many partially destroyed Roman fortifications were subsequently occupied and reused and served as the nuclei for villages and towns.
Disposition of forts
The form and disposition of the Roman fortifications along the River Danube reflects the geo-morphology of the river as well as military, economic and social requirements. For most of its length the Danube frontier crosses wide floodplains, separated from each other by high mountain ranges that force the meandering river into deep, narrow gorges. These natural conditions are reflected in the size and positioning of military installations, with the gorges being secured by small elevated posts, and the plains by larger forts at river crossings or other strategic points overlooking the plains.

The backbone of the defence system was a string of six legionary fortresses. Each housed some 5,500 to 6,000 Roman citizens as soldiers. The provinces of Raetia and Noricum had one legion, while there were four in Pannonia. This larger number reflected Roman anxiety about powerful neighbouring tribes: the Germanic peoples in the north and the Sarmatians in the east.

Between the main legionary fortresses (castra legionis) were forts (castella auxiliariorum) for auxiliary troops built at an average distance of 15 to 20 km and between these the border was supervised by watchtowers or signal towers. The density of watchtowers varies according to the topographical and political conditions. In Hungary, for instance, particularly during the uncertain later Roman period, they were built only 1 to 2 km apart.

At some legionary fortresses there were also counter - forts' built on the opposite side of the Danube such as at Iza or Komárom, and Budapest and probably Carnuntum. Bridgeheads were also erected in the late Roman period on both sides of the Danube and served as fortified river ports.

A particular characteristic of this segment of the frontier is the evidence of more than 40 temporary camps around Kelemantia and Brigetio built to house troops during military offensives and the density of watchtowers varies according to the topographical and political conditions. In Hungary, for instance, particularly during the uncertain later Roman period, they were built only 1 to 2 km apart.

The first defences constructed in the 1st century CE were earthen ramparts with a timber front and timber towers/gates. From the 2nd century the walls were rebuilt in stone, as were those of auxiliary forts, and their roofs covered with clay tiles.

All these structures were linked by a military Limes road and by the Pannonian fleet that patrolled the River Danube. There is evidence for harbours at Straubing and Regensburg, and also at Aquincum, next to the Palace that has now been withdrawn from the series.

A chain of civilian settlements developed near or around the main bases to house camp followers and traders, and these had all the accoutrements of Roman towns such as baths, religious shrines and, at the largest settlements of Aquincum and Carnuntum, amphitheatres. Governor's palaces were also constructed near fortresses. Three are also known along the Western segment of the Danube: at Carnuntum, where the archaeological site of the Palace has only recently been verified and is not yet excavated, and two at Aquincum, the dux of the late Roman period called the Hercules Villa on the territory of legionary fort, and governor's palace, built by Hadrian on Hajógyári Island outside the fort, which is the largest, grandest and most complete. This last Palace has been withdrawn from the series.

Choice of component sites
The 175 selected component sites have been chosen to represent all aspects of the frontier system, both military and civilian, and all its main periods of construction from the establishment of the frontier on the line of the Danube in the 1st century CE until its disintegration after the fall of the Western Roman Empire in the 5th century CE.

The overall series of sites thus reflects the diversity of functional military responses to different topographic conditions that evolved in different sectors of this part of the frontier over its long period of use, and the settlements that both supported the military and fostered trade.

Although a great effort has been made to set out how each of the component sites contributes to the defined Outstanding Universal Value, a few of the statements need improvement/modification (see below).

Boundaries
The 175 nominated component sites have an area of 1560.7012 ha, and buffer zones of 4491.8930 ha.

A general shortcoming of the nomination document is that it is difficult to relate the extent of archaeological features and monuments that have been nominated to the cadastral maps that delineate component site and buffer zone. Integrated base maps are needed that combine the plan of the archaeological features and monuments with the boundaries of the component sites and its buffer zone. Such maps should also identify areas of high research potential. It should be noted that the Operational Guidelines emphasise that boundaries should include "those areas which in the light of future research possibilities offer potential to contribute to and enhance such understanding" of the Outstanding Universal Value of the property.

Nominated components
As presented in the nomination dossier, there was some inconsistency in the way that the different States Parties have defined the boundaries of the nominated sites. Generally, however, the boundaries have been drawn very tightly around the known and recorded extent of each individual component as confirmed by existing documentation and survey.
For some sites, this approach led to evidence for functions being relegated to the buffer zone which means that not all of the features that convey their significance were included within the nominated area. Additionally, it was not always clear that the nominated areas define areas of known high archaeological potential. In many but by no means all sites, areas of high potential were included in the buffer zone.

The States Parties were requested to address this situation in the Interim Report by amending the boundaries for 11 component sites and these were addressed in the additional information submitted on 28 February 2018.

As nominated, there was considerable variation and inconsistency in the way in which buffer zones were applied for all the sites and in some cases it was not clear how they supported the component sites. In Hungary the buffer zone had been defined as extending the boundary of property 'lots' that contain elements of the nominated component sites. This may be administratively convenient but generally does not provide a coherent or logical protection around the component sites. Following a request in the Interim report, considerable effort was made to improve many of the buffer zones. For some sites in Hungary, the constraints of plot definition have to be accepted.

State of conservation
The present state of conservation of the component sites varies considerably across the Danube Limes nomination. This is set out in detail in the nomination dossier. A significant factor is that many of the component parts have been subjected to considerable change and undergone significant reuse in the intervening period since the frontier fell out of use. In some cases, this has involved fundamental changes to the setting of the component sites as well as major alteration to their original form (including removal and/or alteration of structural elements).

The majority of the component sites visited by the ICOMOS missions were seen to have adequate state of conservation, although in certain instances the condition of conservation set out in the nomination dossier may have been a little overestimated.

Condition of exposed/conserved walls
At a number of nominated component sites visited by the mission, including some under protective covering structures, previously conserved and restored walls on display were in less than good condition and clearly require renewal as part of ongoing regular/cyclical conservation and maintenance programmes. These sites are: Rusovce – Gerulata (ID32), Iža - Kelemantia (ID46), Nyergesújfalu Sánc-hegy – Crumerum (ID49), Tokod (ID50), Esztergom Búbánatvölgy – Solva 8 (ID52), Pilismarót Kis-hegy – Ad Herculum (ID56), Visegrád Gizellamajor (ID58), Lepence – Solva 35 (ID59), Síbrikdomb (ID61), Leányfalu Benzinkút – Cirpi 2 (ID 65), Szentendre – Úlcisía (ID68), Budapest district 22 Nagytétény – Campona (ID 73), SzázhalombattaDunafüred – Matrica (ID75b), and Dunaújváros Öreghegy – Intercisa (ID78). In some but not all cases assurances were provided that such work was already funded and programmed; for the remainder, this work will need to be incorporated into the management planning process. Some of the sites not visited will undoubtedly need to be added to this list.

Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the overall state of conservation of the majority of archaeological remains and structures is good, while the conservation of the setting of the component sites is highly variable.

Factors affecting the property
Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property, which all relate to the setting of the component sites, are the following:

Wind farms
A large existing wind farm at Carnuntum has a considerable adverse impact on the setting of this component site in terms of reducing the way it dominates the landscape as was originally intended.

When these turbines come to the end of their useful life, they should not be replaced. Regulations also need to be put in place to ensure that the landscape settings of other component sites are not compromised by new wind farms.

Views
The River Danube as the Roman boundary is the essential dynamic link between all the component sites but its visibility has in place been compromised and some components have lost entirely their original relationship with the river. Although this is in part as a result of the way the river has changed its course, or of long-standing urban development, in other places it relates to of lack of appropriate land management or lack of appropriate protection.

The Interim Report requested the States Parties to analyse precisely where views of the river exist, or could exist if vegetation were differently managed and to strengthen protection and management of such views either be extending the buffer zone or defining protected views. In the response received in February 2019, links to the River Danube have been addressed where feasible and measures added to management plans. There is still a need for more action in this sphere to identify all views and put in place appropriate improvements and protection.

Recognition has been provided by States Parties of the need for more research into the historic course of the Danube.
**Infrastructure**

The setting of many of the component sites of the Aquincum legionary fortress and its associated civilian settlement are severely impacted by transport infrastructure such as flyovers. Some component sites are impacted by water management constructions (e.g. dams and dykes) and other flood prevention or flood management measures (water retention zones) as well as active measures to control the flow of the Danube (dredging etc.). In Hungary a number of sites are impacted by flooding.

Although formal and legal mechanisms are in place that identify heritage considerations, these issues require effective coordinated management with the appropriate water and river authorities.

**Agricultural activities**

The nomination dossier suggests that if past agricultural activity is sustained at the same level as previously, then generally there will be no further damage to archaeological deposits. This may generally be true, but a proportion of the rural component sites under continued cultivation are extremely fragile and close to the surface - sometimes surviving as slight earthworks (e.g. fort platforms, watchtowers, roads). In these circumstances, even if deep ploughing is prohibited, such features can be vulnerable to damage and erosion by shallow ploughing. Use of chemical fertilisers and pesticides will also have an impact on buried archaeological material.

There is a need for a long term strategy to allow all sites and their buffer zones to be taken out of ploughing.

### 3 Proposed justification for inscription

**Proposed justification**

The proposed justification put forward by the States Parties consists of two parts, a justification for the series as a whole and detailed text on how each of the 175 components contributes to Outstanding Universal Value.

The justification for the series suggests that the Western Segment of the Danube Frontier can demonstrate Outstanding Universal Value for the following reasons:

- The varying sizes and compositions of the garrisons recruited all over the Roman Empire attempted a well-balanced system of linear survey and interaction with the hinterland and the areas beyond the river.
- The river itself belonged to Rome and was a transport route in military and civil, commercial sense.
- The frontier reflects the evolution of military strategies to counter the threats emanating from sustained large scale migration. The wars of AD 166–180 and those in the middle of the 3rd century AD caused a serious disruption of the development of this frontier with the result of a strengthening of the military installations afterwards. The last significant overall military building process took place in the 4th century.

This justification describes well the characteristics of this segment of the Frontier but does not quite articulate why it might be considered as having Outstanding Universal Value in terms of how much remains of the frontier, its ability to demonstrate how it operated, and most significantly the specificities of the military responses of this segment over time, combined with evidence for social and economic organisation. Most of these aspects are picked up in the justification for the criteria.

ICOMOS considers that the nomination dossier demonstrates the potential to justify Outstanding Universal Value. Despite some differences in the approach to selection by the various States Parties, the overarching rationale for the selection of the nominated components is broadly appropriate.

The Interim Report identified the need for a consistent approach to how the two temporary camps at Kelemantia and Brigetio are nominated: Brigetio was initially nominated while Kelemantia was in the buffer zone. These sites are clearly linked and part of the same general ensemble albeit on different sides of the river and are an exceptional phenomenon that directly contributes to the proposed Outstanding Universal Value.

The State Party of Slovakia has responded by including several camps in a new component site of Kelemantia. The State Party of Hungary has separated the temporary camps at Brigetio into three groups surrounded by a single buffer zone.

Although only 21 of the 34 examples known at Brigetio are nominated, this is justified by the fact that the only nominated ones are those that are firmly dated while the existence and limits of the others are said to be only partially known. As the whole area is a significant archaeological landscape that was used by the Roman army to construct temporary camps at this point on the Danube, in due course the entire ensemble should surveyed and documented.
In the nomination dossier, the boundaries of a few other sites were drawn too tightly to allow full reflection of their contribution to Outstanding Universal Value. Given that one of the attributes of proposed Outstanding Universal Value is the interchange of human values expressed by the movement of peoples along and across the frontier illustrated in part by the introduction of military installations and related civilian settlements, it is essential that the boundaries should cover the necessary civilian remains.

The main sites where the boundaries needed adjusting relate to two of the six legionary fortresses, as well as the Gerulata Fort at Rusovce, the Hoher Markt site in Vienna (ID30), Rusovce – Gerulata (ID32) and Kelemantia (ID46). These boundary adjustments were undertaken by the State Parties after requests in the Interim Report.

At Regensburg Legionslager ID6 only part of the fort had been nominated while the significance of the component is said to reflect the fact that Regensburg was the only legionary fortress in Raetia and its related civilian settlement was the second largest in the province. Three new component parts have been added representing associated extra-mural activities.

The Wien Legionslager zentralbereich ID30: Hoher Markt site in Vienna (ID30), did not support Outstanding Universal Value as substantially as perhaps it might. The historical description clearly demonstrates the importance of the Roman fortress and civil settlement in relation to the Danube limes. The nominated component amounted to 2% of the area of the legionary fortress and less than 0.5% of the area of the combined area fortress, canabae, and cemeteries. The site supports one aspect of the nominated Outstanding Universal Value – the importance of Roman lifestyles to the edge of the empire. The tightness of the boundaries did not ensure that the area is of adequate size to ensure the necessary representation of the site’s significance.

New components have been added within the fortress and its defences and the canabae and cemetery.

Rusovce – Gerulata ID32:
The component site was nominated to reflect the entire gradual and long term development of Roman fortification architecture in this section of the Danube limits from the beginning of its construction up to the building of the late antique fortification in the post-Valentinian period around 380 AD. What was nominated though only covers the fort’s post-Valentinian construction stage (4th century AD) which consisted of a stone tower built into corner of the older fort which is in the buffer zone. New component sites have been added to reflect extra-mural activities such as the hypocaust and vicus.

Within Hungary, a number of the nominated component parts categorised as fort and vicus included at least some of the extra-mural activity and associated features (the so-called vicus or military vicus) in the boundaries.

For some, however, the area of extra-mural activity that was included was very limited, and does not appear to reflect a sufficiently significant proportion of the elements necessary to convey the totality of the values represented by the combined ensemble of fort and extra-mural features.

As a result, the areas of the following component sites needed to be re-considered to ensure they included a sufficient proportion of extra-mural activity to reflect adequately the integrity of the ensemble: Nyergesújfalu Sánc-hegy – Crumerum ID49; Nagytétény-Campona ID73; Százhalombatta-Dunafüred – Matrica ID75a-b; Dunaújváros Öreghegy – Intercisa ID 78 a-d; Ócsény Gábor-tanya – Alisca ID 92. The boundaries have been modified by the State Party of Hungary for all except ID 78 a-d where the surrounding area is largely built over.

In a small number of forts in Hungary, no area of related extra-mural activity or associated features was included. These are: Bum-Bum kút – Ad Mures ID42; Dunabogdány Váradok-dűlő – Cirpi ID64; Szentendre Ulicsia ID68; Budapest XI kerület Albertfalva ID72; Kőked Hajlók-part – Altinum ID98. For these sites, consideration needed to be given to extending the nominated component sites to include a sufficient proportion of extra-mural activity so that the integrity of the fort/vicus ensemble is properly and consistently reflected. These extensions were carried out by the State Party of Hungary where feasible.

Other components were minor adjustments were needed were Straubing ID6, Künzing ID9, Passau ID9, Wallsee ID16 and Zeiselmauer ID28 and these have been carried out by the States Parties.

And in a few other cases, the interpretation of sites in the nomination appeared to have less than convincing support. At Eining-Weinberg (ID2) the interpretation of the site is based on excavations undertaken 100 years ago. The use of at least part of the site as a shrine is clear and justifies the inclusion of the site within the nomination. However, the initial identification of other structures as a barracks and watchtower no longer seem viable. The site would benefit from targeted re-excavation using modern methods.

At Straubing, the evidence for the extent of the late defended site conjectured as St Peter’s church (ID 7b) was not strong. Excavations have been limited to small areas within the existing cemetery and only a small part of the northern defensive wall has been found. The defined extent of the component site is highly conjectural although given the topography not improbable. The site would undoubtedly benefit from further investigation.

The withdrawal of the site of the governor’s palace, built by Hadrian, adjoining the site of Aquincum, is highly regrettable as it is the largest and grandest of the Palaces on the Roman frontiers and contributed in a very specific aspect of the way settlements developed along the frontier. As it is so close to the other
components parts of Aquincum, it is part of their immediate setting.

Comparative analysis

An extensive comparative analysis is offered but the starting point for the comparisons is not set out clearly in terms of what is being compared in the property and its proposed Outstanding Universal Value.

For this segment of the Frontier what is needed is evidence to support the assertion that nowhere else exhibits substantial evidence for a riverine military strategy of non-linear barriers that persisted over an extensive period of time, was adapted to changing circumstances, and also offers evidence of supportive civil settlements.

The analysis is in two parts: an analysis of sites not connected to the Roman Empire, all inscribed sites, and an analysis of frontiers in other parts of the Empire.

The first part includes comparison on non-military properties, such as Rhaetian Railway in the Albula/Bernina Landscapes (Italy, Switzerland 2008; Ref: 1276), WHS Prehistoric Pile Dwellings around the Alps (Ref: 1363), Qhapaq Ñan, Andean Road System (Argentina, Bolivia, Chile, Colombia, Ecuador, Peru 2014; Ref: 1459) which are not relevant. It then considers military defences such as the Great Wall (China 1987; Ref: 438) which is clearly a linear barrier.

More relevant are comparisons with the Venetian Works of Defence between the 16th and 17th Centuries: Stato da Terra – Western Stato da Mar (Croatia, Italy, Montenegro 2017; Ref: 1533) which consisted of a series of forts. These are seen as not being part of continuous linear frontier for an Empire, being in use for a much shorter period than that Danube limes and much less sophisticated and comprehensive as an overall defensive system.

A further section on river frontiers is the most relevant. This outlines various river boundaries such as parts of the Rhine between France and Germany, the Oder between Germany and Poland, the Danube between Hungary and Slovakia, Croatia and Serbia, Serbia and Romania, Bulgaria and Romania and Romania and the Ukraine, the Amur and the Ussuri between the Russian Federation and China, the Jordan between Israel and Jordan, the Saint Lawrence between the United States of America and Canada, the Rio Grande between the United States of America and Mexico. It concludes that none of these historic borders along rivers was as sophisticated as the western segment of the Danube Limes created almost 2000 years ago. And that only in most recent times have modern states developed similar systems in order to control or intercept the exchange of people, goods and ideas across the rivers – but examples are not provided.

The second part of the analysis on internal comparisons with other parts of the Roman frontier is detailed and exhaustive – being based on the Thematic Study of the Frontiers of the Roman Empire.

That was undertaken in 2016 with the advice of ICOMOS.

The analysis considers to what degree there are similarities or dissimilarities between the nominated segment and other parts of the frontier. First the frontiers of the three continents (Africa, Near East and Europe) encompassed by the Roman Empire are compared, with a clear focus on the 2nd century CE. Then comparisons are offered between sections of the European river frontiers. Each part comprises a summary of the main characteristics of the sections involved, an assessment of similarities and dissimilarities and a conclusion. Particular links between the frontier and boundaries of Roman provinces are highlighted.

This concludes that the North African provinces, Egypt, Arabia and southern Syria have much in common. A large part of the military infrastructure in these areas, consisting of forts and towers was primarily aimed at controlling nomadic movement and caravan routes. The areas were all relatively peaceful, and the provincial armies accordingly small, comprising no more than three legions by the middle of the 2nd century with troops garrisoned in towns.

There were differences in terms of disposition of forts and some linear barriers were constructed near towns. In Egypt military posts in the barren Eastern Desert protected accesses to Red Sea ports, quarries and mines.

The military deployment in northern Syria is of an entirely different nature. The forts on the south-east shores of the Black Sea were vital to securing the supplies of corn, while the fortifications of Dacia are unique in terms of their mixture of linear barriers and river forts and the number and density of towers.

The disposition of troops along the Euphrates and in the mountains to the north at first sight resembles that along the Rhine and Danube and in Dacia, but there is a fundamental difference. In the East army units were often garrisoned in towns and villages – as in many other parts of the Empire. On the Rhine and Danube, however, the military infrastructure had to be built from scratch, in the absence of such centres. The military installations along the rivers were built almost exclusively on the Roman’ bank with additional protection provided by fleets.

The river frontiers of Europe are thus seen to be a phenomenon of their own.

The analysis then concludes with comparisons of the three river frontiers in Europe divided into the Lower Rhine, and the Upper, Middle and Lower Danube.
The Lower Rhine is clearly distinctive for the way it reflects early military bases, unique military engineering works, involving canals and water regulatory mechanisms, and remarkable survival of timber constructions in wetland conditions.

The Upper Danube, covers the western part of Raetia province. At the beginning of the 2nd century, Roman control was extended beyond the river in western Raetia, and the new frontier was eventually protected by the Upper German Raetian Limes linear fortification which spanned two sections of the river. This land segment has already been inscribed.

The Middle Danube covers the nominated sites in the provinces of Raetia (eastern part), Noricum and Pannonia, under the name of Western segment.

The Lower Danube covers the Roman province of Moesia. Although this segment has similarities with the Middle and Upper Danube it is has distinct differences. It is characterised by its longevity as it survived the collapse of the Western Roman Empire in the 5th century, becoming part of the surviving Eastern Roman Empire with its fortifications being restored in the first half of the 6th century and finally collapsed following the invasions of Avars and Slavs in the early 7th century. It is also distinguished by the near absence of fortlets and towers, with the exception of the Iron Gate.

Thus while there are overall similarities between the Upper and Lower Danube segments, there are also considerable differences in terms of the type of defensive structures and the longevity of the system. The Upper Danube or Western Segment of the Danube can thus be seen as a coherent segment of the overall frontiers, well differentiated from others.

The final part of the analysis considers the selections of component sites. This sets out clear criteria for the selection of sites that can be fully supported.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning and landscape design;

This criterion is justified by the States Parties on the grounds that western segment of the Danube Limes did not constitute an impregnable barrier, but controlled and allowed the movement of peoples: not only the military units, but also civilians and merchants and thus triggered the exchange of cultural values. This entailed profound changes and developments in terms of settlement patterns, architecture and landscape design and spatial organisation in this part of the frontier.

Thus the legionary fortresses, forts, fortlets, watchtowers, linked infrastructure and civilian architecture exhibits these important interchange of human and cultural values at the apogee of the Roman Empire, through the development of Roman military architecture, and extending technical knowledge of construction and management to the very edges of the Empire.

The frontier reflects the imposition of a complex frontier system on the existing societies of the northern part of the Roman Empire, introducing for the first time military installations and related civilian settlements, linked through an extensive supporting network based on the river Danube.

The way the defensive installations became the focus for trade and engagement with areas beyond the frontier, brought about long lasting changes to the landscape of this part of Europe.

ICOMOS considers that this criterion has been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the States Parties on the grounds that the Western Segment of the Danube Limes has an extraordinarily high cultural value as it shows the interaction of occupying force with local people and circumstances. It bears an exceptional testimony to the maximum extension of the power of the Roman Empire, through the consolidation of its northern frontiers, and thus constitutes a physical manifestation of Roman imperial policy to dominate the world in order to establish its law and way of life there in a long-term perspective.

The segment witnessed Roman colonization and the spread of Roman culture and its different traditions – military, engineering, architecture, religion, management and politics – in the large number of settlements associated with the defences, which contribute to an understanding of how soldiers and their families lived in this part of the Roman Empire. The property also adds some specific features to the variation and evolution of the military strategies applied by the Roman Empire to control external ‘barbarian’ societies.

ICOMOS considers that this segment of the frontier does demonstrate specific military responses of the Roman Empire to persistent incursions from the north together with evidence for the social organisation of military forces and that this criterion can be justified.
These civilian settlements present a profound and vivid understanding of the lives of the military and civilians, and show how aspects of Roman life and culture were spread to the edges of the Empire.

ICOMOS considers that this criterion has been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the States Parties on the grounds that the Western Segment of the Danube limes is an outstanding example of Roman military architecture and technological development through four centuries, adapting standardized approaches to various geographical and strategic conditions.

Following different needs in some parts the military installations controlled mainly sections of the river. Other sectors are characterized by a dense chain of watchtowers following the Danube between the forts over hundreds of kilometres connected by the Limes road. This demonstrates the similarity in purpose and design of the river frontier with artificial linear frontiers. Military campaigns are reflected by temporary camps built by troops drawn together around existing forts. For the sake of a more effective defence a series of bridgeheads were built on both river banks. In Late Roman times the Frontiers of the Roman Empire – The Danube Limes show the changes of warfare through new developments in military architecture (horseshoe, and fan, shaped towers; strongly fortified fortlets). Many of these constructions became the nuclei of later settlements. Through their continuous use till today they are eminently accountable for our impression of Medieval towns along the Danube.

ICOMOS considers that the surviving materials and substance of this segment of the Frontier can be seen as vivid testimonies of the way Roman military approaches were developed and adapted to meet changing threats to imperial fortifications over four centuries. In terms of construction and layout, these Danubian fortifications are some of the most important ancient fortifications not just in central Europe but anywhere. The remains also show how important landscape was to site selection:

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (iv).

Integrity and authenticity

Integrity

The chosen components together are sufficient to reflect the proposed Outstanding Universal Value, as the adjustments outlined above have been undertaken to the boundaries and buffer zones.

They reflect all elements of the designed fortification – that is the continuous chain of military installations along the southern banks of the river consisting of six legionary fortresses, the backbone of the system, around which forts, fortlets, and watchtowers are laid out between 10 and 30 kilometres apart, as well as their linked infrastructure and civilian settlements, and all the main periods of construction from its establishment in the 1st century CE until its disintegration in the 5th century CE.

The changes undertaken in response to the Interim report ensured that the boundaries of all component sites encompass the relevant attributes necessary to support their contribution to Outstanding Universal Value.

The withdrawal of the Aquincum Palace has slightly weakened the integrity of the overall series, as the Palace made a substantial contribution to an understanding of how the Limes functioned and was perceived.

Authenticity

The western segment of the Danube Frontier clearly reflects the specificities of this part of the overall Roman Frontier through the way selection of sites has encompassed all the key elements from the legionary fortresses and their associated settlements to small forts and temporary camps, and the way structures relate to topography. A weakness is the absence of the Aquincum Palace from the series, as it is the best surviving example of a Roman Palace along the frontier.

All the nominated component sites have been well researched and the sources deployed include the full array of archaeological research techniques (past and present excavation, field survey, aerial photography, geophysics etc.). The component sites have the capacity to clearly reflect their inherent value and their contribution to the Outstanding Universal Value.

The one area where the value is less well articulated is in terms of the relationship of the component sites to the River Danube, as the frontier and as a longitudinal transport artery for military support, goods and people. All the component sites originally had a dynamic relationship with the river. As the Danube in places has shifted its course considerable since Roman times, some components have lost this link where the original course has not been identified. The nomination dossier places great emphasis on location as the raison d'être of all the component sites, but in many cases pays less
attention to the importance of sightlines (views) along and to and from the river or the line of is original course. The contribution to authenticity of long views from watchtowers, forts, and hillforts above the Danube to the way they convey their meaning is hardly referred to in the nomination dossier. This aspect is now being addressed by the States Parties but will need more research on the original course of the river.

Reconstruction has been undertaken at 21 components and in most cases it is slight. The most extensive reconstruction has taken place at the legionary fortress of Carnuntum on the footprints of buildings excavated in the 19th and 20th centuries, and some work is still in progress. The reconstructions are fully reversible and clearly indicated as such, but in places conjectural. Currently the reconstructed buildings comprise less than 0.5% of the total site.

At Passau Haibach the reconstruction replaced material apparently removed during the insertion of medieval brick kilns; in the light of current practice the extent of reconstruction is not ideal. At I2a (Kelemantia) part of the south wall and south gate of the fort have been rebuilt to a height of 1m or more with imported material which is not obviously distinguishable from original material. This approach has not been followed in presenting more recently exposed structures. At Künzing a timber structure has been erected to give an indication of the form of the temporary amphitheatre. This structure does not seek to replicate the original in the way the reconstructed practice ring at Carnuntum does. Rather it seeks to indicate the outline form and position of the original structure. The foundations of the new wooden structure can be removed without damage to the remaining deposits at Künzing.

At most sites in Hungary where reconstruction has been carried out this has merely involved raising the heights of surviving walls by a few courses (usually using original materials). This has been carried out on the basis of full documentation and none of the work is conjectural. All such work is to a lesser or greater extent distinguishable from the original structure but in some instances the differences are quite slight. Because such work has been carried out at different times over the past 50 years, the approaches to showing the difference between original and reconstructed work vary, and there is little consistency. Much of this reconstruction work requires renewing and replacing as part of ongoing regular/cyclical conservation and maintenance programmes.

When limited reconstruction is needed for purposes of consolidation, conservation or presentation, a clear and consistent approach should be developed and agreed for all the component sites. This should ensure that reconstruction above original materials is avoided as a general rule and is adequately justified; that reconstruction should not dominate any of the component sites; and that differences between original and reconstructed material should be distinguished in a consistent manner. Any further reconstruction work at Carnuntum should be halted until this agreed approach is in place.

The landward side of some of the component sites has not always been protected adequately. At Carnuntum the close proximity of an extensive windfarm is visually intrusive, while at Budapest the setting of many of the very significant components of Aquincum Municipium, legionary fortress, amphitheatre, bathhouse, aqueduct etc. are severely impacted by transport infrastructure (flyovers).

ICOMOS considers that the requirements of integrity and authenticity have been met but authenticity should be strengthened through the development of an agreed reconstruction approach for all component sites, and thorough improvements to the protection and management of views and settings for some component sites.

**Evaluation of the proposed justification for inscription**

The attributes that convey the Outstanding Universal Value are the remains of all fortifications their associated civilian settlements and the Limes road; the evidence conveyed by the fabric relating to military strategy, architectural ideas and construction techniques; artistic and religious associations; and the landscape siting of the component sites (including visibility and inter-visibility) their symbiotic relationship with d the River Danube.

ICOMOS considers that the criteria have been demonstrated and integrity and authenticity have been met.

### 4 Conservation measures and monitoring

**Conservation measures**

**Below ground remains**

In Hungary, it is noteworthy that only just over 20% of the nominated component sites survive as visible ruins (either on the surface, or partially excavated), and around 32% are either built-over or subsumed in other (later) structures, which means that around 46% are below ground as archaeological features (41.4%) or are located in forests (5.6%). The proportion of components that are visible and appreciable is therefore low. In comparison the proportion of components with visible elements are higher in Bavaria (72%), Austria (65%) and Slovakia (100%).

The very fragile nature of some of these below-ground rural components and their vulnerability to damage and erosion from continuing cultivation has already been noted under potential threats. For rural sites in Hungary the state of conservation has often been assessed solely on the evidence of aerial photography and/or geophysical survey without any ‘ground-truthing’ by

The relevant management plans should include long-term objectives to take the relevant areas out of cultivation. Some of the sites not visited by the mission may need to be added to this list. It should be noted that there are already examples in Hungary where the local municipality has taken fragile rural archaeological components out of cultivation (by the process of swapping ownership of the site in question with land owned by the municipality).

MONITORING
A detailed set of monitoring indicators has been developed that encompass physical attributes, views and setting, and pressures and risk factors.

Monitoring is undertaken at most components sites. Where management plans are yet to be developed, the format for monitoring is in the process of being defined. Such monitoring needs to be based on clearly defined conservation statements – as set out under Management above.

CLEAR LINES OF RESPONSIBILITY FOR MONITORING HAVE BEEN SET OUT.

ICOMOS CONSIDERS THAT THE MONITORING ARRANGEMENTS ARE SATISFACTORY.

DOCUMENTATION
All the component sites have been fully inventoried, described, and documented as part of the nomination process. Work is continuing on the development of a common database as well as on the development of a comprehensive research framework.

LEGAL PROTECTION
Each of the four States Parties has a discrete legal system and administrative processes for heritage protection at national, regional, and local levels, and in the federal states of Germany and Austria there are also discrete statutory frameworks for each federal component (the German component sites are confined to the Federal State of Bavaria).

Although the detailed legal provisions and terminology for designation and protection vary in each State, the function and effect of the different national provisions is the same: they should ensure adequate long-term protection of the nominated component sites and their setting, if both are appropriately defined and if landowners are cooperative.

All the States Parties have well-developed and strong systems in place for spatial planning, monitoring development proposals and plans, and for development control.

Details for individual States Parties are as follows:

Germany
Germany has a federal system of legislation. At national level there are regulations for building, spatial planning, nature conservation, water management and the crossborder movement of cultural property. Care and preservation of ancient monuments are the responsibility of the individual federal states, in this case Bavaria. The most important provision for the protection of monuments is the Bavarian Monument Protection Law which inter alia defines the responsibilities of various federal and local agencies when applying the law. Bavarian variations on central government legislation on building control etc. also serve to provide protection to the nominated components.

Austria
Austria has a federal system of legislation, but the protection of its historic monuments is a central government responsibility according to the Austrian Constitution. The federal states therefore do not play any part in the legal protection of historic or archaeological sites.

Protection of historic monuments derives from the Monument Protection Act, operation of which rests with the Bundesdenkmalamt, a central government body. There is also legal provision for the protection of previously unknown finds. In addition, upon inscription, properties inscribed on the World Heritage List are protected through a link to European Union Environmental Directives in the form of provision for the preparation of Environmental Impact Assessment. The Monument Protection Act also serves to regulate archaeological excavations and surveys on historic monuments.

Slovakia
Slovakian legal regulations for the protection of monuments and historic sites is a central government function. Protection is applied to cultural monuments, historic sites and archaeological finds. Regulations for urban planning and the conservation of nature and landscape also serve to protect the nominated components. At municipal level there is a requirement for spatial planes to record protected monuments.

Hungary
The Hungarian legal regulations for the protection of heritage are complex but extremely comprehensive. In particular there is a legal regulation related specifically to World Heritage Areas and Tentative World Heritage Areas that applies provisions for protection to the World
Heritage Sites (including, where appropriate, their component parts) and the related buffer zones. Legal regulations specifically for the preservation of the archaeological heritage are strong at a national level and supported by the legal system and regulations for regional and town development and planning, nature and landscape conservation, infrastructure development, and land use (including agriculture, forestry, mining etc.). The National Land Use Plan recognises the importance of World Heritage Sites and controls potential changes in land use in order to sustain the values of Outstanding Universal Value (but this does not apply to setting).

The legal provision for protection in Hungary is therefore comprehensive and very strong indeed. However, Hungarian administrative structures related to heritage have undergone considerable change in recent years. Elements of the current structures for heritage management are fairly new (including Budavári), and will inevitably require some bedding in.

**Management system**

The four States Parties contributing to the nomination have different histories of monument management which have led to slightly different approaches. No components in Bavaria have site specific management plans. In Austria on the other hand site specific management plans have been prepared for component sites which are under conservation monitoring by regional museums but not for sites where museums are not involved. In Slovakia there are only two component sites and since 2011 there has been a management plan in place for those two components. The 2011 management plan for Slovakia identified specific interventions at each location. The proposed interventions had been carried out by the time the Evaluation Mission took place. In Hungary, site specific management plans are at present the exception. However, the recently established Limes World Heritage Management Body (Budavári) has now embarked on the process of coordinating the development of full management plans for each of the nominated component sites in Hungary (including regular, cyclical inspection at least every six months).

It should be noted that integrated management involving other agencies that have an interest in, or whose work may impact on the nominated components (water, forestry etc.) is not yet an approach for all component sites. In Bavaria and Austria there is a relatively close relationship between heritage management and other agencies which are often located in the same government office. In Hungary although the state run Local (County) Heritage Protection Offices are part of the same national (but County organised) structure as other functions, a close working relationship with regard to joint management issues has yet to be fully developed.

In Hungary generally, the day-to-day management of the nominated components is appropriate and works well. However, with the exception of a few components where excellent and structured management systems are already in place (often but not all of the components in urban contexts), day-to-day management, especially of the rural sites is fairly informal and appears quite unstructured in terms of anticipating and responding to the range of management needs. In the long-term this will clearly be addressed by the development of full management plans co-ordinated by Budavári. In the Interim report, simple, structured summary conservation statements for each nominated component site have been prepared that set out the fundamental conservation and management issues related to each component part as an essential precursor to the development of management plans.

**National Management Plans**

The four States Parties have prepared national management plans for submission with the nomination dossier. In the case of Slovakia this comprises an update of the 2011 plan to cover the period 2017-2021.

The aim of the national plans is to ensure that individual parts of the nominated property are managed within an agreed overall framework of co-operation to achieve common standards of identification, recording, research, protection, conservation, management, and presentation in an interdisciplinary manner and within a sustainable framework (as set out in the Joint declaration for running and expanding the nominated World Heritage Site Frontiers of the Roman Empire – The Danube Limes).

**Germany**

The Management Plan 2019-2025 for the Danube Limes in Bavaria is based on the 2017 management plan for the Upper German – Raetian Limes property. The Management Plan would take effect if the nominated property is inscribed. The Management Plan addresses the values of the component parts and the general problems, needs and threats facing them. It sets out the roles and responsibilities of the Bavarian State Conservation Office and the German Limes Commission as well as other bodies and institutions. Understanding of the interaction of the various bodies would have been helped by a graphic or organogram.

Although high level analysis of risks is included in the plan it did not initially provide an action plan for intervention on a component by component basis. This lack has now been addressed and action plans defined.

**Austria**

The Management Plan for Austria presented in the nomination dossier addresses the values of the component parts and the general problems, needs and threats facing them. It lays out the legal basis for managing the components and proposes an aspirational management structure. Although a high level action plan with examples of best practice was included in the plan...
it did not initially provide an action plan for intervention on a component by component basis. This lack has now been addressed. The management plan is expected to be reviewed at intervals of seven years. The copy of the management plan supplied with the nomination dossier does not indicate the years of operation it is expected to cover.

Slovakia
The 2011 Management Plan for the Danube Limes in Slovakia comprehensively set out values of the component parts and the problems, needs and threats facing them. It laid out the legal basis for managing the components, management structures and finances. It drilled down into the detail of the component site requirements/opportunities and proposed an action plan to deal with them. The 2017 update to the management plan addressed changes required by the current transnational approach to the nomination and reviewed and updated the action plan.

The Slovakian management plan demonstrates a model approach and should be commended.

Hungary
The Hungarian national management plan incorporates much, if not all of the data and information included in the comprehensive Hungarian nomination documentation. The current plan is a new document that utilises information from an earlier draft (2011) document but takes as a model the World Heritage management plans for sections of the Frontiers of the Roman Empire sites that have already been inscribed on the World Heritage List; it also reflects the radical alterations in Hungary since 2011 in the institutional system and legal environment of heritage preservation and town planning. The plan sets out the nominated component parts (extent and selection criteria) and the overarching attributes, an overall strategy for management, the different components of the management system, and the structure and operation of the monitoring process. Summary action plan statements have now been added for each nominated component.

Resourcing
Resources being made available to operate the existing management systems and plans appear to be reasonable.

As far as future arrangements are concerned, the aspirational nature of the management organisation proposed in the management plan for Austria needs to be confirmed. A firm commitment to funding the proposed structure is also needed.

Transnational Co-ordination
The four States Parties have agreed and signed the Joint Declaration for running and expanding the nominated property. This sets out the terms of reference for an Intergovernmental Committee to coordinate at an international level the management and development of the whole World Heritage property and to work to common aims and objectives and a Danube Limes Management Group, which assembles those directly responsible for the site management of the property and provides the primary mechanism for sharing best practice.

The States Parties already participate in the international scientific advisory body which shares knowledge and experience of Roman frontiers and their identification, protection, conservation, management and presentation (Bratislava Group). The Bratislava Group provides an effective mechanism to share practical experience and promulgate common management standards and approaches within the framework of different national administrative structures and legal systems. The Group also functions as a self-help group for site-managers, and it is essential that the informal online aspects of this supportive network are maintained.

Buffer Zones
Buffer zones have been deployed for most but not all component sites.

The underlying principle set out in the nomination dossier is that buffer zones ‘are defined only for those component parts where they are technically justified and promise long-term success in the mediation with stakeholders and the future management of the component parts’. The application of this approach could in some cases actually constrain the effective protection and management of some sites and place a limit on any ambition to achieve better protection and understanding in the long-term. Moreover, it does not offer the effective protection of the immediate setting of the component sites. Those sites without a buffer zone need to be provided with one as a support for the way they contribute to the Outstanding Universal Value of the series. These buffer zones should be submitted as Minor Boundary modifications.

Visitor management
At present significant visitor numbers are concentrated at only a few key locations, the most prominent of which is Carnuntum that receives several hundred thousand people a year. In the Bavarian and Upper Austrian section of the Danube the number of visitors delivered by riverboat cruises is becoming a problem. If numbers increase elsewhere in the short term, long term issues may develop and will need to be actively managed.

The Danube Limes Interpretation Framework acts in part as a tourism management tool. There is a proposal for Limes Interpretation Centres (LIC) which are intended as ‘low-threshold supra-regional gateways’ to the various component sites. These are planned for Straubing, Enns and Carnuntum. The centres could allow visitor numbers to be spread out by making a larger number of sites clearly available. Slovakia and Hungary are not yet participants in the DLIF and may need to consider developing potential LICs in each country. In Hungary for the great majority of nominated
components, the current tourist potential is relatively undeveloped.

Community involvement
Although there is some evidence of beneficial community engagement at some sites, such initiatives remain site based and should be expanded.

Evaluation of the effectiveness of the protection and management of the nominated property
ICOMOS considers that overall the protection in place for the overall series is adequate; and although the management structures are adequate, management plans need to be completed for component sites in Hungary, which currently have summary conservation statements.

6 Conclusion
This trans-boundary serial nomination is the first stage of implementation of a Nomination Strategy set out in the Thematic Study of the Frontiers of the Roman Empire collectively provided by the involved States Parties of Europe in 2016. This strategy effectively justified major differences between the frontiers in Africa, the Middle East and Europe and, within Europe, between the linear fortifications and those along rivers. It thus allowed a segmental approach to nominations that was notified to the World Heritage Committee in 2017.

The current nomination is for the middle part of the River Danube frontiers, nominated as the Danube Limes (Western Segment). In the nomination dossier, it is stated that, if inscribed it would be the intention to submit a future nomination to encompass the lower reaches of the Danube in the Roman province of Moesia, as the Eastern Segment. It is indicated that nominations of further segments in Europe will follow in the near future, as these are already being worked on, while there is also considerable interest in nominating segments in countries bordering the eastern and southern Mediterranean, once appropriate circumstances prevail.

This nomination is thus setting the scene for what participating States Parties hope will be many future nominations of segments of the overall Roman Frontiers which could in the long-term ensure that all major aspects of the frontiers are represented on the World Heritage List as separate properties, liked by the concept of an overall unified frontier.

That being the case, ICOMOS considers that this current nomination needs to demonstrate an exemplary approach that others can follow.

The four States Parties have worked closely together in the preparation of the nomination and, considering the scale and scope of the property extending to almost 1,000km and encompassing 175 (originally 164) component sites, the results are impressive. The States Parties have demonstrated their commitment to coordinated management and have created appropriate mechanisms to develop and support this in the future.

Despite inevitable differences in national perspectives and management approaches, there is a good degree of coherence. There were nevertheless a few, important, inconsistencies that needed addressing. These related mainly to the selection and delineation of some component sites and their buffer zones, and to the relationship between the component sites and the River Danube, all of which have ramifications for authenticity and integrity and thus Outstanding Universal Value.

Following the submission of the Interim Report, all these issues have been satisfactorily addressed by the States Parties and the necessary detailed documentation provided.

This extra material has ensured a coherent approach to site selection has been applied across State boundaries, an approach that should be followed across the whole of the Danube and in other future nominations of other segments of the frontiers. The overall series of component sites reflects the specificities of this part of the frontier in terms of encompassing all the elements of the planned continuous chain of military installations along the southern banks of the river consisting of six legionary fortresses, the nodal points around which were arranged forts, fortlets, and watchtowers mainly laid out between 10 and 30 kilometres apart. The components sites also clearly reflect the different military strategies that evolved to counter threats emanating from sustained large-scale migrations, particularly in the later years of the Roman Empire in this part of the frontier, as evidence by the remains of large numbers of temporary camps and bridgeheads, and the density of small watchtowers - often only 1-2km apart - in what is now Hungary, as well as the linking infrastructure and large, elaborately provisioned civilian settlements that demonstrate the frontier’s political and economic importance.

In this regard, it is highly regrettable that the Aquincum Palace, begun by the Emperor Hadrian, has been removed from the series, both as a nominated site and as part of the buffer zone. It is the largest and grandest of the palaces on the Roman frontiers, and is an extraordinary, and possibly unique, reflection of Imperial patronage along the borders of the Empire.

As the Aquincum Palace is so close to the other components sites of Aquincum, it will remain a significant part of their immediate setting and will need to be protected and managed as such, for its own intrinsic importance and for the way it supports the proposed Outstanding Universal Value. In the absence of a buffer zone that incorporates the Palace, the management plan should encompass its protection and that of its harbour so as to allow at some future date consideration of its possible re-integration into the series.
The withdrawal of the Aquincum Palace has highlighted the need to demonstrate how each site is more than a representative type and has a meaning for its contribution to the overall elaborate military, social and economic network of the frontiers. In this large serial nomination, it is essential that the way each component contribute to the overall series is readily understood.

ICOMOS considers that the two areas where improvements need to be made relate to reconstruction and setting.

Although reconstructed elements are mostly slight and reflect historical approaches, before and further limited reconstruction is undertaken for the purposes of consolidation, conservation or presentation, an approach to future reconstruction for the whole series should be defined and agreed that can be implemented across all component sites. Meanwhile any further planned reconstruction work should be halted until this approach is in place.

The setting of component sites needs to be protected to allow them to reflect as far as possible their siting and inter-visibility with other sites or with the River Danube, or its historical river bed.

The resilience of this large complex nomination ultimately relies on the ability of local management to protect individual component sites, and of the Advisory Group to promote coordination to allow a consistent management approach across all component sites. It is also essential that the on-line supportive network of the Bratislava Group is maintained to ensure connection between the various related Roman Frontier properties.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the Frontiers of the Roman Empire – The Danube Limes (Western Segment), Austria, Germany, Hungary and Slovakia, be inscribed on the World Heritage List on the basis of criteria (ii), (iii) and (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

The Frontiers of the Roman Empire – The Danube Limes (Western Segment), ran for almost 1000 km along the Danube, following the northern and eastern boundaries of the Roman provinces of Raetia (eastern part), Noricum and Pannonia, from Bad Gögging in Germany through Austria and Slovakia to Kőlked in Hungary.

For more than 400 years from the 1st century CE, it constituted the middle European boundary of the Roman Empire against what were called ‘barbarians’.

First defined in the Flavian dynasty (69-96 CE) and later further developed, the fortifications consisted of a continuous chain of military installations almost all along the southern banks of the river. The backbone of the defence system was a string of six legionary fortresses, each housing some 5,500 to 6,000 Roman citizens as soldiers. The provinces of Raetia and Noricum had one legion, while there were four in Pannonia. The larger number reflected Roman anxiety about powerful neighbours: the Germanic peoples in the north and the Sarmatians in the east. Between the legionary fortresses, were forts, fortlets, and watchtowers linked by access roads and serviced by the Pannonian fleet that patrolled the River Danube under the control of Rome. To serve soldiers and civilians, sizeable civilian towns were developed around the legionary fortresses and some forts, and these towns also spread Roman culture to the edges of the Empire.

The form and disposition of the fortifications reflects the geo-morphology of the river as well as military, economic and social requirements. For most of its length the Danube frontier crosses wide floodplains, separated from each other by high mountain ranges that force the meandering river into deep, narrow gorges. These natural conditions are reflected in the size and positioning of military installations, with the gorges being secured by small elevated posts, and the plains by larger forts at river crossings or other strategic points overlooking the plains. Although primarily for defence, in peaceful times the Limes also controlled trade and access across the river with, in the west, Germanic peoples and, in the east, Iranian Sarmatians with whom the Roman Empire had diplomatic treaties.

The Danube Limes finally broke down the 5th century CE. During the Middle Ages, many still standing Roman buildings were reused and served as nuclei for the development of villages and towns many of which exist today.

The 175 component sites, selected from a far larger number that still remain, together reflect in an outstanding way all elements of the well balanced complex River Danube defensive system, linked by the military road parallel to the river. They also offer a clear understanding of the way military strategies evolved over time to counter threats considered by the Romans emanating from sustained large-scale migrations in the later years of the Roman Empire, particularly through the remains of bridgeheads that served as fortified river ports, more than 40 temporary camps on both sides of the river, and the closely spaced watchtowers in what is now Hungary.

The large number of civilian settlements present a profound and vivid understanding of the lives of the military and civilians, and how defensive installations became the focus for trade and engagement with areas beyond the frontier, all of which bought about profound and long lasting changes to the landscape of this part of Europe.
Criterion (ii): The legionary fortresses, forts, fortlets, watchtowers, linked infrastructure and civilian architecture that made up the Roman military system of the western segment of the Danube Limes extended technical knowledge of construction and management to the very edges of the Empire.

This segment did not constitute an impregnable barrier, but controlled and allowed the movement of peoples: not only military units, but also civilians and merchants. This triggered profound changes and developments in terms of settlement patterns, architecture and landscape design and spatial organisation in this part of the frontier which has persisted over time. The frontier landscape is thus an exceptional reflection of the imposition of a complex military system on existing societies in the northern part of the Empire.

Criterion (iii): The Frontiers of the Roman Empire – The Danube Limes (Western Segment) presents an exceptional manifestation of Roman imperial policy and the Empire’s ambition to dominate the world in order to establish its law and way of life in the long-term. The segment reflects specifically how the Empire consolidated its northern frontiers at the maximum extension of its powers.

It also witnesses Roman colonization through the spread of culture and different traditions – military engineering, architecture, art, religion, management and politics– from the capital to the remotest parts of the Empire.

The large number of human settlements associated with the defences, contribute to an exceptional understanding of how soldiers and their families, and also civilians, lived in this part of the Empire, with all the accoutrements of Roman culture such as baths, religious shrines and, at the largest settlements of Aquincum and Carnuntum, amphitheatres and a governor’s palace, decorated with frescoes and sculpture.

Criterion (iv): The materials and substance of the Frontiers of the Roman Empire – The Danube Limes (Western Segment) can be seen as a vivid testimony to the way Roman military systems were influenced by geography and, over four centuries, were developed and adapted to meet changing threats to the Empire.

Military campaigns are reflected by temporary camps built around existing forts, a series of bridgeheads built on both banks of the Danube River, and horseshoe and fanshaped towers and strongly fortified fortlets developed as a response in Late Roman times to changes in warfare.

In Mediaeval times, many of the defensive constructions became the nuclei of later settlements and, through their continuous use until till today, have shaped the form of medieval towns along the Danube.

Integrity

The series of component sites as a whole reflects all the elements which once constituted the frontier system—that is the continuous chain of military installations along the southern banks of the river consisting of six legionary fortresses, the backbone of the system, around which forts, fortlets, and watchtowers were laid out at varying distances – as well as the linking infrastructure and civilian settlements.

The ensemble of sites represents the long period in which the Western segment of the Danube operated as part of the frontiers of the Roman Empire as well as all its main periods of construction from its establishment in the 1st century BP until its disintegration in the 5th century CE, and the extraordinary complexity and coherence of its frontier installations.

Although some individual component sites are fragmentary and have been affected by changes of land use, natural processes, and in some cases overbuilding, the visible remains and buried archaeological features are both sufficient in scope to convey their contribution to the overall series.

The boundaries of all individual component sites encompass the relevant attributes necessary to support their contribution to Outstanding Universal Value. Later development overlaying parts of the frontier remains are treated as vertical buffer zones.

In a few component sites, integrity is impacted by infrastructural development and windfarms and these impacts need to be addressed, when opportunities arise, and further impacts prevented.

Authenticity

The western segment of the Danube Frontier clearly reflects the specificities of this part of the overall Roman Frontier through the way selection of sites has encompassed all the key elements from the legionary fortresses and their associated settlements to small forts and temporary camps, and the way they relate to topography.

All the component sites have been subject to intensive study and research. Sources deployed include the full array of archaeological research techniques (past and present excavation, field survey, aerial photography, geophysics etc.) as well as archival evidence. The component sites have the capacity to clearly reflect their inherent value and their contribution to the Outstanding Universal Value.

The one area where the value is less well articulated is in terms of the relationship of component sites to the River Danube, as the frontier and as a longitudinal transport artery for military support, goods and people. All the component sites originally had a dynamic relationship with the river. As the Danube in places has shifted its course considerably since Roman times,
some components have lost this link. In places the original course has not been identified. This link needs strengthening on the basis of more research on the original course of the river.

Overall the fabric of the upstanding remains is in a good state of conservation. Some of the underground components are very fragile and highly vulnerable to damage and erosion from continuing cultivation.

Reconstruction has been undertaken at 21 components and in most cases it is slight and historical. There is though little consistency of approach on how the difference between original and reconstructed fabric is revealed. The most extensive reconstruction is at of Carnuntum, where work is still in progress and, although reversible, is in places conjectural. At Iža (Kelemantia) parts of the fort have been rebuilt in a way that is not readily distinguishable from original material.

There is a need for a clear and consistent approach to reconstruction across the whole series. Large-scale conjectural reconstruction on top of original fabric needs to be avoided. As much reconstruction work will require renewal as part of ongoing conservation programmes, there are opportunities for improvement.

The landward side of some of the component sites has not always been protected adequately. At Carnuntum the close proximity of an extensive windfarm is visually intrusive, while at Budapest the setting of many of the very significant components of Aquincum Municipium and legionary fortress are severely impacted by transport infrastructure.

Protection and management requirements

Each of the four participating States Parties has a discrete legal system and administrative processes for heritage protection at national, regional, and local levels, and in the federal states of Germany and Austria there are also discrete statutory frameworks for each federal component (the German component sites are confined to the Federal State of Bavaria). Although the detailed legal provisions and terminology for designation and protection vary in each State, the function and effect of the different national provisions is the same: they should ensure adequate long-term protection of the nominated component sites and their setting, if both are appropriately defined, if landowners are cooperative and if the measures are effectively implemented by regional and local governments.

Within each State Party an appropriate management system has been developed, expressed through national Management Plans. The aim of these plans is to ensure that individual parts of the nominated property are managed within an agreed overall framework of cooperation to achieve common standards of identification, recording, research, protection, conservation, management, and presentation in an interdisciplinary manner and within a sustainable framework.

The plans will be regularly updated. The national management systems address also the interests and involvement of all stakeholders and the sustainable economic use of the property.

At the international level the participating States Parties have agreed a Joint Declaration for running and expanding the property. This sets out the terms of reference for an Intergovernmental Committee to coordinate at an international level the management and development of the whole World Heritage property and to work to common aims and objectives and a Danube Limes Management Group to provide the primary mechanism for sharing best practice for those directly responsible for site management.

On a supra-national level, the Frontiers of the Roman Empire – The Danube Limes aims to cooperate intensively with the existing Frontiers of the Roman Empire properties, to create a cluster. The existing Bratislava Group, an international advisory body for the Frontiers as a whole, will also provide a supportive technical network.

Additional recommendations

ICOMOS further recommends that the States Parties give consideration to the following:

a) Completing, approving and submitting to the World Heritage Centre by January 2023 management plans for the component sites and their settings in Hungary, and ensuring that these include the Aquincum Palace site in the setting of the property to ensure it is protected and managed for its own intrinsic importance and for the way it supports Outstanding Universal Value,

b) Establishing buffer zones for the small number of component sites without them and submit these as Minor Boundary Modifications by January 2023,

c) Continuing on-going research and documentation on the Roman course(s) of the River Danube, encouraging where possible connections between relevant component sites and the original river course to which they were related, and make the outcomes of this research work accessible,

d) Developing a clear and consistent approach to reconstruction works for all component sites in the series in relation to limited reconstruction for the purposes of consolidation, conservation or presentation, in order to ensure that reconstruction above original materials is avoided as a general rule, that when used, it is adequately justified; that reconstruction does not
dominate any of the component sites; and that differences between original and reconstructed material are distinguished in a consistent manner; such a defined approach should be submitted in draft to ICOMOS for review; and any further reconstruction work in the property should be halted until an approach agreed by ICOMOS and all States Parties is in place,

e) Developing and approving a long term strategy to allow all sites and their buffer zones to be taken out of ploughing,

f) Strengthening coordinated management with the appropriate water and river authorities to develop flood prevention or flood management measures (such as water retention zones) as well as active measures to control the flow of the Danube (dredging etc.) to prevent the flooding of component sites and their settings, and submit any proposals for major flood defence schemes, including for the site of Aquincum Palace and its harbour, to the World Heritage Centre for review by the Advisory Bodies, in line with paragraph 172 of the Operational Guidelines, before any work is approved or undertaken,

g) Continuing on-going work on the development of a common database as well as on a comprehensive research framework,

h) Surveying and documenting the entire ensemble of temporary camps as an archaeological landscape,

i) Undertaking where possible targeted re-excavations at EiningWeinberg (ID2) and further investigations at St Peter’s church (ID 7b),

j) Ensuring that when wind turbines in the setting of Carnuntum (ID31) come to the end of their useful life they are not replaced and introducing regulations to ensure that the landscape settings of other component sites are not compromised by new wind farms or other infrastructure projects,

k) Expanding the current site-based community engagement to more component sites,

l) Ensuring that Heritage Impact Assessments are used routinely for assessing the impact of proposed changes that might impact on component sites or their settings, and ensuring that all projects that might have an impact on Outstanding Universal Value are submitted to the World Heritage Centre for review by the Advisory Bodies, in line with paragraph 172 of the Operational Guidelines,
Map showing the location of the nominated components (February 2020)
Map showing the boundaries of component 70a - Budapest III. kerület
Florian tér és környéke – Aquincum legio tabor, canabae, erod (February 2020)
Colonies of Benevolence
(Belgium/Netherlands)
No 1555rev

Official name as proposed by the States Parties
Colonies of Benevolence

Location
Drenthe and Fryslân provinces
Netherlands
Antwerp province
Flemish Region
Belgium

Brief description
Beginning in 1818, the Society of Benevolence founded agricultural colonies in rural areas of the United Kingdom of the Netherlands. The aim was to create an alternative to the living conditions of the urban poor. By moving this population to the countryside, the cities would be relieved of a major social problem and poor families would be given the opportunity to build up a beneficial and industrious life in the country. The colonies were created out of heath and peatland, and featured orthogonal roads, ribbons of houses and small farms, and communal buildings. From 1819 onwards, ‘unfree’ colonies were also founded, the last in 1825; these featured large institutions and larger farms again set in an orthogonal pattern of fields and avenues, and housed particular groups of disadvantaged people with support from the State. At their peak some 18,000 people lived in the colonies, including those within the nominated property.

The colonies were an Enlightenment experiment in social reform which demonstrated an innovative, highly influential model of pauper relief and of settler colonialism – the agricultural domestic colony. After 1918, the colonies lost their relevance and evolved into ‘normal’ villages and areas with institutions for custodial care.

Four former colonies in three component parts have been nominated: the free colonies of Frederiksoord and Wilhelminaoord, the colony of Wortel which was a free colony that evolved into an unfree colony, and the unfree colony of Veenhuizen.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a trans-national serial nomination of 3 sites.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019) paragraph 47, it has also been nominated as a cultural landscape.

1 Basic data

Included in the Tentative List
1 December 2015

Background
This is a referred back nomination. At its 42nd session, the World Heritage Committee examined the first nomination and took the following decision:

Decision: 42 COM 8B.25:

The World Heritage Committee,
1. Having examined Documents WHC/18/42.COM/8B and WHC/18/42.COM/MNP.8B1,
2. Refers the nomination of the Colonies of Benevolence, Belgium and Netherlands, back to the States Parties, in order to:
   a) Adapt the nomination by focusing on the well-preserved cultural landscapes of the free and unfree Colonies, both understood to reflect the ideals relating to a single utopian model of poverty reduction that guided their foundation and evolution,
   b) Ensure that the nominated free and unfree Colonies reflect the scope and careful planning of the agricultural settlements and their ordered buildings and how these were integrated as a whole and offered an approach to the idea of improvement of individual over 150 years,
   c) Adapt the Management Plan so that it aims to evoke, through adequate protection and through careful management and presentation, both the positive and the negative approaches of these colonies, their overall organisation, and the lives of their inhabitants;
3. Recommends the States Parties to consider inviting an ICOMOS advisory mission to the component sites, if needed;
4. Also recommends that the States Parties give consideration to the following:
   a) Provide a better rationale for the delineation of buffer zones,
   b) Provide detailed information on how the whole landscape of the colonies is protected,
   c) Complete the monitoring system to include indicators related to the attributes of the proposed Outstanding Universal Value.

As recommended by the World Heritage Committee, discussions between ICOMOS and the States Parties commenced in September 2018, and an ICOMOS Advisory Mission took place from 14 to 17 May 2019. The report of the ICOMOS Advisory process was finalised in July 2019.
In order to address the requirements of the World Heritage Committee, the ICOMOS Advisory process focused engagement with the States Parties on the following objectives:

- Explore more fully:
  - The broader socio-historical context of the Colonies in 19th century Europe, and the precise motivations of the key players who promoted the Colonies of Benevolence;
  - The role of each of the free and unfree Colonies as part of the same innovative model to reduce poverty;
  - The original intentions of the founders; whether the Colonies were deliberately planned or arose from a pragmatic approach; how, with focus on the landscape, the innovative messages of the experiment were materialized and were transmitted.
- Consider whether a re-conceptualized nomination might be able to demonstrate and provide a convincing justification of Outstanding Universal Value and what might be the supporting attributes if potential for Outstanding Universal Value is identified.
- If potential for Outstanding Universal Value is identified:
  - Discuss integrity and authenticity related to the inventory of tangible attributes that convey the potential Outstanding Universal Value on the basis of what still remains on the ground to reflect the implementation of the original ideas.
  - Explore and discuss the selection of potential component sites to be included in any revised nomination;
  - Discuss, once the potential component sites have been identified, their boundaries and buffer zones.

Consultations
ICOMOS has consulted several independent experts.

Technical Evaluation Mission
An ICOMOS technical evaluation mission visited the property from 2 to 5 October 2017.

Additional information received by ICOMOS
ICOMOS sent a letter to the States Parties on 29 September 2017 requesting information on the planning and evolution of each of the colonies of the nominated property and an augmented comparative analysis considering other responses to the social dislocation of the period whether caused by the Napoleonic Wars or the Industrial Revolution. On 2 November 2017, the States Parties sent a response including text and maps. The additional information has been incorporated into the relevant sections below.

On 22 December 2017, ICOMOS sent to the States Parties an Interim Report requesting additional information regarding the approach for the nomination, on the integrity of the components and on the comparative analysis.

A response from the States Parties was sent on 27 February 2018. The additional information has been incorporated into the relevant sections below.

A revised nomination dossier was submitted for evaluation in January 2020.

In addition, the issue of possible buffer zones was the subject of further discussions after completion of the Advisory process report. The States Parties provided additional information on 28 February 2020 seeking to reinforce the justification of its decision not to identify buffer zones for the nominated property.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Description
The original nomination comprised seven colonies. The current referred back nomination has been reduced to four colonies.

The four colonies are located in rural areas of the Netherlands (three colonies) and Belgium (one colony). There were initially two types of colony, free and unfree, and the overall pattern of the colonies depended on this status of their residents. Free colonies featured long ribbons of houses and small farms set in a pattern of orthogonal roads and fields. Unfree colonies had larger building complexes providing essential functions for the colony, housing their residents and staff. Farms in the unfree colonies were larger, also set in an orthogonally organised landscape of avenues and fields. Three initially free colonies and one unfree colony have been nominated. One of the free colonies also evolved into an unfree colony, representing a hybrid.

Features of the landscapes include their orthogonal structure with avenues, avenue plantings, other plantings, meadows, fields and forests, and with the characteristic houses, farms, institutions, churches, schools and industrial buildings.

The two free colonies, Frederiksoord and Wilhelminaoord, do not survive in their entirety. The only remaining original houses in the free colonies are at Frederiksoord and Wilhelminaoord. Farm buildings were improved in the mid-19th century in all colonies. At Willemsoord the church (1851) and rectory remain from the 19th century.
Some original buildings survive at the unfree colony of Veenhuizen, together with mid-19th century buildings; while at Wortel, founded as a free colony and reorganised as an unfree colony, buildings from the late 19th century remain. The original layout of Veenhuizen has been obscured by a modern village (excluded from the nominated property). Perhaps the greatest change at these colonies was brought about in the mid-20th century by the use of institutional buildings as active prisons at Wortel and Veenhuizen, particularly from the fences, walls, guard towers and new ancillary buildings that have been constructed.

The four individual colonies are separately described further below.

**Free Colonies**

1. Frederiksoord, the Netherlands

This colony, combined with Wilhelminaooord as a single component, covers 555 hectares. The original headquarters of the Society of Benevolence are located here, as is the house of its founder Johannes van den Bosch. Some original colonists’ houses remain laid out in ribbon patterns, together with staff housing. The farm buildings date from the mid-19th century, as do the layout of the farms. An area with small and medium sized buildings exists in the core of this original colony but this is excluded from the nominated property.

2. Wilhelminaooord, the Netherlands

This colony has long ribbon avenues creating an irregular shape. Several original colonists’ houses, churches and other common buildings remain. The farm complexes date from the middle 19th century and onward. One large complex of buildings at the southeast end of the colony has been excluded, along with two smaller areas to the northwest.

**Free Colony that evolved into an Unfree Colony (Hybrid)**

3. Wortel, Belgium

This colony is 550 hectares in area. The layout of roads and fields dates to the founding of the colony, but the oldest structures are from the Belgian building programme that started in 1870, when Wortel was adapted from a free Colony into an unfree Colony. Structures for one farm and staff houses remain as does a large colony institution which is now an active prison. The core of this colony is surrounded by farm fields and the outer edges of the colony are largely forested. The northeast portion of Wortel is now a nature reserve and it has an avenue grid like the rest of the colony. A cemetery is in the northern part of the colony.

**Unfree Colony**

4. Veenhuizen, the Netherlands

The largest of the colony sites, it covers 907 hectares. Some buildings from the founding period are present, as are many late 19th century institutional structures and extensive staff housing. Some of the former ensembles of communal buildings are now noted on the maps provided by the States Parties as areas of archaeological value. A modern village exists in the south-central part of the colony (excluded from the nominated property). An active prison is present, occupying one of the colony’s buildings, as is a prison museum. Areas of forest exist today at the north and south edges of this colony.

The revised nominated property is presented by the States Parties as reflecting the best-preserved cultural landscapes of the free and unfree Colonies.

**History and development**

The United Kingdom of the Netherlands (today the countries of the Netherlands and Belgium) came out of the Napoleonic wars as a newly united country with a weakened economy and a pressing social problem of increased poverty. The Society of Benevolence was formed as a voluntary association to address poverty on a national scale. This social experiment created colonies that aimed to bring heathland and rough ground under cultivation by poor people, who would earn their living through working the land. The two-fold inspiration was the Dutch tradition of reclaiming land and ideas derived from the Enlightenment – people’s lives were not dictated by providence, but with training and guidance could be changed for the better.

The first colony, Frederiksoord was formed in 1818 on land purchased on the margins of the province of Drenthe. Fifty-three houses and small farm lots were laid out in a regular pattern along with some communal buildings. Families would learn to work their land with guidance and eventually become self-sufficient. More land nearby was purchased and more colonies were formed in quick succession, including Wilhelminaooord.

Problems soon arose, the farm plots were too small to provide for the families, and manure for fertilizer had to be imported. Later colonies had larger family plots, although they never achieved the goal of self-sufficiency and the colonies had to rely on aid from the State.

The Society of Benevolence sought other sources of revenue to support its activities. It contracted with the State to settle orphans in a colony, soon followed by another for beggars and vagrants. This led to the creation of the unfree colonies, including Veenhuizen, with large dormitory type structures to house the colonists and larger centralized farms for them to work under the supervision of guards.

In 1821, a second branch of the Society was formed in the southern provinces of the kingdom. The following year, work began on the free colony of Wortel, arranged in similar fashion as the free colonies in the north, with small farm plots and houses ranged in lines around a central intersection with a spinning hall, a school/church, the director’s house and a warehouse.
By 1827, the Society of Benevolence owned over 7,000 ha of land, with 2,700 ha under cultivation. Together, the colonies had 6,744 residents living in 500 buildings. There were, however, a number of problems that quickly emerged. Many of the colonists were not physically fit enough to farm. Harvests were often poor, and there was a lack of fertilizer so that manure had to be imported from elsewhere. Belgium separated from the Netherlands in 1830 and the southern Society found it difficult to raise enough money to fund its operations. It went bankrupt in 1842. The Belgian colonies seem to have been essentially deserted until 1870 when the State took them over as workfarms for beggars and vagrants. Wortel saw a major building episode as it was converted from a free colony with small houses and small farms to an unfree one with a large institution and a large farm. In the 20th century, special sections were set up to care for colonists who were epileptics and colonists with tuberculosis.

Similar problems in the Netherlands led to the government taking over the unfree colonies including Veenhuizen in 1859, leaving the Society to run the remaining free colonies. Orphans were no longer accepted, and a major reorganization and rebuilding program began at the unfree colonies under the direction of the State.

At Veenhuizen, the Ministry of Justice took over the management of the colony and a major building program began in 1875, adding a new ensemble of characteristic buildings, fitting in the landscape grid of 1823, while keeping most of the original buildings in place. A Roman Catholic Church, guard barracks, new farms and industrial buildings were also erected. Agriculture was now combined with industrial activity at a grain mill and slaughterhouse. Prisoners began to be housed at Veenhuizen after 1918 and a wide range of people were held there. An active prison still operates at Veenhuizen.

The remaining free colonies in the Netherlands were also reorganized in the mid 19th century. The Society of Benevolence created larger farms to be run collectively rather than individually. Poor farmlands and heaths were converted to forestry. A school of horticulture was started in 1884 and one for forestry three years later. The population of the colonies slowly declined as did the resources of the Society of Benevolence. After the Second World War, the Society took in young offenders who were cared for and put to work on a learning farm. Portions of free colonies were also sold.

Today, the Society of Benevolence is still active in the Netherlands and owns 1,300 hectares of land, although it is not clear how much of this is within the nominated property. The Society still operates some social programs, but most of its work now concerns the heritage preservation of its original colonies, Frederiksoord and Wilhelminacoord.

Kempens Landschap, a land trust operating in the province of Antwerp, has been active in the Belgian colonies since 1997, owning land, conserving structures and encouraging contemporary use of the colonies. Institutions are still present today in the unfree colonies, with prisons at Wortel and Veenhuizen.

The social history of the colonies illustrates the circumstances by which people could be admitted to or dismissed from the colonies, both free and unfree.

At their peak in the mid-19th century, over 11,000 people lived in the Dutch colonies and this number slowly dropped through the remainder of that century and following. The population of the Belgian colonies peaked in 1910 with 6,000 residents. The practice of agriculture continued in the unfree colonies of the Netherlands until 1953, and until 1993 in Belgium. Private individuals farm the cultivated lands of the colonies today.

**Boundaries**

The nominated property has an area of 2,012 ha.

The boundaries of the component parts have been revised for component part of Frederiksoord-Wilhelminacoord, and for Veenhuizen. Those of Wortel have been kept as originally proposed in the first nomination dossier. The revisions have been made on the basis of the identified attributes to the proposed Outstanding Universal Value, the conditions of authenticity and integrity, as well as following the ICOMOS advice given during the Advisory process.

ICOMOS agrees with the revised boundaries of the component parts.

In response to the World Heritage Committee recommendation, the States Parties advised that they do not propose a buffer zone for the nominated property as possible threats are addressed by existing spatial regimes in the surrounding areas. The regimes for spatial planning next to the nominated property are very strict in the Netherlands and in Flanders (Belgium). The nominated property has also been included nominally in the Nationale Omgewingsvisie – NOVI, the new Dutch Environmental Law, which reinforces this protection. In addition, the States Parties consider the introverted nature of the colonies, their lack of connection to the surrounding landscape, and in some cases the forested character of the nominated property edge or character of the surrounding land (eg. nature reserve) provide either no reason for a buffer zone, or protection, for the nominated property.

The issue of buffer zones was the subject of communications between ICOMOS and the States Parties, including the sending of additional information.
While appreciating the existing protection mechanisms around the component parts, ICOMOS none the less considers that a buffer zone is needed for the nominated property in order to define a zone of additional sensitivity which is reinforced through mechanisms under the Operational Guidelines. The buffer zone is considered necessary as it would offer protection to the immediate setting by sustaining the connection of the component parts to their settings, as well as constraining or even prohibiting certain types of activities. The definition of the buffer zone should consider the specific measures that would need to be put in place in terms of planning and protection policies. ICOMOS recommends that the establishment of the buffer zone be submitted through a Minor Boundary Modification request.

State of conservation
The present state of conservation is generally good. The elements that give structure to the colonies, the roads, avenue plantings of trees, water management features and grid patterns that space out the fields and structures are largely intact.

The buildings that are in place and represent the different stages of development of the colonies appear mostly to be in good condition, although it is sometimes difficult to tell where losses of built fabric have occurred. Some structures that once existed are shown as areas of archaeological value.

No buildings from the founding period at Wortel survive. All of the structures now present date from late 19th century and later.

Most of the component parts have had a declining population during the last decades of the 20th century. The States Parties have initiated actions to reverse this as well as the decay and abandonment of buildings.

ICOMOS notes that a difference exists in the implementation of conservation practice by each State Party.

For the Netherlands, emphasis is placed on adaptive re-use of buildings. There are also examples of the contemporary construction of other buildings, some of which are less commendable. The modern construction of very large farm buildings is also seen in the component parts in the Netherlands.

For Belgium, the conservation work is more in line with traditional restoration of materials and fabric. There is also some adaptive reuse. As regards the design of new buildings, there is generally a more conservative trend.

The States Parties will pursue a common holistic approach to conservation practice applied across the nominated property. ICOMOS considers the form, scale and placement of new buildings should adhere closely to those of the original buildings in each component.

Factors affecting the property
Although the colonies are in rural areas, villages and towns are close by, and there is risk of further urban development in and around them. At each of the component parts, nearby urban fabric abuts portions of the boundaries.

Another factor is the pressure from incremental change that could lead to the loss of spatial form. One attribute of the landscape is the orthogonal layout of avenues that cross each other rhythmically. ICOMOS considers that it is fundamental that there is no change in the grid dimensions that characterize each colony.

Changes can also happen in the spatial pattern due to the erection of new buildings. The full or final extent of what construction will be allowed is not yet defined.

This issue also applies to the acceptable size of new structures, especially farm buildings. It is also important that the States Parties define the allowable enlargement of these buildings.

Changes in agricultural practices or in what crops are grown should be carefully considered.

The operational requirements of the current prison and detention uses also contributes to the loss of spatial cohesion of the component parts.

No wind turbines are present in the nominated property, nor are they allowed. The use and placement of solar power panels is discussed in the management plan regarding visual impacts.

ICOMOS notes that there is minimal organized tourism at present, although aggregate tourist numbers for some component parts are substantial. There has been no analysis of the visitor carrying capacity. Minor roads within the colonies are very narrow, and problems could arise with increasing vehicle traffic.

The nomination dossier notes that floods are a natural risk to the property and that flood protection systems are in place. Another potential natural risk is damage to trees and avenue plantings from high winds during storms.

ICOMOS considers that the main threats to the property are uncoordinated incremental changes in the structure of the farms and in the expansion of adjacent villages.
3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the States Parties to be of Outstanding Universal Value as a cultural property for the following reasons:

- The property is testimony to an exceptional and nationwide Enlightenment experiment in social reform, through a system of large agricultural home colonies. The property pioneered the domestic colony model, and for more than a century they influenced various types of custodial care in Western Europe and beyond.
- The property is also an extraordinary series of planned panoptic disciplinary settlements, created as isolated settlements in remote areas. The landscape organisation reinforced the disciplinary order and economic health of the colonies. They are an outstanding example of landscape design that represents an agricultural home colony with a social aim. The landscape patterns reflect the original character of different types of colonies and their subsequent evolution. They illustrate the extent, ambition and evolution of this social experiment in its flourishing period (1818-1918).

Comparative analysis
The overall analysis has been developed in three stages: in the nomination dossier with a focus on the functional concept; in additional information provided in response to the ICOMOS Interim Report where it was extended with a reference framework of existing poverty reduction initiatives at the time of the Colonies of Benevolence, and later initiatives such as Garden Cities and allotments; and following the report of the ICOMOS Advisory Process where it was augmented with methodically constructed settler colonies and plantations.

The Colonies of Benevolence are presented in the nomination dossier as the earliest and best-preserved example of a national, utopian system of agricultural colonies to tackle poverty. Two themes are considered, 1) agricultural settlements resulting from land reclamation, and 2) experiments in social engineering to address poverty, inspired by the Enlightenment.

A long list of 226 sites was developed that related to at least one of the two themes and this list was reduced by applying certain criteria and a timeframe from 1750 to 1918 to identify sites that derived from the same intellectual movement as did the Colonies of Benevolence. However, few sites operated at the scale of the Colonies. On the theme of land reclamation, examples of polders were reclaimed from the sea rather than heathland. These examples were not linked to the second theme of poverty reduction. In this way, the long list was reduced to a short list of 11 sites which were subjected to a detailed comparison. None of these 11 sites are on the World Heritage List or a Tentative List.

Five criteria related to the two overarching themes were then identified as the basis for further analysis: 1) Interaction with the environment, 2) Designed as a system on a national scale, 3) Use of the cultural landscape for poor relief and agriculture, 4) Scale and impact, and 5) Social experiment. Of the 11 sites subjected to detailed analysis, five are from Germany, three are from the United States of America and one each is from the United Kingdom, the Netherlands, and Belgium.

Some German sites were large settlements, but they did not have the same degree of landscape organisation as did the Colonies of Benevolence. The remaining German sites, and examples from the United Kingdom and the Netherlands were all founded later in the 19th century as part of a Protestant revival. They do not match the Colonies of Benevolence in terms of preserved structures or landscape organization. Finally, two utopian colonies in the United States were later voluntary utopian settlements that did not have the social objectives of the Colonies of Benevolence.

In summary, the States Parties argue that no property on the World Heritage List or Tentative lists is comparable to the Colonies of Benevolence. No other site is comparable either in scale, degree of landscape organisation or social objective.

ICOMOS considered that the comparative analysis as presented in the original nomination dossier narrowed in focus too quickly, excluding other categories of possible comparators. The United Kingdom of the Netherlands was not the only country in Europe to face the problem of urban poverty in this era. Many European countries experienced similar problems and crafted their own responses, but these were excluded from the analysis because they did not involve reclaiming land for agriculture.

ICOMOS considered that the Colonies of Benevolence should be understood within the wider political and economic context of the industrialising countries of Western Europe in order to demonstrate why they might be considered as an exceptional response. ICOMOS asked in its Interim Report for the States Parties to provide possible comparisons to other Utopian colonies that were developed during a similar timeframe to address similar social problems, such as religious colonies, and prison or convict labour colonies which also operated at a large scale. Some other phenomena are not confined to Europe. It was considered useful to see a wider comparison to other phenomena in order to understand how the Colonies of Benevolence might be considered distinctive.
Additional information received from the States Parties in February 2018 explained thoroughly the initial framing of the comparative analysis, situating the Colonies of Benevolence within the range of responses to poverty reduction adopted in Europe in the early 19th century. Categories of sites related to poverty reduction such as allotment gardens, Garden Cities and smallholding schemes were added to the original categories that included almshouses, workhouses, penal colonies, utopian religious communities, home colonies for the unemployed, and colonies for young offenders. These categories were examined against the criteria of 1) social engineering in which people were reformed by labour, 2) agricultural settlements with a social aim, and 3) operation at a large scale (nationwide or national).

When considered in this light, only the categories of home colonies for the unemployed and those for young offenders were comparable to the approach represented by the Colonies of Benevolence. Penal colonies had different aims, as they were focused on punishment rather than reform of the individual. Utopian religious colonies did not operate at the scale that is found among the Colonies of Benevolence.

In re-examining the shortlisted sites noted above in the original comparative analysis, the utopian religious colonies are now excluded, and among the remaining sites, which are described above in the original analysis, all represent home colonies that used agricultural labour as a means to reform the individual, and none operated at the scale seen at the Colonies of Benevolence.

The States Parties argue that the serial approach is justified to represent the two basic typologies of the free and unfree colonies, and also their development and adaptation to serve different target groups, and to respond to the functional needs of each colony and the changing social and legal frameworks of each country.

ICOMOS considers that the augmented comparative analysis now set the Colonies of Benevolence apart from other heritage sites that represent a means of poverty relief or social engineering as practiced in 19th century Europe. It also clarifies the basic typology of the free and unfree colonies and how the components have been chosen to represent a range of adaptive responses as the colonies evolved over the course of the 19th century.

The analysis is further augmented in a revised nomination dossier submitted by the States Parties with the consideration of settler colonies and plantations. Spatial characteristics and methodical construction have also been included much more systematically as assessment criteria in the analysis.

The selection of colonies to be included in the nomination has been undertaken to satisfy the conditions of authenticity and integrity, clearly reflecting the ideals relating to poverty reduction that guided their foundation.

ICOMOS considers that the comparative analysis justifies consideration of the nominated property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

The States Parties consider the nominated property is testimony to an exceptional and nationwide Enlightenment experiment in social reform, through a system of large agricultural home colonies. The property pioneered the domestic colony model, and for more than a century they influenced various types of custodial care in Western Europe and beyond.

ICOMOS considers that the nominated property does exhibit an important influence regarding social reform for the poor or socially disadvantaged during the 19th century in Western Europe and beyond. This influence as domestic agricultural colonies relates to architecture, planning and landscapes which were studied and copied widely.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

The States Parties consider the nominated property is also an extraordinary series of planned panoptic disciplinary settlements, created as isolated settlements in remote areas. The landscape organisation reinforced the disciplinary order and economic health of the colonies. They are an outstanding example of landscape design that represents an agricultural home colony with a social aim. The landscape patterns reflect the original character of different types of colonies and their subsequent evolution. They illustrate the extent, ambition and evolution of this social experiment in its flourishing period (1818-1918).

ICOMOS considers the nominated property is an outstanding example of domestic agricultural colonies created in the 19th century with the social aim of poverty alleviation. The property reflects the approach to both free and unfree colonists in their original and evolved forms, as isolated panoptic disciplinary settlements with a particular landscape organisation.
ICOMOS considers that criteria (ii) and (iv) have been justified.

Integrity and authenticity

Integrity
The States Parties note that the basic principle and the objective of the Colonies of Benevolence remain recognisable in the orthogonally structured landscape with avenues, meadows, fields and forests, and with the characteristic houses, farms, institutions, churches, schools and industrial buildings.

It is suggested that since their founding, the colonies’ landscapes have evolved. Of the current buildings, some were built by the Society of Benevolence, some by the Belgian and Dutch governments (unfree colonies) and some by private individuals (free colonies). Some of the changes have affected their visual qualities through the effects of privatisation and temporary neglect. Adaptive re-use has occurred in unoccupied buildings.

The States Parties inform that there are no pressure of urbanisation from the surrounding areas.

ICOMOS notes that the boundaries of the Dutch colonies of Wilhelminaoord and Veenhuizen are both reduced from those that existed during their founding period. Portions where integrity has been judged to have been lost have been omitted from the nominated property. Also, uncultivated or sparsely cultivated lands have been excluded.

Frederiksoord and Wilhelminaoord retain avenues, with a rhythmic pattern of house placement reflecting the ribbon layout of the founding period of these colonies, but the layout of Veenhuizen has been obscured by a modern village (excluded from the property). The 20th century use of institutional buildings as active prisons at Wortel and Veenhuizen has also impacted adversely on the coherence of the landscape.

ICOMOS notes that there are other specific issues with the integrity of individual component parts.

The changes made during the 19th and mid-20th centuries can be said to reflect the evolution of the colonies as social communities, none the less the later changes impact on the coherence of the settlements.

While the conditions of integrity of the nominated property have been affected by various changes as noted, overall ICOMOS considers that the conditions of integrity have been met. The revised nominated property reflects the best-preserved cultural landscapes of the free and unfree colonies.

Authenticity
The authenticity of the nominated property is based on the location, form and design, and materials.

ICOMOS considers the distinctive cultural landscape with its structured form, plantings, surviving buildings and archaeological sites from the period when the colonies were created and flourished, truthfully and credibly tell the story of the Colonies of Benevolence and reflect the proposed Outstanding Universal Value.

ICOMOS considers that the conditions of integrity and authenticity have been met for the nominated property.

Evaluation of the proposed justification for inscription
ICOMOS considers that the overall comparative analysis justifies consideration the Colonies of Benevolence for the World Heritage List, and criteria (ii) and (iv) have been justified.

ICOMOS also considers that the conditions of integrity and authenticity have been met for the nominated property.

Attributes
Key attributes include the four colonies with their evidence related to the flourishing period. In the case of the free colonies, this includes the long ribbons of houses and small farms set in a pattern of orthogonal roads and fields. The unfree colonies include larger building complexes, housing, and larger farms set in an orthogonally organised landscape of avenues and fields.

Features of the landscapes include their orthogonal structure with avenues, avenue plantings, other plantings, meadows, fields and forests, and with the characteristic houses, farms, institutions, churches, schools and industrial buildings.

4 Conservation measures and monitoring

Conservation measures
Major restoration programs have been undertaken regarding buildings and other characteristic elements of the grid in all of the colonies. However, restoration approaches might differ because of the differing local context. Where a building is vacant or due to fall vacant, appropriate forms of rehabilitation are sought consistent with the historical function of the building. Adaptive reuse is a recent development, embracing recreational functions and cultural tourism.

As noted above, the States Parties will pursue a common holistic approach to conservation practice applied across the nominated property.
Monitoring

Monitoring indicators have been developed for the nominated property, responding to the World Heritage Committee recommendation and the comments of the ICOMOS Advisory Process. They also reflect the current Outstanding Universal Value proposed by the States Parties.

Annual reports by the colony managers will describe progress in implementing the management plans as they pertain to each colony. Another aspect of monitoring is that colony managers will annually track the number of revisions that have been made to zoning plans or environmental plans and the number of environmental permits applied for and granted (the Netherlands) or notifications and authorisations issued (Belgium) in each colony.

An annual monitoring report will be prepared for the nominated property, and this will feed back into management.

ICOMOS considers the conservation measures and arrangements for monitoring are generally satisfactory.

5 Protection and management

Documentation

Building and landscape features in each component have been inventoried. Maps and lists of structures have been provided. No mapping is presented regarding current ownership patterns, and the extent of the existing prisons and state institutions are not presented.

Legal protection

The property is protected by various and very different tools that range in scale from national laws to municipal codes, covering both natural and cultural values.

At the national level, all the Dutch colonies are fully or partially protected as villagescapes. In Belgium, Wortel is a protected cultural heritage landscape. An environmental permit is required for (re)building or demolition within a protected villagescape. In protected cultural heritage landscapes in Belgium, owners and administrators are under the obligation to keep the landscape in good condition by carrying out maintenance and preservation works. The Flemish Region issues binding advice regarding heritage in protected areas.

ICOMOS notes that various protected areas do not always align with the boundaries of the component parts. This is seen in the extent of the protected villagescapes at Frederiksoord, Wilheminaaord, and Veenhuizen, where some parts of the components are not protected and/or some protected areas extend beyond the component boundary.

In both countries, representative buildings have been granted monument status and are protected. This includes a number of buildings and building ensembles within the colonies which are protected as individual monuments.

In the Netherlands, legislation for spatial planning and heritage has been simplified. A new Heritage Act entered into force in 2016. Regarding immovable heritage, this Act focuses on the preservation, the protection and the restoration of national monuments and archaeological monuments. A new Environment & Planning Act will enter into force in 2021 to regulate the protection of heritage values, replacing the existing Spatial Planning Act. The Environment & Planning Act provides opportunities for the integral protection of Outstanding Universal Value, and for the assessment of new developments. The Act contains separate, generic rules regarding the safeguarding of the qualities of a World Heritage site, and puts the State Party in a position to issue instructions to other authorities regarding the safeguarding of the values of World Heritage properties.

Additional and updated information has been provided on landscape protection in response to the World Heritage Committee recommendation.

ICOMOS considers that the legal protection is adequate for individual buildings and is generally adequate for the landscapes, but consideration should be given to ensuring the national villagescape protection should at least cover the full extent of Wilheminaaord.

Management system

A transnational steering group has been established. The province of Drenthe (the Netherlands) and Kempen Landschap (on behalf of the Province of Antwerp, Belgium) each act as site holder. In consultation with Kempen Landschap, the province of Drenthe will assume general control in matters that transcend the two countries. The parties represented in the steering group have allocated financial and human resources for site management. The site holder is responsible for the proper management of the property. The site holder organises the activities for the maintenance and improvement of the quality of the property, and is also responsible for communication, coordination, monitoring and periodic reports. An Advisory Committee for Science, Education and Quality provides technical advice.

It appears that most responsibilities for the management of the property will be given to existing staff, rather than new dedicated staff. Duties of a site manager, one for each component or cluster of components, are expected to take up to 0.25% of a full-time equivalent position.
The States Parties have written a management plan which consists of a main document in which the proposed Outstanding Universal Value is summarised, the legislation which safeguards the sites is explained, as well as the managerial structure, the main challenges of its conservation and monitoring issues. It focuses on the main strategic activities and the general criteria for the conservation of all of the component parts, including long-term objectives for protection and rehabilitation.

This general document is supplemented by specific plans for the component parts, grouped into three sets: Frederiksoord-Wilheminaoord, Wortel and Veenhuizen. The specific plans include a range of measures, including reference to other relevant plans which deal with aspects such as trees, the management and maintenance of public spaces and greenery, and agricultural development.

The focus of the management plan is the preservation and reinforcement of the proposed Outstanding Universal Value for the series as a whole and for the individual colonies.

The States Parties have adapted the management plan given the revised series, proposed Outstanding Universal Value, attributes and boundaries, and in responding to the World Heritage Committee.

As the legislative protection mentioned above shows, the property is now being protected by various and very different tools. All these legal instruments provide sectorial guidelines or criteria for intervention and conservation of the property.

Regarding risk preparedness, the management plan has a brief analysis of risks and remedial measures are noted. However, no specific strategy is included.

ICOMOS considers that the organisation of the management system seems effective, including an intergovernmental committee to address issues between the States Parties. An ongoing challenge will be to manage the nominated property as a unified whole, especially to ensure that conservation approaches evolve in the same direction.

Visitor management
The current flow of tourists ranges from several thousands to 250,000 visitors per year per colony. It is expected that these numbers will increase slightly in the event of inscription.

Overall there is a relatively low level of visitation at present. Visitor centres have been established at each component part and other support facilities exist. Future plans for tourism development are briefly outlined in the nomination dossier, additional detail is provided in the management plan, and further planning measures are proposed.

Traffic management is recognised as an issue given potential increases in traffic on the very narrow roads.

Community involvement
The involvement of the local communities and residents is organised in all component parts. In both States Parties, they are closely involved in the development of their environment, being a common policy for governing authorities. This includes formal and other means.

Evaluation of the effectiveness of the protection and management of nominated property
Documentation for the nominated property is generally adequate.

Legal protection is adequate for individual buildings and is generally adequate for the landscapes, but consideration should be given to ensuring the national villagescape protection should at least cover the full extent of Wilheminaoord.

ICOMOS considers that the organisation of the management system seems effective, including an intergovernmental committee to address issues between the States Parties. An ongoing challenge will be to manage the nominated property as a unified whole, especially to ensure that conservation approaches evolve in the same direction.

6 Conclusion
ICOMOS considers that the overall comparative analysis justifies consideration of the Colonies of Benevolence for the World Heritage List, and criteria (ii) and (iv) have been justified. The conditions of integrity and authenticity have been met for the nominated property.

Conservation measures and arrangements for monitoring are generally satisfactory.

Documentation for the nominated property is generally adequate.

Legal protection is adequate for individual buildings and is generally adequate for the landscapes, but consideration should be given to ensuring the national villagescape protection should at least cover the full extent of Wilheminaoord.

ICOMOS considers that the organisation of the management system seems effective, including an intergovernmental committee to address issues between the States Parties. An ongoing challenge will be to manage the nominated property as a unified whole, especially to ensure that conservation approaches evolve in the same direction.
7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Colonies of Benevolence, Belgium and the Netherlands, be inscribed as a cultural landscape on the World Heritage List on the basis of criteria (ii) and (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

The Colonies of Benevolence were an Enlightenment experiment in social reform which demonstrated an innovative, highly influential model of pauper relief and of settler colonialism – the agricultural domestic colony. Beginning in 1818, the Society of Benevolence founded agricultural colonies in rural areas of the United Kingdom of the Netherlands (now the Netherlands and Belgium). The Colonies of Benevolence created a highly functional landscape out of isolated peat and heath wastelands through the domestic colonisation of paupers. In the process, colonists would become morally reformed ideal citizens, adding to the nation’s wealth and integrating marginal territories in emergent nation states.

Over a seven-year period, almost 80 square kilometres of wastelands, domestic territory considered unfit for settlement, were reclaimed in Colonies. The colonies featured orthogonal roads, ribbons of houses and small farms, and communal buildings. From 1819 onwards, ‘unfree’ colonies were also founded, the last in 1825; these featured large institutions and larger farms again set in an orthogonal pattern of fields and avenues, and housed particular groups of disadvantaged people with support from the State. At their peak some 18,000 people lived in the colonies, including those within the property.

The process of transforming its poorest landscapes and citizens through a utopian process of social engineering went on until well into the 20th century. After 1918, the colonies lost their relevance and evolved into ‘normal’ villages and areas with institutions for custodial care.

The property comprises four former colonies in three component parts: the free colonies of Frederiksoord and Wilhelminaard, the colony of Wortel which was a free colony that evolved into an unfree colony, and the unfree colony of Veenhuizen.

Criterion (ii): The Colonies of Benevolence bear testimony to an exceptional and nationwide Enlightenment experiment in social reform, through a system of large agricultural home colonies. They proposed a model of social engineering based upon the notion of ‘productive labour’, with the aim of transforming poor people into ‘industrious’ citizens and uncultivated ‘wastelands’ into productive land. In addition to work, education and moral upliftment were considered essential contributions to the aim of transforming poor people into self-reliant citizens.

The Colonies of Benevolence were developed as systematic self-sustaining agricultural settlements with state-of-the-art social facilities. As such, the Colonies of Benevolence pioneered the domestic colony model, attracting considerable international attention. For more than a century, they exerted an influence on various types of custodial care in Western Europe and beyond.

Criterion (iv): The Colonies of Benevolence are an outstanding example of domestic agricultural colonies created in the 19th century with the social aim of poverty alleviation. Deliberately cultivated as ‘islands’ in remote domestic heath and peatland areas, the Colonies implemented the ideas of a panoptic institution for the poor in their functional and spatial organisation.

They are an outstanding example of a landscape design that represents an agricultural home colony with a social aim. The landscape patterns reflect the original character of the different types of Colonies and their subsequent evolution, and illustrate the extent, the ambition and the evolution of this social experiment in its flourishing period (1818-1918).

Integrity

The property contains all the attributes which convey the Outstanding Universal Value. It includes key examples of both free and unfree colonies. All component parts consist of a combination of relict landscape layers which together illustrate the flourishing period of the Colony model. In the case of the free colonies, attributes include the long ribbons of houses and small farms set in a pattern of orthogonal roads and fields. The unfree colonies include larger building complexes, housing, and larger farms set in an orthogonally organised landscape of avenues and fields. Features of the landscapes include their orthogonal structure with roads, avenue plantings, other plantings, meadows, fields and forests, and with the characteristic houses, farms, institutions, churches, schools and industrial buildings.

While there have been changes and evolution over time, the property reflects the best-preserved cultural landscapes of the free and unfree colonies.

Authenticity

The authenticity of the property is based on its location, form and design, and materials. The distinctive cultural landscape with its structured form, plantings, surviving buildings and archaeological sites from the period when the colonies were created and flourished, truthfully and credibly tell the story of the Colonies of Benevolence and reflect the Outstanding Universal Value.
The use of the Colonies for agriculture and the social objectives formulated by the Society of Benevolence over two centuries were mainly continued and supplemented with new functions, which redefined the original social significance of the Colonies, in the spirit of the Colonies and adapted to changing times. The connecting factor is not one single ‘authentic’ period, but the landscape structure which has developed in two determining phases: the first phase of the creation (1818-1859), the phase of the further evolution, the phase of state institutions and privatisation (1860-1918).

Protection and management requirements

The property is protected by various and very different tools that range in scale from national laws to municipal codes, covering both natural and cultural values. These provide sectorial guidelines or criteria for intervention and conservation of the property.

Legal protection is adequate for individual buildings. In both countries, representative buildings have been granted monument status and are protected. This includes a number of buildings and building ensembles within the colonies which are protected as individual monuments.

At the national level, all the Dutch colonies are fully or partially protected as villagescapes. In Belgium, Wortel is a protected cultural heritage landscape. Consideration should be given to ensuring the national villagescape protection should cover the full extent of Wilheminaoord.

In the Netherlands, a new Environment & Planning Act will enter into force in 2021 to regulate the protection of heritage values, replacing the existing Spatial Planning Act. The new Act provides opportunities for the integral protection of Outstanding Universal Value, and for the assessment of new developments.

The organisation of the management system for the property seems effective. This includes an intergovernmental committee to address issues between the States Parties, a transnational steering group, the designation of site holders in each country, a technical advisory committee, site managers and staff.

There is a management plan consisting of a main document related to the whole property, as well as three specific plans for the component parts. The focus of the management plan is the preservation and reinforcement of the Outstanding Universal Value for the series as a whole and for the individual colonies. Risk preparedness is addressed through existing mechanisms rather than a specific strategy.

Visitor management is achieved through a range of measures including visitor centres, interpretive materials and support facilities, and further measures are planned. Traffic management is recognised as an issue.

Local communities and residents are closely involved in the management of the property through formal and other means.

An ongoing challenge will be to manage the property as a unified whole, especially to ensure that conservation approaches evolve in the same direction.

Additional recommendations

ICOMOS further recommends that the States Parties give consideration to the following:

a) Establishing a buffer zone, in order to ensure the protection of the component parts from any potential threats, through a Minor Boundary Modification process, to be submitted to the World Heritage Centre by 1 December 2023,

b) Ensuring the national villagescape protection for the full extent of Wilheminaoord,

c) Ensuring the form, scale and placement of new buildings closely adheres to those of the original buildings in each component,

d) Ensuring the conservation of the grid dimensions that characterize each colony,

e) Ensuring management of the property as a unified whole, especially that conservation approaches evolve in the same direction,

f) Enhancing the mapping of the property to document current ownership patterns and the extent of the existing prisons and state institutions;
Maps showing the location of the nominated components (February 2020)

Maps showing the boundaries of component part A Frederiksoord-Wilhelminaord (February 2020)
Maps showing the boundaries of component part B: Wortel (February 2020)

Maps showing the boundaries of component part C: Veenhuizen (February 2020)
Roșia Montană Mining Landscape (Romania)  
No 1552rev

Official name as proposed by the State Party  
Roșia Montană Mining Landscape

Location  
County of Alba  
Municipalities of Roșia Montană and Abrud  
Romania

Brief description  
Roșia Montană is located in the Metalliferous range of the Apuseni Mountains. As Alburnus Maior, it was the site of extensive gold-mining activities during the Roman Empire from 106CE, with some 500 tonnes of gold being extracted in the following 166 years. Roman galleries are found in four underground localities chosen for their sources of high-grade ore. Wax-coated wooden writing tablets have provided detailed legal, socio-economic, demographic and linguistic information about the Roman mining activities, not just in Alburnus Maior but also across the wider Dacian province.

Roșia Montană was mined to a lesser extent between medieval times and the modern era. These later extractive works surround and cross cut the Roman galleries. More recently open-cast mining evidence has been practiced.

The ensemble of mining sites is set in an agro-pastoral landscape which largely reflects the structures of communities that supported the mines between the 18th and the early 20th centuries.

Category of property  
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a site.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019) paragraph 47, it is also nominated as a cultural landscape.

1 Basic data  
Included in the Tentative List  
18 February 2016

International Assistance from the World Heritage Fund for preparing the Nomination  
None

Date received by the World Heritage Centre  
3 March 2017

Background  
This is a referred back nomination.

In June 2018, during the 42nd session of the World Heritage Committee in Manama, the State Party requested that consideration by the World Heritage Committee of ICOMOS’s evaluation, which recommended inscription, be formally delayed and that the Committee refer back the nomination. This was agreed in the following decision (42 COM 8B.32):

The World Heritage Committee,

1. Having examined Documents WHC/18/42.COM/8B and WHC/18/42.COM/INF.8B1;
2. Taking note of the Advisory Body’s evaluation whereby the nominated property justifies Outstanding Universal Value on the basis of criteria (ii) and (iv), and meets the conditions of integrity and authenticity;
3. Acknowledges the official request for referral made by the submitting State Party due to ongoing international arbitration;
4. In compliance with paragraph 159 of the Operational Guidelines, refers the nomination of Roșia Montană Mining Landscape, Romania, back to the State Party, due to the ongoing international arbitration, and to implement the measures required to ensure the protection and management of the potential OUV of the property as identified by ICOMOS and encourages the State Party to work in close cooperation with the Advisory Bodies to this end.

Consultations  
ICOMOS has consulted TICCIH and several independent experts.

Comments about the evaluation of this property were received from IUCN in November 2017.

Technical Evaluation Mission  
An ICOMOS technical evaluation mission visited the property from 25 to 30 September 2017. Problems with obtaining access to privately controlled lands during the mission limited the amount of the property that could be visited.

Additional information received by ICOMOS  
ICOMOS sent a letter to the State Party on 22 September 2017 requesting additional information on the key attributes, proposed Outstanding Universal Value and criteria, ownership and state of conservation of the nominated property. On 30 October 2017, the State Party sent a response including maps depicting the locations of attributes and current land ownership, and a historic map showing surface mining works in 1869. The additional information has been incorporated into the relevant sections below.
On 22 December 2017, ICOMOS sent to the State Party an interim report requesting additional information on the justification for inscription, and protection and management.

A response from the State Party was sent on 28 February 2018 stating that the State Party was unable to provide any additional information due to a pending arbitration case involving the Romanian government and the mining company Gabriel Resources before the International Center for Settlement of Investment Disputes.

Since 2018, the State Party has not made any contact with ICOMOS.

On 31 January 2020, the nomination was re-submitted. It includes a slightly revised boundary and a re-configured justification for inscription that reflects ICOMOS’s recommendations to concentrate on the ensemble of Roman gold mining remains.

On 6 February 2020, ICOMOS sent a letter to the State Party requesting clarification on the following issues: the extension of the Gabriel Resources large scale mining concession; the proposed new mining law; the proposed small scale mining within the property and the draft management plan.

The State Party responded on 21 February 2020 and their response has been take into consideration in the finalisation of this report.

**Date of ICOMOS approval of this report**
12 March 2020

**2 The property**

**Description**
Located in the Apuseni Mountains of western Romania, Roșia Montană features extensive evidence of gold mining both below and above ground during the Roman period. Four gold bearing massifs are at the centre of the property -Cârnic, Orlea and Cetate – and all have underground works, while Cârnic and Cetate both have open air mines. Many related archaeological sites are present in the immediate landscape and the wider region.

The layout of the Roman mining works reveals a systematic consistency in the shape and distribution of uniform, highly engineered, workings. There are 7 km of Roman era galleries. These, do not form a single network, rather they are spread across the four massifs, and are part of a total of 80 km of galleries that have been recorded at Roșia Montană, dating from the Roman era to modern times. Roman miners were heavily selective of the highest-grade ores, which means that they left a still profitable resource for later miners using different technologies. Most Roman workings are therefore commonly intersected by later workings.

Roman archaeological sites are also present in the property. These represent residential areas, temples and necropoli used by the people who lived and worked in the mining landscape.

The Roman mining galleries in Cârnic Massif contain extensive remains of four major mining typologies: helicoidal staircase galleries, vertical stopes with roofs cut in reverse stairs, pillar-supported stopes, and stepped communication galleries. A hydraulic system was discovered in the Pâru Carpeni mine, consisting of a series of four waterwheels to lift water for drainage, while treadmill powered waterwheel system has been found in the Cătălina Monulești galleries of the Lety Massif.

Orlea Massif has a series of Roman galleries that are open to the public as part of the mining museum. The remaining Roman galleries at Orlea have been little explored, as is the case for the Roman workings in the Cetate Massif.

Two areas of Roman surface mining are present at the Cârnic and Cetate Massifs.

Medieval galleries are found in the Văidoaia Massif. Later underground miners built a series of galleries in these massifs that cut through and connected many of the Roman mines. The humid conditions of the mines have preserved wooden artefacts including the waterwheels, wood lined drainage channels, and wooden ladders.

Beginning in the early 18th century the pace of mining intensified, and a network of header ponds was created with dams to gather water from springs, streams and snow melt for use by the ore processing works. These ponds were repaired and remained in use until the end of this type of traditional mining in the early 20th century. A railway built in the mid-19th century leads from the mines at Roșia Montană 6 km west to ore processing facilities at Gura Rosiei. Other 19th century structures are the headquarters of the mining company, and a complex of several industrial buildings including the entrance and control centre of the mine.

The town of Roșia Montană surrounding the mining headquarters has a building stock that dates primarily from the 18th to early 20th centuries including several neighbourhoods with vernacular houses, although a number have been demolished in the last two decades. Several small traditional churches with their parish ensembles also exist in the town including those of the Roman Catholic, Unitarian, Greek Catholic, and Orthodox faiths. Further afield on the eastern side of the property is the modern village of Corne which has a dispersed pattern. Three other small satellite villages are present on the edges of Roșia Montană; these are Țărina, Balmoșești, and Blidești.

An agro-pastoral landscape surrounds the mining landscape and villages. In some places new vegetation growth has reclaimed the former mining features. The villages, mining works, header ponds and the pathways
that link them form a dense network of landscape features.

History and development
The Metalliferous Range of the Apuseni Mountains is one of the richest gold deposits in Europe. Gold artefacts that date to the Bronze Age have been found nearby suggesting that small scale mining and recovery has a long history in the region. The Romans conquered Dacia in 106 CE and they began underground mining immediately after. The district of Roșia Montană was then known as Albumus Maior. Romans extracted around 500 tons of gold during their 166 year rule. A series of wax coated wooden writing tablets have been found in one of the mines. The tablets reveal explicit details of mining organisation, sale and purchase contracts, receipts of loans with interest, and the sale of slaves. The evidence attests that not only Illyrians, but also Greek and Latin migrants were hired to work in the mines and organised in associations such as the collegia aurariorum and societas danistaria. The period of Roman mining lasted until 271 CE when Dacia was abandoned by the Roman army after fighting with the Goths.

Roman mineral extraction was neither extraordinary nor revolutionary technology, but it was deployed in a systematic manner. Mining was done by hand using iron tools: picks, hammers and chisels. Timbering for support was rarely used in Roșia Montană because the inclined shafts and galleries were small in cross section. Lighting was by rush lamps, and niches in the sidewalls of tunnels are commonly encountered. Many ancient lamp have been recovered. Horizontal galleries were trapezoidal in cross section. Helicoidal staircases and inclined stairway galleries connected the vertical stopes (extraction areas), and ranks of multiple water wheels aided drainage of the shafts.

Processing also followed standard methods of the time. Ore was heated and broken up before being ground into a powder and then the precious metal was concentrated using water and gravity. Combined with lead, the silver-gold mixture was melted and poured into moulds which were then heated further to remove the lead by oxidation. Finally, the gold and silver were parted by using salt cementation, heating the alloy with salt in a closed chamber.

Evidence for gold mining appears again in the 13th century in the form of historical references, and these appear sporadically in the written record for the next four centuries. By 1690, the Habsburgs gain possession of Transylvania including the gold mining region of Roșia Montană. Mining activities increased during the reigns of Maria Theresa (1740-1780) and Joseph II (1780-1790) with a mix of improvements sponsored by the state and by private activity. Immigration of miners from Slovakia took place, bringing their expertise. Gunpowder blasting was used to expand the galleries and ore was transported in wagons on wooden rails. At this time, the network of header ponds was also elaborated with the water used to power stamping mills that processed the ore, many of them privately owned. The hydraulic system was also used for dressing the ore, separating the particles of gold from the matrix. Workings from this time have been archaeologically investigated in the Cârnic Massif. In this era, the first discoveries were made of Roman wax covered wooden tablets that bore legal documents describing transactions, legal issues and the lives of the Roman mining community.

Mining continued under similar conditions during the 19th century with many small private family-run mines. The ore railway was built in mid-century and repairs of the network of header ponds continued into the early 20th century. Most mining stopped during the First and Second World Wars and all private mining was ended after the Communist takeover in 1948. Mining continued after nationalization, although now with large scale industrial methods both underground and in open cast surface mines. In the 1970’s, parts of the Roman works in the Cetate Massif were destroyed by open cast mining. The state mine ceased operations in 2006; its last years of operation were subsidized by the state. Recently, a foreign mining company has attempted to restart mining at Roșia Montană, becoming a major landowner in the area, but it has not been able to gain the needed approvals to proceed.

Additional information received from the State Party on 30 October 2017 pointed out that radiocarbon dates from wooden samples from underground mining works include isolated dates from Late Antiquity (6th c. CE), the Middle Ages (late 9th - early 11th c. and 13th c.), Renaissance (16th c.), and the “modern” period (18th – 19th c.), giving an indication that underground mining continued across the centuries. The State Party acknowledges the data gaps in above ground works and points to the potential of discovering further medieval archaeological evidence in future campaigns. Also, the mining company has recently agreed to share their rescue archaeology data for heritage purposes. All features that relate to modern industrial mining activity, i.e. those that postdate 1948, have been excluded from consideration in the nomination.

3 Justification for inscription, integrity and authenticity

Comparative analysis
The State Party structured the comparative analysis to include examples of Roman mining as well as gold mining within Europe. Mining properties that have been inscribed on the World Heritage List and those placed on Tentative Lists were also examined as were other Roman mining properties within Romania and other selected mines.

The property of Las Médulas, Spain (1997, criteria (i), (ii), (iii), and (iv)) has some similarity with Roșia Montană. It was the principal Roman source of gold in the century before the development of Roșia Montană and its decline in production may have contributed to Trajan’s decision to invade Dacia for its gold. However, it was a placer deposit and so was worked solely with open cast methods instead
of the combination of open cast and underground mining seen at Rośia Montană. No other inscribed properties have evidence of Roman gold mining.

One other inscribed property represents later gold mining activities in Europe. The Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity, Slovakia (1993, criteria (iv) and (vi)) is noted for its silver and to a lesser extent gold mining from the 15th to 19th centuries. Banská Štiavnica grew up into a larger urban settlement than Rośia Montană, and during this time its mines operated at a larger scale and saw more technical innovation than those of Rośia Montană. The town hosted the Habsburg Mining Academy and miners and their methods immigrated from Banská Štiavnica to Rośia Montană.

Other worldwide mines and mining landscapes have been considered as well. Trondheim-Klondike (Canada, Tentative List) represents the Yukon gold rush at the end of the 19th century. Ancient Lavrion (Greece, Tentative List) represents Hellenic silver mining. Mining Historical Heritage (Spain, Tentative List) is a serial site that includes one component from the Roman era at Tinto and Tharsis Rivers where both precious and base metals were mined. One other comparative site is Tresminas, Portugal, an open pit Roman mining complex that is different in nature from the underground mining works found at Rośia Montană.

Within Romania, only Bucium represents a confirmed Roman mining complex. Bucium is 6 km southeast of Rośia Montană, and is primarily an open cast mine with limited underground works.

In conclusion, ICOMOS considers that the typology of Roman mining works is much more varied at Rośia Montană compared to anywhere else. Helicoidal staircase galleries, vertical stopes with roofs cut in reverse stairs, and pillar-supported stopes are only found at Rośia Montană.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

**Justification of Outstanding Universal Value**

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Roman exploitation for gold occurred throughout the property, and includes over 7 km of ancient underground workings discovered to date as well as processing areas, living quarters, administrative buildings, sacred areas and necropoli, some with funerary buildings and complex architecture.
- A number of artificial lakes, formerly header ponds for ore processing greatly expanded from 1733, may have a Roman origin;
- Villages of Rośia Montană and the much smaller Corna overprint earlier Roman settlement, while steeply sloping meadows are part of agro-pastoral practices as old as the mining activity itself.

ICOMOS considers that this new justification is appropriate because Rośia Montană Mining Landscape contains the most significant, extensive and technically diverse underground Roman gold mining complex currently known in the world.

ICOMOS considers that only the Roman period mining works and associated archaeological sites have been demonstrated to have a high significance. Many of the other aspects of the cultural landscape, such as the header ponds, the 18th and 19th century villages and the agro-pastoral landscape, appear to date to later time periods and with no direct evidence for evolution from Roman times. Thus, ICOMOS considers that the property is not an evolved cultural landscape and would not be inscribed for on-going mining activities. Rather, as the boundaries contain not only many aspects of Roman mining but also remains of civil sites and necropoli, the property can be read as a fossilised mining landscape, around which agro-pastoral activities provides an appropriate context for the known mining remains and possible source of further evidence.

**Integrity and authenticity**

Integrity

The State Party states that the property contains all the necessary attributes to express its Outstanding Universal Value.

ICOMOS considers that all the elements necessary to express the values of the nominated property for the Roman mining period are included within the boundaries of the nominated area. The nominated property is of adequate size to ensure the complete representation of the features and processes which convey the nominated property's significance for this time. A significant proportion of the elements necessary to read and understand the values conveyed are still present and included in the nominated area. Moreover, it comprises an area in which future archaeological research will probably discover a large number of further surface and underground mining, ore processing and settlement structures of the Roman period.
Later works, especially those from the 18th, 19th and 20th centuries intersect the Roman galleries at many places. While the impacts of these later galleries do represent a loss of integrity for the earlier works, they also serve as connection tunnels, allowing access to Roman works that could otherwise remain inaccessible.

The State Party notes that there have been two recent detrimental impacts to integrity. In 1971, opencast mining by the state company destroyed the “Fortress” on Cetate Massif, a series of Roman era openworks. In 2004, over 250 properties in the Corna valley were demolished in preparation for the resumption of opencast mining activity. Despite this loss, significant 18th and 19th century structures remain in the Corna valley. Threats remain to the state of conservation to many of the property’s standing structures.

Any proposal to resume opencast mining would represent a serious threat to the integrity of the property.

Authenticity

The nominated property contains attributes that are high in authenticity in terms of the location, form and materials of surviving historic features, with a clear sense of how, when and by whom mining shaped the land. In terms of knowledge, epigraphic and documentary evidence combined with a decade of intensive systematic archaeological investigation has provided a major contribution to the understanding of Roman mining techniques and organisation.

ICOMOS notes that there is considerable potential for future research and for new discoveries related to many periods of the region’s mining history.

ICOMOS considers that any proposal to restart large scale mining at Roșia Montană would have a severe impact on the authenticity of the property. Authenticity is considered to be highly vulnerable to new mining proposals.

ICOMOS considers that the conditions of integrity and authenticity have been met for the remains that relate to mining in the Roman period, but are highly vulnerable.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iii), (iv) and (vi).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that it embodies the cultural tradition of one of the oldest documented mining communities in Europe, anciently founded by the Romans. Detailed physical testimony is provided by: the underground mining works, chronologically differentiated by distinctive technical features; the socio-technical surface mining landscape consisting of ore-processing areas, habitation areas, sacred areas and necropoli.

Interpretation of the site’s history is enriched by the wax-coated wooden writing tablets discovered in the mine during the 18th and 19th centuries. Together with prolific stone epigraphic monuments discovered on site, they provide an authentic picture of daily life and cultural practice in this ancient frontier mining camp community. Combined with outcomes of recent, intensive and systematic archaeological investigation, a compelling picture of the organisation, strategies and practices of the reflection of Roman mining
practices can be seen through the overall traditions of the mining complex, which are exemplified by both engineering and civil evidence from the many and diverse sites of the property.

ICOMOS considers that this criterion has been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that it is testimony to the Roman Imperial era of gold exploitation in Golden Quadrilateral of the Romanian Carpathians illustrating the strategic control and vigorous development of precious metals’ mining by the Roman Empire, essential for its longevity and military power. The pre-eminent Roman mining works represent a technological ensemble unknown elsewhere from such an early era.

ICOMOS considers that Roșia Montană exhibits an exceptional ensemble of Roman underground and aboveground mining works and associated Roman era archaeological sites.

ICOMOS considers that this criterion has been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that the Roman wax-coated wooden tablets (tabulae ceratae) of Alburnus Maior represent a significant source for the interpretation of Roman law and on the law of obligations, which had a significant impact on the German Civil Code, subsequently forming the basis for similar regulations in other countries.

ICOMOS considers that the tabulae ceratae are excellent written sources regarding Roman law and economy, but that they in themselves as movable objects cannot be seen to be of outstanding universal significance.

ICOMOS considers that this criterion has not been justified.

ICOMOS considers that criteria (ii), (iii) and (iv) have been justified. The conditions of authenticity and integrity have been met but are highly vulnerable.

Description of the attributes
Roman underground mining works exist in four massifs, Cârnic, Lety, Orlea and Cetate. Specific attributes include trapezoidal tunnels, helicoidal stairways, inclined stairway communication passages and pillar supported stopes. Two waterwheel drainage features have been found in the Cârnic and Lety Massifs. Roman opencast mining evidence is still present at Cârnic and Cetate Massifs.

A series of surface archaeological sites that date to the Roman era have also been found at Hâbad Sacred Area (temple), Găuri (habitation), Hâbad (habitation), Tâul Țapului (habitation), Hop (necropolis), Nanului Valley Sacred Space (temples, necropolis), Carpeni Zone (habitation, possibly a temple and a necropolis), Jig-Piciorag Area (ore processing and necropolis), Țărina (necropolis), Pârâul Porcului - Tâul Secuilor (necropolis), Tâul Cornei - Corna Sat Zone (necropolis), Bâlmășoți - Islaz Area (Roman features, possibly earlier Bronze Age features as well). The wider landscape must also be included as a source of possible further evidence for Roman activities.

4 Factors affecting the property

The main development pressure is the possibility of continued gold and silver mining at Roșia Montană.

The Roșia Montană Gold Corporation (RMGC), established in 1997 and in the ownership of Gabriel Resources Ltd (80.69%) and the State mining company Minvest Roșia Montană S.A (19.31%) owns a large part of the property. It tried to promote a development plan that envisaged four large open cast mines (Cetate pit, Orlea pit, Cîrnic pit, Jig pit), two large waste dumps and a large tailing pond that would drown the Corna valley. A resumption of mining at this scale would mean that only a small portion of the Roman mining galleries would be preserved in the immediate area of the town of Roșia Montană. The majority of the Roman remains described in the nomination dossier would be destroyed.

The realisation of this plan would result in the destruction of a major part of the nominated property leaving only a small historic “island” of built heritage and some underground Roman mining works at Roșia Montană.

At the time of the ICOMOS’s first evaluation, the Roșia Montană Gold Corporation (RMGC) still had an extraction licence that ran until 2019. Gabriel Resources the main owners of the RMGC had taken the State Party to the World Bank arbitrators claiming $4.4bn in compensation from the Romanian Government for lost earnings as a result of the mining being effectively stopped in 2014.

In 2018 a new draft Mining Law was proposed to replace the existing law and this could have made it easier to grant new permits for the Roșia Montană mine, though, amongst other things, the elimination of approval of production mining licenses by the Government. It is understood that this proposed law has now been dropped.

In 2019, the mineral resources agency passed an addendum to extend the RMGC’s extraction licence for a further five years until 2024, and also increased the level of royalties payable to the government. There is apparently no justification under Romanian law to refuse
such a requested extension of a mining licence. Currently no valid permit is attached to this licence.

In supplementary information provided on 21 February 2020, the State Party indicated that 'Subject to further detailed consideration and the rights of any license holders, no mining – at any scale – will be allowed where it may pose any risk, whatsoever, to proposed Outstanding Universal Value'. Quite what rights, though, might be pertinent is unclear.

The results of the World Bank arbitration have not yet been announced but are expected in 2020. The State Party indicated in its letter of 28 February 2020 that its position in the World Bank arbitration is that 'RMGC has not met to date but may still meet the requirements under Romanian law to obtain the environmental and other permits necessary for the Roşia Montană mining project'.

The State Party has further indicated that some of the action points in the management plans could only be implemented 'in circumstances in which the rights under the mining license are no longer enforceable'.

The situation with regards to large scale mining thus remains somewhat unclear. Although there are no active concessions at the current time, it remains the case that permits could be approved under certain circumstances for existing licences and thus large-scale mining remains a threat.

Small scale mining is mentioned in the draft Management Plan that has been submitted as supplementary information. It is suggested that a future development strategy for the property could include sensitive small scale mining, and further that this would be in line with the UNESCO Policy to integrate sustainable development within the activities of the World Heritage Convention. It is not clear whether such mining would be within the nominated property, in the buffer zone or in the wider setting, nor whether on land owned by State, by RMGC, or by private owners, or whether the mining would be within existing licences. The State Party has commented that there are many kilometres of modern mining tunnels and chambers within the nominated property that are not part of proposed Outstanding Universal Value and where small-scale mining could contribute to re-employment, the safety and conservation of underground Roman workings, cultural heritage interpretation, and also revenue. The recommencement of mining activities, even if on a small-scale, could have a highly detrimental and cumulative impact on the integrity of the landscape and its Roman mining remains and it is difficult to understand how these might contribute in a meaningful way to sustainable development.

In terms of other threats to the landscape, the mining company has systematically bought and demolished houses and encouraged residents to move away with the result that the population of the municipality has fallen from 3,800 in 2002 to under 1,000 today. Many remaining buildings are empty and their state of conservation is fair to poor and declining.

Additional information received from the State Party on 30 October 2017 provides more detail about the demolished houses, their locations and heritage potential. The only houses that have been demolished in the historic centre of the town (the protected area) were said to be in very poor condition, essentially ruins. Of the roughly 200 demolished homesteads in other parts of the property, most dated to the 20th century. Very few were considered notable, rather they were typical examples of local vernacular houses.

There is little tourism and visitor facilities are limited at present.

There is no seismic threat to the region. Nevertheless, the dams that have created the header ponds could pose a long term risk of decay or collapse if they are not regularly inspected and maintained.

IUCN notes that the header ponds are wetland habitats and host rare aquatic plants that require acidic conditions. Mires and grasslands are other semi-natural habitats within the property that can host rare species.

The former mines are a source of water pollution. The main drainage adit that flows into the Roşia River shows traces of iron oxide leaching out of the mine. There is a water treatment plant, but it appears to be inoperative.

ICOMOS recommends that the water treatment plant be activated to reduce the pollutants flowing out of the main adit into the Roşia River.

ICOMOS considers that the main threats to the property are the potential resumption of large scale open-cast gold mining, the potential, cumulative impact of small-scale mining, and water pollution from old mines.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

In the referred back nomination, the boundaries of the nominated area have been slightly reduced to exclude modern parts of the property that do not include Roman remains.

The small buffer zone around the nominated property, especially at the back sides of the mountain ridges, is considered sufficient to protect the underground and surface Roman archaeological remains. There is no view from the boundary of the property or its buffer zone to the large open pit mine (Cariera Roşia Poieni) which is to the east of the property.
ICOMOS considers that the boundaries of the nominated property and of its buffer zone are appropriate.

Ownership
It is estimated that the Municipality of Roșia Montană together with the State mining company Minvest S.A. owns around 45% of the land within the nominated property, the Roșia Montană Gold Corporation around 30%. The rest is held by individual owners, associations of owners, and organisations (churches).

Additional information received from the State Party on 30 October 2017 indicates that all underground mining fields are in the public property of the State and currently they are part of the mining concession that was granted to Roșia Montană Gold Corporation in 1999 with an initial duration of 20 years and which has now been extended for a further five years. Public property in Romania is inalienable.

Protection
Roșia Montană Mining Landscape is legally protected as, in accordance with Romanian law, all provisions for World Heritage sites apply to a property once a nomination has been submitted to UNESCO.

The entire Municipality of Roșia Montană is designated under the Law for the approval of the National Spatial Development Plan – Section III. Protected areas (L. 5/2000), which enables comprehensive zoning and planning, and by the Law for the protection of historic monuments (L. 422/2001) which protects historic monuments of exceptional national value (urban ensembles [e.g. the historic centre], industrial architecture [e.g. the Roman gold mining galleries] and monuments of vernacular architecture/village dwellings [e.g. houses from the 18th and 19th centuries]). Currently, 50 specific places within the nominated property are protected by this law and 18 more are in the process of being listed.

In its first evaluation, ICOMOS noted that while planning controls have been enabled, specific zoning by the local council (a General Urban Plan) was still in the process of being enacted and that development of the Zonal Urban Plan (Plan Urbanistic Zonal, PUZ) and the revised General Urban Plan (Plan Urbanistic General, PUG) would be completed in the next 18 months.

In the supplementary information provided, the State Party has stated that currently no urban planning regulations are valid within the administrative territory of Roșia Montană, as the former plans (both PUZ and PUG) have been declared legally invalid. No explanation has been provided for this situation but it is stated that the Ministry of Culture has initiated a dialogue with the Municipality of Roșia Montană, in order to assist in the process of drafting new regulations as quickly as possible, and has requested funding to be granted to the Municipality.

ICOMOS considers that the legal protection in place is adequate but the current lack of comprehensive zoning and planning regulations is a cause for concern and the PUG and the PUZ need to be developed and implemented as soon as possible.

Conservation
Between 1999 and 2013, extensive archaeological research programmes financed by the mining company were undertaken in the nominated property. This has led to the documentation of numerous underground and surface archaeological sites, especially from Roman times, and the discovery and physical preservation of more than 10,000 artefacts that are now preserved in several public and private museums. For example, 6,864 objects are in the National History Museum, Bucharest and 5,385 objects are held by the mining company. Additional information received from the State Party on 30 October 2017 indicates that processing, analysis and reporting of the finds made during the rescue archaeology investigations are planned for but are yet to be completed.

Since 2012, research on a less intensive scale has been undertaken by the National Heritage Institute (Alburnus Maior archaeological research programme) and by Non-Governmental Organisations and professional bodies based in Bucharest and Cluj-Napoca (e.g. the Architecture Restoration Archaeology Association (ARA), Pro Patrimonio Foundation, the Romanian Chamber of Architects, ICOMOS Romania, Romanian Academy, and Cultural Foundation Roșia Montană).
Research, recording and inventories have concentrated on the Roman era with lesser attention having been paid to the early industrial period (18th/19th century). A few small scale family owned ore dressing and smelting operations from the 18th/19th centuries have been preserved in residential houses of the mining settlement.

Additional information received from the State Party on 30 October 2017 describes avenues of planned research including the processing and analysis of artefacts retrieved during the 2000-2006 campaigns, archival work in Vienna, in Banská Štiavnica (Slovakia) and elsewhere that targets records from the 18th and 19th centuries. A LIDAR survey of the entire property is also planned.

The present state of conservation of the underground Roman mining works is variable; some areas are in very good condition, others appear to be flooded, while others have not been considered safe to enter. Roman surface archaeological sites and features are generally in fair to poor condition and many need conservation work. A temporary shelter has been built to cover the circular funerary structure at the Hop necropolis.

There is a need for a specific conservation plan to be developed that gathers together documentary evidence for all the Roman remains, including those in the wider landscape, analysis their state of conservation and sets out a framework and action plan for conservation work over, say, the next ten years, together with details of how the work will be undertaken and how it can be resourced, in terms of funding and conservation staff.

The Ministry of Culture has initiated a programme for the conservation and reactivation of some built heritage at Roşia Montană, funded through the National Restoration Plan, managed by the National Institute of Heritage. The programme was started before submission of the first nomination but was then halted for legal reasons. These legal issues have now been resolved and the first public tenders were due to be launched in February 2020.

The two buildings selected are the Greek-Catholic Church and its Parish House, and the Calvinist Parish House.

Additional information indicates that the NGOs noted above have restored more than 50 historic buildings in recent years with more work planned in the future.

ICOMOS considers that while serious conservation challenges are present at this nominated property, the State Party should concentrate its immediate efforts on ensuring the long term protection of its Roman attributes, including those scattered across the landscape and areas of high potential for further research. ICOMOS strongly recommends that a conservation plan for Roman remains should be developed, approved and implemented.

Management

Management structures and processes, including traditional management processes

The National Institute of Heritage (INP) is responsible for World Heritage Sites in Romania and it has a team in place who are responsible for monitoring the property. Locally, the county office of the Ministry of Culture as well as the Government Technical Assistance Unit (UGAT), with the scientific cooperation of INP, are to provide assistance to local initiatives for conservation and restoration as well as for new private or public interventions and infrastructure works in order to ensure their integrated approach and compatibility with the authenticity and integrity requirements.

Policy framework: management plans and arrangements, including visitor management and presentation

No management plan existed for the nominated property and its buffer zone at the time that the nomination dossier was written. In July 2017, a team at the National Institute of Heritage in Bucharest began work on a management plan. A first draft version was presented by this team to the ICOMOS Mission Expert. A draft plan was submitted as part of the supplementary information in January 2020. The plan has been drafted by the World Heritage Unit within the National Institute of Heritage, with the consultation and involvement of experts from relevant fields of research. The plan covers protection and management, conservation, opportunities and threats, as well as strategic policies. It includes an Action Plan, a Plan of Governance and a Plan of Monitoring. The plan is to be submitted to local authorities and the local community for consultation. No timetable has been provided for when the Plan will be finalised and approved.

ICOMOS notes that based on the nomination dossier, it is not clear who will be responsible for administering the property. No staffing levels nor annual budget amounts are indicated.

ICOMOS recommends that a management plan together with a conservation plan and a tourism management strategy be drafted, approved and implemented. ICOMOS also recommends that the State Party encompass the necessary staff and financial resources for the implementation of the management plan.

The scientific interpretation and presentation of the property is fostered by universities (e.g. Babeş-Bolyai University, Cluj Napoca), the Romanian Academy, the Cultural Foundation Roşia Montană, the National Museum of History of Romania, ICOMOS Romania, the National Commissions of Archaeology and Historical Monuments as well as by foreign archaeological and heritage experts. Numerous scientific and other publications have presented the Roşia Montană mining landscape. Local public presentation is made in the Mining Museum at Roşia Montană, although only at a very basic scientific, didactic and design level.

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ICOMOS recommends that local interpretation and presentation of the nominated property should be improved, especially at the mining museum.

Tourism planning is at present very limited. The main tourist attraction is the Mining Museum at Roșia Montană, at present owned by the mining company. During recent years only the independent activities of NGO’s and some residents (e.g. the annual Fan Fest, Gold Trail, Adopt a House) have attracted larger numbers of visitors from the region and from abroad to Roșia Montană. Nevertheless, first steps towards tourism development in the region have been taken by the local NGO’s and residents.

ICOMOS recommends that a management tourism strategy be integrated into the management plan.

Involvement of the local communities
A diverse range of heritage related activities have been undertaken by the local community, although some programs such as Adopt a House, focus on more recent standing structures rather than Roman era remains. Given the drop in population of the municipality in recent years, special effort should be made to involve local residents in the development of the management plan and the operation of the site. As well, the polluted water flowing out of the main adit affects the quality of life of local residents and this should be addressed.

ICOMOS considers that better involvement of all stake holders in the development and implementation of the management plan is necessary.

ICOMOS recommends that the management plan be approved and implemented. It should be augmented to include an internationally supported conservation plan, a tourism strategy to improve visitor management, interpretation and presentation of the property, and a commitment to provide the necessary staff and financial resources for its implementation.

6 Monitoring

The nomination dossier indicates that a monitoring regime will be created as part of the management plan. The technical mission reports that a first monitoring mission to Roșia Montană was done by the INP management planning team in summer 2017. Due to the complicated ownership situation, this monitoring mission could only be realized for the aboveground heritage and not for the underground heritage. Five key indicators for monitoring are envisaged, including 1) archaeological and built immovable heritage, 2) surface and underground mining works, 3) the landscape character, 4) flora and fauna, and 5) geology and water systems.

These indicators need to be further developed to set out in more detail what attributes of Outstanding Universal Value need monitoring, precisely which aspects will be monitored and how, who will undertake the monitoring, and what periodicities will be adopted.

ICOMOS considers that the monitoring programme for the property needs to be further developed and implemented.

7 Conclusions

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List; and that the nominated property meets criteria (ii), (iii) and (iv) as the most significant, extensive and technically diverse underground Roman gold mining complex currently known in the world. The conditions of integrity and authenticity are satisfied but both are considered to be highly vulnerable to future mining activity.

The main threat to the property, and a major uncertainty, remains the possibility that a mining company will be given the necessary permits to allow the resumption of large-scale open cast mining at some point in the future. This large mining company has a licence that extends until 2024. To activate that licence, it would need to obtain permits, which it has so far been unable to achieve, but there still remains a chance that they could be obtained under existing Romanian Laws and regulations.

The position with regard to mining has not changed since ICOMOS wrote its first evaluation in 2018. Its conclusion then was that the on-going uncertainty relating to the arbitration process and the still active mining licence could be considered as ascertained threats to the integrity of the property, in accordance with the paragraph 179 of the Operational Guidelines.

ICOMOS still considers that the property is faced with specific and proven imminent danger, which could lead to significant loss of historical authenticity and of cultural significance.

Adding to the uncertainty over large-scale open cast mining, there are now two other areas of concern. First the possibility of small scale mining is highlighted in the draft management plan, but without any clear details or justification. The current lack of planning regulations is a second further cause for concern and something that needs to be addressed as quickly and as effectively as possible in order to provide clear constraints and controls for the property, including in relation to mining activities. As in 2018, ICOMOS recommends that Roșia Montană should be inscribed on the World Heritage List but at the same time be inscribed on the List of World Heritage in Danger. This recommendation should be seen as a way to ensure that the attributes are not impacted by the resumption of mining, that appropriate planning regulations are developed, that resources are mobilised to address the conservation challenges, and that the protection,
conservation, management and monitoring regimes for the property are completed and implemented.

ICOMOS considers that inscription on the World Heritage List in Danger should be the opportunity to gain the attention and support of the international community for the protection of the property and for its conservation. Such an approach could be seen as a continuation of a process that has been on-going for at least a decade. The nomination of this property is a testimony to the continuous efforts of civil society to preserve its heritage through garnering international support for its protection.

8 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the Roșia Montană Mining Landscape, Romania, be inscribed as a cultural landscape on the World Heritage List on the basis of criteria (ii), (iii) and (iv) and at the same time that the property be inscribed on the List of World Heritage in Danger.

ICOMOS recommends that a reactive monitoring mission be invited to the property to establish a desired state of conservation and a programme of corrective measures to remove the property from the List of World Heritage in Danger.

Recommended Statement of Outstanding Universal Value

Brief Synthesis

Roșia Montană Mining Landscape contains the most significant, extensive and technically diverse underground Roman gold mining complex currently known in the world, dating from the Roman occupation of Dacia (106-271 CE). Roșia Montană is situated in a natural amphitheatre of masses and radiating valleys in the Metalliferous range of the Apuseni Mountains, located in the historical region of Transylvania in the central part of Romania.

Roman gold mining occurred within four small mountains (Cărnic, Lety, Orlea and Cetate) that visually dominate the landscape of Roșia Montană, itself surrounded on three sides by dividing ridges and peaks. Roman archaeology in the surrounding landscape is prolific and pervasive, comprising ore-processing areas, living quarters, administrative buildings, sacred areas and necropoli, some with funerary buildings with complex architecture, all set in relation to over 7 km of ancient underground workings that have been discovered to date.

Criterion (ii): Roșia Montană Mining Landscape contains the world’s pre-eminent example of underground Roman gold mining and demonstrates an interchange of values through innovative techniques developed by skilled migrant Illyrian-Dalmatian miners to exploit gold in ways that suited the technical nature of the deposit. Multiple chambers that housed treadmill-operated water-dipping wheels for drainage represent a technique likely routed from Hispania to the Balkans, whilst perfectly carved trapezoidal-section galleries, helicoidal shafts, inclined communication galleries with stairways cut into the bedrock, and vertical extraction areas (stopes) superimposed above one another with the roof carved out in steps, are in a combination so specific to Roșia Montană that they likely represent pioneering aspects in the technical history of mining.

Criterion (iii): Roșia Montană Mining Landscape embodies the cultural traditions of one of the oldest documented mining communities in Europe, anciently founded by the Romans, as manifested in extant underground mining works, chronologically differentiated by distinctive technical features; and a socio-technical mining landscape consisting of ore-processing areas, habitation areas, sacred places and necropoli. The interpretation of its history is enriched by Roman wax-coated wooden writing tablets discovered in the mines during the 18th and 19th centuries. Together with prolific stone epigraphic monuments, they provide an authentic picture of daily life and cultural practice in this ancient frontier mining community.

Combined with outcomes of recent, intensive and systematic archaeological investigation, an exceptional reflection of Roman mining practices has emerged.

Criterion (iv): Roșia Montană Mining Landscape illustrates the strategic control and vigorous development of precious metals’ mining by the Roman Empire, essential for its longevity and military power. Following the decline of mining in Hispania, Roșia Montană located in Aurariae Dacicae (Roman Dacia) was the only significant new source of gold and silver for the Roman Empire, among the likely key motivations for Trajan’s conquest.

Integrity

Roșia Montană contains all the elements necessary to express the values of the property for the Roman mining period. The property is of adequate size to ensure the complete representation of the features and processes which convey its significance. Moreover, the property comprises an area in which future archaeological research will probably discover a large number of further surface and underground mining, ore processing and settlement sites of the Roman period. However, the current mining proposal means that the integrity of the property is highly vulnerable.

Authenticity

The property contains attributes that are high in authenticity in terms of the location and the form and materials of surviving historic features, with a clear sense of how, when and by whom mining shaped the land. In terms of knowledge, epigraphic and documentary evidence combined with a decade of intensive systematic archaeological investigation has provided a major contribution to the understanding of Roman mining
techniques and organisation. There is considerable potential for future research and for new discoveries related to many periods of the region’s mining history. However, the current mining proposal means that the authenticity of the property is highly vulnerable.

Protection and management requirements

Roșia Montană Mining Landscape is legally protected in accordance with Romanian law as a World Heritage property.

The protection of Roșia Montană is supported by listing under the Law for the protection of historic monuments (L. 422/2001) which allows for the development of urban planning measures. Currently there are no planning controls in place and these need to be urgently developed. Currently there are active mining licences on the property and inadequate controls to stop these being extended. To activate these, permits need to be approved. There is clearly a need for the development of a General Urban Plan (Plan Urbanistic General) and a Zonal Urban Plan (Plan Urbanistic Zonal) to restrict approvals for mining permits.

The management plan for the property is being finalized by the National Institute of Heritage who is also responsible for the monitoring of the property. The management plan should be augmented by an internationally supported conservation plan and a tourism strategy should be implemented.

Additional recommendations

ICOMOS additionally recommends that the State Party give urgent consideration to the following:

a) Halting approval of mining permits at the property,

b) Developing as soon as possible planning controls for the property, in the form of a General Urban Plan (Plan Urbanistic General) and a Zonal Urban Plan (Plan Urbanistic Zonal), that prevents further mining at the property and submit these in draft to the World Heritage Centre for review by ICOMOS;

c) Approving, submitting and implementing the management plan of the property, and augmenting through:
   o An internationally supported conservation plan for the Roman remains,
   o A management tourism strategy, to improve visitor management and interpretation and presentation of the site,
   o The involvement of the stakeholders in the management of the property,
   o A commitment for adequate human and financial resources for its implementation,

d) Developing an inspection and maintenance plan for the header ponds to ensure their long term stability,
e) Developing and implementing a monitoring programme for the property,

f) Submitting to the World Heritage Centre by 1 December 2022 a report on the implementation of the above-mentioned recommendations for examination by the World Heritage Committee at its 46th session in 2023;

ICOMOS encourages international cooperation to support the protection and conservation of the property.
Map showing the boundaries of the nominated property (February 2020)
V Cultural properties

A Asia – Pacific
   Referral back nomination

B Europe – North America
   Referral back nominations
   Minor modifications to the boundaries
   Creation/modification of buffer zone

C Latin America and the Caribbean
   Creation/modification of buffer zone
Head-Smashed-In Buffalo Jump
(Canada)
No 158bis

1 Basic data

State Party
Canada

Name of property
Head-Smashed-In Buffalo Jump

Location
Province of Alberta
Canada

Inscription
1981

Brief description
In south-west Alberta, the remains of marked trails and an aboriginal camp, and a tumulus where vast quantities of buffalo (American bison) skeletons can still be found, are evidence of a custom practised by the aboriginal peoples of the North American plains for nearly 6,000 years. Using their excellent knowledge of the topography and of buffalo behaviour, they killed their prey by chasing them over a precipice; the carcasses were later carved up in the camp below.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
The property has been inscribed on the World Heritage List in 1981 on the basis of criterion (vi). A retrospective Statement of Outstanding Universal Value has been adopted by the World Heritage Committee in 2018 (Decision 42 COM 8E).

During the 2nd cycle of Periodic Reporting for Europe and North America 2012-2015, it was noted that there was a discrepancy between the map showing the boundary and the estimated size of the property. It was indicated that the State Party would address this issue on the Retrospective Inventory in 2013.

The original nomination dossier of Head-Smashed-In Buffalo Jump (HSIBJ) describes the property as having a total area of approximately 4,000 hectares. However, the map submitted with the nomination, which delineates a rectangular polygon covering over 9,500 hectares, does not conform to the description or size parameters provided in the nomination dossier.

The Government of Alberta is unable to reconcile the map boundary as presented in the nomination dossier with either historical or current site records. Therefore, the State Party prepared a new map to correctly identify the boundaries of the property based on the description provided in the nomination dossier.

Modification
The proposed modification suggested in this minor boundary modification aims to clarify the intended boundary of the inscribed property as described in the nomination dossier by providing an updated map.

The boundary that is now proposed reflects an inverted-L-shaped area, covering 3,626 hectares, and represents more accurately the legal land descriptions noted in the original nomination dossier.

The original nomination dossier describes the site complex as comprising three elements: the kill (3 hectares), the campsite (30 hectares) and the gathering basin (3,600 hectares) encompassing a total area of 3,633 hectares.

Therefore, there is a discrepancy between the area described in the nomination dossier (4,000 hectares), the area delineated by the original nomination map (9,500 hectares) and the legal boundary of the property (3,626 hectares).

Given the significant degree of correspondence between the L-shaped polygon boundary and a variety of details in the original nomination dossier, the request for modification of the property’s boundary is made on the basis that it best reflects the original intent at the time of inscription of the property and archaeological resource values on the ground.

The legal land description in the nomination dossier encompasses the three elements of the cultural heritage property which are protected as National Historic Site (1968) and Provincial Historic Resource (1979, 1981), as well as private property, delineated as “Primary Protection Area”. ICOMOS notes that the “Primary protection area” coincides with the boundary of the “Proposed Land Use Control of HSIBJ” submitted in the nomination dossier.

In 2000, the Province of Alberta included HSIBJ in the program called Special Places 2000 in order to afford another level of protection through monitored use of cultural and natural resources. An area of 1,800 acres (approximately 728 hectares) surrounding the area designated as Provincial Historic Resource (approximately 162 hectares) is covered, giving a total of 890 hectares covered by the Special Places 2000 designation. However, no map has been submitted.
illustrating this boundary and its relation to the new proposed boundary.

The lands owned, protected and managed by the province of Alberta cover roughly 1,230 hectares (34%) of the area that is now proposed. An additional 1,813 hectares (50%) of immediately surrounding freehold lands are currently under review for the establishment of provincial conservation easements under the Alberta Land Trust Grant Program, or situated within the Piikani Nation Reserve of the Blackfoot Confederacy who are engaged in the protection and management of the property. Significant archaeological resources that may be discovered in remaining private lands outside of the modified boundary are afforded protection from industrial or commercial impacts under the Historical Resources Act and the Municipal Government Act of Alberta.

ICOMOS considers that, even though the new proposed boundary does not conform exactly to any specific legal protection boundary, the area covered by the new proposed boundary includes all attributes expressing the Outstanding Universal Value of the property.

ICOMOS considers that the proposed modification will reinforce the management and protection of the property.

3 ICOMOS Recommendations

Recommendation with respect to inscription
ICOMOS recommends that the proposed minor modification to the boundary of Head-Smashed-In Buffalo Jump, Canada, be approved.
Map showing the revised boundaries of the property
Paris, Banks of the Seine  
(France)  
No 600bis

1 Basic data

State Party  
France

Name of property  
Paris, Banks of the Seine

Location  
Île-de-France  
France

Inscription  
1991

Brief description  
From the Louvre to the Eiffel Tower, from the Place de la Concorde to the Grand and Petit Palais, the evolution of Paris and its history can be seen from the River Seine. The Cathedral of Notre-Dame and the Sainte Chapelle are architectural masterpieces while Haussmann’s wide squares and boulevards influenced late 19th- and 20th-century town planning the world over.

Date of ICOMOS approval of this report  
12 March 2020

2 Issues raised

Background  
The property was inscribed in 1991 under criteria (i), (ii) and (iv). A retrospective Statement of Outstanding Universal Value was approved in 2017.

Extending between the Pont de Sully and the Pont d’Iéna along a bend in the River Seine, between the confluence of the Marne and the Oise Rivers, the property includes the Île de la Cité and the Île-Saint-Louis.

The property is a geographical and historical entity that is seen as an exceptional and unique example of urban riverside architecture, where different layers of the history of Paris are harmoniously superimposed.

Within the boundaries are a succession of architectural and urban masterpieces built from the Middle Ages to the mid 20th century that reflect the evolution and development of the city, and, being built either alongside the River Seine or overlooking it, can be seen from the river. These include the individual buildings and ensembles of the Cathedral of Notre-Dame and the Sainte Chapelle, the Louvre, the Palais de l’Institut, the Hôtel des Invalides, Place de la Concorde, École Militaire, the Monnaie (the Mint), the Grand Palais, the Champs Elysées, the Eiffel Tower and the Palais de Chaillot. Also within the boundaries are examples of 17th- and 18th-century urban planning in the Marais district, the Île-Saint-Louis, Quai Malaquais and the Quai Voltaire, while further large squares and avenues built by Haussmann at the time of Napoleon III reflect 19th-century town planning.

The property is seen as influential in four ways: for its role in the spread of Gothic architecture, (through the Cathedral of Notre-Dame and the Sainte Chapelle); for the way the Place de la Concorde and the vista at the Invalides influenced urban development of European capitals; for the influence Haussmann urban planning had on the construction of cities of the New World, in particular in Latin America; and because the Eiffel Tower, the Grand and Petit Palais, the Pont Alexandre III and the Palais de Chaillot influenced the scope of international exhibitions. Overall the property is seen as an outstanding urban ensemble, united by a grandiose river landscape, that illustrate with perfection, most of the styles, decorative arts and building methods employed over nearly eight centuries of history from early medieval times to the mid-20th century, when the riverside, urban and monumental vistas of Paris where completed and consolidated with the Palais de Tokyo and the Palais de Chaillot.

At the time of inscription, there was no buffer zone.

Modification  
Two modifications are proposed by the State Party: a modification to the boundaries of the property, mainly to the east and west, and the creation of a buffer zone.

Proposed extension of the property’s boundaries  
The proposal would extend the property by 208 ha from 365 to 573 ha - an increase of slightly more than 50%.

The aim of the extension is to add elements that are deemed to have been missed from the original inscribed ensemble or for which no adequate protection existed at the time of the original nomination.

The main additional elements (from upstream to downstream) on both banks of the river are:

Left Bank of the River Seine:
- Valhubert islet, the oldest part of Austerlitz station, architect Pierre-Louis Renaud 1862-1867
- Le jardin des Plantes from Louis XIII to the 21st century
- Saint-Bernard port (including the Tino Rossi garden) and the upper quay (Saint-Bernard)
University of Jussieu: two buildings, one overlooking the Seine and one to the east, (architects Urbain Cassan, Louis Madeline, René Coulon) 1955
- The Institute of the Arab World (IMA) (architect Jean Nouvel, Architecture Studio) 1980
- The Catholic church of Orient Saint-Julien-le-Pauvre and the René Viviani square
- The primitive basilica, destroyed by the Vikings in 886, rebuilt from 1160, its current facade from 1651
- Haussmannian’s engineers’ composition of place Saint-Michel and the fountain (architect Gabriel Davioud) 1858-1860
- The Hôtel de Salm (architect Pierre Rousseau) 1782
- The Orthodox Cathedral of the Holy Trinity (architect Jean-Michel Wilmotte) 2016
- The Palace of Alma (architect Jean Martin Tétaz) 1861
- The museum of the quai Branly-Jacques Chirac (architect Jean Nouvel) 2006
- The Haussmannian composition from Place Saint-Michel to Place Saint-André-des-Arts
- The Place des Martyrs-Juifs-du-Vélodrome-d’Hiver, the lower quay and the upper quay extending from Port Suffren the quai Branly-Jacques Chirac museum site, (the quai is already inscribed).

Right bank of the river Seine:
- Arsenal basin, reigns of Henri IV and Louis XIII (15th-16th century)
- Old Louviers Island/Morland district and old Gramont, the preserved part of the Arsenal library
- Former Morland administrative centre (architects Albert Laprade, Pierre Fournier, René Fontaine) 1957-1964
- Saint-Paul port and Charles V residential district
- The sites of the enclosure of Philippe-Auguste
- La Cité internationale des Arts (architects Paul Tournon and Olivier-Clément Cacoub) 1965
- The barracks and the church of Saint-Gervais Saint-Protais
- Haussmannian compositions of:
  o Lobau barracks (architect Louis Janvier) 1861, Napoléon barracks (captain of Génie Guilleman) 1852-1854, town hall of the 4th arrondissement (architect Antoine-Nicolas Bailly) 1868
  o Le Châtelet, two theaters, the Saint-Jacques tower, avenue Victoria, quai de Gesvres, quai de la Mégisserie (architect Gabriel Davioud 1858-1862).
- The former stores of la Samaritaine (architect Franz Jourdain, from 1885)
- The monumental perspective of the rue de Rivoli (architects Charles Percier and Pierre Fontaine) 1830 to 1860.
- Hôtel de Crillon and the Hôtel de la Marine 1757-1774.
- Le Rond-Point des Champs-Elysées (engineer Adolphe Alphand) 1860,
- Champs-Elysées Rond-Point theatre (architect Jacques-Ignace Hittorff) 1838, reconstruction by Gabriel Davioud, 1860.
- Gardens on the north bank of the Champs-Elysées. (Gabriel Davioud and Adolphe Alphand) 1860
- Avenue du Président-Kennedy, (former Quai de Passy)
- The Palais d’Iena - the Economic and Social Council
- Bir-Hakeim bridge, designed by Jean-Camille Formigé, built by Daydé and Pillé in 1905
- The Île aux Cygnes (Statue of Liberty, the planted perspective)
- Austerlitz viaduct, built in 1904, (engineers: Fulgence Bienvenûe, Louis Biett, Maurice Koechlin; architect: Jean Camille Formigé)

**Proposed creation of a buffer zone**

Since 2016, French law has required the creation of buffer zones for properties inscribed as World Heritage. The current proposal seeks to address the current lack of a formal buffer zone.

The proposal is for a buffer zone of 3,157 ha. The boundary is based on the history and topography of the landscape, together with views to and from the river Seine and overall on one of the ‘growth rings’ of the wider city.

**Protection and management**

The entire property (as it is currently inscribed) enjoys the highest level of legal protections (heritage code, town planning code, environment code). The property is in a registered site of the Urban Ensemble of Paris, created by decree dated August 6, 1975, under the law of May 2, 1930. Presumably the enlarged property would also be similarly protected. The current property includes six classified sites, notably the Esplanade des Invalides, le Champ de Mars and the Trocadéro gardens.

In order to guarantee compliance with the rules set by UNESCO, in 2016, article L 612-1 of the heritage code was adopted which recalls the obligations of the State with respect to properties inscribed on the World Heritage List.
The State exercises control, directly or through its public establishments, of the quays of the Seine and most of the monuments and their associated spaces. The dominance of the shores, body of water, soils and quays is shared between the city of Paris (bridges and canals, high roads and promenades, museums in part, theaters, City Hall, parish churches and many other grounds and buildings ...) and a public establishment of the State: Haropa-Port of Paris (water plan, low quays for the most part).

No specific details are provided for protection of the proposed buffer zone.

Currently there is no dedicated management plan for the property and its setting although one is in the process of being drawn up.

For the implementation of the protection measures, the State and the City have teams specializing in built heritage and urban planners who enlist the services of outside specialists if necessary. It is suggested that the current administrative arrangements would be adequate to deal with a ‘minor’ extension of the property.

No specific management measures are set out for the proposed buffer zone. Similarly, it is suggested that the ‘increased vigilance’ needed for a buffer one could be delivered by the same system.

It is acknowledged that the urban and visual integrity of the site (and particularly views from the shores of the river) is vulnerable to the demands of real estate development, to the pressure from the intensity of economic uses and to tourist numbers. All of this requires rigorous control to maintain Outstanding Universal Value. A need to define common governance arrangements to address these issues is also acknowledged in relation not only to balanced management of the property and its setting but also to promote sustainable tourism. All of these issues should be addressed in a management plan.

Conclusions

Proposed extension of the property boundaries

The main aim of the proposed minor boundary modifications is to improve the consistency of the boundaries of the property in relation to the Outstanding Universal Value for which it was inscribed. Extensions are proposed mainly to the east and west and include major urban perspectives, ensembles and individual buildings bordering the Seine, which are considered to be related to the urban development of the capital.

As the original nomination mainly included buildings and ensembles that were within the State’s control, extending its scope through further additions that have protection through the City and offer a more coherent urban boundary is an approach that could be supported, if the new areas could be seen to complement or strengthen Outstanding Universal Value. However, ICOMOS considers that difficulties lie in how such an approach has been made manifest through the choice of sites and the extent to which the boundary has been extended back from the river Seine.

The property was inscribed to reflect the growth of the city of Paris from the Middle Ages to the mid-20th century, as a succession of architectural and urban masterpieces that reflect the evolution and development of the city, alongside the River Seine or visible from it. These three quite clear parameters defined the original envelope of the property.

The proposed boundary modifications include some buildings and ensembles that might be seen as architectural masterpieces such Place du Châtelet, île de la Cité, and Place Saint-Michel, as well as monuments such as the Châtelet theaters, the churches of Saint-Gervais-Saint-Protais and Saint-Julien le Pauvre, and the jardin des Plantes.

But the proposed boundary modifications also include buildings of the later 20th and early 21st centuries, some not even built at the time of inscription of the property, (such as the Quai Branly-Jacques Chirac Museum, the Institut du Monde Arabe and the Orthodox Cathedral of the Holy Trinity) and thus beyond the date range for the original nomination.

They also include buildings that are not overlooking the river (such as parts of the Champs Elysées, Palais d'Iéna and the Théâtre des Champs-Elysées). In addition, they include buildings and ensembles such as those upstream that are mainly related to those downstream by their service functions and valued for their industrial aspects or for the way they reflect socio-economic parameters of urban growth.

While parts of the proposed boundary modifications could be seen to strengthen or complement the Outstanding Universal Value of the property, the scope of the whole goes beyond what can be captured by the current Outstanding Universal Value. Many of the elements that have been included reflect social and technological aspects of urban ensembles and also ongoing urban evolution, neither of which are included in the first nomination and in the reasons for inscription. Indeed, the Statement of Outstanding Universal Value sets out clearly how the property is an outstanding and grandiose river landscape of exceptional buildings and urban ensembles, that illustrate nearly eight centuries of history from early medieval times to the mid-20th century, when it was considered that the additions of the Palais de Tokyo and the Palais de Chaillot ‘completed’ the landscape. Bringing in late 20th additions and sites associated with services would alter the focus of the original nomination.
ICOMOS considers that either the proposed boundary modifications should be modified to retain buildings and ensembles that strengthen or complement the Outstanding Universal Value of the property, or, if it is desired to extend the current Outstanding Universal Value through including buildings and ensembles that go much wider than the scope of the original Outstanding Universal Value, then a re-nomination should be considered. This re-nomination will have to be evaluated in the full year and a half cycle of evaluation according to the procedures and timetable outlined in paragraph 168 of the Operational Guidelines. For any such re-nomination the timeframe would need to be fixed as Outstanding Universal Value cannot encompass open-ended, on-going evolution of urban forms. It should be stated that ICOMOS cannot ensure that such a nomination approach would have the capacity to justify Outstanding Universal Value.

Increasing the area of the property by slightly more than 50% and the acknowledged need for clearer governance structures to address the threats from development, increased economic activity, and large number of visitors, together point to the need for a clear management system and an approved and functioning management plan. Such a plan would also need to relate clearly to the existing Plans de sauvegarde et de mise en valeur for the Marais and 7ème arrondissement and to other Urban plans.

**Proposed creation of a buffer zone**

The creation of a buffer zone is in principle to be welcomed. A buffer zone should be an area where protection and management can support the Outstanding Universal Value of the property. What has not been clearly set out is how this might be achieved. Rather it is suggested that the current management arrangements for the area that is to become the buffer zone will be the same as is currently the case. But if the buffer zone is to be used as an instrument to address vulnerabilities to the property, current management would need to be strengthened with specific measures that addresses specific threats, particularly for views to and from the river and in relation to potential real estate development.

As for the property, there is a need for the buffer zone to be covered by an approved Management Plan. Management of buffer zones should encompass social, economic and the technological aspects that relate to links with the property (and could cover some aspects now proposed to be included in an enlargement of the property boundaries).

The proposed delineation of the buffer zone is also not clearly set out in relation to views or to areas where threats from development might emerge. There is currently insufficient information provided to allow an understanding as to how the boundaries have been arrived at as a portion of the wider delineated City of Paris to create an area that can support the property, either as it currently is or if enlarged.

### 3 ICOMOS Recommendations

**Recommendation with respect to inscription**

ICOMOS recommends that the proposed minor modification to the boundary of Paris, Banks of the Seine, France, should not be approved.

ICOMOS recommends that the proposed buffer zone for Paris, Banks of the Seine, France, be referred back to the State Party in order to allow it to:

- Set out more clearly the rationale for the delineation of buffer zone boundaries, in relation to views, potential threats, and to how they might support the Outstanding Universal Value of the property.

ICOMOS recommends that before any new proposals are submitted, either for the property boundaries or for a buffer zone, a Management Plan for the property is prepared.
Map showing the revised boundaries of the property
Historic Centre of Florence
(Italy)
No 174ter

1 Basic data

State Party
Italy

Name of property
Historic Centre of Florence

Location
Metropolitan City of Florence of Florence
Tuscany Region

Inscription
1982

Brief description
Built on the site of an Etruscan settlement, Florence, the symbol of the Renaissance, rose to economic and cultural pre-eminence under the Medici in the 15th and 16th centuries. Its 600 years of extraordinary artistic activity can be seen above all in the 13th-century cathedral (Santa Maria del Fiore), the Church of Santa Croce, the Uffizi and the Pitti Palace, the work of great masters such as Giotto, Brunelleschi, Botticelli and Michelangelo.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
The Historic Centre of Florence has been inscribed on the World Heritage List in 1982 on the basis of criteria (i), (ii), (iii), (iv) and (vi). The property encompasses the core of the historic city and the settled area on the opposite side of the river Arno formerly enclosed by the city walls (505ha). The landscape of the city is framed by the hills that border the city to the north (the Hills of Careggi, Fiesole and Settignano) and to the south (the Hills of Bellosguardo, Arcetri, Poggio Imperiale and San Miniato).

An extensive buffer zone (10,480 ha) for the property was developed based on the complex research and analytical work and was approved by the World Heritage Committee in 2015 (39 COM 8B.44).

A Retrospective Statement of Outstanding Universal Value has been adopted in 2014 (38COM.8E). The statement of Outstanding Universal Value is the key reference of the State Party to propose a minor boundary modification of the property, aiming to align the world heritage area to the attributes mentioned in the approved SOUV.

Modification
In 2019, the State Party submitted to the World Heritage Centre a request for a minor boundary modification of the property in order to incorporate the San Miniato al Monte complex, the Abbey area, the area embedded within the walls of the homonymous Fort and its surrounding environment (cemetery, San Salvatore al Monte Church, Veterans Memorial Park and Ramps) into the property boundary.

The Basilica and the Abbey of San Miniato bear the name of Saint Minas, who lived in the 3rd century and is considered to be the first Florentine Martyr. The construction of the present basilica started in 1018, and was completed and enhanced in the following centuries. The story of Saint Minas and spiritual bonding of the hill to the river Arno has made San Miniato a place of pilgrimage during the Renaissance period.

The proposed minor boundary modification is justified by the fact that San Miniato is mentioned among the attributes of the property under criterion (i) already at the time of inscription of the property.

Indeed, criterion (i) reads as follows: The urban complex of Florence is in itself a unique artistic realization, an absolute chef-d’œuvre, the fruit of continuous creation over more than six centuries. In addition to its museums (the Archaeological Museum, Uffizi, Bargello, Pitti, Galleria dell’Accademia), the greatest concentration of universally renowned works of art in the world is found here – the Cathedral of Santa Maria del Fiore, the Baptistery and the Campanile of Giotto, Piazza della Signoria dominated by Palazzo Vecchio and the Palazzo Uffizi, San Lorenzo, Santa Maria Novella, Santa Croce and the Pazzi chapel, Santo Spirito, San Miniato, and the Convent of San Marco which houses paintings of Fra Angelico.

Thus, the proposed modification aims to correct an existing error in graphical representation and to incorporate the San Miniato al Monte within the boundary of the property as an important attribute which convey the Outstanding Universal Value and contribute to enhance the integrity of the property.

The area of the proposed minor boundary modification to the World Heritage property is of 27 ha, i.e. an increase of 5.3% of the inscribed property. The territory is currently within the Buffer Zone of the property. The proposed modification increases the total property area.
up to 532 ha, hence diminishing the Buffer Zone respectively from 10,480 ha to 10,453 ha.

The perimeter of the proposed modification is guided by the route of the ancient city wall (still partially existing) and follows the roads adjacent to the perimeter. The proposed boundary stretches from the San Miniato gate, through the Viale dei Colli up to the Abbey of San Miniato al Monte with its cemetery and the Parco della Rimembranza (Veteran’s Memorial Park), Piazzale Michelangelo, and joins the property’s current boundary passing through the San Niccolò tower.

The proposed minor boundary modification is located within the administrative territory of the Municipality of Florence. Hence there are no modifications or implications to the current management measures and mechanisms.

The territory has been regulated by a number of legal acts at the national, regional and municipal levels. Ultimately, the proposed extended area is protected as a Landscape Asset (art. 143 of the Legislative Decree 42/2004, the Ministerial identification code 90066). At the regional level, it is regulated by the PIT (Piano di Indirizzo Territoriale) - which, from a legal point of view, has the same value as the Landscape Plan - art. 21 of Regional Law 65/2014, nowadays in force, which was approved by Regional Council on 02.07.2014 by deliberation n. 58.

At the municipal level, the territory is regulated by the Structural Plan (Municipal Executive Committee Resolution no. 2015/C/00025, 02.04.2015, updated by the deliberation no. 2019/C/00018, 18.03.2019), the Town Planning Regulations (Municipal Executive Committee Resolution no. 2015/C/00025, 02.04.2015, last update in October 2019) and the Building Regulations of the Municipality of Florence (Municipal Executive Committee Resolution no. 2019/C/00014, 11.03.2019).

Referring to the Retrospective Statement of Outstanding Universal Value of the Historic Centre of Florence, and noting the extensive regulatory and management system in place, ICOMOS considers that the proposed minor boundary modification is appropriate.

ICOMOS considers that the proposed modification to the property boundary will contribute to the protection of the Outstanding Universal Value of the property and strengthen its integrity and management.

3 ICOMOS Recommendations

Recommendation with respect to inscription
ICOMOS recommends that the proposed minor modification to the boundary of the Historic City of Florence, Italy, be approved.
Map showing the revised boundaries of the property
Ivrea
(Italy)
1538bis

1 Basic data

State Party
Italy

Name of property
Ivrea, industrial city of the 20th century

Location
Municipalities of Ivrea and Banchette
Piedmont Region, Turin Province
Italy

Inscription
2018

Brief description
The industrial city of Ivrea is located in the Piedmont region and developed as the testing ground for Olivetti, manufacturer of typewriters, mechanical calculators and office computers. It comprises a large factory and buildings designed to serve the administration and social services, as well as residential units. Designed by leading Italian urban planners and architects, mostly between the 1930s and the 1960s, this architectural ensemble reflects the ideas of the Community Movement (Movimento Comunità). A model social project, Ivrea expresses a modern vision of the relationship between industrial production and architecture.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
The property was inscribed in 2018 on the World Heritage List on the basis of criterion (iv) as an ensemble of outstanding architectural quality that represents the work of Italian modernist designers and architects and demonstrates an exceptional example of 20th century developments in the design of production. Attributes of Outstanding Universal Value include the spatial plan, the public buildings and spaces, and residential buildings developed by Olivetti as well as the association to the Community Movement as an intangible asset.

By Decision 42 COM 8B.30, the World Heritage Committee decided to inscribe the property, with several recommendations. Among these, it requested the State Party to "revise the property boundary to exclude the site of the recent housing project facing the ‘Red Brick building’ (Fabbrica di Mattoni Rossi), and include it in the buffer zone".

The State Party’s proposal for a minor boundary modification of the property’s boundary addresses this request.

Modification
The proposed boundary modification concerns a roughly rectangular site facing the ‘Red Brick building’ which accommodates the recent housing project. The project was executed around 2014/15 and consists of a residential edifice with an L-shaped ground plan and a street-sided car parking area. The site is located in the eastern part of the property within a block that is bound by the Via Torino in the north-east, the Via Giuseppe di Vittorio in the north and west, and the Via Guglielmo Jervis in the south.

The State Party proposes to revise the property boundaries by excluding the recent housing site from the World Heritage area, and include it into the buffer zone. The revised boundaries would therefore go through Via Guglielmo Jervis and then northwest on the right side of the stairways that runs along the Social Services Centre to connect it with the original boundary that includes the wooded parking area in Via Giuseppe Di Vittorio in front of the Olivetti Nursery Building.

ICOMOS considers that this revision of the property boundary is adequate and it contributes to reinforce the conditions of integrity of the property and hence maintain its Outstanding Universal Value.

According to the information provided with the proposal the property and its buffer zone are subject to the following national, regional and local legislative regimes: Legislative Decree of 22 January 2004 nr 42, as amended and supplemented, the “Code of Cultural Heritage and Landscape”, the Regional Landscape Plan approved by Regional Council Decree nr 233-35836 October 3, 2017, the municipal Land Use Plan PRG2000 approved with Regional Council Resolution nr 27-4850 of 11 December 2006, as amended and supplemented: Quality Charter consisting of drawings Pr.5.1 and Pr.5.2 of the plan approved with Regional Council Resolution nr 27-4850, of 11 December 2006, Supplement to the building regulations - rules for minor building works and regulations for work on MaAM (Museo a Cielo Aperto dell’Architettura Moderna di Ivrea Open-Air Museum of Ivrea), buildings and their appurtenances, Resolution nr 15 of the Municipal Council, of 25 March 2013 and relative texts of ‘Rules for the fulfilment of minor building works’ and ‘Regulations for work on buildings and in their attached areas’. 
In terms of legal protection, the removal of the recent housing site from the property to be part of the buffer zone will not change the legal mechanisms in place. As regards the management measures, this change to the boundary will contribute to the objectives of the management plan for the protection and conservation of the property.

ICOMOS notes some discrepancies as regards the surface areas mentioned by the State Party in this proposal. Indeed, the extent of the inscribed property is said to be of 63.27 ha, with a buffer zone of 267.42 ha, but at the time of its inscription, the property was presented as being of 71.185 ha, with a buffer zone of 400.481 ha, as specified in the nomination dossier, and as formalised by a letter of the World Heritage Centre, sent to the State Party on July 2018.

In addition, the map showing the new property’s boundary does not seem to be based on the most updated cadastral information as it shows an empty site without the recent housing project in question.

In summary, ICOMOS considers that the proposed minor boundary modification enhances the property’s integrity. Despite certain inaccuracies of the documents submitted by the State Party, which need to be resolved, the proposal complies with the request of Decision 42 COM 8B.3. § 4.c.

3 ICOMOS Recommendations

Recommendation with respect to inscription
ICOMOS recommends that the proposed minor modification to the boundary of Ivrea, industrial city of the 20th century, Italy, be approved.

Additional recommendations
ICOMOS also recommends that the State Party give consideration to the following points:

a) Specifying the surface areas of the inscribed property and its buffer zone following the minor boundary modification in number of hectares,

b) Providing maps with updated cadastral information that show the existing building stock of the inscribed property and its buffer zone;
Map showing the revised boundaries of the property
Durham Castle and Cathedral
(United Kingdom)
No 370ter

1 Basic data

State Party
United Kingdom of Great Britain and Northern Ireland

Name of property
Durham Castle and Cathedral

Location
County of Durham
England

Inscription
1986

Brief description
Durham Cathedral was built in the late 11th and early 12th centuries to house the relics of St Cuthbert (evangelizer of Northumbria) and the Venerable Bede. It attests to the importance of the early Benedictine monastic community and is the largest and finest example of Norman architecture in England. The innovative audacity of its vaulting foreshadowed Gothic architecture. Behind the cathedral stands the castle, an ancient Norman fortress which was the residence of the prince-bishops of Durham.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
Durham Castle and Cathedral were inscribed on the World Heritage List in 1986 on the basis of criteria (ii), (iv) and (vi). No buffer zone was proposed at the time of the property’s inscription.

The property inscribed in 1986 included the Cathedral and its immediate surroundings, and the appendage of the south-west access path including the bridge over the Wear; and an additional part to the north formed by the Castle standing alone.

In 2008, the State Party proposed a minor modification to the property boundaries, on the basis that the initial boundary definition reflected an essentially monumental vision of Outstanding Universal Value, which had become too narrow to fully express the property’s values. The minor boundary modification approved related mainly to the central space between the Cathedral and the Castle, and a small space in the north-east at the Owengate. It linked the two parts of the property that had already been granted recognition, and thus enabled a clearer presentation of its historical significance and a better understanding of its cityscape.

As indicated in the Periodic World Heritage Report – section II of 2013, however, the boundaries of the inscribed property were still not adequate to illustrate the attributes of Outstanding Universal Value. The State Party suggested in particular that the two banks of the River Wear around the property should be included.

A retrospective declaration of Outstanding Universal Value was adopted by the WHC in June 2013 (decision 37 COM 8E).

Modification
The minor modification of property boundaries mainly concerns the inclusion of the two banks of the River Wear around the property. The inscribed property has a surface area of 8.79 ha, and the property with the boundaries proposed would have an area of 34.136 ha.

From Framwellgate Bridge in the to Elvet Bridge in the northeast, including these two bridges, the boundaries of the property are defined by the limit of the open spaces on the riverbanks opposite the site, by the ridge of the riverbank and by the adjacent developments to the west, south and east of the site.

The minor modification proposed is presented by the State Party as contributing to strengthening the Outstanding Universal Value attributes as defined in the management plan of 2017. More specifically, it strengthens the significance and integrity of the whole Peninsula, but also the natural and urban integration of the site, by including the riverbanks and the bridges. The riverbanks constitute a significant historic element because of their agricultural and defensive uses. Ecologically they are also important, and they contribute to the overall landscape related to romantic concepts of beauty.

The boundaries also include the bridges and the whole course of the defensive walls. These infrastructures strengthen the attributes linked to the historic use of the property. As such, they strengthen the already acknowledged Outstanding Universal Value of the religious and military complex of Durham.

ICOMOS approves in principle the initiative of the State Party to extend the boundaries of the property, because of its coherence with the attributes of Outstanding Universal Value.
The proposed minor modification responds to the need to take into account the property’s natural environment, and to associate the proposed boundaries with the attributes of the property’s Outstanding Universal Value.

However, the following points need to be stressed:

The Integrity section of the retrospective Outstanding Universal Value declaration mentions that: *there is a need to protect key views to and from the Castle, Cathedral and town that together portray one of the best known medieval cityscapes of medieval Europe.*

The minor modification of the property boundaries as proposed does not seem to encompass a sufficient extent of landscape to protect views to and from the river landscape. The proposal to modify the boundaries should therefore consider whether the limits could not be slightly extended to the outer riverbanks, so as to encompass not only the wooded areas but also the spaces in between. This would mean extending the boundaries beyond what is proposed, so as to include the whole of the River Wear gorge.

However, the proposed extension of the current proposal would not be sufficient to protect all the “key views to and from the Castle, Cathedral and town”, as mentioned in the Integrity section of the Outstanding Universal Value declaration. To achieve this aim, a buffer zone could be considered based on the existing “Conservation area”.

With this point in mind, and in order to strengthen the protection of the property, especially views of the site, and to ensure appropriate management of its surroundings, ICOMOS considers it would be necessary for the State Party to consider creating a buffer zone, as defined in the *Operational Guidelines for the Implementation of the World Heritage Convention*.

Lastly, with regard to the protection measures for the proposed extension area, conservation and protection measures are mentioned in the minor modification request, with references to national legislation in the United Kingdom. There is however no detailed indication of how these protection measures would be applied in the proposed extended area. Some sections of the area in the north-east of the property have already been built on, and they should be the focus of particular attention and adequate protection measures. Protection measures are also necessary for the sections to the north-west and north of the property, to control development and redevelopment and so ensure there is no impact on the views.

ICOMOS considers that in principle the minor modification of the property limits is acceptable, and that it will contribute to strengthening the integrity and management of the property. However, it is necessary to consider an extension of the proposed boundaries on the outer riverbanks, to encompass not only the wooded areas but also the spaces in between, and to clarify the protection measures that will be applied in this extended area.

3 ICOMOS Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the proposed minor modification of the boundaries of the Durham Castle and Cathedral, UK, be referred back in order to allow the State Party to:

- Consider an extension to the proposed limits on the outer riverbanks of the Wear so as to include not only the wooded areas but also the spaces in between;
- Clarify the protection measures to be applied to the enlarged area.

Additional recommendations
ICOMOS also recommends that the State Party give consideration to the following point:

a) Considering creating a buffer zone, based on the existing Conservation area, in order to protect all the “key views to and from the Castle, Cathedral and town”;

ICOMOS Recommenda...
Map showing the revised boundaries of the property
V Cultural properties

A Asia – Pacific
   Referral back nomination

B Europe – North America
   Referral back nominations
   Minor modifications to the boundaries
   Creation/modification of buffer zone

C Latin America and the Caribbean
   Creation/modification of buffer zone
Abbey Church of Saint-Savin sur Gartempe
(France)
No 230quater

1 Basic data

State Party
France

Name of property
Abbey Church of Saint-Savin sur Gartempe

Location
Department of Vienne
Nouvelle-Aquitaine Region
France

Inscription
1983

Brief description
Known as the ‘Romanesque Sistine Chapel’, the Abbey-Church of Saint-Savin contains many beautiful 11th- and 12th-century murals which are still in a remarkable state of preservation.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
The property was inscribed on the World Heritage List in 1983 on the basis of criteria (i) and (iii), with an area of 0.16 hectares and without any buffer zone. The boundaries of the property corresponded initially exactly to the outer walls of the Abbey Church and encompassed exclusively its architectural structure.

A buffer zone of 147.77 hectares was officially added around the property by a Minor Boundary Modification approved by the World Heritage Committee in 2007 (decision 31.COM 8B.66). The buffer zone corresponds to the boundaries of the existing legal protection. Two regulatory protective measures under the Heritage Code are in place: the Outstanding Heritage Site of Saint-Savin, and broad protection for the surroundings of historic monuments of Saint-Savin and Saint-Germain. The first one prohibits any modifications of exterior features of the buildings without a prior authorization from the Architecte des Bâtiments de France. The second ensures preservation of the relation between the historical monument and its setting, to enhance the value of the inscribed property. Within this zone, any modifications of buildings that are related to the monument or support the heritage values thereof require a prior authorization.

In 2015, a second Minor Boundary Modification was approved (decision 39.COM 8B.42) with which the boundaries of the property were extended to 1.61 hectares to encompass, besides the church, parts of the ancient abbey’s convent structures and its gardens, including the location of the no-longer preserved cloister. In 2018, the World Heritage Committee adopted a retrospective Statement of Outstanding Universal Value for the Abbey Church of Saint-Savin sur Gartempe (decision 42.COM 8E).

Modification
The present minor boundary modification request proposes to extend the existing buffer zone of 147.77 hectares to 4214 hectares.

According to the State Party, the extension aims to ensure unobstructed distant views of the Gothic spire of the Abbey Church from different vantage points around the valley of the river Gartempe (such as access routes leading to the property) and to preserve spatial relations between the Abbey and the broader landscape within which it is located. The border of the newly suggested buffer zone was established based on an assessment of landscape sensitivity and further informed by the historical analysis of land sensitivity and further informed by the historical analysis of land and the A

The proposed buffer zone incorporates traces of an ancient Roman route, which played a role in locating the Abbey Church of Saint-Savin. By suggesting such a large buffer zone, the State Party considers the heritage values of the valley of Gartempe, with its many picturesque panoramas and monuments that form a themed itinerary called the 'Valley of the Frescos'.

The State Party states that the proposed revised buffer zone will support the Outstanding Universal Value of the inscribed property by ensuring maintenance of the visual coherence between the Abbey and the surrounding landscape. It secures the visibility of the Gothic spire – a landmark in the valley – from faraway vistas and enhances the understanding of the location of the church within the broader geo-historical context of the area.

In terms of legal protection, the northern- and southernmost ends of the proposed buffer zone fall within the broad protection established for the surroundings of the historic monuments of Nalliers and Antigny. The rest of the proposed extension does not have the legal status of a protected area.
The buffer zone falls within the jurisdiction of five different municipalities. Saint-Savin and Antigny have developed Local Urban Plans (Plan Local d'Urbanisme – PLU) that define the rules of local governance, regulate land use, including public utility easements, have a bearing on the urban and architectural character of the communes as well as matters of heritage and landscaping. Saint-Germain and Nalliers, on the other hand, are using the National Urban Regulation (Règlement National d'Urbanisme – RNU), in line with which building land use and all matters related to construction within these communes are determined by the decrees of the Conseil d'État. Finally, Paizay-le-Sec uses the Commune-level Map (Carte Communale – CC) that regulates the application of the RNU in this particular case.

Additionally, the southern part of the proposed buffer zone, on both sides of the river Gartempe, is a presumption zone of archaeological prescription (zones de présomption de prescription archéologique – ZPPA), where preventive archaeological works may be required to be conducted before any authorization for development is granted. The status of the zone does not carry public utility easement.

The proposed extended buffer zone is developed around the visibility of the Gothic spire in the landscape, hence it includes remote areas around the inscribed property. It offers protection of distant panoramas and enhances visual coherence of the landscape, and it echoes the integrity section of the Statement of Outstanding Universal Value which mentions that: “The Gothic spire surmounting the abbey marks the surrounding landscape with its soaring silhouette.”

ICOMOS considers that this enlarged buffer zone enables an all-encompassing vision of the territory, reflecting the logic underlying the valley as a whole. It will contribute to sustaining the property's Outstanding Universal Value.

In terms of legal protection and management, the extension of the buffer zone takes into account the regulatory protection that exists within this perimeter with regard to management of this place.

The management plan 2019-2024 includes actions for the extension of the buffer zone, with protection and enhancement of the immediate surroundings of the Abbey, and with regard to the general landscape.

However, the existing protection tools will have to be adapted, and new management tools will have to be introduced to manage the buffer zone as a whole.

All the planning tools (Territorial Coherence Scheme SCOT – Schéma de Cohérence Territoriale; PLU) and the heritage and landscape protection tools (Outstanding Heritage Site and Scheduled Site) will thus have to take account of the new perimeter to enable the introduction of appropriate management tools.

ICOMOS notes that no timetable has been provided in the information provided by the State Party for the inclusion of this enlarged buffer zone in the planning tools and heritage / landscape protection tools.

In terms of legal protection and management, ICOMOS considers that the extended buffer zone could add a layer of protection to the inscribed property. However, the management of the proposed buffer zone remains unclear, given the multiple jurisdictions within which the buffer zone falls, as well as different regulations that apply. The roles of each municipality or a potential for a co-management scheme are not defined.

Lastly, ICOMOS recommends that the State Party provide a map of the revised buffer zone boundaries at a more appropriate scale, enabling a clear perception of topographical features such as adjacent dwellings, buildings, roads, etc., to enable a clear evaluation of the impact of any proposed development inside the buffer zone, nearby, or at its edge (as stated in the Operational Guidelines, Annex 5).

3  ICOMOS Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the proposed buffer zone for the Abbey Church of Saint-Savin sur Gartempe, France, be referred back in order to allow the State Party to:

- Provide a map of the revised buffer zone boundaries at a more appropriate scale, in accordance with the Operational Guidelines (Annex 5);
- Provide a timetable for taking the enlarged buffer zone into account in the tools for planning and heritage / landscape protection;
- Clarify the way in which the buffer zone will be managed and how coordination with the management of the property will be organized.
Map showing the revised boundaries of the buffer zone
Historic Centre of Rome  
(Holy See, Italy)  
No 91quater

1 Basic data

States Parties  
Holy See  
Italy  
(each according to its jurisdiction)

Name of property  
Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura

Location  
City of Rome  
Holy See  
Italy

Inscription  
1980, 1990

Brief description  
Founded, according to legend, by Romulus and Remus in 753 BC, Rome was first the centre of the Roman Republic, then of the Roman Empire, and it became the capital of the Christian world in the 4th century. The World Heritage site, extended in 1990 to include monuments of the Holy See, includes some of the major monuments of antiquity such as the Forums, the Mausoleum of Augustus, the Mausoleum of Hadrian, the Pantheon, Trajan’s Column and the Column of Marcus Aurelius, as well as the religious and public buildings of papal Rome.

Date of ICOMOS approval of this report  
12 March 2020

2 Issues raised

Background  
The Historic Centre of Rome was inscribed on the World Heritage List in 1980 on the basis of criteria (i), (ii), (iii), (iv) and (vi) and extended in 1990 to include extraterritorial properties of the Holy See in the area west of the Tiber River as far as St Peter’s Square including the area up to the Mura di Urbano VIII.

The property has been inscribed on the World Heritage List without buffer zone.

Following discrepancies in the perimeter of the property resulting from this extension in 1990, the World Heritage Committee (Decision 39 COM 8B.43) approved a minor modification in 2015 to the boundary of the Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura, Holy See and Italy; and requested the States Parties to submit an amended cadastral map showing the inclusion of the bridge Regina Margherita within the property boundary and the boundary of the area protected by the New Town Planning Scheme. It was also requested to clarify the total area of the property, for examination by the World Heritage Centre and ICOMOS. Following the submission of the requested documents by the State Party in 2015, the approved boundary of the inscribed property is 1,468.17 ha of which 1,430.80 referring to the Historic Centre of Rome and 38.90 ha to the Holy See.

A retrospective statement of Outstanding Universal Value was approved by the World Heritage Committee in 2014 with Decision 38COM 8E.

The Periodic Reporting exercise of 2014 – section II mentioned the need for the establishment of a buffer zone.

The States Parties have taken steps to define a buffer zone around the property with the establishment of a Technical Scientific Committee pursuant to a Memorandum of Understanding between the Municipality of Rome, the Lazio Region, the Ministry of Cultural Heritage and Activities and Tourism, the Vicariate of Rome, and representatives of the Holy See in 2009. The Technical Scientific Committee was mandated to prepare the Management Plan for the property and engaged in preliminary studies to define a buffer zone as part of this assignment.

In 2015, the Transboundary Coordination Group was created after the signature of a memorandum of understanding between Italy and the Holy See, consolidated with a second memorandum of understanding between the Ministry of Cultural Heritage and Activities and Tourism, the Lazio Region and the Municipality of Rome approved by Rome’s Government in 2017. The Transboundary Coordination Group initiated the process of validation of the buffer zone’s proposed delineation approved by the Technical Scientific Committee in 2015.

The current submission proposes the creation of a buffer zone and provides a Technical Report which details background studies carried out and the definition of the boundaries of the buffer zone.

Modification  
The proposed buffer zone covers an area of 5,893.83 ha including 5,887.09 ha under the jurisdiction of Italy and 6.74 ha under the authority of the Holy See.
The proposed buffer zone’s boundary extends as described below:

- to the north, from Tiber River - Viale Tor di Quinto - Via del Foro Italico up to the intersection with the Salaria ring road (Circonvallazione Salaria);
- First section of the Salaria ring road (Circonvallazione Salaria) - railway network up to Termini Station;
- To the east, from Termini Station, railway network southwards to the intersection with Via del Quadraro - Via del Quadraro - Via Appia Nuova (north direction) - Via dell’Almone - Via di Cecilia Metella - Via Appia Antica (north direction) - Via di San Sebastiano - Via Ardeatina (north direction) - Via delle Sette Chiese up to the intersection with Via Cristoforo Colombo;
- To the south, from Via Cristoforo Colombo, Via delle Sette Chiese to San Paolo Metro Station - Via Ostiense (south direction) to the intersection with Viale Guglielmo Marconi - Viale Guglielmo Marconi (north direction) to the intersection with Via Francesco Grimaldi - Via Quirino Majorana up to Piazzale Enrico Dunant, near Trastevere Station;
- To the west, from via di Donna Olimpia to Via Vitellia (west direction) - Via della Nocetta to Via Aurelia Antica (west direction) - Via di Torre Rossa - Piazza di Villa Carpegna - Aurelia ring road (Circonvallazione Aurelia) - Via Domenico Tardini - Via della Pineta Sacchetti - Via Enrico Pestalozzi - Via Pieve di Cadore - Via Mario Fani - Via della Camilluccia - Via dei Colli della Farnesina - Via del Foro Italico - Via Maresciallo Caviglia - Viale di Tor di Quinto up to Ponte Flaminio;

The delineation of the proposed buffer zone has followed the below mentioned criteria:

- the archaeological and historic continuity;
- the villas and historic parks as the Historic City’s territorial context;
- fabrics as defined in the General Urban Plan;
- the visual relations between the property and its surrounding area including main access roads to the property and the relevant panoramic points;
- the structural relations between the property and its context comprising the access roads that have both historic and functional connections with the property.

The criteria used for the delineation of the proposed buffer zone also include areas where potential regenerations regulated by the General Urban Plan (GUP) are expected. It is noted that these changes in the setting can play a strategic role in the protection and enhancement of the property and will be useful for the implementation of strategic objectives identified in the Management Plan proposal.

However, ICOMOS considers that the description of the proposed changes such as the regeneration of Ostiense District, the Flaminio district and the neighbouring railway areas would deserve further focus on the way the expected - and not yet materialized - changes, will value the area and support the enhancement of the Outstanding Universal Value and its attributes. Focus is on the expected impact of change failing to provide evidence on how these areas are interrelated with the property and how they would positively support the Outstanding Universal Value.

The proposal tends to address the impact of tourism and economic pressure in priority and details that would clearly demonstrate the relationships between the World Heritage property and its surrounding area are not always explicit. It would be particularly important to define how the buffer zone would contribute to add an additional layer of protection to the Outstanding Universal Value of the property.

ICOMOS notes that in the north, the proposed boundary delineation excludes the extended area beyond Piazzale Ponte Milvio when this area which include the antique Ponte Milvio represents the historic entrance to Rome from the north, demonstrating a direct cultural interconnection with the property. The States Parties may consider extending the boundary to include the area along the Via Cassia and the Via Flaminia, axes of connection with the Parco di Veio towards north-east and the Via Cassia together with the Via Aurelia towards north-west with Etruria Meridionale.

ICOMOS considers that the exclusion of part of the Parco Archeologico dell’Appia Antica would also require further consideration so as to extend the boundary so that it coincides with those of Municipi VIII and IX in order to maintain the continuity and uniqueness of the Park protected under adequate regulations, and thus highlight the cultural interconnection with part of the Foro located in the property.

In general, the proposed boundaries of the buffer zone would benefit from further consideration of the conceptual and physical interconnections with the property such as for the Tuscolano or Città Giardino area in the north-east.

Further information on how development projects planned in the proposed buffer zone and its broader setting will be assessed is needed as different authorities and planning regulations are involved beyond the Transboundary Coordination Group.
This information would be useful especially as regards the ‘Transformation areas’ defined under the General Urban Plan aiming at developing new ‘attraction areas in continuity and in synergic relationship with the property’.

ICOMOS notes that the proposal for the minor boundary modification request further outlines the necessity to finalize the Management Plan which is under preparation since 2006. Such Management Plan should provide, among others, further details on the value and attributes of the World Heritage property and their relation to the buffer zone as well as adequate mechanism to assess the impact of development planned in the proposed buffer zone.

The proposal indicates that the final delineation of the proposed buffer zone was established in light of the General Urban Plan (GUP – Historic City and System and Rules), of the existing archaeological, architectural and landscape protection measures and of territorial and urban planning tools. As such, the States Parties indicate that the establishment of the buffer zone will require no new regulations. The existing legal and planning protection framework is well detailed and proves to contain adequate protection to the World Heritage property and its surroundings except for historic areas beyond the Mura Aureliane that are not protected under the Piano Territoriale Paesistico Regionale (PTPR) of the Lazio Region (Prati, Garbatella, EUR etc.). Similarly, the proposal does not provide information on how and when the boundaries of the proposed buffer zone will be transcribed into existing local and national regulations in order to provide a statutory status to its boundaries.

### 3 ICOMOS Recommendations

**Recommendation with respect to inscription**

ICOMOS recommends that the proposed buffer zone of the Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura, Holy See and Italy, be referred back to the States Parties in order to allow it to:

- Consider extension of the proposed boundary of the buffer zone based on further examination of the conceptual and physical interconnections between the property and its immediate setting,

- Provide further details on the mechanisms in place in the proposed buffer zone to assess the impact of development projects on the World Heritage property,

- Indicate how and when the delimitations of the proposed buffer zone will be transcribed into existing local and national regulations in order to provide a statutory status to its boundaries.

**Additional recommendations**

ICOMOS further recommends that the States Parties complete the Management Plan of the World Heritage Property urgently.
Map showing the proposed buffer zone
Kyiv: Saint-Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra
(Ukraine)
No 527ter

1 Basic data

State Party
Ukraine

Name of property
Kyiv: Saint-Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra

Location
Kyiv
Ukraine

Inscription
1990

Brief description
Designed to rival Hagia Sophia in Constantinople, Kyiv’s Saint-Sophia Cathedral symbolizes the ‘new Constantinople’, capital of the Christian principality of Kyiv, which was created in the 11th century in a region evangelized after the baptism of St Vladimir in 988 CE. The spiritual and intellectual influence of Kyiv-Pechersk Lavra contributed to the spread of Orthodox thought and the Orthodox faith in the Russian world from the 17th to the 19th century.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
The property Kyiv: Saint-Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra was inscribed on the World Heritage List in 1990 on the basis of criteria (i), (ii), (iii) and (iv). This is a serial property with three component parts. At the time of inscription, no buffer zone was defined.

In 2005, the World Heritage Committee approved a minor modification which defined the buffer zone (Decision 29 COM 8B.56). At the time, the Committee also welcomed the State Party proposal to further examine the choice of the eastern boundary of the buffer zone for the Saint-Sophia component and the existing quality and condition of the urban fabric of central Kyiv both inside and outside the buffer zone.

The World Heritage Committee noted the provision of clearer mapping of the property in response to the Retrospective Inventory in 2008 (Decision 32 COM 8D).

Also in 2008, the State Party sought a minor boundary modification related to an extension for two churches. The World Heritage Committee considered the proposal was not a minor modification, and recommended the State Party be invited to submit a full nomination for the proposed extension (Decision 32 COM 8B.68).

In 2009, the World Heritage Committee considered a State of Conservation report arising from a Reactive Monitoring mission. The Committee recommended extending the eastern boundary of the buffer zone of the Saint-Sophia site to include Maidant Nezalejnosti Square as an important part of the urban structure (Decision 33 COM 7B.125).

In 2010, the Committee considered an extension of the property to include two churches, and decided to defer the examination, partly in relation to proposed boundary and buffer zone issues (Decision 34 COM 8B.36).

In 2012, the Committee considered a revised extension of the property to include the two churches. The Committee decided to defer the examination, partly in relation to proposed boundary and buffer zone issues (Decision 36 COM 8B.41).

A retrospective Statement of Outstanding Universal Value was adopted by the World Heritage Committee in 2014 (Decision 38 COM 8E).

The property has been the subject of many State of Conservation reports since inscription, regarding protection and management issues, and sometimes including boundary and buffer zone issues. In March 2017 a joint World Heritage Centre/ICOMOS Reactive Monitoring mission was undertaken, the conclusions and recommendations of which were reported to the Committee in 2017 (41 COM 7B.Add). As a result, a further State of Conservation report was requested by 1 December 2018 (Decision 41 COM 7B.53).

The State Party submitted a minor boundary modification in February 2018. The Committee decided to refer the proposed minor modification to the buffer zone back to the State Party in order to consider creating a single buffer zone for the property to surround all components, to amend the proposed buffer zone in several ways, and to improve legal protection and management in accordance with Decision 41 COM 7B.53 and recommendations of the 2017 Reactive Monitoring mission (Decision 42 COM 8B.43).
**Modification**

The State Party proposes a single buffer zone for the property which encompasses the three component parts of the property.

The existing buffer zone for the Saint Sophia Cathedral and Related Monastic Buildings component part to the northwest has been expanded in a minor way to the south and more substantially to the east. This includes buildings on the south side of Prorizna Street, and part of Khreshchatyk Street with Maidan Nezalezhnosti (Independence) Square. This buffer zone has also been slightly reduced to the west, to accord with the boundaries of existing land plots.

The buffer zone for the Kyiv-Pechersk Lavra and Church of the Savior at Berestove component parts to the southeast has been expanded to the west and south. The western expansion includes an area of residential and public buildings. The southern expansion includes the sloping land which effectively rises from closer to the river level up to the elevated level of the component parts, and partly bounded by Staronadvodnytska Street and the Druzhby Narodiv Boulevard. This area includes the National Museum of the History of Ukraine in the Second World War and its parklands.

In addition, the buffer zone has been expanded to the northeast of the three component parts in the form of a corridor generally encompassing the southwest bank of the Dnieper River. This corridor effectively links the two current buffer zones, in order to create a single buffer zone for the whole property. The land in this area rises from the river to the elevated level where the component parts are located. This area also includes the national monument Zamkova Hill – Andriivsky Descent, and Andrivskyi Hill, in the north, and otherwise part of the Historic Landscape of the Kyiv Hills and Dnieper River Valley monument. The buffer zone also includes a 50-metre-wide section of the river itself between Paton Bridge and River Station.

The proposal results in the overall buffer zone area increasing from 220.15 ha to 476.08 ha.

The State Party has justified the proposed buffer zone overall on the basis of improving the protection status and use regimes for this area, in particular to prevent violations that may impact the Outstanding Universal Value of the property. The proposal responds to various decisions by the World Heritage Committee. A detailed justification is provided for 12 sections of the buffer zone including, for example, that section which protects the panorama including the property along the Dnieper River.

The buffer zone is established in accordance with the requirements of the Law of Ukraine “On the Protection of Cultural Heritage”, as amended. State Building Regulations and Standards and other instruments. In accordance with the Law, buffer zones and their use regimes are approved by the central executive body in the field of cultural heritage protection.

In addition, this and other laws require the buffer zone boundaries to be plotted on the main drawings of the City Master Plan and other urban planning documents. The use regimes of the buffer zone are taken into account through this documentation when establishing permitted and permissible types of use for urban development needs, conditions and restrictions on their construction. The State Building Regulations require that development activity within the buffer zone shall be carried out in accordance with use regimes and the management plan for the World Heritage property.

A differentiated use regime to enhance protection of the property was developed following Decision 42 COM 88.43 and the Reactive Monitoring mission.

The Law of Ukraine “On the Protection of Cultural Heritage” requires the management of the property and its buffer zone to be carried out on the basis of a management plan. The management plan is approved by the central executive body in the field of cultural heritage protection. The description of all conditions, restrictions and provisions related to the proposed buffer zone will be included in the relevant sections of the management plan for the property.

ICOMOS considers the proposed modification has been thoroughly prepared and reflects a highly professional approach, detailing the principles and justification for the proposed buffer zone. The description, justification, explanation of aims, as well a comparison with the previous proposals, make the documentation more convincing and clearly suitable for implementation.

The detailed description of the use regimes for the buffer zone is extremely helpful and exemplary in how it establishes fine-tuned regulations for each sub-zone of the buffer zone, and well justifies the buffer zone boundary.

Based on previous consultations and recommendations, as well as sound research, the proposed unified buffer zone should provide a high level of protection for the property with transparent and predictable implementation. The further subdivision of the buffer zone allows fine-tuning of protection and management.

The management plan should be updated as soon as possible, the protection and management provisions should be strictly implemented and enforced, and the effectiveness of the buffer zone monitored.
3 ICOMOS Recommendations

Recommendation with respect to inscription
ICOMOS recommends that the proposed buffer zone for Kyiv: Saint-Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra, Ukraine, be approved.

Additional recommendations
ICOMOS recommends that the State Party gives consideration to the following:

a) Updating the management plan as soon as possible, and submitting this to the World Heritage Centre for examination,

b) Implementing the rules of the buffer zone and ensuring that the protection and management provisions are strictly implemented and enforced,

c) Ensuring the effectiveness of the buffer zone is monitored;
Map showing the revised boundaries of the buffer zone
V Cultural properties

A Asia – Pacific
   Referral back nomination

B Europe – North America
   Referral back nominations
   Minor modifications to the boundaries
   Creation/modification of buffer zone

C Latin America and the Caribbean
   Creation/modification of buffer zone
Maya Site of Copan (Honduras) No 129bis

1 Basic data

State Party
Honduras

Name of property
Maya Site of Copan

Location
Copan Ruinas, Department of Copan

Inscription
1980

Brief description
Discovered in 1570 by Diego García de Palacio, the ruins of Copán, one of the most important sites of the Mayan civilization, were not excavated until the 19th century. The ruined citadel and imposing public squares reveal the three main stages of development before the city was abandoned in the early 10th century.

Date of ICOMOS approval of this report
12 March 2020

2 Issues raised

Background
At the time of inscription of the property on the World Heritage List, no precise limits of the property and no buffer zone were defined. In the framework of the retrospective inventory, the World Heritage Committee urged the State Party to officially submit the limits of the World Heritage property and its buffer zone (33 COM 7B.137, Seville, 2009). The information presented by the State Party in response to this request was considered incomplete and unclear by ICOMOS. Following a new submission, the boundaries of the World Heritage property were approved by the World Heritage Committee at its 41st session (Krakow, 2017).

A buffer zone, larger than the one under review in this present report, had been proposed in the Management Plan 2014-2020 but was not approved by the Instituto Hondureño de Antropología e Historia (IHAH) and the stakeholders, for several reasons, especially because (1) it was considered to be too extended on the northeast side to effectively implement legal restrictions, and (2) had led to land speculations as the State had expressed its willingness to buy land included in the buffer zone.

In 2019 the State Party submitted a Minor Boundary Modification delimiting a proposed buffer zone of 258.365 ha, which was similar in general terms to the previous one, but had reduced its size at the northeast and southeast (south of the river).

Beyond the buffer zone, the State Party described an "area of influence" (zone 2) as having "its own restrictions albeit less strict than those of the buffer zone". Within this area of influence, the Management Plan had created eleven "protected enclaves" (recintos protegidos), which mark an area around a monument (for example, a stele or an altar), in order for it to receive the same kind of protections as the elements in the buffer zone.

Another issue raised by the State Party in 2019 was the ownership of the site's buffer zone. The State Party, as on previous occasions, expressed its intent to buy the areas of the buffer zone that are not already in possession of the State.

The World Heritage Committee decided in 2019 to refer back the proposed buffer zone to the State Party (decision 43 COM 8B.53) in order to complete the map showing the proposed buffer zone; provide more detailed information on the legislation regulating the property, the buffer zone and the area of influence; specify how the regulation of the buffer zone will be enforced, and how and when an agreement with all the landowners will be reached.

Modification
The revised proposal, submitted by the State Party in February 2020, maintains the same size (258.365 ha) of the buffer zone as proposed previously. The buffer zone is described as having an "exclusive zone" (gathering areas 1 and 2, the latter being the extension of the Archaeological Park, marked in green on the map), where only positive changes for investigation, heritage protection and visitor safety are accepted. The only area where more flexibility in the activities is permitted is the location of the public facilities, in the north western part of area 1. The second zone, called "zone of restricted activities" (gathering areas 3, 4, 5, 6, 7 and 8), only allows low impact activities (agriculture and pasture). Other low impact changes will be allowed, as described by the State Party, "if they are to satisfy a social or economic necessity without alternative, in which case a strict impact assessment will be undertaken, and its recommendations implemented". The areas 1 to 8 have different ownership and land-use statuses. Areas 1 and 5 are state owned, the other areas are private property.

In this proposal, the State Party describes three regulation zones instead of the four mentioned in the 2019 proposal: The World Heritage Property (zone 0), the buffer zone (zone 1), and the rest of the National Monument of Copan (zone 2).
The proposal eliminates the Area of Influence and the eleven Protected Enclaves proposed previously. The State Party explains that they resulted “confusing for the managers of the site and for the community at large”. The State Party determined that such areas were not necessary, due to the existence of the Law for the Protection of Cultural Heritage and the Declaration of Copan as National Monument, which already provide an adequate protection of all the archaeological vestiges over the whole of the Copan Valley. The Law provides the basis for the competent authorities “to dictate preventive or prohibitive measures they consider necessary for the conservation and protection of these properties” (Art. 9 of the Law for the Protection of Cultural Heritage). The Law also provides for the possibility to expropriate when necessary without a legislative decree (Art. 56).

As mentioned above, not all parts of the buffer zone are state owned. In the latest Minor Boundary Modification proposal, the State Party renounced the plan to buy all areas of the buffer zone due to the high cost of such a transaction. At the same time, the State Party reiterated the desire to buy area 2, which is private property but currently under the management of the IHAH, however, not “in the foreseeable future”. The State Party considers that “the management arrangements have been working for more than 30 years, and there is no foreseeable reason that this would change”.

ICOMOS considers that the proposed buffer zone will reinforce the management and protection of the property.

ICOMOS considers that the buffer zone is adequate and recommends the State Party to closely work together with the private owners of the land included in zone 2, in order to achieve the best possible protection of the World Heritage property and its value. Furthermore, ICOMOS encourages the State Party to apply as strictly as possible the Law for the Protection of Cultural Heritage with the aim to protect all relevant elements pertaining to the National Monument within the Copan Valley.

3 ICOMOS Recommendations

Recommendation with respect to inscription
ICOMOS recommends that the proposed buffer zone for the Maya Site of Copan, Honduras, be approved.

Additional recommendations
ICOMOS recommends that the State Party gives consideration to the following:

a) Closely working with the private owners of the land included in zone 2 in order to achieve the best possible protection of the World Heritage property and its value,
Map showing the proposed buffer zone
Part II
World Heritage List Nominations 2021
Nominations evaluated by ICOMOS for the World Heritage List 2021
Part II
World Heritage List Nominations 2021
Nominations evaluated by ICOMOS for the World Heritage List 2021

I  Introduction
ICOMOS analysis of nominations           298
ICOMOS procedure                          302
ICOMOS check tool recommendations         305

II  Tables
Alphabetical index of the evaluations (by State Party)  306
Nominations by category                     308
Geographical spread of nominations          310
Numerical index of the evaluations          312
Technical evaluation mission experts        314

World Heritage List Nominations received by 1st February 2020
For which Technical Evaluation Missions were organised by November 2020

III  Cultural properties

A  Africa

New nomination
Côte d’Ivoire [C 1648]
Sudanese style mosques in northern Côte d’Ivoire  316

B  Asia – Pacific

New nominations
Iran (Islamic Republic of) [C 1647]
Cultural Landscape of Hawraman/Uramanat  327

Japan [C 1632]
Jomon Prehistoric Sites in Northern Japan  339

C  Europe – North America

New nominations
France [C 1635]
Nice, capital of Riviera tourism  350

Germany [C 1636]
ShUM Sites of Speyer, Worms and Mainz  363
World Heritage List Nominations received by 1st February 2020 and minor boundary modifications received by 1st February 2021

See Addendum WHC/21/44.COM/INF.8B1.Add which includes nominations for which Technical Evaluation Missions were organised between December 2020 and January 2021¹ and minor modifications to boundaries and creations of buffer zones.

IV Cultural properties

A Arab states

Nomination deferred by a previous session of the World Heritage Committee
Jordan [C 689rev]
As-Salt – The Place of Tolerance and Urban Hospitality

B Asia Pacific

New nomination
India [C 1645]
Dholavira: A Harappan City

C Europe – North America

New nominations
Latvia [C 1637]
Grobiņa archaeological ensemble

¹ as per request of the Extraordinary Session of the World Heritage Committee (Decision 14 EXT.COM 4 point 6)
Poland [C 1629]
Gdańsk Shipyard – the birthplace of “Solidarity” and the symbol of the Fall of the Iron Curtain in Europe

Creation/modification of buffer zones
Czechia [C 1589bis]
Landscape for Breeding and Training of Ceremonial Carriage Horses at Kladnuby nad Labem

France [C 85bis]
Prehistoric Sites and Decorated Caves of the Vézère Valley

France [C 868bis]
Routes of Santiago de Compostela in France

Italy [C 826bis]
Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto)

Italy [C 829bis]
Archaeological Areas of Pompeii, Herculaneum and Torre Annunziata

D Latin America and the Caribbean

New nomination
Chile [C 1634]
Settlement and Artificial Mummification of the Chinchorro Culture in the Arica and Parinacota Region

Extension
Mexico [C 702bis]
Franciscan Ensemble of the Monastery and Cathedral of Our Lady of the Assumption of Tlaxcala (as Extension of the “Earliest 16th-Century Monasteries on the Slopes of Popocatepetl”) [inscribed in 1994, criteria (ii), (iv)]

Creation/modification of buffer zone
Bolivia [C 420bis]
City of Potosí
I Introduction

ICOMOS Analysis of nominations

In 2021, ICOMOS was called on to evaluate 25 nominations.

They consisted of:

- 17 new nominations
- 1 extension
- 1 deferred nomination
- 6 minor modifications/creations of buffer zone

The geographical spread is as follows:

**Africa**
- Total: 2 nominations, 5 countries
- 2 new nominations
  - (1 cultural property, 1 mixed property)

**Arab States**
- Total: 2 nominations, 2 countries
- 1 new nomination
  - (2 cultural properties)

**Asia-Pacific**
- Total: 3 nominations, 3 countries
- 3 new nominations
  - (3 cultural properties)

**Europe and North America**
- Total: 10 nominations, 10 countries
- 10 new nominations
- 5 minor modifications/creations of buffer zone
  - (15 cultural properties)

**Latin America and the Caribbean**
- Total: 2 nominations, 2 countries
- 1 new nomination
- 1 extension
- 1 minor modification/creation of buffer zone
  - (3 cultural properties)

ICOMOS notes the weak representation of certain Regions in the submissions, particularly Africa, Latin America and the Caribbean and the Arab States.

General remarks

The 2021 cycle was particularly challenging in view of the exceptional circumstances due to the COVID-19 pandemic. Late technical evaluation missions carried out on an exceptional basis in December 2020 and January 2021 and two extraordinary sessions of the ICOMOS World Heritage Panel held in January 2021 were ICOMOS' response to Decision 14 EXT. COM 4 point 6 of the extraordinary session of the World Heritage Committee to propose an exceptional extension of the deadlines in accordance with the Operational Guidelines and without creating a precedent for the completion of pending Evaluation missions for 2021 nominations.

Thanks to the great efforts and the cooperation between the Evaluation Unit, the ICOMOS mission experts and the nominating States Parties, all technical evaluation missions were carried out and all nominated sites evaluated, apart from one nomination due to security reasons. Hence, ICOMOS expresses its gratitude to all the experts involved in the Evaluation Process as well as to the nominating States Parties for the efforts made in this difficult period.

However, this situation generated also important additional workload and delays in the usual working calendar for completion of the evaluation texts. The difficulties in organizing the evaluation missions were so considerable that in some cases the missions almost had to be cancelled. ICOMOS therefore draws the attention of the World Heritage Committee on the risks that some missions may not be able to take place in the 2022 cycle, depending on the development of the pandemic situation.

1. Quality and complexity of nomination dossiers

Generally speaking, ICOMOS notes that nominations are increasingly complex, sometimes to the detriment of the dossiers' clarity and coherence.

Certain nominations would benefit if more time were taken in preparation. For example, completing the legal protection process, finalising a management plan or undertaking additional research.

ICOMOS recalls the Resource Manual *Preparing World Heritage Nominations*. An electronic version is available on its website and on the World Heritage Centre website. The Manual is an invaluable resource in helping States Parties prepare effective nomination dossiers. Thanks to the World Heritage Capacity-Building programme, the manual is available in several languages (Arabic, English, French, Portuguese and Spanish).

When evaluating the Comparative Analysis included in nomination dossiers, ICOMOS examines the methodology used by the State Party and the relevance of the examples against a set of
parameters. Comparisons with the nominated property should be drawn with sites expressing the same values, and within a defined geo-cultural area. Therefore, the values need to be clearly defined and the geo-cultural framework should be determined according to those values. Comparisons should be drawn with similar properties already inscribed on the World Heritage List and with other examples at national and international level within the defined geo-cultural area.

On this basis, ICOMOS indicates whether or not the Comparative Analysis is complete; and whether or not, the analysis justifies consideration of the property for the World Heritage List.

If the nomination is considered incomplete or insufficient according to the parameters indicated above, ICOMOS takes several actions. It requests additional information from the State Party; checks relevant ICOMOS thematic studies; examines the wealth of information available about properties already evaluated and/or inscribed on the World Heritage List, and on the Tentative Lists; and, consults international experts (belonging or not to the ICOMOS network) to improve its understanding of the nomination.

ICOMOS wishes to point out that its role is to evaluate the properties based on the information provided in the nominations (i.e. the dossiers), and on the basis of field visits and assessments by ICOMOS experts as well as additional international studies. Similarly, ICOMOS evaluates the protection, conservation and management of the property at the time of the nomination and not at some unspecified time in the future after the adoption of proposed laws and management plans. It is thus the duty of ICOMOS to indicate to the World Heritage Committee if adequate protection and management are in place prior to inscription.

2. ICOMOS evaluations

The objective of ICOMOS is the conservation and long-term protection and presentation of cultural heritage, based on whether or not it is of Outstanding Universal Value. In formulating its recommendations, ICOMOS seeks to be as helpful as possible to States Parties, whatever the final recommendation being proposed.

ICOMOS is well aware that it cannot please everyone. Despite sometimes being under considerable pressure, it must remain rigorous and scientific, and its first duty remains the conservation of properties. ICOMOS also notes that the dialogue developed with States Parties during the evaluation process is often very helpful to solve issues and difficulties. In many cases, it contributes to the adoption of the final recommendations made by ICOMOS. However, the current timeframe does not provide enough time for dialogue when the issues are complex.

3. “Referred back” nominations – “Deferred” nominations

ICOMOS wishes to once again express its concerns about the difficulties raised when a "deferred" recommendation is changed into a "referred back" recommendation. This action does not allow the Advisory Bodies to carry out an appropriate evaluation of nominations which are in many cases "resubmitted" as entirely new ones.

In its recommendations, ICOMOS clearly distinguishes between nominations which are recommended to be referred back and those which are deferred. For referred nominations, criteria have been justified, and conditions of authenticity and integrity have been met to the satisfaction of ICOMOS. Supplementary information must be supplied to satisfy other requirements of the Operational Guidelines, but no further technical evaluation mission will be required. For deferred nominations, the very nature of the information requested (e.g., a more thorough study, major reconsideration of boundaries, a request for a substantial revision, or serious gaps in regard to management and conservation issues) means that a new mission as well as consideration by the full ICOMOS World Heritage Panel are required. Time is thus needed to reconstitute the nomination, to evaluate that nomination again, and to ensure that it has the consideration needed to advance the nomination further.

4. "Minor" modifications to boundaries

These requests originate either from monitoring, the retrospective inventory or periodic reporting.

ICOMOS notes that all modifications to the boundaries of a property and its buffer zone are proposed as "minor" modifications, even when they constitute, in fact, substantial modifications to the property, or even in some cases an extension of the property.

According to the Operational Guidelines, proposals for major modifications, whether extensions or reductions, constitute a new nomination (paragraph 165). ICOMOS recommends to the World Heritage Committee that this provision should be consistently and rigorously applied.

ICOMOS suggests moreover that an extension of the calendar for the evaluation of such requests should be considered, in order to bring it into line with the calendar in force for new nominations, which would
open up the possibility of dialogue and exchange of information with the States Parties.

5. Serial nominations and extensions

ICOMOS recalls that the Operational Guidelines of November 2011 (paragraph 137) validated a change in the approach to serial properties. Serial nominations should not consist merely of a catalogue of sites, but should instead concern a collection or ensemble of sites with specific cultural, social or functional links over time, in which each site contributes substantially to the Outstanding Universal Value of the serial property as a whole.

ICOMOS wishes to encourage States Parties to give consideration to the implications of this change when preparing serial nominations.

This year, ICOMOS has examined 14 serial nominations, including 180 monuments, ensembles and sites. These nominations require a more substantial investment in terms of human and financial resources at all levels of evaluation of the properties. The increase in the number of serial nominations needs to be taken into account in the budgets and contracts. Furthermore, ICOMOS notes that there are also enormous pressures on keeping the statutory calendar, which arise from the heavier task of evaluating these large and complex serial nominations.

6. Development projects

ICOMOS points out that its Guidance on Heritage Impact Assessments for cultural World Heritage properties can be consulted on its website. This Guidance has been translated into several languages and ICOMOS urges States Parties to make use of it. In addition, research work has been undertaken in order to better understand Heritage Impact Assessments. ICOMOS encourages States Parties to incorporate a Heritage Impact Assessment approach into the management system of their nominated properties. This will ensure that any programme, project or legislation regarding the property be assessed in terms of its consequences on the Outstanding Universal Value and its supporting attributes.

Based on recent experiences where information had not been shared in an adequate manner, ICOMOS reiterates its concerns related to the need of identifying development projects within World Heritage properties during the evaluation cycle, and to bring to ICOMOS’ attention any development projects that are planned within the nominated property or in its vicinity, to ensure that comprehensive information is received concerning these potential projects. ICOMOS once again suggests that during the nomination evaluation procedure the World Heritage Committee should apply provisions similar to those stipulated in paragraph 172, inviting the States Parties to inform the Committee of “their intention to undertake or to authorize in an area protected under the Convention major restorations or new constructions which may affect the Outstanding Universal Value of the property […]”.

7. Connecting Practice

As a joint initiative between ICOMOS and IUCN, the Connecting Practice project provides opportunities for exploring new methods and practical strategies for learning and developing new approaches to better recognise and understand the interconnection of natural and cultural values in significant heritage landscapes and seascapes under the World Heritage Convention.

Beginning in 2013, the project has completed three phases, with a Phase IV currently in the planning process. Each phase has contributed to increasing awareness among heritage management actors about the close interrelations and integration of natural and cultural dimensions of heritage properties, and the importance of joint protection and management approaches.

Phase III (2017-2020) built upon the insights and outcomes of the previous phases, and focused on three main elements: biocultural approaches to conservation at continually evolving cultural landscapes; exploring the concept of resilience; and increasing multi-disciplinarity. A particular emphasis was exploring potential connections with other international designations and institutions, including the Globally Important Agricultural Heritage Systems (GIAHS) programme with the FAO. The reports of phases I, II and III are available on the ICOMOS website.

8. Transnational serial nominations

ICOMOS wishes to congratulate the States Parties on the efforts made to prepare transnational serial nominations. ICOMOS sees in the themes and challenges considered, a return to the fundamentals of the World Heritage Convention.

The monitoring of the state of conservation of properties of this type is a considerable challenge, which could enable experimentation with specific tools adapted to such properties.

ICOMOS wishes to stress the importance of involving the Advisory Bodies in the upstream processes for the preparation of nominations of this type. ICOMOS is available for upstream involvement at strategic development level for these vast and complex transnational serial nominations.
9. Historic Urban Landscape (HUL)
ICOMOS noted the increasing use of the notion of Historic Urban Landscape (HUL) in the draft statements of Outstanding Universal Value. While acknowledging the importance of the UNESCO Recommendation on Historic Urban Landscapes as being “an additional tool to integrate policies and practices of conservation of the built environment into the wider goals of urban development in respect of the inherited values and traditions of different cultural contexts”, there is an agreement that the notion of HUL should be seen as a useful methodological approach that can sustain and strengthen management. But, it cannot be understood as a category of heritage and should not be mentioned as such in justifications for inscription of nominated properties.

10. Cultural landscapes
ICOMOS notes some new challenges and trends emerging in some recent nominations. One example is what is called an ‘evolving landscape’ where the idea of an organically ‘evolved landscape’ has been merged with that of a ‘continuing landscape’. This merging is leading to nominations for properties where it is suggested that more or less everything in the property could continue to evolve over time in the future. While it is clearly desirable that continuing cultural landscapes play an active role in contemporary society, in order for this to happen in a way that sustains Outstanding Universal Value, there does need to be a clear understanding of which parts of the evolutionary process may evolve, and how, and what aspects should be maintained as a ‘golden thread’ linking what is there now to the way the landscape has evolved over time.

11. Buffer zones
In recent years, discussions on properties at the World Heritage Committee as part of the State of Conservation process have focused on many developments within buffer zones. Such discussions bring sharply into focus the nature and specificities of buffer zones and how precisely they are meant to support their properties. In order to ensure there is a clear understanding of the purpose and scope of individual buffer zones, and how they operate, as requested by the Operational Guidelines, ICOMOS through its evaluations has tried to assess in a systematic way the rationale for the boundaries of a buffer zone. This approach includes examining the role of the buffer zone in supporting Outstanding Universal Value and its relationship to attributes of Outstanding Universal Value; how the buffer zone relates to the broader setting and what, if anything, needs protecting in the broader setting as well as how the buffer zone is managed and protected.

12. Upstream process
ICOMOS has been active in extending its collaboration with States Parties on upstream work, with the World Heritage Centre and IUCN on how to address upstream requests in a more systematic and efficient manner and on the development of Tentative Lists.

ICOMOS has extended the length of the ICOMOS World Heritage Panel meeting in order to examine the missions and projects developed by ICOMOS for the purpose of upstream processes.

Furthermore, ICOMOS wishes to draw attention to paragraph 122 of the Operational Guidelines which invites States Parties to “contact the Advisory Bodies and the World Heritage Centre at the earliest opportunity in considering nominations to seek information and guidance”, and in particular the relevance of this paragraph in connection with the preparation of the nomination dossier for mixed properties and serial properties.

ICOMOS notes as a general observation that a preliminary review of State Party Tentative Lists by the Advisory Bodies, as part of the upstream process, is of great assistance in identifying properties that are more likely to be assessed as having Outstanding Universal Value and therefore result in successful nominations. It respectfully suggests to the Committee that States Parties be encouraged to defer proceeding with the preparation of nomination dossiers until after such a preliminary review has been undertaken.

ICOMOS has elaborated with the assistance of IUCN, ICCROM and the UNESCO World Heritage Centre, a “Guidance on Developing and Revising World Heritage Tentative Lists” within the context of the ongoing reform of the Nomination Process.

This document responds to an increasing need of basic guidance for States Parties when developing and revising their Tentative Lists. On its first part, the Guidance presents and explains the basic concepts around the Tentative Lists within the context of the Nomination and Upstream processes. It identifies the key steps for preparing and revising Tentative Lists, as well as the stages where the Advisory Bodies might be consulted by the States Parties to provide advice, in terms of methodology and analysis for the development or revision of Tentative Lists, thereby reducing the risk of spending resources to prepare nominations that may be unlikely to succeed.

It is available on the World Heritage Centre website.
ICOMOS procedure

The ICOMOS procedure is described in Annex 6 of the Operational Guidelines for the Implementation of the World Heritage Convention. It is regulated by the Policy for the implementation of the ICOMOS World Heritage mandate (latest revision in October 2015). This document is available on the ICOMOS website: www.international.icomos.org.

This policy makes public the existing procedure, and sets out the fair, transparent and credible approach ICOMOS adopts in fulfilling its world heritage obligations, and the way it avoids conflicts of interest.

The evaluation of nominations, which involves more than 40 to 50 international experts for each nomination dossier, is coordinated by the World Heritage Evaluation Unit of the International Secretariat of ICOMOS, in collaboration with the ICOMOS officers responsible for World Heritage and the ICOMOS World Heritage Panel.

The ICOMOS World Heritage Panel, which brings together some thirty persons, is made up of members of the ICOMOS Board, representatives of ICOMOS International Scientific Committees as well as of some other organizations than ICOMOS and other individual experts. The Panel members are selected each year depending on the nature of the properties nominated (e.g., rock art, 20th century heritage, industrial heritage, etc.) and on the basis of geo-cultural balanced representation. TICCIH and DoCoMoMo are also invited to participate in discussions in which their expertise is relevant. In principle all members of the Panel participate by drawing on their own financial resources (pro bono work). The Panel’s composition and terms of reference are available on the ICOMOS website. They represent the various professional, geographic and cultural sensibilities present at the international level. The Panel prepares the ICOMOS recommendations for each nomination on a collegial basis.

For each nominated property, ICOMOS assesses whether it bears testimony of an Outstanding Universal Value:

- whether it meets the Criteria of the Operational Guidelines;
- whether it meets the conditions of Authenticity and Integrity;
- whether legal protection is adequate; and,
- whether the management processes are satisfactory.

All properties are given equal attention, and ICOMOS also makes every effort to be as objective, scientific and rigorous as possible.

In order to reinforce consistency of the evaluations and recommendations, and to check which additional information requests should be sent to States Parties, ICOMOS uses a check box tool, which is included in this volume.

1. Preparatory work

The preparatory work is done in several stages:

a. Initial study of dossiers. This first stage of the work consists of the creation of an inventory of the nomination dossier documents. They are then studied to identify the various issues relating to the property and the choice of the various experts who will be called on to review the dossier (i.e., ICOMOS advisers, experts for mission, experts for consultations). A compilation of all relevant comparative material (e.g., Tentative Lists, properties already on the World Heritage List, nomination dossiers, “filling the gaps” ICOMOS study, etc.) is prepared in order to assist the work of the advisers on the specific item of comparative analysis.

b. Consultations. International experts are invited to express their opinion through desk reviews about the Comparative Analysis and the Outstanding Universal Value of the nominated properties with reference to the ten Criteria set out in the Operational Guidelines for the Implementation of the World Heritage Convention (July 2019), paragraph 77. ICOMOS also consults experts on a desktop basis on issues related to cultural tourism and risk preparedness in order to provide recommendations on these issues in a systematic manner through all the nomination dossiers.

For this purpose, ICOMOS calls on the following:

- ICOMOS International Scientific Committees;
- Individual ICOMOS members with special expertise, identified after consultation with International and National Committees;
- Non-ICOMOS members with specific expertise, identified mostly amongst Universities and Research Institutes or partner organisations.

For the nominations to be considered by the World Heritage Committee at its 44th extended session, around 195 experts provided desk reviews. 30% of the reports received has been drafted by non-ICOMOS members.

c. Technical evaluation missions. As a rule, ICOMOS calls on a person from the region in which the nominated property is located. In certain exceptional circumstances, often in cases in which the nature of
the property is unusual, the expert may not originate from the region concerned. The objective of the missions is to study the Authenticity, Integrity, factors affecting the property, protection, conservation and management (Operational Guidelines, paragraph 78).

Experts are sent the nomination dossier (i.e., electronic versions and copy of the maps in colour), a note with key questions based on a preliminary examination of the dossiers, documentation on the Convention and detailed guidelines for evaluation missions.

All experts have a duty of confidentiality. Their opinion about the nomination does not necessarily reflect that of the organisation; it is the ICOMOS World Heritage Panel which, after acquainting itself with all the information, analyses it and determines the organisation's position.

Missions are sent to all the nominated properties except in the case of nominations referred back for which the Operational Guidelines do not stipulate that a mission is necessary (Note: The principle is that properties are referred back because additional information is necessary, and not because thorough or substantial modifications are needed). The deadlines set out in the Operational Guidelines mean moreover that it is not possible to organise missions, desk reviews or consideration by the full ICOMOS World Heritage Panel for properties referred back.

In the 2020-2021 cycle, 18 experts representing 15 countries took part in field missions as part of the evaluation of the 18 nominated properties, which in turn represented 18 countries.

ICOMOS and IUCN have exchanged desk reviews and information about draft recommendations concerning mixed property nominations and cultural landscapes before and after their respective Panel meetings.

As well, in the 2020-2021 cycle, ICOMOS received comments from the IUCN concerning 4 cultural landscape nominations. These comments have been taken into account by ICOMOS in its recommendations.

2. Evaluations and recommendations

a. ICOMOS World Heritage Panel: Draft evaluations (in either English or French) were prepared on the basis of the information contained in the nomination dossiers, mission reports, consultations and research. They were examined by the ICOMOS World Heritage Panel at a meeting in Paris from 23 to 27 November 2020. The Panel defined draft recommendations and identified the additional information requests to be sent to the States Parties. Individual meetings were organized with each nominating State Party and Panel members during the Panel meeting.

In view of the exceptional circumstances due to the COVID-19 pandemic, late technical evaluation missions were carried out on an exceptional basis in December 2020 and January 2021 and two extraordinary sessions of the ICOMOS World Heritage Panel were held on: 12, 13, 14 and 22 January 2021.

b. Interim reports. As prescribed by the revised Operational Guidelines for the Implementation of the World Heritage Convention (Annex 6), the Advisory Bodies have been requested to submit a short interim report for each nomination by 31 January 2021. These reports provide States Parties with the relevant information outlining issues related to the evaluation process and some include additional information requests. All documents received by 28 February 2021 were examined by the second World Heritage Panel at its meeting from 11 to 12 and 18 March 2021.

c. Finalisation of the evaluation volume and its presentation to the World Heritage Committee. Following these meetings, revised evaluations have been prepared in both working languages, printed and dispatched to the UNESCO World Heritage Centre for distribution to members of the World Heritage Committee at its 44th extended session.

Nominated properties and ICOMOS recommendations will be presented to the World Heritage Committee by ICOMOS advisers in PowerPoint form.

As an Advisory Body, ICOMOS makes a recommendation based on an objective, rigorous and scientific analysis. However, decisions are the responsibility of the World Heritage Committee. The process relies on the Committee members and their knowledge of the nominations and the evaluations published by the Advisory Bodies.

3. Referred back nominations and requests for minor modifications

By 1st February of each year, preceding the World Heritage Committee meeting, ICOMOS also receives supplementary information on nominations referred back during previous sessions of the World Heritage Committee. One nomination which had been deferred was assessed during the recent 2020-2021 cycle.

ICOMOS also examines requests for "minor" modifications to boundaries or creation of Buffer Zones, and for changes of Criteria or name for some properties already inscribed on the World Heritage
List. Six requests of this type were submitted by States Parties before 1st February of this year. At the request of the World Heritage Centre, all requests have been examined and included in the following document: WHC/21/44.COM/INF.8B1.Add.

4. Dialogue with States Parties

ICOMOS makes every effort to maintain dialogue with the States Parties throughout the nomination evaluation process (i.e. following receipt of the nominations, during and after the technical evaluation mission, and following the meeting of the ICOMOS World Heritage Panel).

First, information may be requested to provide details or clarifications. Of the 2020-2021 nominations, 100% received requests for additional information before the ICOMOS November Panel meeting; and 82% of the nominations received such requests through the Interim reports, after the Panel meeting.

The World Heritage Committee decision 38 COM 13.8 called upon the Advisory Bodies to consult and have a dialogue with all concerned States Parties during the course of the evaluation of nominations. Consequently, ICOMOS has strengthened the dialogue and communication in the evaluation process, through discussions organized during its Panel meeting, and through the delivery of the Interim reports.

In most cases, the dialogues with States Parties were fruitful in clarifying issues and elucidating facts.

However, the main point highlighted by these direct dialogues is the fact that, even though the State Party receives advice from ICOMOS earlier than previously, there is still very limited time available for both parties to work together to resolve issues. This is especially true under the current evaluation timetable established to review the dossiers that require reformulation at a wider scale. This is true for all cases even if the State Party expresses a willingness to do so. This is further exasperated by the fact that this is an ad hoc process and not a regularly anticipated step in the review.

In conclusion, ICOMOS encourages States Parties to request Upstream advice which could be useful for resolving issues prior to the submission of nominations.

As the nomination process is currently being reviewed and discussed in detail to introduce the Preliminary Assessment mechanism, ICOMOS is open to ways of increasing dialogue and adopting new methods that would uphold the credibility of the Convention in the future.

5. Conclusion

All the evaluated cultural properties are remarkable and deserving of protection and conservation. In reaching its recommendations to the World Heritage Committee, ICOMOS relies on the Operational Guidelines for the Implementation of the World Heritage Convention and the direction of the World Heritage Committee.

The opinion of ICOMOS is both independent and institutional. The opinion of one of its members is not binding on the organisation, and the evaluation texts are each the work of between 40-50 persons on every nomination, with several stages of in-depth peer review. ICOMOS represents cultural heritage experts throughout the five global regions and is working to protect the entire cultural heritage of the world.

ICOMOS takes a professional and rigorous view of all the dossiers received and reviewed. Protection, conservation and management are key for the transmission of all heritage properties to future generations and ICOMOS remains committed to making recommendations for all nominated properties.

Paris, April 2021
## Check tool recommendations

<table>
<thead>
<tr>
<th>Comparative analysis</th>
<th>Integrity</th>
<th>Authenticity</th>
<th>Criteria</th>
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<th>Boundaries</th>
<th>Protection property</th>
<th>Protection buffer zone</th>
<th>Conservation</th>
<th>Management</th>
<th>Threats addressed</th>
<th>Mission required</th>
<th>Conclusion</th>
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- √ OK - Good
- ≈ Adequate - Can be improved
- O Not demonstrated at this stage
- X Not OK - Not adequate

The grid does not give all possible combinations, but only the lowest benchmarks below which a nomination moves to another category.

This tool is to be used jointly with the table summarizing the ICOMOS recommendations.
## Cultural and Mixed Properties
### Alphabetical Index of the evaluations (by State Party)

<table>
<thead>
<tr>
<th>State Party</th>
<th>ID number</th>
<th>Name of the property</th>
<th>Page</th>
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<tbody>
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<td>ShUM Sites of Speyer, Worms and Mainz</td>
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<td>Frontiers of the Roman Empire – The Lower German Limes</td>
<td>375</td>
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<td>C 1647</td>
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<td>327</td>
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<td>C 1650</td>
<td>The Porticoes of Bologna</td>
<td>390</td>
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<td>Japan</td>
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<td>Jomon Prehistoric Sites in Northern Japan</td>
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<tr>
<td>Slovenia</td>
<td>C 1643</td>
<td>The works of Jože Plečnik in Ljubljana – Human Centred Urban Design</td>
<td>414</td>
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<tr>
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<td>C 1639</td>
<td>Ribeira Sacra</td>
<td>425</td>
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<td>United Kingdom</td>
<td>C 1633</td>
<td>The Slate Landscape of Northwest Wales</td>
<td>437</td>
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### Cultural and Mixed Properties
#### Nominations by category

#### New nominations (17)

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<th>Country</th>
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#### Extension (1)

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#### Deferred nomination (1)

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<td>Jordan</td>
<td>C 689rev</td>
<td>As-Salt – The Place of Tolerance and Urban Hospitality</td>
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</table>
Cultural and Mixed Properties

Geographical spread of nominations

<table>
<thead>
<tr>
<th>Region</th>
<th>States Parties, Nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Africa</strong></td>
<td>5 States Parties, 2 nominations</td>
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<tr>
<td>Cameroon, Chad, Niger, Nigeria</td>
<td>C/N 1651 Lake Chad cultural landscape</td>
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<tr>
<td><strong>Arab States</strong></td>
<td>2 States Parties, 2 nominations</td>
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<tr>
<td>Egypt</td>
<td>C 1649 The Coptic Monasteries of Wadi al-Natrun</td>
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<tr>
<td>Jordan</td>
<td>C 689rev As-Salt – The Place of Tolerance and Urban Hospitality</td>
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<tr>
<td><strong>Asia – Pacific</strong></td>
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<td>India</td>
<td>C 1645 Dholavira: A Harappan City</td>
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<td>Iran (Islamic Republic of)</td>
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<td>C 1632 Jomon Prehistoric Sites in Northern Japan</td>
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<tr>
<td><strong>Europe – North America</strong></td>
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<td>United Kingdom</td>
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</tr>
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<td><strong>Latin America and the Caribbean</strong></td>
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<td>C 1634 Settlement and Artificial Mummification of the Chinchorro Culture in the Arica and Parinacota Region Franciscan Ensemble of the Monastery and Cathedral of Our Lady of the Assumption of Tlaxcala (as Extension of the “Earliest 16th-Century Monasteries on the Slopes of Popocatepetl”) [inscribed in 1994, criteria (ii), (iv)]</td>
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## Cultural and Mixed Properties

### Numerical Index of the evaluations

<table>
<thead>
<tr>
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<th>State Party</th>
<th>Proposed World Heritage Property</th>
<th>Page</th>
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<tr>
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<tr>
<td>C 1648</td>
<td>Côte d’Ivoire</td>
<td>Sudanese style mosques in northern Côte d’Ivoire</td>
<td>316</td>
</tr>
<tr>
<td>C 1650</td>
<td>Italy</td>
<td>The Porticoes of Bologna</td>
<td>390</td>
</tr>
<tr>
<td>C 1654</td>
<td>Russian Federation</td>
<td>Petroglyphs of Lake Onega and the White Sea</td>
<td>402</td>
</tr>
</tbody>
</table>
### Cultural and Mixed properties

**Technical evaluation mission experts**

<table>
<thead>
<tr>
<th>State Party</th>
<th>ID number</th>
<th>Name of the property</th>
<th>Field mission</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameron, Chad, Niger</td>
<td>C/N 1651</td>
<td>Lake Chad cultural landscape Settlement and Artificial Mummification of the Chinchorro Culture in the Arica and Parinacota Region</td>
<td>Postponed</td>
<td></td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>C 1648</td>
<td>Sudanese style mosques in northern Côte d’Ivoire</td>
<td>Lassana Cissé (Mali)</td>
<td>Aug. – Sept. 2020</td>
</tr>
<tr>
<td>Egypt</td>
<td>C 1649</td>
<td>The Coptic Monasteries of Wadi al-Natrun</td>
<td>Withdrawn Alkiviadis Prepis (Greece)</td>
<td>Oct. 2020</td>
</tr>
<tr>
<td>France</td>
<td>C 1635</td>
<td>Nice, capital of Riviera tourism</td>
<td>Daniele Pini (Italy)</td>
<td>Sept. 2020</td>
</tr>
<tr>
<td>Germany</td>
<td>C 1636</td>
<td>ShUM Sites of Speyer, Worms and Mainz</td>
<td>Petr Justa (Czechia)</td>
<td>Sept. 2020</td>
</tr>
<tr>
<td>Germany / Netherlands</td>
<td>C 1631</td>
<td>Frontiers of the Roman Empire – The Lower German Limes</td>
<td>Adrian Olivier (United Kingdom)</td>
<td>Sept. 2020</td>
</tr>
<tr>
<td>India</td>
<td>C 1645</td>
<td>Dholavira: A Harappan City</td>
<td>Kai Weise (Nepal)</td>
<td>Dec. 2020</td>
</tr>
<tr>
<td>Iran (Islamic Republic of)</td>
<td>C 1647</td>
<td>Cultural Landscape of Hawraman/Uramanat</td>
<td>Hossam Mahdy (Egypt)</td>
<td>Sept. – Oct. 2020</td>
</tr>
<tr>
<td>Italy</td>
<td>C 1650</td>
<td>The Porticoes of Bologna</td>
<td>Olivier Poisson (France)</td>
<td>Sept. 2020</td>
</tr>
<tr>
<td>Japan</td>
<td>C 1632</td>
<td>Jomon Prehistoric Sites in Northern Japan</td>
<td>Matthew Whincop (Australia)</td>
<td>Sept. 2020</td>
</tr>
<tr>
<td>Latvia</td>
<td>C 1637</td>
<td>Grobiņa archaeological ensemble Gdansk Shipyard – the birthplace of “Solidarity” and the symbol of the Fall of the Iron Curtain in Europe</td>
<td>Stefan Wessman (Finland)</td>
<td>Dec. 2020</td>
</tr>
<tr>
<td>Poland</td>
<td>C 1637</td>
<td>– the symbol of the Fall of the Iron Curtain in Europe</td>
<td>Jörg Haspel (Germany)</td>
<td>Jan. 2021</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>C 1654</td>
<td>Petroglyphs of Lake Onega and the White Sea</td>
<td>Geoffroy Heimlich (France)</td>
<td>Oct. 2020</td>
</tr>
<tr>
<td>Spain</td>
<td>C 1639</td>
<td>Ribeira Sacra</td>
<td>Pierre-Marie Luciani (France)</td>
<td>Oct. 2020</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>C 1633</td>
<td>The Slate Landscape of Northwest Wales</td>
<td>Friederike Hansell (Germany)</td>
<td>Sept. – Oct. 2020</td>
</tr>
</tbody>
</table>

### Extension

<table>
<thead>
<tr>
<th>State Party</th>
<th>ID number</th>
<th>Name of the property</th>
<th>Field mission</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>C 702bis</td>
<td>Franciscan Ensemble of the Monastery and Cathedral of Our Lady of the Assumption of Tlaxcala (as Extension of the “Earliest 16th-Century Monasteries on the Slopes of Popocatepetl”) [inscribed in 1994, criteria (ii), (iv)]</td>
<td>Juan Luis Isaza (Colombia)</td>
<td>Dec. 2020</td>
</tr>
<tr>
<td>Deferred nomination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>C 689rev</td>
<td>As-Salt – The Place of Tolerance and Urban Hospitality</td>
<td>Nabil Itani (Lebanon)</td>
<td>Dec. 2020</td>
</tr>
</tbody>
</table>
III  Cultural properties

A  Africa
   New Nomination

B  Asia – Pacific
   New nominations

C  Europe – North America
   New nominations
Sudanese style mosques in northern Côte d'Ivoire (Côte d'Ivoire) No 1648

Official name as proposed by the State Party
Sudanese style mosques in northern Côte d'Ivoire

Location
Bagoué Region
Tengréla and Kouto Departments;

Gontougo Region:
Sorobango Sub-Prefecture;

Kabadougou Region:
Samatiguila Department;

Poro Region:
M’Bengué Department;

Tchologo Region:
Kong Department
Kouaura Sub-Prefecture

Côte d’Ivoire

Brief description
Eight small mosques, at Tengréa, Kouto, Sorobango, Samatiguila, M’Bengué, Kong and Kouara, characterised by earthen construction, protruding timbers, vertical buttresses crowned by pottery or ostrich eggs, and tapering minarets, reflect a Sudanese architectural style specific to the Sudan or savannah region of West Africa.

The nominated mosques are the best conserved of twenty that survive in Côte d’Ivoire out of several hundred that were extant in the early 20th century.

Category of property
In terms of categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a serial nomination of eight group of buildings.

1 Basic data

Included in the Tentative List
The property was included on the Tentative List in 2006. At that time, only six mosques were proposed. Since then, with the Mosques of Sorobango and Samatiguila have been added.

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 18th August to 5th September 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2020 requesting further information on the comparative analysis, the links between the component sites of the serial nomination, and the choice of the component sites.

An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report including about the potential Outstanding Universal Value, documentation, conservation, boundaries, protection and management.

Additional information was received from the State Party on 23rd February 2021, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The ancient mosque at Djenné is considered to be the inspiration for Sudanese style mosques that were subsequently built across central West Africa. This savannah area between the Sahara desert and the forest has been called the Sudan region since the 12th century CE.

The Djenné mosque was constructed between the end of the 12th and the beginning of the 14th centuries when, according to oral history, Sultan Kunburu of the Empire of Mali was converted to Islam. Its style is quite different from...
the earlier mosques of Timbuktu (Mali), that are linked to the emperor Mansa Musa and an Andalusian architect.

By the end of the 19th century, the Djenné mosque had become ruined and in 1907 a new one was reconstructed by the French on the same site, its design being said to reflect a few surviving vertical buttresses on the old mosque.

From as early as the 14th and 15th centuries, as a result of infighting in the Mali Empire, it appears that merchants, often accompanied by Islamic scholars, migrated southwards and south-eastwards into the Sudan region and what is now Burkina Faso, Côte d'Ivoire and Ghana, as well as further east into Niger, developing new trading centres along routes to the forest areas further south, introducing Islam, and creating new Sudanese style mosques. In the north of Côte d'Ivoire, Bondoukou, Bouna, Kong, and Odinnéné became key centres of this largely peaceful trading and religious process with the Muslim Mandé/Malinke peoples from the North integrating with local populations, particularly the Senoufo, who over time, were converted to Islam but did not totally forsake their own beliefs.

By the late 16th century the Empire of Songhai, which succeeded the Empire of Mali, had become fractured from within and in the early 17th century was destroyed by an invasion from Morocco, with the result that the southward migrations expanded.

The 18th century bought turmoil as a result of the political hegemonies established by the Malinke at Odinnéné and Kong, which led to Senoufo migrations, as did the creation of the Senoufo’s own chieftoms. It was only at the end of the 18th century that the Senoufo became settled in the areas they now inhabit. And from the 1870s, Senoufo country was caught up in the turmoil of the Samorian wars.

The nominated serial property consists of eight mosques selected from a total of 20 that have survived in Côte d'Ivoire. These mosques are all built of spherical earth ‘bricks’, bound variously with shea butter, cow dung, straw, or fruit extracts, laid in courses and plastered. The facades are characterised by regular rows of buttresses, behind which are flat roof terraces in checkerboard/compartmentalised format with an interior staircase, and above are tapering minarets. Timber poles, projecting through the walls or between the buttresses act as support and scaffolding for maintenance.

The mosques are said in the nomination dossier to encompass two main types: low buildings with stout buttresses and high minarets in the form of a truncated pyramid; and taller buildings with more slender buttresses and less prominent minarets. Rather than these comparatively slight differences, what needs to be highlighted are the more substantial differences between all of these mosques and Djenné architecture. The latter is characterised by straight narrow buttresses of rectangular form, supporting almost vertical walls, while most mosques further south in the Sudan region, such as the ones nominated, tend to have stouter buttresses, many with pronounced tapering and curved forms, set against walls which also have a pronounced taper. These differences can be seen to reflect the wetter climate prevailing in the Sudan region, but also local building traditions. The stout almost conical buttresses, (which are also found on mosques in Ghana and Burkina Faso) are seen to have been inspired by local building traditions, particularly decorations on Senoufo shrines, while the smoother walls of the Samatiguila mosque and its thatched roof are more clearly associated with Senoufo domestic buildings.

The building of some of the mosques is said to be associated with the first Imam, but it was usually a wealthy family that endowed the mosques, such as the Diaby in Samatiguila, the Fofana in Kouto, and the Cissé in Tengréla who still maintain their mosques on a regular basis.

What is known of the history of individual mosques varies from site to site and is based on valuable oral history archives, archaeological investigation of artefacts and radiocarbon dating. These combine to illuminate both the foundation of mosques and their later re-building, although for both there are often more than one version of events.

In the supplementary information submitted, further details have been provided on the Islamisation of the localities where the mosques are sited. This, combined with political history, leads to a better understanding of the building of the mosques, sometimes several centuries after the founding of the settlements, and of the various phases of their re-building.

Radio-carbon evidence shows that both Sorobango and the small mosque of Kong date back to the 17th-18th centuries, while oral tradition records that the latter was built in 1729 by Imam Barro who brought the plans directly from Djenné. According to oral tradition, three other mosques were also founded in the 17th century: Kouto mosque, Kauara mosque, perhaps built by the son of the first Imam who made four visits to Mecca, and the Tengréla mosque, whose construction is attributed by some to a master mason who built other mosques in what is now Côte d'Ivoire and Mali, and by others to the Cissé family. Radiocarbon dating indicates that all these three mosques were later rebuilt in the 18th to 19th centuries. And such dating also shows that Samatiguila was constructed in the 18th century, perhaps by the wife of Karamogoba Diaby, and Nambira in the 18th to 19th centuries by Imam Traoré Sékou. Although the Grand Mosque of Kong was originally constructed in the mid-18th century, it was rebuilt in the early years of the 20th century.

The ensemble of mosques has thus evolved, being built in different stages, and having undergone many small modifications over time as well as damage from internal wars, such as those waged by Samory Touré in resisting
colonial rule, during which the Grand Mosque of Kong was destroyed.

**Boundaries**

As per the nomination dossier, the area of the eight components totals 0.12977 ha, with the buffer zones as originally nominated totaling 2.32934 ha.

The boundaries of each component site have been tightly drawn to encompass only the main buildings and original courtyards. The buffer zones are slightly wider rectangular areas, but their boundaries do not necessarily relate to any features on the ground.

Given the urban pressures that are already impacting on the mosques, and are likely to increase in the near future (five out of the eight are in urban areas), including pressure to accommodate new mosques and facilities for them, the current boundaries cannot be said to be sufficient to protect the ability of the mosques to dominate their surroundings, either now or in the future. In addition, the surroundings of the mosques are places where activities related to the cultural significance of the mosques were and still are practiced today. It would be important to protect these spaces as being part of the living heritage of these mosques.

In the Interim Report, the State Party was requested to give consideration to enlarging both the boundaries of the component sites and of the buffer zones, so that the mosques are embedded in their urban and rural landscapes, and to put in place protection to control the height and design of neighbouring buildings as well as the development or improvement of road networks.

In the supplementary information provided, small changes have been proposed for boundaries of two component sites and for two buffer zones. The nominated area has been enlarged for the small Kong mosque and now coincides with its buffer zone while for the large Kong mosque the nominated area has been enlarged to cover about three quarters of the buffer zone. For Sorobango, the buffer zone appears to have been slightly reduced. Samatiguila is the only site for which the buffer zone has been considerably enlarged. No changes have been proposed at the remaining four component sites of the serial property.

While ICOMOS welcomes the State Party efforts, these boundary adjustments only relate to the small areas surrounding two mosques and have not satisfactorily addressed the concerns. The new boundaries of the buffer zones have not been adjusted to encompass any of the neighbouring urban areas, such as the houses bordering the access roads. The component sites are thus still isolated from their urban context and the buffer zone do not offer protection from inappropriate development that could further enclose and overwhelm the dominance of these small mosques.

**State of conservation**

The form of construction of the mosques, with walls being built up of spherical round mud bricks laid in courses and plastered over with and without, requires regular maintenance. Every few years, the external earthen plaster needs renewing to maintain the structural stability of the walls. Traditionally, both maintenance and renewal were community activities that involved traditional masons, usually organised and paid for by the descendants of the family who had commissioned the mosque, or by local communities.

The conservation of the mosques is thus an on-going process that cannot be maintained unless traditional community structures are in place, unless traditional masons remain as part of the community, and unless traditional patronage prevails under which there is someone or some group who pays for maintenance and periodic re-plastering to be undertaken. Thus, even if a mosque is now in good condition, it could cease to be so in a few years’ time if traditional practices are not sustained.

Information provided in the nomination dossier on the state of conservation is very slight: the mosques are listed as being in either good condition with regular maintenance by their communities (five mosques) or in average condition (three mosques, Sorobango, Kouto and Kaouara). For the latter group although communities still undertake regular maintenance, conservation measures are needed to address defects, such as water ingress and weakening of wooden structures, which presumably reflect the lack of regular conservation such as re-plastering.

This information was significantly augmented by the ICOMOS technical evaluation mission, which reported that in some mosques there was evidence of inappropriate interventions and the use of inappropriate materials, such as cement and corrugated iron sheets, not only as coverings but also as structural support. Beneath these interventions, it appears that sufficient traditional materials remain and thus inappropriate work could and should be reversed.

But, as observed by the mission, undertaking such work means re-learning traditional practices. For the mosque of Kaouara, a project is underway to reverse the cement coating donated by a local resident to consolidate the earthen walls. However, funds had to be found by the Office ivoirien du patrimoine culturel (OIPC) to bring in masons from Bobo-Dioulasso (Burkina Faso) to advise on how to deal with parts of the building that collapsed when the cement render was removed.

The lack of availability of some of the traditional materials does present some difficulties as shea butter, the main binding material for bricks and mortar has now become very expensive and alternatives such as oil have to be used. And techniques are changing with the traditional spherical bricks formed by hand being superseded by rectangular bricks dried in forms.
While for a few mosques uninterrupted regular maintenance programmes supported by local families are still in place, for other mosques, and particularly those where recent restoration projects have removed cement render and re-instated traditional plaster, there is a need to re-instate traditional those community practices.

How such traditional practices can be re-invigorated and sustained, is one of the key challenges facing the nominated property. The involvement of local communities in the process is essential, but so is the involvement of specialist masons to guide the processes, and the continued patronage of local families or communities. Although some masons specializing in earth construction do exist, it appears that overall the numbers are few and the traditional knowledge structures are very fragile. Similarly, the traditional system under which the descendants of founding families, or local communities, supported the regular conservation programmes, and other repair work that might be needed, remains only partly in place. And, as it has been seen in other inscribed properties such as Djenné, traditional masons may still survive, but cannot work on mosques unless sponsored and supported by local communities.

The supplementary information provided by the State Party acknowledges these challenges, as well as changing social structures and the lack of transmission of local knowledge. Crucially it accepts that traditional practices cannot be self-supporting and will need to be framed by supportive systems, both technical and financial. Clear aims are defined but how these will be achieved is not set out in detail.

In ICOMOS’ opinion, the designation of an authority who will be responsible for ensuring that regular maintenance is undertaken and to appropriate standards is essential, as is the provision of adequate financial support, and measures to sustain and actively encourage traditional masons. While a management system that integrates different levels of authority has been defined, this is still not fully functional.

**Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are as follows.

**Urban Development**

Until recently, the immediate setting of the Great Mosque of Kong included only the Islamic University, the Great Wall (dâ-ha) whose ruins still remain, and the marketplace. Today, this setting has been considerably modified by new constructions unrelated to the mosque, as well as by a concrete fence surrounding the mosque and new buildings for ablutions. There have been similar recent urban encroachments near other mosques, such as the large metal shed near the mosque of Samatigul.

Currently given the very small areas covered by the proposed boundaries and buffer zones, and with no protection proposed for the urban areas that surround, in place quite tightly, all but two of the mosques on all sides, it would appear that there is nothing to stop the replacement of existing single storey buildings with taller structures, that could overwhelm the way these small mosques should be approached and perceived. As the nomination dossier states, these buildings were intended to dominate the surrounding village houses.

Indeed, the nomination dossier suggests that development and town plans in place are seen as threats. These will remain as threats unless they can accommodate adequately the need to protect the settings of the mosques.

**Roads**

All of the mosques are inherently vulnerable structures. The potential negative impacts of vibrations from traffic are acknowledged in the nomination dossier, particularly for the mosques of Tengréla, Kong, and Kouto which are close to roads. It is suggested that tremors associated with heavy vehicular traffic could create structural disturbance such as cracks and subsidence.

As the strengthening of the mosques is virtually impossible, it will be crucial for road use, the improvement of roads and the construction of new roads to be regulated to minimise disturbance, and, in certain cases, roads may need to be diverted away from the mosques.

**New mosques**

An increasing number of new mosques and buildings for their facilities are being built near the nominated mosques and some are encroaching on their settings. Most are Salafi mosques while a few are related to the Maliki school. It will be essential for new mosques to be planned and accommodated in Local Plans to ensure they do not compete for space with the existing mosques.

**Scarcity of traditional materials and impact of new materials**

The rising price of shea butter is mentioned above. The scarcity of appropriate timber is also acknowledged in the nomination dossier. More research is needed on both these issues to identify appropriate alternative sources of fats/oils and to manage timber supplies, perhaps through small plantations.

As well as the inappropriate use of cement and corrugated iron that have already been mentioned, plastic waterspouts are replacing the traditional wood or pottery pipes, while ostrich eggs on finials are being supplanted by pottery spheres.

**Changing social structures**

The nomination dossier acknowledges changing social structures that are weakening the authority of the elders over the young and leading to a rural exodus, which means that transmission of traditional knowledge and know-how between generations is disappearing. All of this...
makes the conservation processes highly vulnerable, and these changes are likely to intensify over time.

To address these challenges, ICOMOS considers that traditional management will need to be supported by some sort of co-management structure between local communities and authorities. In the supplementary information provided, clear aims are set out towards this end, but details are needed on how a system can be made operational, and what capacity building is necessary to make it effective in addressing conservation needs.

3 Proposed justification for inscription

Proposed justification

The series of eight Sudanese-style mosques are considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- They represent a distinct architectural style that was introduced into the Empire of Mali in the 14th century and developed in regions to the south with the fall of the Songhai Empire in the late 16th century;
- They are material witnesses to the introduction of Islam in the area that is now Côte d’Ivoire from the 14th century;
- They became religious centres around which developed commercial and cultural exchanges, particularly between the cities of the Niger inland delta and the forest areas to the south;
- They reflect a heritage that has survived through continuation of its original functionality and rigorous maintenance by local communities.

Comparative analysis

The comparative analysis is presented in three parts: the comparison with sites within the country, in the immediate region and internationally. The information in the nomination dossier was considerably augmented by the supplementary information provided in November 2020 and in February 2021 at the request of ICOMOS.

The national comparisons are set out to demonstrate that the eight nominated mosques were selected from 20 surviving Sudanese styled mosques for the way they have maintained their ‘original’ form and are regularly maintained.

At a regional level, it is suggested that the Sudanese style of mosques can be divided into four groups from north to south: those around Timbuktu, around Djenné, in southern Mali, parts of Côte d’Ivoire and Burkina Faso, and lastly the Kong area in Côte d’Ivoire and Ghana. Around Timbuktu, the mosques are low, large and with tall truncated pyramidal minarets, while around Djenné the mosques are very tall with a slender silhouette. The third group, which includes part of those nominated, have low stout buttresses, sometimes shell-shaped, as well as minarets and lower cone-shaped qibla towers. The fourth group have a compact structure with no courtyard, regular hard-edged pilasters and mihrab towers almost as high as the minaret.

Although the nomination dossier suggested that the characteristics of the nominated mosques are differentiated from others by their lower profile, by decorated merlons, by the fact that some minarets are conical rather than pyramidal and some have transverse scaffolding, the more detailed analysis provided in the supplementary information suggests a more complex picture. This differentiates between the Kong style, which has regular façades of straight sided buttresses, two towers and no courtyards, and the lower squatter mosques with buttresses that taper both top and bottom, giving them a curved profile, one tower and small courtyards. But in applying this to the eight selected mosques, the differences become less clear. Although the small mosque of Kong has two towers and no courtyard, its buttresses are quite squat. And the mosque of Samatiguila fits into neither category.

The international comparisons offered relate to Djouma d'Itchankala Mosque in the Khârezm in Uzbekistan and the historic mosque city of Bagerhat in Bangladesh, neither of which have any relation to the geo-cultural area to which the nominated mosques belong, and thus are not appropriate comparators. It is unfortunate that a relevant geo-cultural area for comparisons was not defined. This should have encompassed the Sahel and Savanna regions of West Africa within which earthen mosques were constructed from the 12th century onwards.

In the absence of such a geo-cultural framework, no detailed analysis has been provided with mosques in West Africa that are inscribed or on Tentative lists, and no documentation offered to show what mosques survive in the neighbouring countries of Mali, Burkina Faso, Ghana, Nigeria and Niger, or how the Djenné style was adapted as it travelled south and adopted by different groups of people. Had such an analysis been undertaken, it would have become clear that the Sudanese style of mosques in Côte d’Ivoire cannot be clearly differentiated from those immediately across the borders in neighbouring countries.

In the supplementary information provided, the State Party has offered a brief summary of what distinguishes the Sudanese mosques of Côte d’Ivoire from others in West Africa in terms of how they are seen to fuse the verticality of Islam with the circularity of local Sudanese architecture. But it also acknowledges that the eight nominated mosques, together with the twelve others remaining in Côte d’Ivoire, and a few in Ghana and Burkina Faso, do form a coherent group.

The justification for the current series of eight mosques is thus based on their being the best preserved in Côte d’Ivoire and the fact that no interest was expressed by neighbouring States Parties in extending the series to encompass examples in Ghana and Burkina Faso, in spite of overtures from Côte d’Ivoire.
In ICOMOS’s view, a stronger case could have been provided to support the idea that Sudanese mosques in Côte d’Ivoire and neighbouring countries reflect a particular fusion of Islamic and local building forms that responds to local climatic conditions, and major periods of migrations along trade routes between the Sahara and the forest areas to the south, and, thus, these mosques as a group can be seen to be distinguished from others elsewhere.

These mosques are also extraordinary survivals of a building tradition that need regular and on-going community support and maintenance.

A difficult question is how many of these mosques are necessary to define this Sudanese style. The nominated eight are put forward as the best preserved in Côte d’Ivoire, while those beyond the boundaries of Côte d’Ivoire were not available for inclusion. On balance, ICOMOS considers that the nominated eight are sufficient, but every encouragement should be given to exploring how examples in neighbouring countries might be considered as extensions.

ICOMOS considers that the comparative analysis currently provided does allow consideration of this serial property for the World Heritage List.

**Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (ii), (iv) and (v).

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the State Party on the grounds that the Sudanese-style mosques bear witness to an exchange of influences between the indigenous animists and the predominantly Muslim caravanners, in particular the Arab-Berbers and the Mandé who came from the Niger delta in the period between 14th and 18th centuries and set up trading settlements linked into trans-Saharan trade. The structure of these mosques is clearly the result of an exchange of architectural ideas and local earth building forms and techniques.

ICOMOS considers that the mosques clearly reflect an important fusion of ideas, influences and techniques adapted to particular climatic conditions, which resulted in a highly distinctive, Sudanese architectural style that has persisted over time.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that the architecture of the Sudanese-style mosques, while demonstrating the mastery of techniques of earthen construction, reveals a subtle mix between the cultures of Arab construction and African. The hybrid style combines two beliefs, that of a single transcendental god of Muslims and that of several gods in sub-Saharan African and fuses Arab verticality with Sudanese circularly.

ICOMOS considers that the series of mosques can be seen as outstanding examples of a type of architecture that very specifically reflects a major period of migration, south from the Islamic Saharan states to the forest areas that started in the 14th century and accelerated after the collapse of the Songhai Empire at the end of the 16th century, which that led to the development of new centres of trade, the introduction of Islam and the building of mosques. The style of the mosques reflects a fusion of Islamic and local architectural styles adapted to climatic conditions, and the mosques themselves can be seen as documents for an important period of history.

Criterion (v): *be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;*

This criterion is justified by the State Party on the grounds that the mosques are among the last witnesses of Sudanese-style earthen architecture in sub-Saharan Africa. They have influenced the spatial organization of their localities and constitute a central element around which the city or village unfolds.

ICOMOS considers that although the mosques are positioned in a central place in the settlements, what has been nominated are only the mosques, which on their own cannot reflect the way the surrounding settlements may reflect a specific interaction with their environment.

And although examples of this particular Sudanese-style of earthen architecture are diminishing, these mosques cannot be said to be the last witnesses to the style.

ICOMOS considers that the nominated property has the potential to meet criteria (ii) and (iv), although the Sudanese style mosques and the trading centres that developed around them after the end of the 17th century are not confined to what is now the Côte d’Ivoire. Criterion (v) has not been demonstrated as, in ICOMOS’s view, it is not appropriate for the single buildings that have been nominated to be interpreted as settlements.

**Integrity and authenticity**

**Integrity**

The integrity of the series relates to its ability to display all the attributes that convey potential Outstanding Universal Value. In this regard, the eight component sites can be seen as sufficient.
In terms of the integrity of the individual component sites, the current boundaries exclude the assembly areas essential for the use of the mosque, and thus not all the attributes of Outstanding Universal Value have been included in the boundaries.

Furthermore, the component sites are all highly vulnerable to further diminution of traditional maintenance and conservation practices, and to urban encroachment.

Authenticity
The authenticity of the component sites in terms for their form appears to be good, although the level of documentation provided does not allow for a full understanding of how details might have been eroded over time.

In terms of their construction and materials, although there have been interventions using modern materials, these it appears can be reversed as sufficient local materials remain and some masons skilled in local techniques are still to be found. However, there are significant challenges to be met in terms of re-learning some techniques, adapting others in the light of scarcity of some local materials, in dealing with the adverse impacts of modern materials, and in ensuring the traditional involvement of local communities and patrons.

Thus, the authenticity of materials and construction techniques remains highly vulnerable as it relies on the continuation of community maintenance, the availability of skilled masons and the continued patronage of local families, and how this will be achieved has not been sufficiently clarified.

In terms of how the symbolism of the buildings is understood, then the boundaries of the component sites and their buffer zones are inadequate, as they do not encompass sufficient space around the mosques to allow them to be perceived as intended. In some component sites, new buildings have been erected recently in the vicinity of the mosque, including particularly large and prominent ones next to the Great Mosque of Kong.

ICOMOS considers that authenticity is highly vulnerable in terms of material and techniques, and in terms of how well they are able to display their value.

ICOMOS considers that the identification of features, as potential attributes, is comprehensive, but that the current boundaries do not fully encompass them all at this stage.

4 Conservation measures and monitoring

Conservation measures
Very few details were provided in the nomination dossier on conservation measures. It was stated that five mosques are in a good state of conservation and three average, Kouto, Kaouara, and Sorobango, and that for these, conservation will be undertaken by local communities with the advice of skilled masons.

The technical evaluation mission expressed concern at recent ‘messy’ interventions at several mosques and identified the need for urgent measures to be undertaken to reverse work at Kouto, Kaouara, Sorobango as well as at Samatiguila.

It appears that traditional construction techniques are being changed due to the use of imported materials such as cement and lime, although apparently there is a desire in certain localities to return to traditional practices, including the use of earth from termite mounds. While specialist masons do exist in some settlements, particularly where routine maintenance is still entrusted to a lineage family, or several families (as is the case for the Samatiguila mosque), they are not available for all component sites.
These changes have clearly contributed to the recent unsatisfactory interventions being undertaken, without, it appears, any advice or interventions from the responsible Ministry. And the shortage of skilled masons is exemplified in the re-plastering the Kaouara mosque where, after cement render was removed, advice had to be obtained from Burkina Faso masons on a suitable recipe for earthen plaster using boiled oil rather than shea butter, all of which came at a high cost to the local community.

In the supplementary information provided, these weaknesses are acknowledged. Furthermore, details have also been provided on proposed new initiatives to support capacity building for masons, on plans to form them into a professional association and on collaboration with institutions in Morocco in connection with training in earthen architectural techniques. Consideration is also being given to how local maintenance committees might be formalized and integrated into regional and national networks so that they can be supported both professionally and financially. How these initiatives will be developed and implemented has not been set out, nor any suggested timeframe for how long it will take before new structures allied to capacity building will become effective in reversing the current decline in traditional practices.

The supplementary information includes in an Annex a costed conservation plan for six of the mosques. It is unclear, however, quite what status this Plan has or whether it will be extended to cover the remaining two mosques.

There is mention in the nomination dossier that the Ivorian Office of Cultural Heritage has signed an agreement with the Islamic Development Fund to provide resources for the restoration of Sudanese-style mosques in northern Côte d’Ivoire. The scope of such an initiative is not set out nor how it might sit alongside the idea of supported traditional local conservation and management.

**Monitoring**

In the nomination dossier monitoring arrangements have been set out for the Actions associated with the Management system. These are set out in tabular form with headings for the action, indicator, periodicity and responsibilities. These will be helpful to track progress in delivering activities.

Over and above these, there is also need for a monitoring system to be developed to monitor on a regular basis the identified features of the proposed Outstanding Universal Value. This should include regular monitoring of the mosques, perhaps through photographic records, with the results being used as an early warning of any adverse changes. Such a monitoring system should also encompass the setting of the mosques, and their uses.

ICOMOS considers that while current conservation of most of the nominated mosques might be considered just about satisfactory, it is fragile due to a decline in local masons, and changes in social structures. ICOMOS considers also that complete reliance on local communities to continue to maintain and repair these mosques over time is not a robust enough approach, given the weaknesses of traditional practices. Systems need to be put in place that offer support for local communities, can strengthen the skills of local masons, and integrate both into national support networks. While such a structure is set out as an aspirational, details are needed on how it might be developed and operationalised, and a road map set out to show when it might become effective in reversing the current downward trends. A monitoring system also needs to be developed to monitor the features of the proposed Outstanding Universal Value.

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5 Protection and management

**Documentation**

The information originally provided in the nomination dossier on the mosques in terms of documentation was not sufficiently detailed and lacked a deep presentation of their history. For all mosques, photographs were provided including aerial views and for some sketches of the layout were also given. No measured drawings were included.

In response to a request to strengthen this documentation, the State Party, in its supplementary information, provided detailed drawings of the eight mosques, and expanded details of their history and historical context.

What still remains to be better understood is quite how the structures of the mosques have evolved over time and, it would be helpful if further sources could be explored, such as archive photographs and mosque records to complete the documentation, and frame conservation approaches.

**Legal protection**

Although the eight mosques were included on the inventory of national cultural heritage in October 2012 and January 2016, the State Party acknowledges that the protection of Sudanese-style mosques in northern Côte d’Ivoire remains a major concern.

From the supplementary information provided, it is clear that the protection offered is limited to within the areas of national protection, which coincides with the areas nominated. There is no direct protection offered to the buffer zones. It is clearly stated that the spaces surrounding the mosques that are arranged for prayers do not have a ban on new construction.

The mosques are privately owned, five by one family, one by six families, and two by individuals, while the land on which they are built belongs either to families or to the Muslim community. Titles to the land – which extends to the spaces around each mosque beyond the legally protected areas – have not been formally recognised and remain to be ratified by the State. Assigning such titles to owners, or registering them on behalf of the management
committee, could greatly strengthen local management and help to prevent illegal occupations and constructions.

Town Plans do exist, but few details have been provided and the nomination dossier refers to these as a threat in terms of promoting development. Although the supplementary information states that regulations exist to control development on open spaces, these regulations appear difficult to operate, and to permit a particularly large number of exceptions, including for buildings with a social purpose.

What remains essential is the need for the mosques to be integrated with their urban and rural contexts and for their immediate settings to be properly defined and protected to ensure there is no inappropriate encroachment from new buildings or from the re-development of existing buildings – as has occurred at the Grand Mosque of Kong, even though for this mosque the entire area around it was protected, including the ancient square, the ancient market, the dâ-ba and the Binger case. Such protection of the immediate settings needs to be achieved, not just through national laws, but also through a participatory process with local communities, as well as through the drafting of sympathetic town Plans.

Management system
Traditional management has been practiced over the centuries by families under customary law and this is the basis for the current management system. Each mosque has a Local Management Committee, set up by local communities, and involving some elected officials and these meet four times a year.

A ‘Management system of the eight Sudanese-style mosques in northern Côte d’Ivoire, for the period 2020-2025, was submitted within the nomination dossier. Under this system, the local Committees will be integrated into an overall system for the nominated series with links to regional and national structures. For the future, all restoration work will be carried out in accordance with the provisions of the existing normative instruments. Annual action plans will be adopted by the Ivorian Office of Cultural Heritage Management Board and implemented by the Local Basic Management Committees. The Regional Directorates of Culture and of Francophony will also be involved through coordinating conservation and management activities in relation to local management committees. Currently it appears that not all these structures are yet operational. Although there is mention of an annual budget for the Cultural Heritage Board, no details are provided on how this will support Local Committee and local work. It is also unclear how any large-scale projects funded by the Islamic Development Fund, which is apparently being planned, will be integrated into the proposed system.

The Management System also includes an Action Plan that sets out outcome to be achieved by 2025. As well as strengthening legislation and protection, these include creating a Foundation for the protection of mosques, developing and implementing a plan for the maintenance, rehabilitation and restoration of Sudanese-style mosques, and ensuring financial autonomy for the management of mosques. It remains unclear who will be responsible for their development.

The Management System, once fully implemented, can be said to fulfil the basic requirements of a management plan. But while it sets out general and specific objectives as well as activities to be carried out during the five-year term, it does not show how the systems and methods of centuries-old conservation, held and practiced by local communities who have ensured the conservation of mosques from generation to generation, will be sustained. Although more on this aspect was submitted in the February 2021 supplementary information, it remains aspirational without clear details on how and when a robust system of support for traditional management would be put in place. What is needed is information on when the management system will be operationalised, and how the longer term issues such as capacity building and training for masons will be undertaken, in order to reach a stage where the decline in conservation practices has been reversed. To this end, a road map is needed that defines actions and timeframes to reach that point.

A further weakness of the Management System is the lack of specificities on how it will relate to the setting of the mosques and to Town Plans – or whether the latter will be re-drafted given the concerns that have been expressed. Risk management is also not addressed.

A further aspect that remains unclear and that is how any large-scale projects, such as the project funded by the Islamic Development Fund, which is apparently being planned, will be integrated into the proposed management system.

Visitor management
The proposed Actions in the nomination dossier include Developing tourist exploitation of Sudanese-style mosques and these include organising pilgrimages and the sale of souvenirs.

Whereas there appears to be a desire to attract visitors to the mosques, there is currently no visitor management plan. Given the real constraints that exist in accommodating visitors in these very small structures, and the needs that visitors bring in terms of facilities, both of which could conflict with the requirements of worshipers, it will be essential to develop such a plan and integrate it with local plans.

Community involvement
Local communities are at the heart of this nomination and the on-going maintenance of the mosques is mainly their responsibility.

Clearly there have been consultations with the local communities as the nomination has evolved. Concerns do remain though on precisely how their contribution will be organised and supported and formally integrated into the management structures.
Evaluation of the effectiveness of the protection and management of nominated property

Managing a series of eight highly fragile earthen mosques which are still in regular use, in settlements subject to growing development pressures and where there is a desire to attract tourists, presents considerable management challenges.

The management structures that have been set out focus on support for local committees and the need to formally integrate these into wider local, regional and national structures, and this is to be commended, but for the most part these systems are apparently not yet fully operational.

The actions envisaged in the management plan and in the supplementary information that has been provided, if they are carried out, will contribute to strengthening local mosque management practices and their sustainable conservation. But they cannot yet be said to adequately address how traditional management will be sustained, or how the immediate settings of the mosques will be protected from inappropriate development and from excessive traffic that could cause damaging vibrations. A detailed road map needs to be produced to show how these challenges will be addressed over the next three years.

ICOMOS considers that the current management arrangements need to be operationalised and significantly strengthened to deal with the very specific challenges that this serial property presents, particularly in relation to the weakened traditional practices, and the pressures of urban development, and that a detailed road map is needed setting out how these will be addressed.

6 Conclusion

The eight mosques, at Tengréla, Kouto, Sorobango, Samatiguila, Nambira, Kong and Kaouara clearly reflect a distinctive Sudanese architectural style, specific to the savannah region of West Africa, which was developed between the 17th and 19th centuries as traders and Islamic scholars spread south from the Empire of Mali, extending the trans-Saharan trade routes into the forest area.

The small and fragile mosques are now highly important testimonies to this trans-Saharan trade that facilitated the expansion of Islam and Islamic culture to the savannah region. Characterised by earthen construction, protruding timbers, vertical buttresses crowned by pottery or ostrich eggs, and tapering minarets, the mosques present an adaptation of a style developed in Djenné around the 14th century style. This adaptation reflects a fusion of Islamic and local architectural forms, particularly related to Senoufo shrines, and also responds to the wetter climate of the Sudan region.

This highly distinctive architectural style has persisted over time. But its characteristics are also found in other similar mosques in neighbouring countries, particularly the Great Mosque at Bobo Dioulasso, Burkina Faso, the Larabanga mosque, Ghana, and others in southern Mali.

Although it would have been desirable to include within this series some of the mosques beyond the borders of Côte d’Ivoire, ICOMOS nevertheless concludes that the nominated eight mosques have the potential to justify Outstanding Universal Value. At this stage, the mosques have the potential to justify criteria (ii) and (iv), but they do not yet fulfill the conditions of integrity and authenticity, or of management and protection.

The boundaries are too tightly drawn and there is inadequate protection in place to ensure their immediate urban settings are not further eroded. The boundaries of the mosques only encompass built structures, not the communal spaces to which they are related, and the buffer zones do not include neighbouring buildings which are a key part of the mosques’ immediate settings. It is important to protect the mosques as monuments related to their urban and rural landscapes: one should support the other. To correct this, the boundaries of the nominated sites and their buffer zones need to be adjusted. In order to protect the immediate settings, the Local Plans should be re-framed to stop new development in the spaces surrounding the mosques and to constrain re-development of neighbouring buildings to allow the mosques to maintain what remains of their dominance in their urban contexts.

A real and immediate threat is the siting close to the traditional mosques of new mosques linked to different schools of Islam, such as Wahhabism and Salafism, as well as to the traditional Malikî school. Many of these new structures threaten the integrity and authenticity of the traditional mosques.

Conservation of these earthen mosques was traditionally based locally and often supported by local families. Maintaining this communal approach is a difficult challenge, given the nature of traditional conservation that involves regular maintenance and re-plastering, and the support of skilled masons as well the participation of members of the local communities. The fact that only a few of the mosques now have adequate conservation and that for four others recent work needs to be reversed as a result of the use of unsuitable materials, demonstrates that the current level of traditional conservation is not effective enough and has not been in the recent past.

While a commitment to try and reverse this decline is to be welcomed, ICOMOS considers that a co-management system that sustains local masons, and supervises work that is carried out is needed to ensure that communal involvement will persist in the long term. Although the basis structures of traditional building practices still exist, it is clear that changes are being made to both practices and the type of materials that are used. Evolving changes to social structures may impact on the ability of
communities to respond as they have done in the past. A formal system is thus needed that builds on traditional practices, but gives them support and encourages capacity building, and also addresses projects that go beyond traditional maintenance such as those needed to reverse inappropriate recent work. While the framework for such a system has been set out, this needs to be operationalised and appropriately resourced as a matter of urgency. But as it is appreciated that reviving and strengthening traditional practices will take time, it is suggested that a road map be developed to set out actions to address these challenges and a timeframe within which the traditional conservation practices will be robust enough to have reversed the current decline.

In conclusion, ICOMOS considers that the series of nominated mosques has potential to justify Outstanding Universal Value but will only be able to do so once measures relating to boundaries and protection of urban landscapes have been put in place to monitor threats to integrity and authenticity, and once the management system has been operationalised and augmented and there is a clear timeframe for reaching stable conservation conditions.

ICOMOS considers that there is an urgency to achieve these measures in order that these mosques are sustained together with their associated traditional practices, as they are currently highly vulnerable as a result of a combination of factors that have been detailed in this evaluation.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of Sudanese style mosques in northern Côte d’Ivoire, Côte d’Ivoire, to the World Heritage List be deferred in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Enlarge the boundaries for each component site to encompass the full extent of communal and associated functional spaces around each mosque;

- Enlarge the buffer zones to encompass the immediate urban setting of the mosques to allow the mosques to be perceived as dominant structures;

- Strengthen the protection for buffer zones, through amending Local Plans and relevant local regulations, particularly in relation to development that is currently permitted;

- Operationalise the proposed management system and augment it to encompass capacity building for local masons;

- Develop a road map with actions and a timeframe within which traditional conservation practices will be robust enough to reverse the current decline;

- Complete conservation plans for each mosque setting out its current state of conservation and the interventions needed;

- Define an overall conservation approach for the whole series that includes proposals for major projects;

- Design as a matter of urgency projects to reverse recent inappropriate interventions at Kouto, Kaouara, Sorobango and Samatiguila mosques.

Any revised nomination should be visited by a mission to the site.

ICOMOS remains ready and willing to offer advice or cooperation on the development of these measures, if requested by the State Party.
Map showing the location of the nominated components
III Cultural properties

A Africa
   New Nomination

B Asia – Pacific
   New nominations

C Europe – North America
   New nominations
Cultural Landscape of Hawraman/Uramanat (Islamic Republic of Iran) No 1647

Official name as proposed by the State Party
Cultural Landscape of Hawraman/Uramanat

Location
Provinces of Kurdistan and Kermanshah
Islamic Republic of Iran

Brief description
The remote and mountainous landscape of Hawraman/Uramanat provides testimony to the traditional culture of the Hawrami people, an agropastoral Kurdish tribe that has inhabited the region since about 3000 BCE.

The nominated serial property is located at the heart of the Zagros Mountains in the provinces of Kurdistan and Kermanshah along the western border of Iran. It is comprised of two components: the Central-Eastern Valley (Zhaverud and Takht, in Kurdistan Province); and the Western Valley (Lahun, in Kermanshah Province). The mode of human habitation in these two valleys has been adapted over millennia to the rough mountainous environment. Tiered steep-slope planning and architecture, gardening on dry-stone terraces, livestock breeding, and seasonal vertical migration are among the distinctive features of local culture and life.

The Hawrami people are a semi-nomadic society, dwelling in lowlands and highlands during different seasons of each year. This migration pattern is dated to the early Neolithic period. The evidence of the Hawraman/Uramanat cultural landscape – stone tools, caves and rock shelters, mounds, remnants of permanent and temporary settlement sites, and workshops, cemeteries, roads, villages, castles, etc. – confirms an uninterrupted habitation of the territory since the Middle Paleolithic period.

The area is also associated with customs, rituals, handicrafts, and folklore related to the dialects, religion and local belief systems, and natural environment, which is exceptional from the point of view of biodiversity and endemism.

Category of property
In terms of categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a serial property of two sites.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (2019) paragraph 47, it has also been nominated as a cultural landscape.

1 Basic data

Included in the Tentative List
9 August 2007

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
ICOMOS has consulted its International Scientific Committees members, and several independent experts.

Comments on the natural features of this property and their conservation and management were received from IUCN in November 2020 and have been incorporated into relevant sections of this report.

An ICOMOS technical evaluation mission visited the property from 21 September to 1 October 2020.

Additional information received by ICOMOS
A letter was sent by ICOMOS to the State Party on 29 September 2020 requesting additional information on the comparative analysis, boundaries, management, and legal protection. A response was sent by the State Party on 13 November 2020 containing clarifications on the requested subjects.

On 17 December 2020, ICOMOS sent an Interim Report to the State Party, which requested further clarification and elaboration by the State Party concerning the agropastoral social system of the Hawrami people, the boundaries of the nominated property, and management arrangements. The State Party responded on 28 February 2021. All responses received throughout the evaluation process are incorporated into the relevant sections below.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The Cultural Landscape of Hawraman/Uramanat speaks to the Kurdish culture of the Hawrami people, the majority of whom reside in the remote and mountainous landscape of western Iran, and in particular the Zagros Mountains in the provinces of Kurdistan and Kermanshah. The
development of this culture over thousands of years is reflected in cave dwellings and fortress-cities, steep-slope mountain villages, dry-stone terraced agricultural landscapes, and seasonal dwellings for livestock farming and other transhumance infrastructure – attributes of a mixed sedentary-nomadic way of life that continues to the present day. It is also reflected in rich local cultural traditions, including traditional music, clothing, handicrafts, harvest rituals, religious rituals, land use, habitation and vertical dwelling, water management, dry-stone building, and architectural patterns.

There are four subsistence and migration patterns in the Hawraman/Uramanat region: livestock breeding based on multi-staged migration; livestock farming based on single-staged migration; concentrated gardening and farming; and deconcentrated gardening and farming.

The nominated property is characterized by carefully cultivated hillside following ancient land divisions and punctuated with rural buildings, hilltop and hillside villages, farms, and settlements. Its tangible features include caves, archaeological sites, mounds, citadels, historic cemeteries, rock carvings and petroglyphs, historic roads, villages, and Havars (dry-stone seasonal migration places in the mountain heights where fresh forage for livestock is collected). The principles of the agrarian and semi-nomadic Hawrami life are manifested in the dwelling, building, water, and land management techniques that underpin the villages, Havars, agricultural terraces, and local architecture.

Thirteen villages are included within the boundaries of the two serial components: Nav, Sharakan, Najar, Palangan, Abbas Abad, Shian, Zhan, Doulab, Halvan, and Bezlaneh in the Central-Eastern Valley; and Shalagi, Kelash Lolem, and Qalaji in the Western Valley. They illustrate the diversity and complexity of the Hawrami people’s evolutive responses to the scarcity of productive land and soil in their mountainous environment.

The nominated property also boasts a wide range of habitats, resulting in high biodiversity and endemism. The Zagros Mountains form an important part of the Irano-Anatolian biodiversity hotspot, which was identified as a gap in the World Heritage List in the IUCN’s 2013 study on terrestrial biodiversity.

Historically, there were three major periods in the development of the Hawraman/Uramanat region: the Neolithic, when troglodytes left their caves and began to build settlements on the nearby plains; the late Chalcolithic and early Bronze Age (approximately 5500 to 1450 BCE), when internal tensions and the needs of stock raising led people to build permanent settlements in the mountainous parts of Hawraman/Uramanat; and the Islamic age (from 651 to the end of the Qajar rule in 1925 CE), when population growth led to a shift toward lower grounds, especially the rugged terrain of the northeast, resulting in the establishment of new villages in these areas. The Hawrami people, among the Kurdish tribes, are believed to have lived in the region since about 3000 BCE.

The discovery of stone tools suggests this region has been inhabited since the Middle Paleolithic (about 40,000 years ago), and a cave site in the Perdi Mala valley has been cited as evidence for Late Paleolithic occupation. The region was evidently occupied by the Assyrians during their military campaigns into the Zagros Mountains, about the 8th century BCE. The Parchments of Hawraman/Uramanat, a set of 3 documents from the Seleucid and Parthian eras (324 BCE to 224 CE), document the sale of land here. Thirty-five mounds, most located outside the mountainous area of the Hawraman/Uramanat region and inside adjacent intermountain plains, date from the Neolithic to the Islamic era. There was a dramatic growth in population by the middle of the Islamic era, which led to the development of infrastructure and settlements in the region. The rich diversity of historic sites, including roads, bridges, cemeteries, mosques, castles, and villages, illustrate the historical events and development of the territory up to the 20th century. Due to its geographical isolation, Hawraman/Uramanat has been less exposed to modernization pressures, maintaining its rich tangible and intangible heritage and semi-nomadic agropastoral character until the present day.

The ancient agropastoral social system of the Hawrami people has been the key driver for shaping this landscape. The geographic, morphological, climatic, and environmental characteristics have conditioned the formation of the three patterns of seasonal vertical migration: garden-based (eastern Hawraman), livestock-based (western Hawraman), and a garden and livestock-based hybrid (central Hawraman). Over the millennia, these patterns have resulted in distinct spatial and architectural characteristics. The vertical migration pattern in Hawraman/Uramanat is among the oldest types of migration, dating to the early Neolithic. This pattern and the seasonal Havar dwellings appear to be different from the horizontal migration of other nomadic tribes such as the Bakhtyärf, who also reside in western Iran. The property is therefore said to present important evidence in the context of the history of pastoral migration.

In response to the ICOMOS Interim Report, the State Party clarified that Havars and the underlying philosophy of temporary settlements constitute important signs of adaptation to the climate and natural environment. The semi-nomadic way of life, which still exists today, is said to be linked to the way in which sedentism was established in this rough mountain setting. The cultural traditions related to transhumance, such as celebrations at the beginning and end of the Havar season, also continue to be practiced.

**Boundaries**

The nominated property is a vast cultural landscape stretching across mountain ridges and valleys. This serial cultural landscape is comprised of 2 components: the Central-Eastern Valley (Zhaverud and Takht, totaling...
77,905 hectares in the Kurdistan Province); and the Western Valley (Lahun, totaling 28,402 hectares in the Kermanshah Province). These 2 components are situated within a single 303,623 hectares buffer zone.

The rationale for the boundaries of the nominated property was clarified by the State Party in the additional information it sent to ICOMOS on 13 November 2020, which explains that the boundaries are based on the geographical characteristics of the territory. The boundaries follow the mountain ridges and other natural and geographical features so as to incorporate the most relevant elements of the nominated property and its setting within the landscape.

ICOMOS also requested the State Party to further clarify the spatial relationships between the character-defining features presented in the nomination dossier, including ancient settlements, cave shelters, castles, historic routes, mounds, cemeteries, and inscriptions within the surrounding landscape, as well as the connections of these relationships to the Hawrami people. The rationale for including some of these features inside the proposed buffer zone and some outside the buffer zone also needed further explanation in the context of their contribution to the proposed Outstanding Universal Value of the serial cultural landscape.

The additional information provided by the State Party in February 2021 emphasizes that the historical and ancient sites presented in the nomination dossier have paved the way and accompanied the formation and development of the key features of Hawraman/Uramanat; that is, the villages and agropastoral way of life of the Hawrami people. These sites play an important role in manifesting the evolution of human habitation and interaction with nature. Given their geographical setting, the vast majority of these character-defining features are included in the property and its buffer zone. ICOMOS considers the rationale and the boundaries of the nominated property and its buffer zone as clarified by the State Party to be adequate.

ICOMOS concludes that these boundaries are sufficient to reflect the extent of the tangible and intangible attributes that convey the proposed Outstanding Universal Value. The buffer zone coincides with the boundaries of the culturally and socially distinct portion of Hawraman/Uramanat that lies within Iran.

State of conservation

The nomination dossier provides an account of the state of conservation of the nominated property. The key mechanism for ensuring the long-term conservation of the cultural landscape is to support and continue the long-held traditions and agropastoral social system that have been handed down from generation to generation. Conservation depends partly on the remoteness of the territory, the rough topography, and the conservative approaches of the Hawrami people, and partly on the conservation efforts and approaches adopted by the state authorities. The Cultural Landscape of Hawraman/Uramanat (CLH/U) Base, established under the Ministry of Cultural Heritage, Tourism and Handicraft in 2015, has as its main mission to ensure support, professional expertise, and funding for the research and conservation of the territory.

The CLH/U Base implements its conservation mandate by three types of approaches: direct intervention through the “conservation by example” of existing buildings and through model projects for new constructions; technical and/or financial support (grants and low-interest loans) for conservation as well as for new constructions that comply with the guidelines; and negotiations and agreements with governmental departments to adapt their assets to heritage conservation requirements, so that they conform with the local identity of the place. The CLH/U Base also ensures permanent coordination with the relevant sectoral authorities for regular monitoring.

ICOMOS notes that the built fabric of the villages varies considerably in terms of the concentration of historical buildings. In its Interim Report, ICOMOS requested information on the newer buildings, which in some cases constitute more than half the built fabric, and confirmation that these buildings are built with traditional materials, thereby complying with the traditional planning and architectural practices. The ICOMOS technical evaluation mission confirmed that modern constructions are undertaken with traditional materials and techniques. This observation is supported by the thematic maps for each village included in the additional information provided by the State Party in November 2020, which illustrate the widespread use of traditional materials and compliance with the historical layout of the villages.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is satisfactory.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that there are no major factors currently having a significant negative impact on the nominated property. The remoteness of all the nominated villages underlies the lack of development pressure. Furthermore, guidelines, actions, and incentives by the CLH/U Base are mitigating risks of any inappropriate interventions. Some previous ill-advised interventions have already been reversed under the supervision of the CLH/U Base.

Current tourism statistics reveal low numbers of mostly domestic visitors, with very few international tourists. For the time being, the impact of tourism can be considered negligible, although careful forward planning and management will be required to avoid negative impacts in the future. The CLH/U Base works with local communities to ensure visitors are received in a culturally appropriate and environmentally sensitive manner. A study of the carrying capacity of the territory has been prepared.
Following a request from ICOMOS, the State Party in February 2021 clarified the existence of cross-sectoral tourism coordination and management structures, such as the National Committee for Nature Tourism, which has been established to increase collaboration among different institutions.

An environmental pressure that may affect the nominated property in the long term is climate change and its consequences. Declines in regional rainfall have caused drought and consequent water shortages in the region. This long-term challenge needs careful monitoring and mitigation measures to allow local communities to continue their traditional lifestyle.

Within the context of factors potentially affecting the property, two dams – the Darian Dam and the Jhaveh Dam – as well as a large-scale fish farm must be mentioned.

The Darian Dam, built on the Sirvan River in 2009-2015, is located within the nominated property’s boundaries, although none of the nominated villages or other features of the nominated property have been impacted by its construction. Considering the dry climate, the purpose of the dam is to supply water to local communities for agriculture and hydroelectricity and to direct water towards the western plains of the country. An Environmental Impact Assessment (EIA) conducted in 2008, an English summary of which was provided by the State Party in November 2020, concludes that the project does not have a negative impact on the cultural or natural features of the nominated property and did not involve submerging of any built structures or sites of cultural significance.

The Environmental Impact Assessment for the Darian Dam provides information on the existing biodiversity, afforestation of the banks of the reservoir to compensate for the submerged parts of woodland, preservation of the Bell Spring (reputedly one of the shortest rivers in the world), and compensation measures for the partially affected farmlands of six villages, none of which are included as key features in the nomination. The creation of the water reservoir is mentioned as having greatly assisted in reversing the depopulation of the area and providing opportunities for young people, mainly by boosting recreation and local tourism around the reservoir.

The ICOMOS technical evaluation mission was provided with a summary of an Environmental Impact Assessment for the ongoing construction of the Jhaveh Dam near Doulab Village. This summary concludes that the construction is not negatively affecting any natural or cultural features. None of the villages partially affected by its construction are among the nominated property’s key features. The construction is expected to support local agriculture and supply water to the region, and thus have a positive social impact on the cultural landscape.

The ICOMOS technical evaluation mission also reported a large-scale (1,500 tonnes of fish per year) fish farm near Palangan Village. Established in 2002, the farm is a cooperative set up by 54 families from the village. Its location does not have a visual impact on the cultural landscape. Moreover, it has a significantly positive impact on the livelihoods of local residents and has played a role in reversing depopulation in the area.

IUCN observes that mining activities reportedly occur within the nominated property, and draws attention to environmental legislation that provides for exploration and exploitation of minerals in the natural protected areas. Considering these concerns, ICOMOS recommends that, *inter alia* through providing appropriate legal provisions, special attention be paid to preventing any intervention, including mining and extraction of minerals, that could potentially have a direct or indirect impact on the proposed Outstanding Universal Value, authenticity and integrity of the nominated property.

### 3 Proposed justification for inscription

#### Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The continuing cultural landscape presents exceptional testimony to the uninterrupted development of human habitat in a recognized Central-Asian “cradle of civilization”, from the natural caves, shelters, and settlements of early humanoids of the Middle Paleolithic through the construction of access routes, citadels, and fortifications to the transhumance structures and the continuing creation of terraced villages, gardens, and orchards reflecting the specific cultural traditions of the Hawrami people.
- The cultural landscape made up of villages of steep-slope vernacular architecture, terraced orchards, and transhumance shelters constructed with dry-stone techniques spans significant stages of human history and illustrates human adaption to a steeply sloped mountainous environment over thousands of years, in villages typically exhibiting vertical rises of up to 1,500 metres on slopes of up to 60 degrees. Particular adaptive architectural elements include solar orientation and the conservation of scarce land through public shared-space rooftops and multi-storey buildings, terraced orchards demonstrating traditional and innovative soil and water management techniques, and, at higher altitudes, dry-stone shelters for humans and animals (*Havars*) that have been adapted to the seasonal requirements of transhumance.
- The property presents the combination of natural and cultural features expressing the sustainable interaction of the Hawrami people with the
mountainous natural environment. The landscape is thus shown to provide an outstanding example of the evolution of a traditional way of life in close interaction with nature, through the continuing significant social, economic, and religious activities of the Hawrami people who have inhabited these valleys since ancient times.

Comparative analysis
The comparative analysis is presented in two parts: five cultural landscapes in Iran, one of which is inscribed on the World Heritage List and two others on the State Party’s Tentative List; and seven cultural landscapes on the World Heritage List located in Europe (Spain, Portugal, Austria, and Italy), Asia (Philippines), and Africa (Ethiopia). Overall, eight cultural landscapes from the World Heritage List are examined in the comparative analysis. In addition, a brief reference is made to steep-slope agriculture in China, Japan, and Tibet.

Most of the cultural landscapes presented in the comparative analysis represent very different cultures and periods in history. Outside Iran, comparisons are made with Hallstatt-Dachstein / Salzkammergut Cultural Landscape (Austria, 1997, criteria (iii) and (iv)), Cultural Landscape of the Serra de Tramuntana (Spain, 2011, criteria (ii), (iv), and (vi)), Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto) (Italy, 1997, criteria (ii), (iv), and (vi)), Cultural Landscape of Sintra (Portugal, 1995, criteria (ii), (iv), and (v)), Wachau Cultural Landscape (Austria, 2000, criteria (ii) and (iv)), Konso Cultural Landscape (Ethiopia, 2011, criteria (iii) and (v)), and Rice Terraces of the Philippine Cordilleras (Philippines, 1995, criteria (iii), (iv), and (v)). These comparisons are made on the basis of their natural environment, architecture, diversity of settlements, historical background, local economy, and modes of life, customs, and cultural traditions. The list of sites outside Iran does not include other comparable cultural landscapes that are not inscribed on the World Heritage List.

While culturally and historically more similar, the compared sites within Iran – Cultural Landscape of Maymand (2015, criterion (vi)), Masouleh (Tentative List, 2007), Abyaneh (Tentative List, 2007), Sar Aqa Seyed, and Marin – do not demonstrate the same diversity of landscape, equal scale of steeply sloped settlement patterns, or architectural innovation, nor do they demonstrate an equivalent continuity and complexity of combined agricultural and nomadic livestock practices adapted to the steeply sloped environment. While some landscapes are associated with continuing cultural traditions, the State Party concludes that none of these comparative properties exhibit a comparable combination of all the key aspects listed above.

The State Party asserts that the key aspects that set the Cultural Landscape of Hawraman/Uramanat apart from these other cultural landscapes are: (a) the nominated property’s high altitude, steeply sloped mountainous geomorphology, and extreme climate; (b) its traditional techniques for tiered dry-stone architecture, orientation of village layouts, multi-storey buildings, shared rooftops as public spaces, and dry-stone terraced gardens and orchards; (c) its continuing livestock and agricultural production across different altitudes, traditional techniques of orchard-making, and soil and water management adapted to the steeply sloped environment; (d) its continuity and preservation of unique cultural traditions tied to natural cycles and belief systems; and (e) its evidence of all stages of continuing human history in a single landscape.

In response to a request from ICOMOS, additional information was provided by the State Party in November 2020 to further clarify the place of the nominated property in the context of other historic Kurdish settlement regions in this geo-cultural area. The nominated property was described by the State Party as the best-preserved and the most extensive area of Hawrami culture; other areas across the Iran-Iraq border where the Hawrami people have historically lived have been severely affected by past armed conflicts. Other Kurdish settlement regions differ from the nominated property in natural characteristics, as well as cultural specificities and mode of life. More importantly, no other area has enjoyed an equal degree of preservation of Kurdish culture, dialects, and traditional lifestyle as the nominated property.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (iii), (iv) and (v):

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the nominated property is an outstanding living testimony to a long history of traditions that continue to the present day, bearing witness to an extremely well-organized social, rural, and nomadic realm, and to sustainable economic structures. A significant range of elements and structures representing different stages of evolution are found in a relatively limited area. These include shelters for humans and animals adapted to seasonal requirements, mountain villages, and orchards, all based on a thorough understanding of nature. Archaeological sites and rock art bear unique and exceptional testimony to a mountain culture that can trace its roots back over 3,000 years.

ICOMOS considers that the information presented by the State Party in the nomination dossier and the responses to requests from ICOMOS for clarifications demonstrates that the living cultural landscape of Hawraman/Uramanat bears exceptional testimony to the continuing agropastoral socio-spatial structures and cultural traditions of the Hawrami people, developed around their semi-nomadic way of life, which is manifested in
transhumance routes and Havars, steep-slope terraced villages and orchards, and a rich intangible heritage. Hawraman/Uramanat is the exceptionally well-preserved cultural reservoir of the Hawrami people, part of the Kurdish culture, who have occupied this part of the Zagros Mountains for millennia.

The local semi-nomadic migration patterns, transhumance and agricultural practices, specific transhumance routes, Havars, and orchards for each of the thirteen villages presented as the key attributes are well researched and documented, as are the spatial interrelationships of different types of historical places to these key attributes of the cultural landscape.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates a significant stage in human history;

This criterion is justified by the State Party on the grounds that the nominated property is an outstanding example of a cultural landscape that illustrates significant stages in the development of a human habitat over a long time, from caves and early shelters dating initially to the Paleolithic to terraced villages and later transhumance. The form and structure of Havars, traditional orchard-making, and terraced villages with vertical rises of up to 1,500 metres on slopes of up to 60 degrees illustrate the genius and traditional knowledge of utilizing sloped lands for settlements in harmony with the environment. Local communities have creatively constructed an excellent and still-functioning management system of water and soil that skillfully integrates the use of water reservoirs with soil resources.

ICOMOS considers that the information presented by the State Party does not establish the Outstanding Universal Value of the property with regard to criterion (iv). While the landscape includes evidence of the evolution of a human habitat over a long period of time, the key features of the nomination have not been demonstrated to be an outstanding illustration of a significant stage in human history.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the nominated property constitutes an outstanding example of uninterrupted human interaction with the surrounding environment. Following a long, slow evolution of cultivation and orchard-making skills, the best possible adaptation to this lofty Zagros' mountain environment has been carried out. The nominated landscape also enjoys aesthetic qualities that make it an archetype of mountain villages on very high slopes. The Hawrami people's endeavors, exquisite and skillful agricultural technology, and ecological world-view taken from ancestral practices have successfully created a smart, efficient, fair, harmonious, and sustainable agricultural system that manages water and irrigation and pinpoints proper dwelling spaces. They have also created under limiting conditions a perfectly harmonious lifestyle adapted to the environment.

The justification also states the cultural landscape is underpinned by a spectacular geology and morphology, unique ecosystems, significant biodiversity, and outstanding valleys. It expresses a distinctive relationship between human beings and nature, which is especially clear in Hawrami rituals and rites.

ICOMOS considers that the Cultural Landscape of Hawraman/Uramanat constitutes an outstanding example of uninterrupted human interaction with a harsh natural environment resulting in a long and slow evolution of land cultivation and orchard making, settlement organization, skills, and knowledge.

In the high Zagros Mountains, a harsh environment where there is little fertile soil, the Hawrami people, through their skillful agricultural and settlement practices, have successfully created an efficient and sustainable agricultural system and a harmonious transhumance mode of life.

ICOMOS considers that the land use illustrated by the nominated property is an outstanding representation of a human interaction with the environment over a long period of time. Criterion (v) has been justified.

ICOMOS considers that the nominated property meets criteria (iii) and (v) and that criterion (iv) has not been justified.

Integrity and authenticity
The remoteness and inaccessibility of the region, along with the legislative protection, have ensured a high level of integrity and authenticity of the nominated property.

Integrity
The State Party assesses that the nominated property is of adequate size to ensure the complete representation of the features and processes that convey its significance. The important part of the Hawraman/Uramanat Kurdish region's specific cultural and natural characteristics is located in western Iran, with a lesser part located in neighboring eastern Iraq. The additional information provided by the State Party in November 2020 indicates that the Iraqi part of Hawraman/Uramanat differs significantly from the Iranian part in its geomorphology, natural characteristics, and socio-cultural characteristics, as well as its degree of preservation.

ICOMOS considers that the proposed boundaries of the nominated property are adequate for the conservation of the key features as well as their setting. The morphology and architectural fabric of the thirteen villages – which are among the main features of the property – are mostly
intact. The deterioration process is controlled, and in some instances has been reversed due to the efforts of the CLH/U Base. The Base controls interventions, including the use of modern materials and techniques, and negotiates with different government authorities to reduce the visual impact of existing modern government buildings. The overall intent is to preserve to the greatest extent possible the dynamic historic functions and vitality of the villages and the cultural landscape.

The infrastructure and amenities such as electricity and telephone poles and cables, water mains, and gas pipes in some cases have a negative effect on the historic character of the villages. However, their overall visual and functional impacts are not excessive.

As noted above, the Darian Dam, Jhaveh Dam, and cooperative fish farm near Palangan village do not have a significant negative impact on the integrity of the nominated property as related to the attributes that convey its proposed Outstanding Universal Value.

The integrity of the nominated property can thus be considered satisfactory. No incompatible interventions to these protected areas are likely to threaten its integrity in the foreseeable future.

Authenticity

The Cultural Landscape of Hawraman/Uramanat retains a high degree of authenticity in terms of materials, forms and designs, uses and functions, locations and setting, and spirit and feeling, as well as traditions, customs, and lifestyle.

The authenticity of the morphology and layout of the built fabric in the nominated thirteen villages is preserved. The characteristic organization of the villages and the public space features, such as public rooftops, continue to be dominant.

Most historic buildings have kept their traditional form and design, and these types of forms and designs are usually followed in the intrequent occasions when new houses are constructed. Most buildings retain authentic materials, including in traditional interiors, although in some cases repairs or extensions have been made using modern materials such as concrete blocks, metal doors and windows, and aluminum sheets for roofing. ICOMOS observes with concern the visual impact of the aluminum roofing, the use of which is widespread.

Traditional dry-stone terracing and water management practices are retained and practiced, as well as seasonal migration to Havars, livestock breeding, and traditional agriculture. The local economy continues to produce an important supply of fresh agricultural produce for Iranian markets. This factor, coupled with sensitive and sustainable tourism management, will play a key role in the long-term conservation of the nominated property.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole series have been met, and that the conditions of integrity and authenticity of the individual component sites that comprise the series have been met.

Evaluation of the proposed justification for inscription

The mountain agriculture, migratory lifestyle to seasonal habitats, dialects, customs, and other cultural features convey the value of Hawraman/ Uramanat as a cultural landscape that bears exceptional testimony to the cultural traditions of the Hawrami people.

The local community’s semi-nomadic lifestyle, and particularly its vertical seasonal migration pattern, is considered an exceptional mode of transhumance that can be dated back to the Neolithic if not earlier.

The comparative analysis justifies consideration of this property for the World Heritage List.

The nominated property meets criteria (iii) and (v). Criterion (iv) has not been justified.

ICOMOS considers that the conditions of integrity and authenticity of the whole series have been met, and that the conditions of integrity and authenticity of the individual component sites that comprise the series have been met.

Attributes

There are three major geographical areas in the two components that comprise the Cultural Landscape of Hawraman/Uramanat: Hawraman Takht (central zone) and Hawraman Zhaverud (eastern zone), which together make up one component; and Hawraman Lahun (western zone), which makes up the second component. The main valleys of each of these three areas have been selected to represent this large cultural landscape. The attributes are classified by the State Party as natural (geology, soil, geomorphology, biodiversity) and cultural (tangible and intangible). However, ICOMOS notes that the property has not been nominated under any of the natural criteria.

Among the key tangible attributes of the nominated property are the thirteen villages: Nav, Sharakan, Najar, Palangan, Abbas Abad, Shian, Zhan, Doulab, Halvan, and Bezlaneh in the Central-Eastern Valley component; and Shalagi, Kelash Lolem, and Qalaji in the Western Valley component. The villages are characterized by high-density tiered architecture and solar orientation compatible with extreme climatic and topological conditions, with open views from the dwellings. Attributes also include the villages’ agricultural systems, Havars, steeply sloped terraced orchards, gardens, dry-stone walls, and water canals, including the transport of soils from fertile to less fertile sites.

Other tangible attributes that are presented to support the proposed Outstanding Universal Value of the property are prehistoric cave shelters of early humans; archaeological remains of temporary and permanent settlements;
historical burials; rock carvings and petroglyphs; castles, citadels, and fortifications; historical roads; and ancient mounds.

The proposed Outstanding Universal Value is also supported by the living intangible heritage of the local communities, including handicrafts; rituals and ceremonies associated with astronomy, seasons, and harvests; folklore; and dialects.

In response to the ICOMOS Interim Report, the State Party provided additional information specifying the spatial interrelationships of the key features of the nominated property. These include the transhumance routes and the relationship of the Havars and orchards to each nominated village, which are also illustrated on maps and schematic relief sections. The spatial interrelationship of the supporting features within the wider landscape was also clarified by integrating these diverse features on a topographic map together with the key features, all placed in the context of the proposed boundaries of the nominated property and buffer zone.

ICOMOS considers that the identified attributes contribute to the justification for inscription.

4 Conservation measures and monitoring

Conservation measures

The CLH/U Base, under the Ministry of Culture, Heritage, Tourism and Handicrafts of Iran, is tasked with providing support, expertise, and funding for the research and conservation of the nominated property. Comprehensive conservation programs aim to preserve the cultural and natural values of the property and to maintain its authenticity and integrity.

Acknowledging the potential impact of modernization on the lifestyle of local communities, the conservation programmes emphasize raising the awareness of residents about the values of their environment and their traditional practices, and assist them in managing future changes to the property within a conservation ethic. The role of local communities is accentuated throughout all the different conservation programs, as the local population historically has undertaken maintenance and restoration in an appropriate manner.

The CLH/U Base implements conservation through model conservation and adaptation projects, as well as technical and/or financial support for conservation projects, offering financial assistance to the owners who implement conservation interventions under professional supervision. Detailed guidelines on standards for architectural construction have been prepared by the CLH/U Base. They are a valuable instrument for communicating conservation principles to the local population.

Monitoring

The CLH/U Base ensures permanent coordination with relevant sectoral authorities for regular (monthly, seasonal, annual) monitoring of the nominated property based on a comprehensive set of indicators. These indicators are for the most part linked to the attributes of the proposed Outstanding Universal Value and to the identified threats.

While acknowledging the comprehensive monitoring system currently in place, ICOMOS nevertheless considers it necessary to broaden its scope to reflect a wider range of natural and human-made risks and pressures. These should include, *inter alia*, the potential impact of modernization on the ancient agropastoral system of Hwaraman/Uramanat as well as the risks associated with climate change and its consequences with regard to the water regime, the vegetation of the area, and the grazing system.

ICOMOS considers that conservation measures and monitoring are adequate.

5 Protection and management

Documentation

The nominated property has been adequately inventoried and recorded by 3D scanning and 3D modelling techniques for the villages and the landscape. The data is managed by a geographic information system and is continuously updated by dedicated staff at the CLH/U Base.

Legal protection

According to the State Party, more than 30 villages in this landscape have been included in the list of Iranian national monuments. All the different attributes presented in the nomination dossier are also registered. The intangible heritage of this cultural landscape is systematically studied and safeguarded by means of inscription on the Intangible Heritage List of Iran.

The nominated property in its entirety is registered in the National Monuments List. The nomination dossier presents a summary of the regulations for interventions within the nominated property and the buffer zone.

The nomination dossier lists several national acts and bylaws as well as strategies to support the long-term conservation of the nominated property. The most important for the purpose of the proposed Outstanding Universal Value is the Land Conservation Act, which strictly controls changes to land use. Furthermore, there is a complex set of planning documents at the provincial and local levels. These include Pilot Plans for ten villages (1990s and 2000s), a Detailed Master Plan and Regional Development Plan for the cultural landscape (2015-2017), and a Revised Hawraman/Uramanat Development Plan (2011-2017).
Apart from protected cultural properties, there are also several protected nature areas within the nominated property, controlled through Master Plans and Special Landscape Protection Plans according to nature conservation standards.

In November 2020, the State Party provided additional clarification of the legislative acts and planning documents, as well as English versions of the geographic information system maps illustrating the comprehensive approach applied to the study of the urban fabric of all the nominated villages on which the guidelines for interventions are based. This clarification confirmed that the elaboration of Pilot Plans for 3 villages (Abbas Abad, Shalagi, and Qalaj) is in progress. It can be concluded that conservation of cultural heritage is duly considered in local planning documents and is under the control of the heritage authorities. Overall, protection of the nominated property is considered to be adequate. Strict control should be maintained over the installation of modern equipment to prevent any negative visual impacts on the proposed Outstanding Universal Value of the nominated property, and to ensure that any such interventions respect the local character of the place. Any major infrastructure development project or intervention should be subjected to a Heritage Impact Assessment and Environmental Impact Assessment, in line with paragraph 118bis of the Operational Guidelines for the Implementation of the World Heritage Convention.

**Management system**

The management of cultural heritage in Iran is the domain of the Ministry of Cultural Heritage, Tourism and Handicraft (IMCHTH). Additionally, it is the legal duty of all executive bodies to contribute part of their budget and human resources to the research and conservation of cultural heritage. The Ministry of Housing and Urban Development (MHUD) is responsible for managing development and developing master plans, *inter alia*, for historic urban areas. The Higher Council for Architecture and Urban Planning (HCAUP), composed of different government departments and led by the MHUD, endorses urban plans before their final approval, with the binding opinion of IMCHTH.

In 2015, the IMCHTH established the research and management Base for the Cultural Landscape of Hawraman/Uramanat. All conservation, restoration, and maintenance work for tangible and intangible elements of the nominated property are carried out under the control of the CLH/U Base. The Base manages the area in collaboration with the local communities, provides advice and consent on the major developments, regulates and controls permits for buildings and alterations, and provides financial support for conservation. Decision-making is facilitated by a cross-sectoral steering committee composed of local, regional and national participants and a technical committee established within the CLH/U Base.

The Integrated Management and Conservation Plan of the CLH/U Base is a primary tool for the management and conservation of the area. It was elaborated at the ministerial level with the collaboration of the IMCHTH and the MHUD. Additional information provided by the State Party in November 2020 clarified that the plan is mandatory for all public bodies, and that inter-sectoral coordination is overseen by the HCAUP. The action plans are designed for timeframes of two years (short term), five years (medium term), and ten years (long term).

Local management actions in the villages are carried out through the village councils and the village councils’ heads (*Dehvar*), who manage and maintain their villages through consultation with and guidance from the CLH/U Base.

In response to the ICOMOS Interim Report, the State Party provided clarification on the strategies and plans in place to support the sustainability of local economic systems. These include strategies and long-term plans for supporting rural development through entrepreneurship, micro-financing, and empowerment of rural women and youth, as well as promoting handicrafts and ecotourism. These strategies and plans are prepared and implemented in a collaborative and participatory manner.

The State Party also provided information on cross-sectoral institutional, fiscal, and programmatic arrangements, including research, education, and capacity building. Sustainability is inscribed as a goal of the regional management and development plans and sectoral plans for activities such as fish-culturing, handicrafts, ecotourism, and nature tourism, which serve indigenous job-creation and development. Additional information was also presented on the cross-sectoral bodies that have a specific focus on sustainable tourism, notably the National Committee for Nature Tourism whose members include the Environmental Protection Organization, the Ministry of Cultural Heritage, Tourism and Handicrafts, and the Forests and Rangelands Organization.

Entrepreneurship and micro-credit funding are mentioned as key strategies for regional rural development. With their specific focus on rural women and youth, these programmes are identified as already having a positive impact on creating rural self-employment, combatting poverty, and empowering people in this region.

In summary, there is a robust management framework at multiple levels that ensures well-integrated decision-making and control over conservation and development within the nominated property and its buffer zone, as well as a high degree of participation by the local community.

**Visitor management**

According to the State Party, the current levels of visitation across the nominated property are modest, and are controlled and guided by a national tourism development plan and a tourism development plan for targeted villages within the Cultural Landscape of
Hawraman/Uramanat. The strategies aim at sustainable tourism and provide for control of the types and numbers of tourist activities according to the carrying capacity of different zones of the property and their heritage values.

The main objective of the tourism plan is the promotion of local products achieved through collective projects, helping small-scale producers gain access to markets. The CLH/U Base also collaborates with local communities in establishing small-scale eco-lodges through the adaptive reuse of historic buildings. The State Party notes the positive effect that cultural entrepreneurship has had on the development of a sustainable tourism industry.

Various regional and local non-governmental, private, and cooperative organizations are active in the interpretation and presentation of the tangible and intangible cultural heritage and natural heritage of the nominated property. Local museums have been established in different villages in collaboration with the CLH/U Base.

While acknowledging the detailed information provided by the State Party on sustainable tourism strategies, ICOMOS notes the negative impact tourism has had worldwide on ancient social and economic systems. ICOMOS therefore considers that the State Party should pay careful attention to preventing tourism or other modern economic activities from overtaking the local traditional economy and disrupting the ancient agropastoral way of life that underpins the proposed Outstanding Universal Value of the nominated property.

**Community involvement**

The local communities play a major role in protecting the nominated property through day-to-day maintenance and conservation and through traditional ways of semi-nomadic agrarian life. There is a permanent collaboration and communication between local residents and the CLH/U Base. In addition, the CLH/U Base implements regular workshops, conferences, and competitions aimed at identifying the tangible and intangible values of the territory, and trains local residents in making appropriate interventions that are in line with conservation standards and local values.

**Evaluation of the effectiveness of the protection and management of nominated property**

The nominated property has been adequately inventoried, recorded, and studied, and at present appears to be free of major threats. It is adequately protected within national legal and institutional frameworks through a collaborative and participatory approach to governance. An Integrated Management and Conservation Plan is being implemented within a robust management system designed specifically for the nominated property, which brings together the wide range of national, regional, and local participants from various sectors.

ICOMOS acknowledges the efforts developed by the State Party to support the traditional agropastoral economic system of the Cultural Landscape of Hawraman/Uramanat. Taking note of modernization needs, migration, and a potential increase in tourism, however, ICOMOS considers it necessary for the management at the national, regional, and local levels to put special emphasis on preventing tourism or other modern economic activities from overtaking the local traditional economy and disrupting the ancient agropastoral social system, which is a key aspect of the nomination.

With this objective in mind, ICOMOS recommends that the State Party develops a strategy for the management of change in the Cultural Landscape of Hawraman/Uramanat, based on the analysis of all possible natural or human-made risks and pressures in this specific geo-spatial context, and identifies relevant indicators for the long-term monitoring of local development processes. The strategy should pay specific attention to the risks associated with climate change and its consequences with regard to the water regime, the vegetation of the area, and the grazing system.

ICOMOS considers the protection of the property to be adequate. The management system and existing legal protection is considered to be robust and efficient for the long-term conservation of the property. Plans and strategies are prepared and implemented through a collaborative and participatory approach. ICOMOS recommends that a strategy be developed to manage change in the nominated property.

### 6 Conclusion

The mountain agriculture, migratory lifestyle to seasonal habitats, dialects, customs, and other cultural features express the value of Hawraman/Uramanat as a cultural landscape that bears an exceptional testimony to the cultural traditions of the Hawrami people. The local community’s semi-nomadic lifestyle, and particularly its vertical seasonal migration pattern, is considered an exceptional mode of transhumance that can be dated back to the Neolithic if not earlier.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List. ICOMOS considers that the nominated property meets criteria (iii) and (v), and that criterion (iv) is not justified.

ICOMOS considers that the conditions of integrity and authenticity of the whole series have been met, and that the conditions of integrity and authenticity of the individual component sites that comprise the series have been met.

ICOMOS considers that the identified attributes contribute to the justification for inscription.

ICOMOS considers that conservation measures and monitoring are adequate, and that the protection of the property is adequate. The management system is robust, and an Integrated Management and Conservation Plan is being implemented through the collaboration of different
stakeholders, including the participation of local communities. A strategy should be developed to manage change in the Cultural Landscape of Hawraman/Uramanat, based on an analysis of all possible natural or human-made risks and pressures in this specific geo-spatial context and with relevant indicators identified to enable the long-term monitoring of local development processes.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that Cultural Landscape of Hawraman/Uramanat, Islamic Republic of Iran, be inscribed on the World Heritage List as a cultural landscape on the basis of criteria (iii) and (v).

Recommended Statement of Outstanding Universal Value

Brief synthesis

The cultural Landscape of Hawraman/Uramanat is located at the heart of the Zagros Mountains in the provinces of Kurdistan and Kermanshah along the western border of Iran. It is comprised of two components: the Central-Eastern Valley (Zha'ured and Takht, in Kurdistan Province); and the Western Valley (Lahun, in Kermanshah Province). The mode of human habitation in these areas has been adapted over millennia to the rough mountainous environment.

Archaeological findings dating back about 40,000 years, caves and rock shelters, ancient paths and ways along the valleys, motifs and inscriptions, cemeteries, mounds, castles, settlements, and other historical evidence attest to the continuity of life in the Hawraman/Uramanat region from the Paleolithic to the present time and to the endurance of the semi-nomadic lifestyle and agropastoral practices of the area’s inhabitants.

The cultural Landscape of Hawraman/Uramanat is an exceptional testimony to a cultural tradition of the semi-nomadic agropastoral way of life of the Hawrami people, a Kurdish tribe that has resided in the Zagros Mountains for millennia. This outstanding cultural tradition is manifested in the ancestral practices of transhumance, the mode of seasonal living in Havars, steep-slope terraced agriculture, soil and water management, traditional knowledge for planning and constructing steeply terraced villages, and a rich diversity of intangible heritage, all reflecting a harmonious co-existence with nature.

Criterion (iii): The cultural Landscape of Hawraman/Uramanat bears exceptional testimony to the evolution over millennia of the traditional semi-nomadic agropastoral way of life of the Hawrami people. This cultural tradition is expressed in tangible and intangible elements of the landscape that have persisted up to the present day and continue to be the foundation of the local socio-economic system, including steep-slope terraced villages and gardens, transhumance routes, seasonal dwellings, and the traditional knowledge and practices associated with them. The property provides outstanding living testimony to various traditions that bear witness to a well-organized social, rural, semi-nomadic realm.

Criterion (v): The Cultural Landscape of Hawraman/Uramanat constitutes an outstanding example of human interaction with, and adaptation to, the surrounding environment. In the high Zagros Mountains, a challenging setting where there is little fertile soil, the Hawrami people, through a skillful application of agricultural technology and an enlightened ecological world view, have developed an extraordinary semi-nomadic agropastoral way of life. They have successfully created an efficient, harmonious, and sustainable socio-economic system.

Integrity

The serial property includes all the attributes required to convey its Outstanding Universal Value. Its components exemplify the complexity of the cultural, residential, architectural, environmental, and agropastoral aspects that are evidence of the property’s centuries-old traditions. The morphology and architectural fabric of the thirteen villages – which are among the essential attributes of the property – are mostly intact. The historical environment and the natural landscape remain relatively well-preserved, in large part because of the existence of a rural population engaged in farming and animal husbandry activities that have optimal interaction with the challenging environment.

Modern infrastructure, amenities, and building materials in some cases have a negative effect on the historic character of the villages. However, their overall visual and functional impacts are not excessive. The deterioration process is controlled, and in some instances has been reversed. The overall intent is to preserve to the greatest extent possible the dynamic historic functions and vitality of the villages and the cultural landscape.

Authenticity

The Cultural Landscape of Hawraman/Uramanat retains a high degree of authenticity in terms of materials, forms and designs, uses and functions, locations and setting, and spirit and feeling, as well as traditions, customs, and lifestyle. A significant body of resources provides documentary and visual evidence of the importance of Hawraman/Uramanat – and of its culture and traditions more generally – in this region from ancient times.

The authenticity of the morphology and layout of the built fabric in the thirteen villages of the property is preserved. The characteristic organization of the villages and the public space features, such as public rooftops, continue to be dominant.
Most historic buildings have kept their traditional form and design, and these types of forms and designs are usually followed in the infrequent occasions when new houses are constructed. Most buildings retain authentic materials, including in traditional interiors, although in some cases repairs or extensions have been made using modern materials such as concrete blocks, metal doors and windows, and aluminum sheets for roofing.

Traditional dry-stone terracing and water management practices are retained and practiced, as well as seasonal migration to Havars, livestock breeding, and traditional agriculture. The local economy continues to produce an important supply of fresh agricultural produce for Iranian markets. This factor, coupled with sensitive and sustainable tourism management, will play a key role in the long-term conservation of the property.

Management and protection requirements

The cultural Landscape of Hawraman/Uramanat is registered in the National Monuments List of Iran. Several national acts and bylaws, as well as strategies, support the long-term conservation of the property.

The Cultural Landscape of Hawraman/Uramanat (CLH/U) Base, under the Ministry of Culture, Heritage, Tourism and Handicrafts of Iran, is tasked with providing support, expertise, and funding for the research and conservation of the property. The Base manages the area in collaboration with the local communities, provides advice and consent on the major developments, regulates and controls permits for buildings and alterations, and provides financial support for conservation. Decision-making is facilitated by a cross-sectoral steering committee composed of local, regional, and national participants and a technical committee established within the CLH/U Base. All local management actions and programmes in the villages are carried out through village councils and village council heads (Dehyar). The Integrated Management and Conservation Plan of the CLH/U Base is a primary tool for the management and conservation of the property.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Strengthening the comprehensive study, inter alia, of the spatial characteristics and interrelationships of all the features within the serial property and its buffer zone, including archaeological sites and mounds which are currently outside the buffer zone, in order to assist in the management of the property and broaden its understanding.

b) Preventing tourism or other modern economic activities from overtaking the local traditional economy and disrupting the ancient agropastoral social system,

c) Developing a strategy for the management of change in the property, based on the analysis of all possible natural or human-made risks and pressures in this specific geo-spatial context, and identifying relevant indicators for the long-term monitoring of local development processes. A specific focus should be placed on the risks associated with climate change and its consequences with regard to the water regime, the vegetation of the area, and the grazing system,

d) Ensuring strict control over the installation of modern infrastructure and equipment in order to prevent any negative visual impacts on the Outstanding Universal Value of the property, and ensuring that any such interventions respect the local character of the place,

e) Avoiding any intervention, including mining and the extraction of minerals, which could potentially have a direct or indirect impact on the Outstanding Universal Value, authenticity and integrity of the property, and putting in place appropriate legal provisions to ensure the prevention of such interventions over the long term,

f) Conducting a Heritage Impact Assessment or Environmental Impact Assessment for any planned development project that may have an impact on the Outstanding Universal Value, authenticity or integrity of the property, in line with paragraph 118bis of the Operational Guidelines for the Implementation of the World Heritage Convention,

g) Submitting to the World Heritage Centre and ICOMOS by 1st December 2023 a report on the implementation of the recommendations set out above;
Map showing the boundaries of the nominated components and their buffer zone
Jomon Prehistoric Sites (Japan) No 1632

Official name as proposed by the State Party
Jomon Prehistoric Sites in Northern Japan

Location
Hokkaido, Aomori, Iwate, and Akita prefectures, Japan

Brief description
Jomon Prehistoric Sites in Northern Japan consists of 17 archaeological sites that represent the pre-agricultural lifeways and complex spiritual culture of a prehistoric people. Located on the southern part of Hokkaido Island and northern Tohoku, this serial property attests to the emergence, development, and maturity of a sedentary hunter-fisher-gatherer society in Northeast Asia, which developed from about 13,000 BCE to 400 BCE. The series of settlements, burial areas, ritual and ceremonial sites, stone circles, and earthworks are located in a variety of landforms such as mountains, hills, plains, and lowlands, as well as near inner bays, lakes, and rivers with an abundant flow of water.

This area of northern Japan had rich arborous and aquatic resources, with deciduous broad-leaved forests that featured abundant nut-bearing trees, as well as ideal fishing conditions created by the intersection of warm and cold currents off the coast. Migratory fish such as salmon and trout swimming upriver could be caught inland. Under these favourable environmental conditions, prehistoric people living in northern Japan were able to secure food without developing agriculture.

The Jomon people initiated a sedentary way of life about 15,000 years ago, as indicated tentatively at first by the use of pottery, and later by the construction of more permanent dwellings and ritual sites, and the year-round exploitation of nearby resources. Over a period of more than 10,000 years they continued hunter-fisher-gatherer lifeways without changing to an agrarian culture, adapting to environmental changes such as climate warming and cooling and the corresponding marine transgression and regression. Already in the very early stage of sedentary life, the Jomon people developed a complex spiritual dimension. They made graves and also created ritual deposits, artificial earthen mounds, and stone circles that were used for rituals and ceremonies.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 17 sites.

1 Basic data
Included in the Tentative List
5 January 2009

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members, and independent experts.

An ICOMOS technical evaluation mission visited the property from 4 to 15 September 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2020 requesting further information about the proposed justification for Outstanding Universal Value, integrity, factors affecting the property, boundaries, legal protection, and conservation. A response was sent by the State Party on 10 November 2020 containing clarifications on the requested subjects.

On 17 December 2020, ICOMOS sent an Interim Report to the State Party, which requested further clarification and elaboration by the State Party concerning Jomon culture, the selection, delimitation, and protection of the nominated component parts, ownership, management, research, documentation, inventory, exhibition of the archaeological finds, and role of the indigenous population. The State Party responded on 25 February 2021. All responses received throughout the evaluation process are incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property
Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Jomon Prehistoric Sites in Northern Japan is a serial nomination consisting of 17 component parts located in the southern part of Hokkaido Island and, across the Tsugaru Strait, in northern Tohoku on the northern part of Honshu, the main island of the Japanese archipelago. Six component parts are located in the southwestern part of Hokkaido Prefecture on Hokkaido Island, and eight in Aomori Prefecture, two in Akita Prefecture, and one in Iwate Prefecture in northern Tohoku. They are located in different types of geographical settings ranging from mountains and hills to plains and lowlands, and include inland bays, lakes, and rivers with an abundant flow of water. In prehistoric
times, cool-temperate broad-leaved forests of chestnut, walnut, and other nut-bearing trees covered an extensive area of this region. Warm and cold currents intersected off the coast, creating rich fishing grounds. In addition, migratory fish such as salmon and trout seasonally swim upriver.

The pre-agricultural society known as the Jomon culture exploited this rich environment starting about 15,000 years ago. Hunters, fishers, and gatherers, the Jomon people abandoned mobility and adopted a sedentary lifestyle. Along with sedentism, which progressed through three main stages (emergence – development – maturity), this cultural group also embraced a complex spiritual dimension that was expressed through their material culture by means of lacquered pots, clay tablets with the impression of feet, and the famousoggle-eyed _dogu_ figurines, and ritual places such as earthworks and large stone circles reaching diameters of more than 50 metres.

Throughout the more than 10,000 years of development and sedentism, the Jomon people adapted to changing climates without developing an agrarian way of life, an adaptation that became increasingly common in other parts of Northeast Asia and China from around 9,000 BCE.

The 17 archaeological sites included in the nominated property are ordered chronologically and categorized into six stages of sedentism by subdividing each of the three main stages of emergence, development, and maturity into two sub-stages. These sub-stages are categorized as follows: Settlements emerge (one site); Settlement facilities are divided (one site); Settlement facilities diversify (three sites); Hub settlements appear (three sites); Ritual centres and cemeteries appear (four sites); and Ritual centres and cemeteries are separated (five sites). These six developmental sub-stages based on sedentism coincide with the conventional Jomon chronology: incipient, initial, early, middle, late, and final.

Archaeological scholarship has identified Jomon culture as an early example of a sedentary yet non-agricultural society. The recognition of this combination of cultural traits has helped to fracture the binary conception of mobile hunter-gatherers and sedentary agriculturalists as being mutually exclusive lifeways. The archaeological discoveries related to Jomon culture have thus played an important role in challenging the stage theory of human social evolution. Today, the Jomon culture appears to be an important part of Japanese identity.

**Boundaries**

The area of the nominated serial property’s 17 component parts collectively totals 141.9 hectares, with buffer zones totaling 994.8 hectares. The boundary of each component part is based on the distribution of the site’s archaeological deposits, identified mainly through archaeological surface survey, gridded test-pitting, open area excavation, and hand augering, as well as the landform upon which the site is located.

The buffer zones are protected by the national Landscape Act, among other legislative mechanisms, whereby local municipal governments prepare a landscape plan that closely controls all development within the setting of a Historic Site, including the integrity of the general views from the property and particularly any visual connections with elements of importance for the Jomon culture, such as mountains, forests or the sea.

**State of conservation**

As long as there are no drastic changes to the environment (changes in groundwater levels, for example), or archaeological excavations, archaeological contexts normally remain relatively stable. In general, the excavated features at the 17 components have been recorded and reburied under 30 to 200 centimetres of protective soil, with a root screen to prevent root intrusion. The few original elements left exposed, such as stone circles, are constantly monitored, protected, and/or treated in order to avoid deterioration. Some elements are protected by modern structures or reburied during winter, while others are treated with water-repellent and/or anti-fungal agents.

Each of the serial property’s archaeological features can thus be categorized in one of five basic states of conservation: still unexcavated and covered with a protective layer of soil; unexcavated, but in a part of the site that is in private hands (six of the component parts have privately owned areas) and which cannot be covered by protective soil; excavated and reburied under a protective layer of soil; excavated and protected by a modern structure; and excavated, regularly monitored, and given protective treatments.

The active conservation methods have been developed by specialists in conservation, and are implemented by on-site archaeological teams, some of which include conservators. Only the privately owned parts of the sites seem to be at more risk of direct damage. However, the State Party is advancing a plan to acquire all elements of the sites and is working together with the private owners in order to find the best solutions. In the second submission of additional information, following ICOMOS’ Interim Report, the State Party describes the landowners as being cooperative.

Conservation of the archaeological sites is also connected to the visual aspects of the natural setting that are sometimes disturbed by “non-compliant” modern constructions such as roads, buildings, power transmission towers, radio towers, and wind turbines located on the property or in the buffer zones. The State Party is in the process of removing such infrastructural elements or mitigating their impact by planting vegetation screens, for example, or painting the elements. The trees that are planted aim to allude to the Jomon-period vegetation and resource base.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is adequate, and in some cases is in the process of being improved through the acquisition of the areas not yet owned.
by the State Party, the removal of non-compliant elements, and the mitigation of the impact of others.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are related to development pressures. Major pressures that might take place in the future include roads, wind power and photo-voltaic generation facilities, mobile telephone antennae, and electricity transmission lines. Nevertheless, the current legislation seems to protect the nominated property and its buffer zones adequately, as has been shown in the past by the suspension of construction work that would have damaged archaeological contexts.

Natural factors that could conceivably affect the nominated serial property in the future include earthquakes, storms, floods, sediment-related disasters, volcanic eruptions, snow and freezing damage, as well as fire. However, Regional Disaster Prevention Plans as well as the Conservation and Interpretation Plan developed for each component part appear to prepare the nominated property in an adequate manner. The monitoring of environmental pressures and the preparation and planning for natural disasters both indicate a reasonably high degree of control over these factors that could potentially affect the property.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

• The 17 component parts of the nominated serial property include settlements, burial areas, and ritual and ceremonial sites that include stone circles and earthworks.
• The Jomon culture started using ceramics at a very early date, which together with the subsequent development of more permanent dwellings, ritual sites, and year-round use of resources is taken to mark the start of a globally rare pre-agricultural sedentary society.
• The diverse locations and geographical settings of the settlements, ranging from mountains and hills to plains and lowlands, and including inland bays, lakes, and rivers, show constant adaptation to the changing environment during the period from about 13,000 BCE to 400 BCE.
• This hunter-fisher-gatherer society developed a complex spiritual culture expressed through lacquered pots, clay tablets with the impression of feet, the famous goggle eyed dogu figurines, and other material culture, and ritual places including earthworks and large stone circles reaching diameters of more than 50 metres.

Comparative analysis
The comparative analysis is presented in three parts: comparison of sites located in southern Hokkaido and northern Tohoku (41); comparison with sites located in Northeast Asia (14); and comparison with sites located elsewhere in the world (19), including World Heritage properties and Tentative List sites broadly comparable to the nominated property’s proposed Outstanding Universal Value and attributes.

The sites are compared on the basis of “perspectives” that are linked to the attributes identified for the nominated property: lifestyle, characterized by the managed use of natural resources; complex spirituality, as evident in rituals and ceremonies; diverse relations between the settlement locations and livelihood; and transition of the form of settlements.


The State Party compares 41 legally protected archaeological sites in Hokkaido and northern Tohoku drawn from Stages I to III of the Jomon chronology. From these, the 17 archaeological sites that most directly contribute to the proposed Outstanding Universal Value have been selected as component parts of the nominated serial property. Consideration of the diverse relations between the settlement locations and livelihood has been excluded from this comparison, since it represents the characteristics of the distribution of settlements in Hokkaido and northern Tohoku and therefore does not work for the purpose of selecting individual component parts.

A slightly different approach was chosen for the comparisons of other sites located within Northeast Asia. The nominated serial property was compared to 14 areas (instead of specific properties) in terms of the duration and content of sedentary hunter-gatherer cultures, using four “perspectives” related to the proposed attributes, formulated as questions. Most areas were screened out because the duration of life based on hunting, fishing, and gathering was shorter than that of the nominated property. Furthermore, sufficient knowledge about that period does not yet exist for most of these areas, which makes a detailed comparative analysis difficult. The State Party indicates that among the nine areas where a hunter-gatherer lifestyle continued, only the eastern and northern parts of Hokkaido in Japan had ritual places that were separated from settlements, and only southern Tohoku and northern Kanto regions and the southern Kanto, Koshinetsu, and Tokai regions, all in Japan, show a transition of settlement structure or a diversity in location and environment of any comparative significance.

At the global level, the nominated property is compared with 19 other properties selected from the World Heritage List and the Tentative Lists, based on the mention of sedentism. These properties, located across the five UNESCO
regional groups, are associated with a wide range of World Heritage criteria; only four are serial properties. In general, the properties are considered not comparable due to the lack of one or more of the “perspectives.” Especially in the single-site category, it is not surprising to find that the compared properties do not show diverse relationships between settlement locations and livelihood, nor a transition of the form of settlements. Serial properties and cultural landscapes are more diverse and have more potential to offer comparable parameters, but often lack either the settlement or the spiritual aspect.

The State Party concludes that, with the 17 component parts selected for nomination, it is possible to understand a sedentary hunter-fisher-gatherer lifeway that continued for a period exceeding 10,000 years, and to see thoroughly how sedentary settlements emerged, developed, and matured over time. It is also possible to know how people at that time created a distinctive spiritual culture.

While the comparative analysis is detailed and far ranging, it can be argued that some of the properties used for comparison are irrelevant since they are not focused on pre-agricultural sedentism and spirituality. However, it can also be concluded that the paucity of properties with a comparable set of characteristics highlights the nominated property’s exceptionality, with its long, uninterrupted chronology, environmental settings, and cultural traits.

ICOMOS notes that there is inadequate analysis of certain distinctive areas in other regions of the world that are comparable to the Jomon culture’s sedentary, pre-agricultural, spiritual, sustainable-resource settlements, such as Archaeological Sites of the Chinchorro Culture (Chile, Tentative list) and the Pacific Northwest Coast cultural area exemplified in SGang Gwaay (Canada, inscribed on the World Heritage List in 1981, criterion (iii)). These areas are briefly mentioned in the comparative analysis, but are too quickly dismissed for their differences in environment, chronology or cultural traits.

ICOMOS notes that the State Party in its additional information highlighted that the nominated serial property aims to represent only the specific development of the Jomon culture in northern Japan, even though Jomon culture sites can be found throughout most of the country. The nominated property components represent a recognizable, congruous cultural area, based, for example, on pottery style, ritual and ceremonial facilities, locations and structural developments of settlements, and especially the particular environmental setting.

For serial properties, the Operational Guidelines require that the nomination set out the rationale for choosing the component parts, in terms of comparing them with other similar components and justifying the choices made. The 17 component parts that make up the nominated serial property were selected from amongst more than 20,000 Jomon-period sites located in Hokkaido and northern Tohoku. Choosing the component parts was based on: (a) the possibility of verifying the representativeness of the site based on the results of archaeological excavations; (b) the site’s state of conservation and its designation by the national government as a Historic Site or Special Historic Site; and (c) the existence of thorough protective measures put in place by responsible local governments with instruction and advice from the national government. ICOMOS considers that the rationale for and justification of the choices made is adequate.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (iii) and (v).

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the property bears exceptional testimony to a globally rare prehistoric sedentary hunter-fisher-gatherer society which continued over more than 10,000 years, and which nurtured a complex spiritual culture.

ICOMOS considers that the property bears a unique testimony to the Jomon culture in northern Japan. The culture, with its early development of a non-agricultural sedentary way of life, expressed its complex spirituality through ritual constructions and impressive material culture.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures) or human interaction with the environment, especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the property is an outstanding example of the development of sedentism from emergence to its subsequent development and maturity. People in this region maintained a hunter-fisher-gatherer way of life for a very long period of time by developing diverse modes of livelihood, adapting to various locations without altering the land significantly, as was the case with agrarian societies.

ICOMOS considers that the rare and very early development of pre-agricultural sedentism from emergence to maturity is well exemplified by the nominated serial property's component parts. Through the careful selection of the components, the State Party has managed to show the different adaptations of the culture to its ever-changing environment.

ICOMOS considers that the nominated property meets criteria (iii) and (v).
Integrity and authenticity

Integrity

The integrity of the nominated property is based on archaeological remains that exemplify the cultural traits and site types of the ancient Jomon culture in northern Japan. It is comprised of sites that show the initiation of sedentism and the separation between the residential area and burial areas; sites that show the diversity of settlement facilities during the warm, marine transgression period and hub settlements that have ritual places; and sites that demonstrate the maturity of sedentism through stone circles, cemeteries, and settlements. The component parts of the nominated serial property are of adequate size individually, and as a group they include all important archaeological remains.

The sites also include, to a degree, their interaction with the environment. The decision to exclude present-day rivers or seashore from some of the selected component parts is motivated by the fact that important changes to the paths of the watercourses and to the sea level have occurred over thousands of years. That is, their present positions are not necessarily representative of possible Jomon-era associations.

The nominated serial property is protected by law and does not suffer from the negative impacts of natural disasters or large-scale developments. Only a few archaeological features were damaged by past construction works. There are, however, several modern constructions such as buildings, wind turbines, high-voltage cables, municipal roads, and a municipal cemetery, referred to as “non-compliant elements,” that have impacts on the views to and/or from the component parts. The State Party presents plans to mitigate such impacts by planting tree covers, for example, or by removing the non-compliant elements in the future.

The State Party indicates that while further excavations are possible, they are not considered urgent at this time. Nevertheless, in response to a question by ICOMOS, the State Party indicated in its additional information that (test) excavations are planned/ongoing at four sites in order to confirm the presence of archaeological remains. Some sites have areas set aside for future excavations, while others have committed to excavations following the removal of on-site modern features. Any future excavations must be approved by the national government, and cannot have an impact on the proposed Outstanding Universal Value, authenticity or integrity of the nominated serial property.

ICOMOS considers that the integrity of the whole series as well as the integrity of the component parts is satisfactory, but that the work already started by the State Party to mitigate or remove non-compliant elements must be continued.

Authenticity

The nominated serial property retains a high degree of authenticity in terms of locations, forms and designs, materials and substances, uses and functions, traditions and techniques, and spirit and feeling, most of the archaeological remains having been buried untouched for thousands of years.

Only very few archaeological features were damaged by construction works in the past. More recent construction projects in some cases helped identify the sites and were suspended and changed once the importance of the finds was established.

The State Party acknowledges that the changing climate has brought about environmental changes affecting, for example, the cool-temperate deciduous broad-leaved forests (Boreal Beech Forest) that were important during the Jomon period due to the abundant forest resources such as chestnuts and walnuts, among others. However, attempts have been made to reconstitute elements of the paleoenvironment by planting similar species of trees, and by protecting the visual connection of the sites with, for example, the forest, the sea or the mountains.

ICOMOS considers that the authenticity of the whole series as well as the authenticity of the component parts is satisfactory.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole series have been met, and the integrity and authenticity of the individual component parts that comprise the series have been met, although work on removing or mitigating the impact of non-compliant elements needs to be continued.

Evaluation of the proposed justification for inscription

The justification of this nomination is based on the very early and long period of pre-agricultural sedentism of this hunter-fisher-gatherer society, and the development of a complex spiritual culture. The comparative study shows that the property is exceptional in that it exemplifies a very early and long-lasting development in an ever-changing environment, and justifies consideration of this serial property for the World Heritage List.

Furthermore, the nominated serial property includes a wide range of different types of sites, which evolved and diversified over time in response to the society’s needs. The very complete collection of traits assembled in this property allows the story of this sedentary pre-agricultural culture to be told in a very clear way. The proposed selection of component parts has been justified.

ICOMOS considers that the nominated property meets criterion (iii) and criterion (v).
ICOMOS considers that the conditions of integrity and authenticity of the whole series have been met, and that the integrity and authenticity of the individual component parts that comprise the series have been met, although work on removing or mitigating the impact of non-compliant elements needs to be continued.

**Attributes**
The attributes that contribute to the proposed Outstanding Universal Value of the nominated serial property relate to the pre-agricultural lifeways, complex spiritual culture, diverse relations between settlement locations and livelihoods, and transition of the form of settlements over time of the ancient Jomon culture in northern Japan.

These aspects are expressed physically through the landscapes that contained the Jomon culture’s resource bases (forests, rivers, sea); the material culture (stone arrowheads and other hunting tools, pottery, lacquered ceramics, *dogu* figurines, clay tablets); the archaeological features and constructions with probable ritual use, including stone circles, graves, and artificial earthen mounds; the locations of the settlements in different geographical settings such as mountains, hills or plains, and next to rivers, forests or the sea; remains of pit dwellings and other structures, shell middens, dumping grounds, storage pits; and the evolution and diversification over time of the settlement pattern and the site types.

ICOMOS considers that the identified attributes contribute to the justification for inscription.

### 4 Conservation measures and monitoring

**Conservation measures**
Most of the archaeological features have been reburied under a layer of soil to protect them from modern activities. The elements that have been left uncovered for the visiting public to see receive active consolidation and conservation treatments. For example, at the Kitakogane settlement site (component 003), the archaeological remains of a watering place are covered with sandbags and protective sheets during the winter to prevent the stones from being frozen or moved from their original positions. Stone tools have been treated for conservation. Other interventions include the in situ sterilization of surfaces of archaeological remains, the application of fungicides and water repellent, and the removal of precipitated salts. When the State Party considers exposing original archaeological features, the materials and structure of the archaeological remains must first be determined to be strong, as is the case with stone circles; scientific preservation treatment must be applied to prevent deterioration from rain, snow, mould, and lichens; and fences must be installed to restrict visitor entry.

The active conservation measures have been developed by specialists in conservation and are implemented by on-site archaeological teams, some of which include conservation specialists. The conservation and maintenance activities are implemented following the conservation and interpretation plans developed (or in development) for each archaeological site. These plans are generally updated every 10 to 15 years, or in response to changes at the site (for example, expansion or the addition of infrastructure).

ICOMOS observes that portions ranging up to 57 % of six of the component parts are not yet owned by the Local Government Authority. This situation could conceivably hamper timely conservation efforts. ICOMOS notes that the State Party says that the privately owned parts of the sites are equally protected by law, and that the owners are cooperative. Nevertheless, it is important that the State Party continues its ongoing efforts to transfer the privately owned parts of the sites into government hands.

**Monitoring**
A monitoring record is kept by the local prefectures and municipalities in charge of the individual component parts, under the guidance of the national Agency for Cultural Affairs. Issues that need to be discussed at a higher level are forwarded to the Council for Preservation and Utilization of Jomon Prehistoric Sites, which consists of the governors, mayors, and other representatives of the relevant local governments. The Council collects information and keeps an annual record.

All the archaeological sites have at least one dedicated archaeologist who is present on site and responsible for monitoring. These members of the technical staff make regular visual inspections in order to monitor impacts due to a number of different factors. The monitoring is focused particularly on the state of conservation of the exposed archaeological features such as stone circles.

The monitoring indicators described by the State Party deal with the state of conservation of the nominated property’s components, and also include indicators for the effectiveness of management, issues such as development pressure, and the number of visitors. The indicators appear to be adequately linked to the attributes of the proposed Outstanding Universal Value and to the identified threats.

The nomination dossier includes a list of more than 200 very brief summaries of existing reports and results of previous reporting exercises.

ICOMOS considers that the conservation measures and monitoring processes for the component parts are adequate and well planned, as attested by the state of conservation maintained for the nominated property as a whole over a period of many years.
5 Protection and management

Documentation
The component parts and their contribution to the proposed Outstanding Universal Value of the nominated serial property are well described. There is also a list of the latest inventories that makes reference to reports on archaeological surveys and excavation. The site descriptions and Annex 4 with supplementary information contain excavation plans indicating the locations of the excavated areas, some excavation drawings (plans and profiles), as well as a number of illustrative photos from excavations. While there are some photographs and repeated references to the unearthed artefacts, some of which are being exposed in the on-site or municipal museums, no detailed information on the inventories is given. The response presented by the State Party to a question on this subject by ICOMOS does not add substantial information.

The investigation histories of the component parts point towards a large volume of documentation and publications. Some of the latter are mentioned in a bibliography, which is nearly entirely in Japanese.

While the large volume of information available on these 17 component parts, and on Jomon culture in general, makes it impossible to be itemized in total, it would be advantageous to present a clearer picture of what information is available regarding the processes of excavation, documentation, and object inventory. Furthermore, it would be useful to include in the bibliography more international publications on Jomon culture and the nominated component parts.

Legal protection
The existence of robust legal protection was one of the selection conditions used to identify the 17 component parts from amongst the many existing Jomon archaeological sites in northern Japan. Thus, all the nominated component parts have been designated by the national government as Historic Sites or Special Historic Sites under the Law for the Protection of Cultural Properties, and are therefore strictly protected. Any alterations proposed at these sites need prior permission from the Commissioner of the national Agency for Cultural Affairs. In response to a question by ICOMOS, the State Party clarified in its first submission of additional information that there is no difference in legal protection or management between Historic Sites and Special Historic Sites.

In the buffer zones a number of laws and regulations are applied, among them the Law for the Protection of Cultural Properties, the Landscape Act, the City Planning Act, the Forest Act, the River Act, and the Act Concerning the Establishment of Agriculture Promotion Areas, as well as the related ordinances based on these laws. Any type of alteration proposed in a buffer zone requires prior permission, and must comply with regulations on scale, height, shape, colour, structure, etc. In addition, the relevant administrative organizations provide appropriate instruction and advice to the proponent of the alteration.

The property and at least parts of the buffer zones are also protected as “Land Known to Contain Buried Cultural Properties,” a protective instrument available under the Law for the Protection of Cultural Properties. Mentioned in the State Party’s second submission of additional information, this instrument requires prior notification to be submitted before any development is undertaken. ICOMOS would appreciate receiving maps showing the extent of the areas covered by this protective instrument, in relation to the nominated property’s component parts, buffer zones, and (Special) Historic Sites.

The legal protection in place has been effective, as shown by the fact that several of the component parts were first discovered during construction works, which were subsequently stopped and the plans changed in order to avoid destruction of the site.

ICOMOS considers that the legal protection is adequate and has proven to be effective. The issue of private ownership at some of the component sites is being addressed, and will probably take 5 to 10 years or more to resolve due to budgetary limitations.

Management system
The management structure of the nominated serial property is complex, involving different levels of government as well as different local governments. Under the supervision of the national government, 14 Local Government Authorities, as the custodial bodies designated under the Law for the Protection of Cultural Properties, are responsible for the 17 component parts. They have developed individual preservation and management plans for each of the component parts with the exception of the Tagoyano Site (component 004), Kamegaoka Burial Site (016), Irie Site (009), and Takasago Burial Site (015), which are managed under combined plans. All of these plans include a Conservation and Interpretation Plan, a Management Plan, an Action Plan for Comprehensive Management, and a Landscape Plan.

There appears to be little discernible difference amongst the Local Government Authorities in their approach to site management, since their management plans have been developed on the basis of specifications provided in a Manual for the Improvement Works of Historic Sites (2005), a document published under the supervision of the Agency for Cultural Affairs to provide technical guidance. Generally speaking, the local management plans lay out the responsibility of the Local Government Authority for daily maintenance and management measures at its site(s), including dedicated on-site staff, monitoring protocols, and the ongoing implementation of the site’s Conservation and Interpretation Plan.

In addition to the local plans, a Comprehensive Preservation and Management Plan has been developed by the Headquarters for World Heritage Registration Promotion for Jomon Prehistoric Sites, which consists of
the governors, mayors, and heads of the boards of education of each local government. This plan sets out policies for the integrated conservation and management of the nominated serial property as a whole. Based on this comprehensive plan, the Council for the Preservation and Utilization of the World Heritage Jomon Prehistoric Sites promotes the conservation, management, utilization, and improvement of the whole nominated property.

The Council is supervised by, and reports directly to, the national government’s Agency for Cultural Affairs, which is responsible for (among other matters) Japan’s World Heritage properties. The Council does not contain expert members, but solicits expert advice as needed from a dedicated Expert Committee for Preservation and Utilization of World Heritage Jomon Prehistoric Sites.

This management system allows a degree of independence at the local level, while being informed and guided by national legislation, the Comprehensive Preservation and Management Plan, and the Headquarters for World Heritage Registration Promotion for Jomon Prehistoric Sites, among others.

Daily conservation and management activities are financed by the local government or owners that are designated as the custodial bodies of Historic Sites under the Law for the Protection of Cultural Properties. The national government provides financial assistance for recovery from natural disasters, installation of preservation facilities, disaster prevention facilities, visitor facilities, and archaeological excavations.

ICOMOS considers the management system to be very complete, as it provides a coherent overall structure as well as the needed local flexibility. Furthermore, it joins different levels of government in the decision-making processes and involves the local population. ICOMOS notes that the local plans are all in Japanese and for that reason difficult to assess. However, discussions with State Party representatives indicate that the documents appear adequate for their purpose. However, the periodicity of revisions to the various management instruments would require clarification.

Visitor management
Forecasts have suggested that visitor numbers can be expected to increase by as much as 200 percent if the nominated property is inscribed on the World Heritage List. Based on this forecast, visitor facilities at most component parts have already been scheduled for upgrading. Because the majority of the 17 component parts are most easily accessed by automobile, new car parks are being created and existing car parks enlarged. Visitor capacities at most of the museums and visitor centres will likely accommodate this increase; where carrying capacity is not sufficient, interventions are being planned. The local governments will take the necessary steps to appropriately receive visitors, taking into consideration the conservation of the property, safety of visitors, and specific situations of the individual component parts.

All of the components have some kind of explanatory board and a volunteer guide service; six have open-air presentations, seven have indications on the ground surface, eight have three-dimensional models, nine have vegetation that alludes to period resources and/or the paleoenvironment; and one component has a digital “restoration.” Pamphlets for some of the components are available on the nominated property’s website.

Since most of the archaeological elements are buried under a protective soil fill, some local authorities have developed life-size interpretive models of key features, especially pit dwellings and shell middens. The models are designed and constructed so as not to have any impact on the archaeological deposits and be easily removed without any damage to the deposits. The models help visitors visualize elements that are otherwise invisible, due to the protective soil cover.

The volunteer guide service available for all sites provides an additional interpretive experience for visitors. Some sites also offer a self-guided option by means of a free on-line application (with Japanese-only content). Interpretive themes are consistent with the proposed Outstanding Universal Value.

ICOMOS considers the nominated serial property to be well prepared for visitors. The State Party is aware of the possible rise in visitor numbers in the case of inscription on the World Heritage List, and is in the process of preparing the sites for this possibility. Furthermore, several actions are planned or in progress to update the interpretation facilities, including virtual and augmented reality technologies.

Community involvement
The State Party mentions the participation of local residents in education, dissemination, preservation, and utilization of the component sites. In addition, local communities and civic groups participate in the Liaison Meeting for the Preservation and Utilization of the World Heritage Jomon Prehistoric Sites, thereby partaking in decision-making concerning the preservation and utilization of the individual component parts. All of these points indicate the inclusion of the local population in key objectives for the nominated serial property, as well as in the decision-making processes concerning it.

ICOMOS notes that a variety of community events are held at the sites, and that the Jomon culture in general is taught in schools and appears to be a valued part of Japanese identity.

ICOMOS considers that the involvement of the local communities in the processes of nomination as well as in the maintenance and management of the nominated property is adequate. In response to a question by ICOMOS concerning the involvement of the Ainu, an indigenous group of northern Japan, the State Party signaled its openness to include interested parties who are not yet involved.
Evaluation of the effectiveness of the protection and management of the nominated property
The legal protection in place is adequate and effective. The management system is likewise effective, providing a coherent overall structure as well as local flexibility under the supervision of the national Agency for Cultural Affairs. Furthermore, it joins different levels of government in the decision-making processes and involves the local population. The nominated serial property is well prepared for visitors, and local communities have been involved in the processes of nomination as well as in the maintenance and management of the property.

Private ownership at six of the 17 component parts is in the process of being addressed, but will probably take 5 to 10 years to resolve, with the possibility of more time in some cases.

ICOMOS considers that the protection and management of the nominated serial property are well developed and effective.

6 Conclusion
The nominated property Jomon Prehistoric Sites in Northern Japan consists of 17 archaeological component sites that represent sedentary pre-agricultural lifeways and a complex spiritual culture of prehistoric people starting about 15,000 years ago.

ICOMOS considers that the comparative analysis justifies consideration of this serial property for the World Heritage List. ICOMOS also considers that the rationale for choosing the component parts and justifying the choices made is adequate. ICOMOS further considers that the identified attributes contribute to the justification for inscription.

ICOMOS considers that the nominated property meets criterion (iii) and criterion (v).

ICOMOS considers that the requirements of integrity and authenticity of the whole series have been met, and that the integrity and authenticity of the individual component parts that comprise the series have been met, though the work already started by the State Party to mitigate or remove non-compliant elements must be continued.

ICOMOS considers that the conservation measures and monitoring processes for the component parts are adequate and well planned.

ICOMOS considers that the legal protection is adequate and has proven to be effective. The main factor with the potential of affecting the nominated property is development pressure, however, the current legislation protects the nominated property and its buffer zones adequately, as the suspension of construction work that would have damaged archaeological contexts has shown. The State Party estimates that the issue of private ownership at some of the component parts will be resolved, at least in part, over the next 5 to 10 years.

ICOMOS considers that the management system provides a coherent overall structure as well as local flexibility. Furthermore, it joins different levels of government in the decision-making processes and involves the local population. The periodicity of revisions to the various management instruments should be clarified.

ICOMOS considers the nominated serial property to be well prepared for visitors, and that the involvement of the local communities in the processes of nomination as well as in the maintenance and management of the nominated property is adequate.

7 Recommendations
Recommendations with respect to inscription
ICOMOS recommends that Jomon Prehistoric Sites in Northern Japan, Japan, be inscribed on the World Heritage List on the basis of criteria (iii) and (v).

Recommended Statement of Outstanding Universal Value
Brief synthesis
Jomon Prehistoric Sites in Northern Japan consists of 17 archaeological sites that represent the pre-agricultural lifeways and complex spiritual culture of a prehistoric people. Located on the southern part of Hokkaido Island and across the Tsugaru Strait on the northern part of the Tohoku region, this serial property attests to the emergence, development, and maturity of a sedentary hunter-fisher-gatherer society that developed in Northeast Asia from about 13,000 BCE to 400 BCE. The series of settlements, burial areas, ritual and ceremonial sites, stone circles, and earthworks is located in a variety of landforms such as mountains, hills, plains, and lowlands, as well as near inner bays, lakes, and rivers.

This area of northern Japan had rich arborous and aquatic resources, with deciduous broad-leaved forests that featured abundant nut-bearing trees, as well as ideal fishing conditions created by the intersection of warm and cold currents off the coast. Over a period of more than 10,000 years, the Jomon people continued hunter-fisher-gatherer lifeways without changing to an agrarian culture, adapting to environmental changes such as climate warming and cooling and the corresponding marine transgression and regression.

The Jomon people initiated a sedentary way of life about 15,000 years ago, as indicated tentatively at first by the use of pottery, and later by the construction of more permanent dwellings and ritual sites, and the year-round exploitation of nearby resources. Already in the very early stage of sedentary life, the Jomon people developed a complex spiritual culture. They made graves and also created ritual deposits, artificial earthen mounds, and
stone circles that were probably used for rituals and ceremonies, and confirmed a social bond across the generations and between the settlements.

Criterion (iii): The Jomon Prehistoric Sites in Northern Japan bears exceptional testimony to a globally rare prehistoric sedentary hunter-fisher-gatherer society which nurtured a complex spiritual culture, as revealed by archaeological artefacts such as clay tablets with the impression of feet and the famousoggle-eyed dogu figurines, as well as remains including graves, ritual deposits, artificial earthen mounds, and stone circles.

Criterion (v): The Jomon Prehistoric Sites in Northern Japan are an outstanding example of sedentary modes of settlement and land-use from the emergence of sedentism through its subsequent development and ultimate maturity. The Jomon people maintained an enduring hunter-fisher-gatherer way of life by adapting to a changing climate without altering the land significantly, as was the case with agrarian societies. To secure food in a stable manner, diverse locations were selected for settlements, including near rivers where fish swimming upstream could be caught, in tidelands where brackish shellfish could be gathered, and near colonies of nut-bearing trees where nuts and berries could be collected. Skills and tools for obtaining food were developed in accordance with the specific conditions of different locations.

Integrity
The integrity of the serial property is based on archaeological remains that exemplify the cultural traits and site types of the ancient Jomon culture in northern Japan. The property is comprised of archaeological sites that show the initiation of sedentism and the eventual separation between the residential area and burial areas; sites that show the diversity of settlement facilities during the warm marine transgression period, as well as hub settlements that have ritual places; and sites that demonstrate the maturity of sedentism through stone circles, cemeteries, and settlements. The sites also include, to a degree, their interaction with the environment. The component parts of the serial property are of adequate size individually, and as a group they include all important archaeological remains that constitute settlements and ceremonial spaces as well as landforms or features showing their locations and environment. The serial property is protected by law and does not suffer from the negative impacts of natural disasters or large-scale developments. There are, however, several modern constructions, referred to as “non-compliant elements,” that have impacts on the views to and/or from the component parts. Plans to mitigate such impacts by planting tree covers, for example, or by removing the non-compliant elements in the future have been developed.

Authenticity
The serial property maintains a high level of authenticity in terms of locations, forms and designs, materials and substances, uses and functions, traditions and techniques, and spirit and feeling, most of the archaeological remains having been buried untouched for thousands of years; some remains, such as stone circles, are visible above ground. The archaeological remains can thus be said to credibly and truthfully convey the Outstanding Universal Value of the property as relates to the ancient Jomon culture in northern Japan.

In some cases, local authorities have developed life-size interpretive models of some key features, especially pit dwellings and shell middens. These models are intended to help explain to visitors some of the authentic elements that are otherwise concealed under a protective layer of soil. While the life-size models are presented as replicas, not reconstructions, and constructed so as not to have any impact on the archaeological deposits, new technologies are nevertheless explored to help visitors visualize some of the authentic archaeological features that must remain buried.

Management and protection requirements
All component parts of the property are designated and protected under the Law for the Protection of Cultural Properties as Historic Sites or Special Historic Sites, and strict long-term measures for protection and conservation are in place. In addition, an appropriate buffer zone has been delineated around each component part in which legal regulatory measures are in place to control activities with a view to ensuring the proper protection of the property.

A Comprehensive Preservation and Management Plan sets out the basic policies for sustaining the Outstanding Universal Value, authenticity, and integrity of the serial property in its entirety. Based on this plan, the Council for the Preservation and Utilization of World Heritage Jomon Prehistoric Sites and other organizations have been established. The conservation and management of the component parts is promoted in a comprehensive manner under the supervision of the national government of Japan and in coordination with other related organizations. The local and prefectural governments in Hokkaido, Aomori, Iwate, and Akita in charge of each component part have developed individual management and utilization plans and have also incorporated the conservation, management, and utilization of the individual component parts in their basic administrative plans. The state of conservation of the individual component parts is monitored periodically and systematically, based on specific key indicators.

The key issue that requires long-term attention is that six of the component parts include privately owned areas. Acquiring the entirety of each component part will better ensure the implementation of correct and timely conservation activities.
Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Advancing the plan to acquire all areas of the component parts currently in private ownership.

b) Removing non-compliant infrastructural elements or mitigating their impact.

c) Extending the information on the archaeological records and the inventory of archaeological objects from the component parts (description of excavation and registration processes, and excavation reports).

d) Adhering to the principles of good governance by maintaining an open mind concerning the inclusion of stakeholders not yet participating in the protection and management of the property, in line with paragraphs 40 and 117 of the Operational Guidelines.

e) Supplying maps of all the serial property's component parts showing a clear delimitation of the World Heritage inscribed property, the buffer zones, the areas protected as (Special) Historic Sites, and the “Land Known to Contain Buried Cultural Properties”;}
Map showing the location of the nominated components
III Cultural properties

A Africa
   New Nomination

B Asia – Pacific
   New nominations

C Europe – North America
   New nominations
Nice, capital of Riviera tourism
(France)
No 1635

Official name as proposed by the State Party
Nice, capital of Riviera tourism

Location
City of Nice
Provence-Alpes-Côte d’Azur
France

Brief description
The city of Nice bears witness to the evolution of the winter climatic resort (villégiature d’hiver), influenced by its location next to the Mediterranean Sea and its proximity to the Alps. From the middle of the 18th century, the mild climate and picturesque setting of Nice attracted an increasing number of aristocratic and upper class families, mainly British, who took to spending their winters there. Over the next century, the growing number and social and cultural diversity of the winter residents became the main driving force behind the successive development phases of new areas of the city, situated next to the old medieval town. The diverse cultural influences of the winter residents and the desire to make the most of the climatic conditions and scenery of the place, shaped the urban planning and architecture of those areas, contributing to the renown of the city as a cosmopolitan winter resort.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a group of buildings.

1 Basic data

Included in the Tentative List
6 March 2017

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 21 to 25 September 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 28 September 2020 requesting further information about the justification for the criteria, the comparative analysis, the boundaries of the nominated property, and protection and management issues.

An Interim Report was provided to the State Party on 17 December 2020 summarizing the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: justification for inscription; description and delimitation of the nominated property; state of conservation; and protection and management.

Additional information was received from the State Party on 13 November 2020 and 23 February 2021, and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
Located in the south-east of France, not far from the Italian border, Nice benefits from a Mediterranean climate. The city is protected from cold winds by a succession of mountain massifs, from west to east: the Pyrenées, the Massif Central, the Alps, and the Ligurian Apennines. The proximity to the sea also contributes to its mild climate.

In the 18th century, a number of aristocratic and upper class families, mainly British, took to spending their winters in Nice, attracted by its picturesque setting and mild climate. Surrounded by mountains, accessing the town by land was difficult; this changed with the construction of a new port, next to the old urban settlement, or Vieux-Nice, between 1749 and 1756, facilitating access by sea. The new port was part of the urban renewal decided upon by the Duchy of Savoy, then rulers of the city.

Foreigners did not want to live in the old town with its narrow streets and buildings, leading to the construction of villas and apartment buildings with balconies and terraces, surrounded by gardens. The Faubourg de la Croix de marbre or “New Borough”, located to the west of the Paillon river, became one of the first areas developed to meet the desired lifestyle of the new residents. Many of the buildings constructed during this initial phase were later demolished to make way for hotels and apartment buildings (called immeubles d’agrément) to accommodate the winter guests. However, it is worth noting that in terms of proportion, built heritage during this initial phase equals 61% in the historic centre (outside the medieval core).
From 1835 onwards, the number of winter residents increased steadily. The French joined the English and, from the middle of the century, especially after the arrival of the Empress Alexandra Fedorovna, Nice’s appeal extended to the Russian aristocracy.

Real estate pressure to accommodate more and more winter residents prompted the first attempts to control town planning and the architecture of new buildings. To control urban growth, the local authorities seized the opportunity promoted by the royal government of Savoy to establish regulatory plans based on the example of Turin, then the capital of the Kingdom of Savoy-Piedmont-Sardinia. As a result, Nice approved its first plan in 1832. A Consiglio d’Orrnato was established to facilitate the execution of the plan. The Consiglio had considerable powers; for instance, it could impose construction bans outside the areas covered by the plans and had the right to prescribe the external aspects of buildings, in particular the architecture of the façades, but not their interiors. The overall aim was to promote the external harmony of the new developments and to make Nice a beautiful city, attractive to foreigners.

The regulatory plans of the years 1834-1835 were relatively discreet and concerned mainly the Faubourg de la Croix de marbre, which was always regarded as an entity outside the city. The development of this area of the new town included the transformation of the Camin dei Inglesi, a modest 2-metre wide path along the sea shore, into a prestigious promenade. In 1852, in view of the increasing construction in the plain to the north of the sectors covered by the regulatory plan, the Consiglio considered that the limits of the plan should be extended.

The new grid plan dictated the development of the structured urban blocks that today occupy the plain of Nice. The main axes oriented east-west intersected the narrower streets oriented north-south. The new blocks had to have interior courtyards in order to plant trees and height regulations were also imposed to let light into the courtyards. On all major boulevards, buildings had to be set back 7 metres from the street in order to plant trees and other types of vegetation.

After the Treaty of Turin in 1860, Nice was definitively ceded to France and a new chapter in the city’s development began. In 1864, the opening of the new train station led to an increase in visitor numbers: arrivals rose from 100,000 in 1864 to 400,000 in 1881 and continued to grow. Before, it was mainly the aristocratic and upper classes who wintered in Nice; after, the majority of visitors and tourists belonged to the wealthy classes from the worlds of finance and high administration, or were pensioners and heirs to great fortunes. This new profile had consequences for the development of the city because the railway made shorter stays possible. While villas had previously been the preferred accommodation, after hotels and furnished flats for rent (the immeubles d’agrement) were more in demand.

The integration of Nice into France also brought about a change in the legal framework that had hitherto governed it. The Consiglio d’Orrnato disappeared and the principle of the regulatory plan was abandoned. Private enterprise and speculation took over from the strict control exercised over town planning and construction during the Savoyard/Sardinian period.

Four complementary plans were drawn up during the decade 1870-1880, but from then onwards the municipality no longer produced regulatory plans. On the perimeter of the areas covered by the regulatory plans, there was an increase in the number of housing estates (lotissements). This was a new type of real estate development in Nice, based on private enterprise, which largely replaced municipal urban planning.

The First World War led to an unprecedented drop in tourist numbers and largely put a stop to the expansion of luxury tourism. Instead, the appeal of Nice as a summer season destination began. In the 1920s and 1930s, Nice also started to attract more and more retired people, adding to the demand for secondary homes linked to the summer season. The development of the Promenade des Anglais dates from this period.

After the Second World War, the summer season definitively replaced the winter season in terms of its touristic importance. The steady increase in the number of tourists, the demand for holiday homes and the growth of the permanent population, led to a construction boom in the 1950s: after Grenoble, Nice was the French city with the most ongoing construction. This trend led to the densification of the city, by reclaiming old parks and gardens of villas built before the First World War. Fewer villas were built and the majority of new constructions were 5-storey concrete residential buildings with balconies and loggias. Their forms were simple; the decoration that characterized and contributed to the architectural richness of many of the old buildings in Nice was abandoned, even if the ironwork on some balconies still perpetuated the old decorative tradition. At the same time, tourism, while remaining critical to the city’s economy, ceased to be the main and almost exclusive driving force for the development of the city.

**Boundaries**

The original boundaries of the nominated property as proposed in the nomination dossier had an area of 566.4 ha, and a buffer zone of 4,561 ha.

However, in the Interim Report provided to the State Party in December 2020, ICOMOS noted that there were areas inside the nominated property that were mainly built before and after the timeframe when the development of the city was largely driven by the need to accommodate the winter residents. Consequently, in the supplementary information sent in February 2021, the State Party submitted a revised perimeter for the nominated property covering an area of 553 ha and a buffer zone of 4,232 ha. In this new perimeter, the area of the old town, or Vieux-
Nice, has been consequently excised, creating a hole within the area of the nominated property.

ICOMOS acknowledges the State Party’s willingness to revise the boundaries of the nominated property, within such a short space of time. However, it considers that such revisions merit further consideration, based on the mapping of the attributes that truly reflect the potential Outstanding Universal Value of the nominated property and the timeframe associated with it. Whereas in the supplementary information sent in February 2021, the State Party argues that this timeframe equates to the period between 1760 and 1949, ICOMOS is of the view that it should be stopped at 1939. As noted in several sections of the nomination dossier, the summer season, which grew in importance from the end of the First World War onwards, and the economic crisis of the 1930s led to the bankruptcy of many hotels and shortened the average duration of stay of the visitors; this entails a difference between what could be considered seasonal residents to visitors or tourists. In addition, the Second World War has to be seen as a disruptive event.

ICOMOS also notes that, as in the case of Vieux-Nice, mentioned as the example in its Interim Report of an area not having been shaped under the influences that led to Nice being considered a winter climatic resort, there are other areas where the boundaries should be slightly modified. For instance, ICOMOS questions the inclusion of Place Garibaldi (formerly known as Place Victor), which was conceived as a royal square under the Kingdom of Piedmont-Sardinia, the description of which in the nomination dossier acknowledges that it was not influenced by the new purpose of the city as a winter resort. From the historical maps included in the nomination and the supplementary information, the area of the Promenade des Anglais, until 1939, seems to have been limited in the west by the Magnan River and not to the extent included in the boundaries of the nominated property, which currently include most of the Baie des Anges. From the mapping of the key identified attributes included in the nomination, ICOMOS also notes that there seem to be some urban blocks where the density of attributes related to the historical timeframe of 1760-1939 is lower.

For these reasons, ICOMOS considers that the boundaries should be further and more carefully revised to reflect the attributes that truly convey and embody the potential Outstanding Universal Value of the nominated property and the timeframe associated with it.

The delimitation of the buffer zone is determined by the visibility between the nominated property and its direct landscape setting. As a result, the buffer zone constitutes an extensive area. While ICOMOS considered that the approach taken to draw the limits of the buffer zone was logical, it asked the State Party to provide further information on the legal and protective measures in place to ensure that it truly acts as an added layer of protection to the nominated property, as requested by the Operational Guidelines. The State Party explained that the Local Urban Planning Plan (PLU, Plan Local d’Urbanisme) will constitute the main instrument to regulate the buffer zone and that it already includes concrete measures to do so. ICOMOS takes note of the information provided and the challenges presented in terms of protection and management of such a large area, with multiple actors involved with different responsibilities for the management of the nominated property, its buffer zone and the wider setting.

State of conservation
Most of the initial developments prompted by the arrival of the winter residents took place outside the pre-existing urban areas, safeguarding older parts of the city such as Vieux-Nice. Subsequent waves of development led to the replacement of some buildings constructed before 1860 for and by the first wave of winter residents, in response to the changing cultural influences, desires and fashions of later waves of newcomers. But many buildings dating from the 1860’s to the 1930s, and particularly the urban structure, deriving from the regulatory plans developed by the Consiglio d’Ornato, have been preserved.

Despite aerial bombardments in 1944, only a few buildings were destroyed during the Second World War. Some large hotels, requisitioned by the Italian and German occupation authorities and later by the American army, suffered from such use, but none were demolished. In the following decades, development pressures led to the densification of some areas, namely the Cimiez and Mont-Boron hills, which nevertheless retained many of their green spaces and architectural quality.

Between 1965 and 1990, the dominant vision at the municipal level was one of embracing modernity and progress. Initiatives to adapt the city to the automobile led to the construction of the Mathis expressway, which began in 1962. Its impact on the urban landscape was significant, even if to some extent mitigated by the decision to build the road next to the existing railway line. During this period, little attention was paid to the built heritage, particularly that of the 19th and 20th centuries. Only the old town, as a symbol of a native Nice identity, benefited from a rehabilitation effort at the end of the 1970s, with the transformation of the Lascaris Palace into a museum.

In the 1990s and early 2000s, the first measures were taken to protect several historic buildings (hotels and villas), mainly dating from the 19th and 20th centuries. The old town, or Vieux-Nice, was listed as a “secteur sauvegardé” (the equivalent of an urban conservation area) in 1994. The local town plan now protects several hundred buildings, very often villas, which bear witness to the history of tourism in the city.

Based on the information included in the nomination dossier and the observations of the technical evaluation mission, ICOMOS considers that the state of conservation of the nominated property is good in general. There are no serious disruptions in terms of the coherence of the built fabric, with a few exceptions such as the Hotel Le Méridien on the Promenade des Anglais. The condition of the
buildings is also good, with only a few cases of abandonment or physical deterioration.

In its Interim Report, ICOMOS also enquired about the state of conservation of the interiors of the buildings described in the nomination and the measures in place for their protection. The State Party replied that many of the interior decorations have been preserved because they contribute to the real estate value of the buildings. It added that, as part of the nomination process, the Municipality has started procedures to list some additional buildings and that the management plan includes initiatives to help conserve the interiors of historic hotels under a scheme called “Hôtels historiques de Nice”.

ICOMOS considers that the interiors of the buildings that constitute important attributes of the nominated property should be better inventoried and more robust measures for their protection be put in place, including by raising awareness of the buildings’ owners to their importance, offering guidelines as to how to conserve them during building maintenance and rehabilitation works, and a closer examination by the relevant authorities of any significant changes proposed as part of construction permits and similar requests.

Factors affecting the property

Based on the information provided by the State Party and the observations of the technical evaluation mission, ICOMOS considers that the main factors affecting the property are development pressures (in particular land and real estate pressures), tourism pressures and environmental pressures.

The nomination dossier highlights significant land and real estate pressures, driven by speculation and economic interests, similar to that of other large conurbations in France, and which can lead to undesirable changes in use, or transformations, of the built fabric. According to the 2015 census of the National Institute of Statistics and Economic Studies (INSEE), the proportion of secondary or occasional residences within the perimeter of the nominated property is around twice that of the municipality as a whole (approximately 26% compared to 13%, respectively).

High housing costs in the city centre contribute to the increase in numbers of commuters travelling to the city for work and leisure. This leads to traffic congestion, pollution and increased demand for road and parking infrastructure. In recent years, the municipality has reinforced the public transport network, and the construction of the tramway lines since 2008 has helped mitigate those pressures.

Although the development of Nice has been influenced by tourism over the past two centuries, current trends in tourism development can negatively affect the nominated property. The effects of uncontrolled mass tourism, especially during the summer, contributes to the increased use of buildings for temporary accommodation (e.g. hotels, Airbnbs, secondary residences, etc.), with detrimental social and economic impacts. The high numbers of tourists and visitors also increase the demand for public services. To address some of these problems and mitigate the impacts of the exponential development of this sector, the municipal and metropolitan authorities have set up a control system for short-term rentals.

Another risk linked to the development of tourism is that of adopting a model based on the dominant presence of large hotel chains and international brands offering “iconic” structures with a strong, immediately recognizable visual impact. A clear example is the ‘Iconic’ Complex project, designed by the architect Daniel Libeskind, which will include a Hilton hotel and a large shopping mall. This project, currently under construction, is located next to the railway station, just outside the perimeter of the nominated property. Based on information received by ICOMOS during the technical evaluation mission, the project was approved before the city’s decision to nominate the property to the World Heritage List and was subject to recommendations by the relevant authorities to mitigate its impact on the urban context. ICOMOS nevertheless notes that, once completed, the visual impact will still be considerable given the volume, shape and materials of the buildings.

Other factors that may affect the property are related to natural and environmental aspects. The nomination dossier highlights the spread of invasive species that can put at risk the quality of the vegetation, which represents one of the characteristic components of Nice’s urban heritage. In the past, the introduction of exotic species, both in public and private gardens, was a common practice, and actively promoted. However, in recent decades, there is increasing awareness of resultant health and sanitary problems due to parasites and other harmful pests. To address these problems, the metropolitan authorities have developed a Local Biodiversity Plan and the City of Nice has increased its efforts to fight the spread of the Red Palm Weevil, which affects the palm trees, an emblematic tree species commonly associated with the popular imagine of what constitutes a ’Riviera’ town.

The erosion of beaches also poses concerns. This phenomenon increased following the extension of the airport, on land reclaimed from the sea, in the 1970s, and the construction of numerous coastal infrastructures. To balance the annual loss of sand, the beaches need to be regularly refilled.

As far as other natural risks are concerned, Nice is classified as a zone of average seismicity. Since May 2011, new constructions need to comply with earthquake-proof construction rules. Flash floods and landslides are also becoming more frequent. A multi-risk plan (Plan Communal de Sauvegarde multirisques) was developed in 2007 and has since been complemented by other risk plans (e.g. earthquakes, fires, floods, landslides).
3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Nice bears witness to its evolution as a winter climatic resort (villégiature d'hiver) over a period of approximately two centuries.
- The city represents a new type of human settlement, almost exclusively dedicated to holidays and leisure and largely influenced by its mild climate and picturesque character.
- The urban planning and architectural heritage of Nice were influenced by its geographical location, climatic conditions and cultural diversity of the winter residents. Its hotels, villas and apartment buildings (immeubles d’agrément) showcase the succession of styles that were fashionable in Europe between the end of the 18th century and the middle of the 20th century, from neo-classicism to the modern movement, via the historicist eclecticism of the Belle-Époque and Art Deco.
- Due to its cosmopolitan dimension, Nice attracted many writers and artists whose works helped spread the reputation of Nice as a quintessential destination.

In the nomination dossier, tourism was at the centre of the proposed Outstanding Universal Value of the nominated property. In its Interim Report, ICOMOS expressed its view that tourism is a vast theme, with many facets, manifestations and even phases, that are not easily identifiable or categorized. ICOMOS considered therefore that no single site on its own could be said to fully and adequately illustrate this vast cultural phenomenon and particularly its evolution over time. ICOMOS also expressed its concerns about positioning the concept of tourism as the main driving force for the development of Nice, mainly in the past but still ongoing. It considered that the consequences of this, both for the protection of the nominated property and the precedents that such an argument could set for the protection of other World Heritage properties, needed to be weighed carefully in its evaluation. For these reasons, ICOMOS considered that while tourism was a critical influence in the history and development of the nominated property, it could not be accepted as the cornerstone of the justification of the potential Outstanding Universal Value.

In the supplementary information, the State Party largely agreed with ICOMOS’s views and presented a justification for inscription focusing on the evaluation of the city as a winter climatic resort (villégiature d’hiver) as described above. To reflect this new approach, it also submitted a revised Statement of Outstanding Universal Value, based on the same criteria and without fundamental changes to their justification. The State Party also submitted a new title for the nomination as “Nice, the riviera urban villégiature”. ICOMOS thanks the State Party for having considered changing the name of the property to better reflect the new focus put forward. However, ICOMOS considers that “urban villégiature” does not reflect adequately the revised proposed significance of the nominated property, which is considered as a “winter resort”. Therefore, ICOMOS recommends that the name of the nominated property be changed to “Nice, Winter Resort Town of the Riviera”.

Comparative analysis
The comparative analysis is structured in three parts. The first part focuses on comparisons with other human settlements resulting from the influences of “proto-tourism”, namely spa towns, mountain resorts, climatic resorts and seaside resorts. The second part offers comparisons with other human settlements located on seashores with remarkable bays and surrounded by mountains. The third part compares Nice with other Riviera sites.

Regarding the comparisons with other human settlements resulting from the influences of so-called “proto-tourism”, only a couple of examples are given for each of the four typologies presented: Bath (United Kingdom) and Vichy (France) in relation to spa towns; Saint-Moritz (Switzerland) for the mountain resorts; Hyères (France) and Alger (Algeria) as climatic resorts; and Brighton (United Kingdom) and Miami (United States) as examples of seaside resorts.

No detailed explanations are given for the rationale behind this typological framework, nor as to the choice of comparators. Therefore, in its request for supplementary information sent to the State Party on 28 September 2020, ICOMOS noted that many other climatic and seaside resorts appeared from the end of the 18th century in Europe, with similarities in the way they developed to meet new leisure demands. Therefore, it asked the State Party to provide more details on: the geo-cultural area underlying the comparative analysis and how it was defined; the framework and the parameters used to structure and develop the comparative analysis; and how the sites that are compared with the nominated property were selected out of a much wider range of possible comparisons.

In its response, the State Party clarified that the definition of the nominated property as a new type of urban settlement that developed mainly as a result of a new phenomenon, known as "tourism", is one of the main methodological principles structuring the comparative analysis. As such, it considers that the nominated property can only be usefully compared with sites where development was mainly shaped by the touristic function.

The second part of the comparative analysis focuses on human settlements located on seashores with remarkable bays and surrounded by mountains. The analysis identifies five comparable sites: Naples and Palermo (both in Italy); Rio de Janeiro (Brazil); San Sebastian (Spain); and Acapulco (Mexico). Both Naples and Palermo attracted winter residents but this phenomenon did not have the same level of influence in the development of these towns as in Nice. Acapulco on the
other hand developed in relation to its touristic function mainly in the 20th century.

The third part of the comparative analysis identifies other sites fitting the concept of ‘Riviera’. The nomination dossier explains that from the second half of the 19th century, that term ceased to refer exclusively to the coast of the Gulf of Genoa (considered to comprise the area between the River Magra to the east and the River Var to the west, therefore including Nice), to become a common name for a coastal place associated with tourism and with the following characteristics: a location in close proximity to the mountains and the sea; a sheltered climate, particularly in winter; a Mediterranean vegetation; urban amenities allowing people to take advantage of the climate and the picturesque environment (e.g. promenades and gardens); and an architecture in keeping with the fashions of the wealthy classes who used to frequent these ‘Rivieras’ and allowing them to enjoy the views of the landscape and the amenities of the climate. The comparative analysis distinguishes four geographical zones fitting this concept: Liguria in Italy; the Dalmatian Coast related to the Austro-Hungarian Empire; the Crimean Riviera; and the Alpine Rivieras, in Switzerland and Italy. The State Party considers that Nice stands out against all the identified sites mainly for its urban scale: its vast coastal plain allowed the construction of an extended city dedicated to tourism.

ICOMOS in its first request for supplementary information, sent in September 2020, asked the State Party to clarify how the sites that are compared with the nominated property were selected out of a much wider range of possible comparisons. The State Party responded that the comparative analysis does not include other seaside resorts that multiplied in number on the European side of the Mediterranean Sea, then worldwide, in the 20th century, because these are considered to be too different from Nice, particularly because of the standardized and dense architecture on the seashore. On the other hand, ICOMOS notes that the State Party did not provide any additional information in relation to the wider range of comparisons in terms of the climatic resorts associated with the winter season as in the case of Nice. Only Saint Moritz, which could be considered as a winter resort, is mentioned in the comparative analysis submitted with the nomination dossier but as an example of mountain resorts. These comparisons would have been particularly important given the change in approach offered by the State Party in the supplementary information submitted in February 2021, and focusing on the role of the city as a winter climatic resort and not a city shaped by tourism in general, as previously argued.

In its request for supplementary information, ICOMOS also asked if the State Party could expand the comparative analysis in relation to the interchange of influences exhibited by the nominated property mainly in relation to developments in urban planning. In particular, ICOMOS asked about possible comparisons with other towns within the Kingdom of Piedmont-Sardinia, the development of which were influenced and controlled by Consiglio d’Ornato.

The State Party replied that, between 1826 and 1842, 37 cities developed this type of Commission. However, most of them had mainly a formal role, with little influence over the development of the cities they worked for. Nice is considered a unique case in this regard given that its Consiglio d’Ornato influenced the development of several urban plans to help design a new town for the purpose of its winter residents.

ICOMOS considers that the comparative analysis as presented in the nomination dossier and supplemented by additional information submitted by the State Party during the evaluation process, could have considered a larger representation of sites located in the cultural region described as le Midi. In light of the emphasis on the importance of the city as a winter climatic resort, in the supplementary information submitted in February 2021, ICOMOS also considers that the comparative analysis should have been reinforced to take into account this shift in approach.

Despite these shortcomings, ICOMOS considers that the historical importance of Nice as a winter climatic resort, its cosmopolitan reputation mainly during the 19th century and the diversity of influences deriving from the diverse cultural backgrounds of the winter residents, are tangibly reflected in its architecture and to a certain extent in its urban structure, to a higher degree than other sites influenced by similar cultural phenomena. The city became a melting pot of architectural styles, designs and ideas, resulting in an assemblage of buildings, urban and green spaces that developed in response to the wishes of the winter residents, to take advantage of the geographical location, scenery and mild climate of the city. Its architecture and urban structure are also the result of its historical past as part of the Kingdom of Piedmont-Sardinia and the craftsmanship of the many Italian artisans that extensively decorated the façades of the villas, hotels and immeubles d’agrément built to attract a demanding international clientele.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii), (iv) and (vi).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that, because of the various influences of having been part of the Kingdom of Piedmont-Sardinia and later of France, as well as those of its culturally diverse winter residents, Nice became a melting pot for the interchange of ideas in the fields of architecture, urban planning and landscape design.
In its letter of 28 September 2020, ICOMOS requested the State Party to clarify in what way the interchange of ideas should be interpreted; either as the embodiment of an idea or concept imported from another region, or if the nominated property itself influenced other areas or, alternatively, if there could have been a two-way flow of ideas. In particular, ICOMOS asked how the interchange of influences exhibited by the nominated property can be said to be outstanding from the point of view of architecture and urban planning and how that is tangibly embodied in the attributes of the nominated property in a substantial and important way. The State Party replied that Nice should be seen first and foremost as the embodiment of ideas imported from other regions, although playing a certain role in influencing other areas as the archetypal model of the image of the ‘Riviera’ town.

In its Interim Report, ICOMOS added that the nomination dossier describes that in terms of architecture, the municipality of Nice did not impose or promote a particular aesthetic but tolerated broad eclecticism. Therefore, it asked for further information as to how such eclecticism was linked to the different nationalities of the winter residents and how it contributes to the potential Outstanding Universal Value of the nominated property. The State Party argues that from an architectural viewpoint, Nice was a melting pot reflecting multiple influences: the cosmopolitan character of the clientele commissioning the buildings and the architects that designed them; the know-how of the Italian artisans and masons that contributed to the construction of those buildings and settled in Nice in large numbers after 1860; and the annexation of the city as part of France, which stimulated the introduction of new architectural references.

The State Party also argues that the nominated property also reflects an important interchange of ideas in terms of urban planning and landscape design, particularly under the influence of the work carried out under the Consiglio d’Ornato and its regulatory plans. These plans were drawn up to create an urban structure that took advantage of the landscape setting and climate of the site, orienting streets and boulevards according to the winds and establishing visual axes between the sea and the mountains, and promoted the development of buildings with façades facing south to benefit from the views and the natural light, as well as numerous promenades and green spaces.

ICOMOS notes that the elaboration of urban plans to direct the development of the city does not demonstrate per se how the influences exerted by those plans resulted in an urbanism that could be considered outstanding.

The interchange of ideas and influences on the urban and landscape design is less substantial than that expressed by the architecture.

Although not outstanding by themselves, the town planning and landscape design form an important foundation and background to the architecture and cannot be dissociated from it. ICOMOS considers that the nominated property represents an important example of the merging of British, Italian, French, Russian and other cultural influences resulting in a diversity of architectural styles, designs and building decoration that expresses its cosmopolitan character as a winter climatic resort, particularly during the 19th century.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the nominated property is an outstanding example of a new type of human settlement developed exclusively as a winter climatic resort. Under the direction of a Consiglio d’Ornato, that developed a series of regulatory plans, the new city was organized around major urban axes, numerous promenades and an extensive vegetation cover.

ICOMOS notes that whilst significant areas of the city developed in response to the needs and desires of the winter residents, the town had been founded centuries before. Whilst the development of the new areas might have been prompted by a unifying purpose, they do not represent a distinguishable new type of human settlement, consistently different from other settlements in the wider geographical region of Provence-Alpes-Côte d’Azur in France and the parts of the Ligurian territory in Italy, that were shaped by similar influences, even if to different degrees.

ICOMOS also notes that the types of buildings presented as main attributes of the nominated property (villas, hotels, and immeubles d’agrément) cannot likewise be defined as new types of buildings but were commonplace in other places shaped by the influence of tourism, during a similar timeframe. No new and clearly identifiable architectural forms emerged from the fact that Nice developed as a winter resort.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that the nominated property was directly or tangibly associated with the invention of the ‘Riviera’ and that its hedonistic atmosphere and its cosmopolitanism attracted many writers and artists whose works helped to shape the image of Nice and to promote its international influence.

ICOMOS considers that Nice became fashionable firstly with the aristocratic and upper classes and later with the wealthy classes along with artists and writers; these people also patronised and visited many other places as part of a nascent modern tourism industry. Moreover,
many of the winter residents of Nice also spent considerable periods in Hyères, which was initially favoured because it was easier to access. From the mid-19th century onwards, other cities such as Cannes started growing in importance for similar reasons to Nice and attracting similar visitors and residents.

ICOMOS considers that the nominated property meets criterion (ii) but criteria (iv) and (vi) have not been demonstrated.

Integrity and authenticity

Integrity

The integrity of the nominated property is based on the evidence related to development of the nominated property as a winter climatic resort and as the embodiment of the interchange of ideas between the mid-18th century and the 1930s, mainly on developments in architecture.

Examining the conditions of integrity requires assessing the extent to which the nominated property includes all elements necessary to express its potential Outstanding Universal Value, is of adequate size, and whether it suffers or not from adverse effects of development and/or neglect. The first two aspects are deeply connected with the adequacy of the boundaries of the nominated property, for which ICOMOS has already expressed some concerns. Because of the historical timeframe associated with the potential Outstanding Universal Value (between 1760 and the 1930s), ICOMOS considers that the boundaries of the nominated property do not adequately reflect that timeframe and need to be further revised, to exclude areas that were not significantly shaped by the same interchange of influences and during that particular period.

The urban layout influenced by the different regulatory plans drawn up by the Consiglio d’Ornato has been preserved, along with a large portion of the historic buildings associated with it, despite some changes in function over the years. In the second half of the 20th century, when Nice became mainly a summer destination, development pressures led to the densification of some areas, namely the Cimiez and Mont-Boron hills, which nevertheless retained many of their green spaces and architectural quality.

Changes to the road system and public space arrangements to accommodate the evolution of different modes of transport have in general respected the pre-existing urban structure within the nominated property. The enlargement of the Promenade des Anglais, in the 1930s, to allow two automobile lanes and the expansion of the beach infrastructure, maintained its function as an urban promenade.

ICOMOS has noted its concerns regarding the lack of a comprehensive inventory and understanding of the state of conservation of the interiors of the buildings that reflect the typologies associated with the role of the city as a winter climatic resort and are not listed as individual monuments.

The adverse effects of more recent developments such as the ‘Iconic’ project, located just outside the boundary of the nominated property, cannot be ignored. ICOMOS considers that any potential future projects that could potentially impact the nominated property, even if located within the buffer zone, should be subject to rigorous heritage impact assessments before being granted approval.

ICOMOS considers that the conditions of integrity could be met provided the revision of the boundaries of the nominated property is made.

Authenticity

The authenticity of the nominated property is based on whether the potential Outstanding Universal Value is truthfully and credibly expressed, namely through location and setting, form and design, materials and substance, and use and function.

ICOMOS considers that in terms of location and setting, the nominated property truthfully conveys how the geography and topography of Nice were critical elements influencing its development as a winter climatic resort. Despite changes associated with the evolution of the city into a summer destination and the later expansion of the city, the relationship with the sea and the surrounding mountains remains fundamentally the same. The expansion (in length and width) of the Promenade des Anglais in the 1930s to facilitate traffic circulation, respected its function as a pedestrian promenade.

As for form and design, the urban layouts of the areas developed according to the regulatory plans drawn up by the Consiglio d’Omnato are to a high degree intact. The areas of the nominated property that were not influenced by such plans, but developed largely based on privately-promoted housing development projects, retain nevertheless similar characteristics, such as wide roads lined with trees, low density plots and extensive vegetation.

The architectural typologies and construction characteristics of the buildings that marked the development of Nice as a winter climatic resort are still clearly visible and generally well preserved. The various holiday and tourism typologies, with their neoclassical, eclectic, art deco or rationalist architecture, depending on the period, often produced by foreign contractors and architects, are still a distinctive feature of the city. It should be noted that most of the conservation and rehabilitation interventions are carried out with respect for the original materials, colours and decorative elements.

In terms of use and function, Nice remains an important tourism destination, both in winter and summer. Most of the hotels, villas and immeubles d’agrément retain their original function and still attract an international clientele.
ICOMOS therefore considers that the nominated property demonstrates the necessary qualifying conditions of authenticity as required by the Operational Guidelines.

In conclusion, ICOMOS considers that the nominated property meets the conditions of authenticity but that the conditions of integrity are only partly met at this stage.

**Evaluation of the proposed justification for inscription**

Since, in the nomination dossier, tourism was at the centre of the proposed Outstanding Universal Value of the nominated property, in its Interim Report, ICOMOS expressed its concerns about the consequences of this, both for the protection of the nominated property and the precedents that such an argument could set for the protection of other World Heritage properties. Consequently, the State Party submitted a justification for inscription focusing on the evaluation of the city as a winter climatic resort (villégiature d'hiver) and a revised Statement of Outstanding Universal Value, based on the same criteria and without fundamental changes to their justification.

ICOMOS considers that criterion (ii) is justified and that the nominated property represents an important example of the merging of British, Italian, French, Russian and other cultural influences, resulting in a diversity of architectural styles, designs and building decoration that express its cosmopolitan character as a winter climatic resort, particularly during the 19th century. However, ICOMOS is of the view that criteria (iv) and (vi) are not justified, since the nominated property cannot be considered to exemplify a new type of human settlement; that the types of buildings that represent key attributes of the property (villas, hotels and immeubles d’agrément) were commonplace in other places shaped by the influences of tourism during a similar timeframe; and that the same applies to the artists, writers, aristocratic and wealthy classes that visited and resided in Nice but also patronised and visited many other places in other seasons and different years.

Whereas conditions of authenticity are met, conditions of integrity have not been met at this stage. ICOMOS considers that the conditions of integrity could be met provided the revision of the boundaries of the nominated property, based on the mapping of the attributes that significantly embody and convey the interchange of influences that led to development of the architecture between 1760 and the 1930s, is made. ICOMOS also considers that whilst the urban planning and landscape design cannot be dissociated from the architecture, in themselves they cannot be considered as outstanding.

**Attributes**

The attributes of the nominated property need to be identified, taking into account the historical timeframe associated with the justification of potential Outstanding Universal Value. The attributes of the property that convey the interchange of ideas and the merging of British, Italian, French, Russian and other cultural influences are first and foremost the buildings and their diversity of architectural styles, designs and building decoration, both external and internal. Craftsmanship and traditional techniques associated with and required to conserve those decorative elements should also be considered as attributes. The use and function associated with the buildings also convey part of the significance of the nominated property.

Since the architecture cannot be dissociated from its context, the urban structure, the landscape design, the green spaces and the promenades associated with that timeframe are also important attributes. Other attributes are: viewpoints, visual axes, the relationships between built and green spaces, the relationships with the geographical setting, and the ratio between the density of the built fabric and the vegetation.

ICOMOS considers that the attributes that convey the potential Outstanding Universal Value of Nice are those that significantly embody and convey the interchange of influences that led to development of architecture between 1760 and the 1930s.

**4 Conservation measures and monitoring**

**Conservation measures**

Whereas, up until the 1990s, the municipal policies favoured a development approach with little concern for heritage conservation, since then there has been a growing determination to protect Nice’s cultural heritage. The old town, or Vieux-Nice, (originally included in the nominated property) and the neighbourhood of the port were both listed as “secteur sauvegardés” (safeguarded sectors) in 1994. In recent years, particularly since the decision to nominate Nice to the World Heritage List, the municipality has multiplied its interventions to protect and conserve the city’s heritage.

Conservation measures in place aim mainly at the conservation of the exterior of the buildings. The municipality offers financial incentives to support the conservation of the façades and in particular the exterior decoration. ICOMOS, in its Interim Report, requested further information about the conservation of the interiors of the buildings. Based on the State Party’s reply, ICOMOS considers that more work should be done to further study and inventory the interiors of the buildings that constitute key attributes of the property, and more stringent measures should be put in place to ensure their protection (both in terms of the decor as well as the organisational space). In addition, ICOMOS recommends the completion of the ongoing inventory of built heritage, so that it could be used as a basis for conservation strategy and management purposes.

The municipality invests considerably in the maintenance of public spaces to promote the city as a high-quality tourism destination. Based on the information included in the nomination dossier and the findings of the technical evaluation mission, public interventions reflect an approach
that favours making the urban environment pleasant and conducive to leisure. ICOMOS considers that, given the historical timeframe associated with the justification of the potential Outstanding Universal Value, such interventions need to carefully balance the need to address contemporary needs with that of maintaining the historical evidence of Nice’s past as a winter climatic resort and the embodiment of the interchange of influences that resulted from that role.

**Monitoring**

There are sufficient inventories and information systems in place to adequately monitor the overall state of conservation of the nominated property, except for the interiors of the buildings.

The State Party has defined a set of monitoring indicators in relation to the main types of attributes. ICOMOS considers that some types of attributes need to be more closely monitored than others, and in more detail, such as the vegetation and the architecture. In particular, ICOMOS considers that the monitoring of slow changes to the attributes which can have negative cumulative effects over the long-term, should not be overlooked. Examples of such slow changes and their cumulative effects would be the replacement of historic vegetation, introduction of additional species in areas that historically never had green spaces or that change the density of the vegetation cover, changes in function of residential historic buildings and changes in the interior organization of those buildings.

ICOMOS considers that the monitoring programme is adequate but could be improved.

ICOMOS recommends the completion of the ongoing inventory of built heritage, so that it could be used as a basis for conservation strategy and management purposes.

**Legal protection**

In 2015, the Municipality started the procedures for designating the nominated property at the national level, initially as “Aire de Valorisation de l'Architecture et du Patrimoine (AVAP)” (Architecture and heritage enhancement area), replaced by that of “Sites patrimoniaux remarquables” (Notable heritage sites) in 2016.

ICOMOS in its request for supplementary information sent on 28 September 2020, asked the State Party to clarify if the designation at the national level was still expected to be completed before the end of that year. At that time, the State Party informed ICOMOS that despite some delays, the proposal had already been validated by the Regional Commission of Heritage and Architecture. Further information provided in February 2021 explains that the designation will be submitted to public consultation in March-April 2021.

ICOMOS considers that when approved the designation as a *Site Patrimonial Remarquable* would provide adequate legal protection for the nominated property. In addition, national legislation for heritage protection (the *Code du Patrimoine*, modified by the Law nº 2016-925 of 7 July 2016) includes provisions for the protection of World Heritage properties, namely the establishment of buffer zones, the development of a management plan, and the integration of that plan into other planning instruments.

Many other legal instruments are in place at the national, regional, and local levels that help protect the nominated property in its entirety or in part. Some of these instruments are also important to support the function of the buffer zone as an added layer of protection. The *Plan Local d’Urbanisme* (PLU, Local Urban Planning Plan) constitutes one of the main instruments to regulate the buffer zone. To ensure a better protection of the hills that surround the nominated property, the rules and regulations of that Plan are complemented by other instruments, such as the *Orientation d’Aménagement et de Programmation* (a sort of Spatial Planning Ordinance), which stipulates, for example, that the height of new constructions cannot exceed 7.5 meters.

Overall, ICOMOS considers that only once the designation of the *Site Patrimonial Remarquable* is completed and legally approved, can the legal protection for the nominated property be considered as adequate.

**Management system**

The designation at the national level as a *Site Patrimonial Remarquable* larger than the perimeter of the nominated property, entailed the development of a *Plan de Valorisation de l'Architecture et du Patrimoine (PVAP, Enhancement Plan of the Architecture and Heritage)*. This type of plan is accompanied by regulations detailing

**Documentation**

Nice has been the subject of many studies and publications, resulting in extensive bibliographic records. Between 2017 and 2019, the responsible authorities developed a database specific to the heritage of Nice related to tourism, based on guides, directories and periodicals from 1840 to 1960. In addition, a general inventory related to the “*patrimoine de villégiature*” was started in 2016.

Documentary materials are kept by the Municipality and the Municipal and Regional Archives. Building inventories are kept by the Municipality and other relevant authorities. Much of this information is available on Geographic Information Systems, allowing quick access to data. The nomination dossier builds on many historical records, including accurate and detailed maps.
provisions for the construction of new buildings as well as the conservation of existing ones. Based on the additional information provided by the State Party in February 2021, this plan will be subject to public consultation in March-April and is expected to be finally approved in September 2021. Legal requirements demand that the provisions of this PVAP are then incorporated in the Local Urban Planning Plan (Plan Local d’Urbanisme).

A management plan (2020-2030) has also been drawn up applying both to the nominated property and the buffer zone. The plan is structured around five broad themes: shared knowledge of the property; reinforced regulatory protection; maintenance and restoration; control of use and enhancement of the property; and governance. ICOMOS considers that the content of this plan reflects more a strategy than an operational plan, to guide the protection and management of the nominated property over a 10-year period. Each theme is detailed in a series of broad actions (called fiches-action) detailing who will be responsible for the implementation of those actions, the objectives associated with them, a summary of the timetable for the implementation of activities, and an indication of the financial resources available for their implementation. ICOMOS notes that some of the actions proposed have a broad scope, applying to the heritage of Nice in general. Many of the activities mentioned refer to past years and are therefore outside the timeframe for the plan (2020-2030). The broad actions and their objectives will remain nevertheless valid for the whole duration of the plan, therefore, it would be important that they are detailed in annual (or bi-annual) operational plans to ensure that the desired outcomes are achieved. ICOMOS also recommends to carry out a mid-term review of the plan and evaluate its adequateness to guide the protection and management of the nominated property and its buffer zone.

From a governance perspective, the Municipality will assume the main responsibilities for the management of the nominated property. A special unit, named Mission Nice Patrimoine Mondial, directly responsible to the Mayor’s Office, has been set up to coordinate the implementation of the management plan. A Local World Heritage Commission has also been established regrouping elective representatives of the municipal and metropolitan authorities, representatives of State Services (e.g. Regional Conservator for Historic Monuments, Architect of the Buildings of France) and other qualified professionals (e.g. scientific experts, representatives of citizens associations). This Commission will be responsible for validating the programme of actions and monitoring the implementation of the management system and will meet once a year. A Steering Committee, with a very similar structure but presided over by the Municipality, will be responsible for implementing the decisions of the Local World Heritage Commission; this Committee will meet two to three times per year. The control of the conservation works within the perimeter of the nominated property will be ensured in particular by the ‘Architect of the Buildings of France’ and the municipal services.

The designation as a Site Patrimonial Remarquable will entail additional administrative procedures and approvals regarding building permits. Consequently, this will require additional human and financial resources. The additional information provided in February 2021 explains that additional positions will be created but does not detail how many, in which institutions, nor the type of expertise expected. An organisational diagram illustrating the institutional framework for managing the property details that the Nice World Heritage Mission (Mission Nice Patrimoine Mondial) will include at minimum an administrator, a conservator, an urban planner-architect and an historian.

Visitor management
Nice has been shaped by tourism over centuries. Many hotels and other types of accommodation are historic buildings, which therefore require great care to ensure that transformations necessary to meet the changing demands for comfort do not impact on typological and architectural features that are significant from an heritage perspective; ICOMOS has already noted its concerns regarding the need to protect the interiors of the buildings that constitute attributes of the nominated property. Based on the information included in the management plan, the Tourist Office, in partnership with the Federation of Hoteliers, the Regional Directorate of Cultural Affairs and the Nice World Heritage Mission, have launched an initiative providing the label of “Nice Historic Hotels” and encouraging the owners and managers of hotels built before 1958 to restore the surroundings, façades and common areas of their establishments whilst respecting their historic features.

The nomination indicates that the State Party does not forecast a considerable increase in visitor numbers in the event that the nominated property were to be inscribed on the World Heritage List, given the current reputation of the city as an international destination.

Community involvement
Throughout the nomination process, events have been organised to inform the local communities of the nomination process as well as to promote a better understanding of the history and heritage of Nice as a winter climatic resort. The ICOMOS technical evaluation mission confirmed the State Party’s efforts to inform the public periodically and through a variety of communication approaches.

Evaluation of the effectiveness of the protection and management of nominated property
ICOMOS considers that there is a good understanding of the factors affecting the nominated property and that the State Party has, for the most part, developed adequate responses to address the potential impacts deriving from those factors. ICOMOS recommends nevertheless that the adaptation of historic buildings that still retain their traditional function as hotels and other types of accommodation to meet changing demands for comfort and modern facilities, be carried out with respect to their typological and architectural features that are significant
from a heritage perspective. The same applies to conservation and rehabilitation of other private buildings, and ICOMOS has already mentioned the need to better document their interiors and put measures in place for their protection. In light of the ongoing construction of the ‘iconic’ project, next to the train station, just outside the boundary of the nominated property, ICOMOS considers that any potential future projects that could potentially impact the nominated property, even if located within the buffer zone, should be subject to rigorous heritage impact assessments before being granted approval.

ICOMOS acknowledges the State Party’s efforts to develop comprehensive governance arrangements to facilitate the involvement of different actors in the management of the nominated property. Given the high number of actors involved and the size of the nominated property in conjunction with the buffer zone, ICOMOS considers that it is important that close collaboration and cooperation between the actors is ensured, particularly regarding development strategies for the city and the wider territory.

Regarding the legal framework, ICOMOS considers that the national legislation offers a strong legal basis to protect the nominated property and its buffer zone. The designation, at the national level, of a larger area than the nominated property as a Site Patrimonial Remarquable will provide an adequate legal protection, but since this process has not been completed at the time of writing of this evaluation, ICOMOS considers that, at present, the legal protection is insufficient.

From a planning perspective, there is a comprehensive planning framework in place that will support the protection and management of the nominated property and its buffer zone. The management plan resembles a strategy than an operational plan and many of the activities mentioned refer to past years and are therefore outside the timeframe for the plan (2020-2030). Therefore, ICOMOS recommends to carry out a mid-term review of the plan and evaluate its adequateness to effectively guide the protection and management of the nominated property and its buffer zone.

In terms of human resources, ICOMOS notes that the nomination dossier and additional information mention that additional positions will be created but does not detail how many, in which institutions, nor the type of expertise expected, namely for the Nice World Heritage Mission (Mission Nice Patrimoine Mondial).

ICOMOS considers that the management system can be considered adequate but certain elements could be improved. ICOMOS considers that, at present, the legal protection is insufficient but that this would be resolved once the designation as Site Patrimonial Remarquable is finalised and officially approved.

6 Conclusion

The nominated property represents an important example of the merging of British, Italian, French, Russian and other cultural influences resulting in a diversity of architectural styles, designs and building decoration that express its cosmopolitan character as a winter climatic resort, particularly during the 19th century.

ICOMOS considers that the historical timeframe of 1760 to the 1930s needs to be used as a basis to further, and more carefully, revise the boundaries of the nominated property. This revision should also be based on mapping of the key attributes that significantly express the interchange of influences mainly in relation to developments in architecture, whilst recognising that the urban planning and landscape design cannot be dissociated from it. ICOMOS also considers that further revisions should avoid a delimitation of the nominated property that would result in large holes within it.

These issues related to the boundaries have implications for the evaluation of the conditions of integrity, which therefore can only be considered as partly met at this stage. At present, the nominated property is not affected by adverse effects of development or neglect that could undermine the conditions of integrity but ICOMOS notes the visual impacts of the ‘iconic’ project, just outside the nominated property. ICOMOS considers that the conditions of authenticity have been met.

The protection and management mechanisms in place are overall adequate but could be improved, and only once the designation as Site Patrimonial Remarquable is finalised and legally approved can the legal protection be considered as adequate.

7 Recommendations

ICOMOS recommends that the nomination of Nice, capital of Riviera tourism, France, be referred back to the State Party to allow it to:

- Further revise the boundaries of the nominated property to reflect the historical timeframe between 1760 and the 1930s and the mapping of the key attributes that significantly express the interchange of influences, mainly in relation to developments in architecture;

- Finalise and officially approve the designation of the Site Patrimonial Remarquable, to ensure an adequate legal protection for the nominated property.
Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Completing the ongoing inventory of built heritage, which will serve as a solid basis for conservation and management purposes,

b) Documenting the interiors of the buildings and put measures in place for their protection, particularly in relation to adaptations to accommodate modern living and hospitality standards,

c) Reinforcing monitoring indicators for slow changes to the attributes which can have negative cumulative effects over the long-term,

d) Ensuring that mechanisms are in place to facilitate coordination between multiple actors with responsibilities for the management of the nominated property, its buffer zone and the wider setting,

e) Carrying out a mid-term review of the management plan and evaluating its adequateness to effectively guide the protection and management of the nominated property and its buffer zone;

ICOMOS also recommends that the name of the property be changed to become “Nice, Winter Resort Town of the Riviera”.

Revised map showing the boundaries of the nominated property and its buffer zone (February 2021)
ShUM Sites
(Germany)
No 1636

Official name as proposed by the State Party
ShUM Sites of Speyer, Worms and Mainz

Location
State of Rhineland-Palatinate
Cities of Speyer, Worms and Mainz
Germany

Brief description
Located in the former Imperial cathedral cities of Speyer, Worms and Mainz, in the Upper Rhine Valley, the ShUM Sites of Speyer, Worms and Mainz comprise the Speyer Jewry-Court, with the structures of the synagogue and the women’s shul, the archaeological vestiges of the yeshiva, the courtyard and the still intact underground mikveh. It also comprises the Worms Synagogue Compound, with the in-situ post-war reconstruction of the synagogue and the women’s shul, the community hall (Rashi House), and the 12th-century mikveh. The series also gathers the Old Jewish Cemetery in Worms and the Old Jewish Cemetery in Mainz.

Altogether, the ShUM sites tangibly reflect the early emergence of the distinctive Ashkenazic Jewish customs and the development and settlement pattern of the ShUM communities in these three cities, particularly between the 11th and the 14th centuries.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of four components comprising one group of buildings and three sites.

1 Basic data

Included in the Tentative List
15 January 2015

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 15 to 18 September 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 22 September 2020 requesting further information about the post-war restoration/reconstruction works; the rationale for the buffer zones of two component parts; protections measures for the buffer zones; development projects; and the status of the management system.

An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report including: description and wider historical context of the nominated serial property; authenticity and reconstruction; boundaries; protection and management; involvement of the local communities in the nomination process; risk management; interpretation and visitor management; and maintenance and monitoring.

Additional information was received from the State Party on 13 November 2020 and 25 February 2021 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated ShUM sites include four component parts located in the towns of Speyer, Worms and Mainz, on the Upper Rhine Valley: the Speyer Jewry-Court, the Worms Synagogue Compound, the Old Jewish Cemetery Worms and the Old Jewish Cemetery Mainz.

The acronym ShUM stands for the initials of Speyer, Worms and Mainz; it was used to indicate the Jewish communities of the three cities: the qehillot Magenza, Warmisa, Shpira or qehillot ShUM.

In response to the ICOMOS Interim Report, the State Party provided a wide historical account of the emergence of the Jewish presence north of the Alps and on the formation of the various Jewish centres throughout Europe. The presence of the Jewish community in Cologne and Trier is attested in the 4th century CE but, to date, their established presence in the Ashkenaz – the area of the German Empire north of the Alps – is confirmed only from the 9th-10th centuries.

The Jewish community was granted protection and forms of privileges by Imperial and Bishopric powers in order to secure its settlement, thus contributing to the expansion of
those cities and to reflect the custom of the Holy City of Rome, where Jews had been part of the socio-urban fabric since antiquity.

In Mainz, a Jewish community is mentioned in the second half of the 10th century and soon after in Worms; towards the end of the 11th century one further community settled in Speyer. All stemming from the one in Mainz, the family and intellectual ties among members of the three communities evolved into forms of binding cooperation, and in the 13th century their federation was formalised by common statutes, later known as Taqqanot Qehillot ShUM.

Depending on the specific circumstances and balance of powers among religious, state or local rulers, arrangements to secure the Jewish presence often proved weak against antisemitic waves. Pogroms in the three cities and elsewhere had already been reported already at the time of the first Crusade (end of the 11th century) and again in the mid-14th century, and persecutions continued throughout subsequent centuries. After the 16th century, the resettlement of the Jewish community in the towns was permitted only in segregated neighbourhoods (ghettos). Exceptionally, in Worms, Imperial intervention prevented the expulsion of the Jewish community and, eventually, a municipal “Jewry-Ordinance” in 1570 ended these attempts, although riots against the community continued.

Between the 18th and 19th centuries, the Jewish community gradually acquired legal emancipation and their integration into social and cultural life increased.

In the 20th century, the advent of the National Socialist Party triggered once again expulsions and pogroms, culminating in the Shoah, with subsequent major destruction of tangible Jewish heritage, including parts of the serial nominated property, as explained further below.

Speyer Jewry-Court (component 1)  
The nominated component encompasses the Jewry Court, with the remains of the synagogue, of its courtyard and of the women’s shul, or prayer room for women, the mikveh, a building for ritual baths, and the yeshiva, the teaching and study centre. They form a close group of buildings in functional and visual relationship. The monumental mikveh (c.1128) has been largely preserved in its original state, with its elaborate Romanesque form, refined stone masonry with pietra rasa rendering. It is assumed that the same stonemasons and craftsmen who worked on contemporary churches and cathedrals were employed on this building. The synagogue (inaugurated in 1104) and the women’s shul (13th century) survive as standing ruins; the yeshiva and the courtyard exist as archaeological remains.

The area of the former Jewry-Court was investigated in 1965-68. In 1999 the city of Speyer purchased the houses built over the Jewry court and exposed the medieval walls. In subsequent years, extensive archaeological investigations were carried out.

Worms Synagogue Compound (component 2)  
The Worms Synagogue Compound includes the synagogue with its courtyard, the women’s shul, the mikveh (12th century), the yeshiva (17th century) and the community hall (Rashi House).

The synagogue was built in the 12th century and subsequently renovated after the 1349 pogrom, the anti-Jewish uprising in 1615 and further in 1699. In the 19th century, proposals to replace the old building were strongly opposed, therefore only adaptations were carried out. The layout of the synagogue - vaulted with supportive central columns – is common to many synagogues from later centuries.

The women’s shul was originally built in the 13th century and subsequently modified and extended in the 17th century and in the 19th century. It is deemed to be the earliest known architectural solution in Ashkenazic Jewry to provide women with access to religious rituals and prayer.

The monumental mikveh, founded in the late 12th century, has been fully preserved from medieval times. It exhibits high architectural and building quality.

With the exception of the mikveh, the synagogue, the women’s shul and the yeshiva are a result of post-war reconstructions. This aspect is discussed in the Conservation section of this report.

The fate of the community hall was different: it survived the 1938 pogrom and World War II. Due to its precarious condition and development plans, it was earmarked for demolition. Protests and negotiations led to the retention of the underground medieval cellar and remains of the medieval standing walls. The volume and shape of the new building echo the former community hall, but the chosen architectural design was contemporary. The construction was completed in 1982. The additional information provided by the State Party in February 2021 clarifies that the community hall in Worms was rebuilt a number of times, the last one, before the 20th century construction, occurred in the 1850s. The medieval cellars, though, were preserved. Forms, dimensions and functions of the future building were extensively discussed to ensure that it would reflect the significance of the former community hall within the Jewish community. Eventually, the concept of a multifunctional building was retained, and the design approved, as it was seen to integrate well into the synagogue area but was clearly recognisable as a new building.

The surviving structures of the medieval cellar and portions of the above-ground medieval walls of the original community hall have been carefully preserved and integrated into the new building. The whole process is fully documented and files are preserved in the City Archives Worms.
Old Jewish Cemetery Worms (component 3)
This component part is located immediately outside the medieval city wall, following ancient Jewish custom. Fully enclosed by a wall, the cemetery includes the Heiliger Sand, with the medieval headstones, the Baroque entrance courtyard with the Tahara House and the New Section of the cemetery. Its older part contains about 2,500 headstones, 836 of which date back to the Middle Ages and document the development of an Ashkenazic burial culture. Although it was damaged by air raids in 1944-45, the cemetery is largely preserved.

The original Tahara House – the earliest known building dedicated to the ritual cleansing of the dead before their burial – was destroyed during the 1615 pogrom and rebuilt immediately afterwards. It was heavily damaged again during the 1938 pogrom and partially reconstructed in the 1950s.

Old Jewish Cemetery Mainz (component 4)
The component part extends outside the medieval city and includes the cemetery “auf dem Judensand”, the Memorial Cemetery with the medieval headstones, and the New Section. Around 180 headstones from the Middle Ages are preserved, whilst more than 1,500 can be found in the New Section of the Cemetery. The Memorial Cemetery contains headstones that had been removed from the medieval cemetery: they were collected and arranged in this area in the 1920s. The New Section includes tombs and headstones from the 18th century onwards.

In the 19th century some buildings were erected in the cemetery area, but larger redevelopment plans never materialised. In 1952, a school was built in one section of the cemetery and its demolition in 2007 revealed the presence of sunken tombs which were reburied.

Boundaries
The area of the 4 components totals 5.56 ha, with buffer zones totalling 16.43 ha.

The boundaries of the nominated Speyer Jewry-Court component part 1 include the remains of the ritual and community buildings related to the medieval community. Its buffer zone includes the area of the former Jewish settlement, which provides historical and physical context to the nominated component part.

Upon ICOMOS’s request, the State Party clarified that one segment of the buffer zone of the Speyer Jewry-Court coincides with the delimitation of the Cathedral Monument Zone.

Further clarification was sought in the Interim Report about the ownership of the perimeter walls of this component part. The State Party explained that the city of Speyer owns the synagogue and women’s shul walls whilst the wall enclosing the synagogue garden is in co-ownership with the Diocese of Speyer. The privately-owned estates adjoining the synagogue and the women’s shul are protected by the Monument Protection Act of the Land Rhineland-Palatinate and monitored by the Monument Protection Authorities.

The boundaries of the Worms Synagogue Compound include all surviving and reconstructed elements of the religious and community buildings. The buffer zone includes parts of the former Jewish Quarter, which safeguards visual relationships between the monuments and thus helps the understanding of the nominated component part in its context.

Based on the February 2021 additional information on the Rashi House, ICOMOS considers that the surviving medieval structures should be included within the boundaries of the nominated property. However, the 1980s building of the Rashi House built over these remains cannot be considered a tangible attribute expressing the proposed justification for inscription. But its volume and its functions, particularly the museum, complement the illustration of the historic layout of the complex.

The boundaries of the Old Jewish Cemetery Worms encompass the cemetery and immediately adjacent areas. The buffer zone includes areas related to the historical extent of the cemetery, areas of the former medieval city walls and of the former moat, and built-up areas.

The boundaries of the Old Jewish Cemetery Mainz include the current extent of the cemetery, whilst the buffer zone includes the known extent of the medieval cemetery and other areas to protect views.

ICOMOS considers that the boundaries of the nominated component parts are clearly delineated, they include all necessary elements that support the proposed justification for inscription, and are covered by different layers of protection.

Based on the additional clarifications provided by the State Party, ICOMOS considers that the boundaries of the buffer zones are acceptable; however special attention needs to be paid to developments that may occur outside the buffer zone, particularly around the cemeteries.

State of conservation
For the most part, the nominated component parts of the ShUM sites have witnessed historical events which resulted in different outcomes and therefore in a differing conservation history.

The surviving medieval standing walls of the synagogue and of the women’s shul and the remains of the yeshiva of Speyer Jewry-Court have been restored since 1999 and in the same year a glass roof was installed to prevent rainwater infiltrations in the mikveh. Thermo-hygrometric parameters are permanently monitored. All structures are in good condition.

The synagogue in Worms was set on fire during the 1938 pogrom and, along with the adjoining women’s shul and yeshiva, were demolished immediately afterwards. Since the 19th century the Jewish monumental complex has been
officially recognised as historic heritage of Worms. So, immediately after the 1938 destruction, artefacts were recovered and this continued during the war period. In 1948, a protective wall was built to secure the remains from further loss. The Romanesque portal of the synagogue was reassembled using original stone elements in 1949. Preparatory works continued and, in 1953, surviving members of the Jewish community of Worms were asked to support the reconstruction. Funds were secured from the State and federal budgets, and work was steadily carried out between 1957 and 1961.

Upon ICOMOS’s request, in November 2020 the State Party provided extensive further documentation on the reconstruction process that shows that it has been fully documented and carefully carried out.

Following the post-war reconstruction (synagogue, women’s shul and yeshiva) and restoration (mikveh), the Worms Synagogue Compound is overall in good conditions and monitored. Humidity problems in the mikveh have been dealt with since 2016 and detected stability problems are being addressed.

The Old Jewish Cemetery Worms and the Old Jewish Cemetery Mainz are overall in good condition, although with varying degrees according to the age and type of stone used.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is overall good or adequate; in the cemeteries maintenance seems to focus essentially on medieval elements. However, conservation issues are being carefully addressed and it is expected that maintenance and conservation measures will be extended to all sections of the cemeteries. ICOMOS underlines the need for ensuring efficient drainage of surface water in the immediate setting of the mikvehs.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are:

- Urban development, particularly for the cemeteries, as they lie in more dynamic urban areas in a highly developed and densely settled region;
- Torrential rains, particularly relevant for the mikvehs;
- Weathering and associated processes (e.g., freeze – thaw cycles, salts crystallisation);
- Climate change which can trigger exceptional meteorological phenomena and modification of hygro-thermal parameters and abnormal weathering processes;
- Micro-biological infestations and vegetation growth, particularly relevant for the cemeteries;
- Vandalism and anti-Semitism, which may result in destructive actions or attacks.

The management system appears to be well equipped to deal with the most likely affecting factors through legal and planning protection mechanisms already in place and additional ones being elaborated (for further detail refer to the Protection and Management Section), regular maintenance and monitoring, and security measures.

A few substantial project proposals have been brought to the attention of ICOMOS by the State Party, which submitted separate information on development projects in June 2020 and detailed documentation following ICOMOS’ additional information request in September 2020. On the basis of the received documentation and of the information gathered during the evaluation mission, ICOMOS considers that, at this stage, the project for the Hotel on “Das Wormser” is the only one that might impact visually on the nominated component part. The new planned hotel building is likely to be seen from its farthest areas, at least in the winter months when the vegetation cannot hide it. Careful consideration to the finishing of the new building is recommended in order to minimise visual disturbance.

The possibility to build an information centre south of the Rashi House, in the Worms Synagogue Compound, is under discussion. However, the February 2021 Additional Information clarifies that no detailed plans exist to date. If and when they materialise, the procedure established in paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention will be followed.

ICOMOS considers that any proposal of this kind has to be evaluated through an Heritage Impact Assessment.

In Mainz, development has already occurred in a large redevelopment plot along Mombacher Street, with the erection of 6-storey high buildings for Mainz University campus, and will continue with residential and mixed functions in the remaining part of the plot. ICOMOS observes that the visualisation of the project envisaged planting lines of trees along the street adjoining the Old Jewish Cemetery; it would be important to implement this measure as a form of mitigation of the views from the cemetery.

ICOMOS considers that close monitoring of development proposals is essential, both inside and outside the buffer zones, considering the dynamics of the urban centres where the component parts are located, especially in the areas adjacent to major roads or railway lines.

ICOMOS considers that the boundaries of the nominated serial property and of the buffer zones are adequate. The state of conservation is overall good, although variable among the component parts; the major factors affecting the property are urban development, and torrential rains, possibly induced by climate change, and subsequent related factors, such as weathering. Ensuring efficient drainage of surface waters near the mikvehs is recommended. Close monitoring of development proposals is essential, both inside and outside the buffer...
zones, considering the dynamicity of these urban areas. Measures to mitigate the possible visual impact of the upper part of the Hotel on “Das Wormser” immediately outside the buffer zone of the Old Jewish Cemetery Worms need to be adopted. Any future project proposal that may impact on the nominated property should be the object of an Heritage Impact Assessment process. The planned tree-planting along the perimeter wall of the Old Jewish Cemetery Mainz is important to mitigate the visual impact of the already carried out development.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- It is an exceptional testimony of Jewish community life in the diaspora.
- It tangibly illustrates the formation of the fundamentals of Ashkenazic Judaism and the statutes established by the ShUM communities.
- It establishes architectural design that had a lasting impact on the material culture of Ashkenazic Jews.
- It is clear evidence of the cultural identity and resilience of the Jewish communities in a majority Christian culture.
- It is tangibly and directly associated with the creative achievements of Ashkenazic early scholars.

Comparative analysis
The nominated series is comprised of all surviving monuments, structures and archaeological remains of the religious and community facilities of the associated Jewish communities settled in Speyer, Worms and Mainz, regulated by formalised statutes (Taqqanot Qehillot ShUM).

The comparative analysis has been carried out at two levels: global and sub-regional. The global comparison considers the following parameters: merging of religious and cultural traditions, coexistence of different ethnic or cultural groups, connection with events or beliefs important for more than one religious tradition, change of status of religious groups from minority to majority position; demonstration of resilience in the face of external challenges. Altogether some 190 sites have been considered, of which 108 are inscribed on the World Heritage List and 30 included in the Tentative Lists of States Party.

The relevant comparative exercise has been developed at the sub-regional level on the basis of the five main facets of the proposed Outstanding Universal Value and key attributes: Jewish community centres; synagogues with gable structures, vaulted synagogues with central pillars; women’s shul, mikveh buildings; Jewish cemeteries, and centres of Jewish intellectual life.

The sub-regional comparison focuses essentially on Ashkenazic communities and the tangible inheritance they have left and is informative about the survival of a number of Jewish ritual buildings or of their remains.

In response to the ICOMOS Interim Report, the State Party has provided extensive explanations on the different strands of Judaism to further support the comparative rationale. Some clarifications have also been provided on the specific contexts of the emergence and historic development of Jewish communities in other centres of the Ashkenazic area that make the nominated serial ShUM sites distinct from these centres.

Despite some weaknesses and thanks to the additional information provided, ICOMOS considers that the comparative analysis justifies consideration of the nominated serial property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii), (iii) and (vi).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the ShUM sites include buildings and functional spaces reflecting emerging social and ritual traditions in diasporic Jewry that became prototypes for other later buildings. The nominated serial property includes among the earliest known synagogues, women’s shul and mikvehs in Central Europe and they had a major impact on the design of other religious or community buildings in the Middle Ages. The nominated Old Jewish Cemeteries Worms and Mainz, with their suburban location and the easterly orientation of the graves bear witness to a burial culture that spread across Europe among the Ashkenazi Jewish community.

ICOMOS considers that the additional information provided in February 2021 contributes to justify this criterion, particularly with regard to the synagogues, the women’s shul and the mikvehs being prototypes for later buildings and architectural complexes, and for the location and the layout of the cemeteries.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the ShUM sites represent a unique and exceptional testimony to the formation of the Ashkenazic Jewish tradition and identity and bear witness to the resilience of a religious minority. The nominated series reflects in a vivid manner Ashkenazic conceptions, practices and
traditions as well as the interaction of the Jewish community with surrounding population and the Christian rulers. Along with their statutes (Taqqanot Qehillot ShUM), the religious buildings and archaeological remains, as well as the cemeteries illustrate the self-image of the ShUM Jews as religious communities. The nominated serial property is also seen as early evidence of the participation of the Jewish community in the High Middle Ages’ urbanisation of Central Europe (north of the Alps, northern France and England) because they were seen as an essential component of powerful cathedral cities.

ICOMOS considers that the nominated serial property indeed tangibly illustrates the formation of the Ashkenazic cultural tradition and the key ritual and community functions: the role of prayer and scholarship, the importance of religious purity, legal community and self-administration.

However, the claims for the role played by Jewish communities in the urbanisation process has not been supported by adequate evidence in the nomination dossier or by the additional information transmitted in November 2020 and in February 2021. ICOMOS observes that Jewish communities indeed contributed to the economy of the urban centres but it has not been shown how they participated in the formation of the urban structure.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that ShUM sites, being the cradle of Ashkenazic Jewish living tradition, are directly and tangibly associated with a major religious diaspora group which settled in Central Europe and shaped a distinctive form of Judaism, and a specific diaspora language, Yiddish, as Hebrew was reserved for religious practice. The nominated series also reflects exceptionally the long history of Judeo-Christian encounters. The nominated property is also evidently and tangibly related to the Taqqanot Qehillot ShUM, the corpus of ordinances compiled in 1220 and regulating the religious life and legal matters of the Jewish communities of Speyer, Worms and Mainz. Furthermore, the nominated serial property is closely linked to achievements in Bible and Talmud studies, religious law, liturgical poetry and codification of religious customs. These literary works had significant influence in the Ashkenazic world, and many liturgical poems remain in use today in the Jewish liturgy.

ICOMOS considers that the additional information supports the claim of the nominated serial ShUM sites being the cradle of Ashkenazic Judaism and of the exceptional importance of the Taqqanot Qehillot ShUM for Ashkenazic Jewry as well as their inherent association with the nominated sites. These arguments also reinforce the justification for criterion (iii). The additional information has also demonstrated the tangible association of the nominated property with literary religious works which continues to be used.

On the other hand, ICOMOS notes that other still surviving Jewish sites reflect the long history or Judeo-Christian encounter and cannot be said to be an exceptional specificity of the nominated property.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (vi); however, some of the arguments presented are not considered to support the justification of the criteria.

Integrity and authenticity

Integrity

The nominated serial property includes all surviving elements illustrating the Jewish communities in the cathedral cities of Speyer, Worms and Mainz. In Speyer, only the religious and community ensemble survives, whilst in Mainz only the Old Jewish Cemetery has survived to the present day. Surviving original buildings and structures, archaeological remains and post-war reconstructed buildings are all in good conditions and so are the two cemeteries. Despite the losses suffered by the components included in the nominated serial property due to the repeated pogroms, expulsions and persecutions of Jewish communities, overall the nominated series is deemed to be able to support the proposed justification for inscription. All nominated component parts are afforded the strongest legal protection, and none of them is threatened by development or neglect.

The nomination dossier includes a comprehensive assessment of integrity of the nominated serial property and of the contribution of each component part to the series. ICOMOS considers that this assessment will prove helpful also as a reference for management purposes.

ICOMOS considers that the nominated property contains all necessary elements to convey how the Ashkenazic Jewish communities of ShUM shaped their traditions and cultural identity throughout the High Middle Ages, and how responses to aspects of their religious and community life have been materialised, within a predominantly Christian society. With the exception of the mikvehs, which retain high integrity, most of the buildings and, less so, the cemeteries, have suffered from the ravages of dramatic historical events, including in the 20th century. However, what survives retains sufficient, although varying degrees of integrity, allowing a clear understanding of the values and of the historic processes and patrimonialization expressed by the ShUM sites.

Although pressures are under control, particular attention needs to be paid to future developments, especially for the cemeteries, which are located in more dynamic areas when it comes to urban development.
Authenticity

According to the nomination dossier, the nominated serial property meets the conditions of authenticity in terms of form and design, layout, spatial organisation and interrelationships. Therefore, the nominated serial property reflects clearly its development in the High Middle Ages.

The nomination dossier discusses extensively the conditions of authenticity of the serial nominated property and of the specific component parts, so as to provide a detailed and modulated assessment of their conditions of authenticity. Such an assessment will also be useful as a guide to management.

ICOMOS concurs with most of the arguments set out in the nomination dossier and underlines the high degree of authenticity, based on many sources of information, of the mikvahs in Speyer and Worms, which have been handed down almost intact since their construction and have kept their original function.

With regards to the Worms Synagogue Compound, the nomination dossier provides an account of its reconstruction. ICOMOS requested additional information about the process of the post-war reconstruction and the additional material provided in November 2020 suggests that a wealth of information exists on the reconstruction of the synagogue and the women's shul in Worms.

On the basis of the arguments presented in the nomination dossier, the additional documentation, and discussion of issues of authenticity transmitted by the State Party, ICOMOS considers that the extensive reconstruction works of the Worms Synagogue Compound are to be contextualised in the post-war and post-Shoah setting. It is noted that an aspiration for the reconstruction of these monuments had been there since the aftermath of the war, but it took some ten years of preparation before it could begin.

ICOMOS further observes that the reconstruction ensured the retention of the residual authenticity of the destroyed monuments and has tended to evoke cultural identity and intangible practices. Only the lower parts of the walls have survived intact in their original places and therefore exhibit the richest conditions of authenticity; however, a number of collapsed original elements have been reinstated, some with a higher level of confidence, others have been nevertheless reused in the reconstruction. The synagogue complex has regained its function and services have taken place on a regular basis since the mid-1990s, with the increase in numbers of Jews living in Worms.

ICOMOS suggests that a re-appraisal of the reconstruction of the Worms Synagogue Compound would contribute to illuminating the multiple dimensions of the reconstruction process of these monuments and inform the interpretation and presentation of the ShUM sites.

ICOMOS stresses the need that all visitors are made fully aware that these monuments have been reconstructed and have explained to them the story of the specific reconstruction process of these monuments. Communication and interpretation programmes should specifically address this aspect of the nominated property.

Based on the additional information provided by the State Party in February 2021 on the demolition of the 19th-century building of the community hall and the construction of the Rashi House between the 1970s and 1980s, ICOMOS considers that only the surviving medieval structures of the community hall can be considered as tangible attributes conveying aspects of the proposed justification for inscription. However, the Rashi House houses the Jewish Museum Worms, therefore it can be considered that its museum function complements the tangible attributes in telling the story of the Jewish ShUM communities throughout the centuries.

In conclusion, ICOMOS considers that, despite the losses suffered by some of the component parts and taking into consideration the theme reflected by this nomination and its specific historical development, the conditions of integrity and authenticity are met. However, given the different history and reconstruction process followed for the community hall, ICOMOS considers that the 1980s building of the Rashi House cannot be considered an attribute supporting the proposed justification for inscription. ICOMOS also considers that a reappraisal of the reconstruction processes would also be useful to inform the interpretation and presentation of the ShUM sites, particularly at the Worms Synagogue Compound.

Evaluation of the proposed justification for inscription

The nomination dossier and the additional information have demonstrated the outstanding importance of the serial nominated property. The comparative analysis, complemented by the details on the wider context in which the nominated property is to be understood, justifies consideration of the ShUM sites for the World Heritage List. All three criteria – (ii), (iii) and (vi) – have been justified, although the role played by the nominated sites in the urbanisation of Speyer, Worms and Mainz has not been proved by the nomination dossier nor the additional information.

Some component parts have suffered losses over time and have been the object of repeated repairs and reconstructions. However, some components and elements have survived from the Middle Ages in exceptional conditions of integrity and authenticity. Taking into consideration the theme reflected by this nomination and its specific historical development, ICOMOS considers that the conditions of integrity and authenticity are met. However, the 1980s building of the Rashi House cannot be considered an attribute supporting the proposed justification for inscription. A reappraisal of the reconstruction processes at the Worms Synagogue Compound would also be useful to inform the interpretation and presentation of the ShUM sites.

369
**Attributes**
The location, form, design, essential layout, spatial organisation and respective interrelationships, including visual links, of the nominated components and of the respective elements within the components reflect their significant and influential development in the High Middle Ages. The subsequent additions and modifications, with no historicist restorations carried out, reflect clearly and outstandingly the historical development and the increasing awareness of its heritage significance of the nominated series. The mikvehs, in particular, have been handed down from the High Middle Ages to the present day in a preserved state that is rare and exceptional for medieval buildings. The exceptional historical and architectural quality of the nominated components was recognised as early as the 19th century and measures for their protection were introduced. The sense of place and recollection of the ShUM sites and particularly the cemeteries, contribute significantly to the understanding of their heritage values.

ICOMOS considers that the identification of attributes is comprehensive and supports the justification for inscription.

**4 Conservation measures and monitoring**

**Conservation measures**

Conservation works have been carried out at the component parts of the nominated series and maintenance is regularly performed. The conservation of the nominated series is addressed in a systematic manner and integrates regular inspections, maintenance and ad-hoc projects. In particular, a pilot project for the conservation of the headstones at the two cemeteries is being implemented to test the most appropriate treatments. A multi-year project for developing and testing methods for the conservation of the ancient plaster fragments of the mikvehs is being implemented with the involvement of several specialised institutions and the participation of the State Association of Jewish Communities of Rhineland-Palatinate.

Upon ICOMOS’s request, the State Party has provided additional details on the maintenance programme for the nominated series.

ICOMOS considers that the conservation measures are adequate to safeguard the attributes conveying the proposed justification for inscription and funds seem to be available to support this conservation. All sections of the cemeteries would benefit from receiving the same level of attention and care as the medieval tombstones.

**Monitoring**

Monitoring activities are part of the regular protection requirements. Ad-hoc monitoring groups have been set up within the management structure. The site manager, once appointed, will be responsible for the monitoring and the quality assurance, which include defined monitoring procedures and reporting as well as qualified procedures for conservation, maintenance and other works. Key indicators for the state of conservation of the nominated serial property have been identified.

ICOMOS observes that, overall, the monitoring system for the conservation of the nominated series relies on existing monitoring protocols and procedures. However, it would be useful if the periodicity of the monitoring could be better specified and the responsible actors for monitoring activity indicated. In its February 2021 additional information, the State Party provided further clarification on the monitoring system and on the responsible agencies.

ICOMOS notes that a programme of priority measures and course of action has been prepared but no monitoring indicators seem to be in place: their development and implementation is recommended.

ICOMOS considers that conservation measures are adequate to guarantee the sustenance of the nominated property and its attributes are adequately resourced. ICOMOS however recommends that all sections of the cemeteries receive the same level of attention and care as the medieval tombstones. The monitoring system for the state of conservation of the nominated series is adequate for its purpose. The monitoring of the implementation of the management programme included in the Management Plan would benefit from the addition of performance indicators.

**5 Protection and management**

**Documentation**

The nomination dossier documents that a wealth of information exists for protected cultural monuments as well as archaeological areas and excavations, and that documentation continues to be produced and stored in the archives of responsible institutions. The nomination dossier and the Management Plan contain indications of the repositories of the documentation. A database of sources of information about the ShUM sites is being elaborated and it will be available for consultation as a research tool.

The Management Plan contains a tabular summary of the most important research campaigns recently carried out or ongoing.

ICOMOS observes that the nominated serial property is very well documented, especially the two nominated cemeteries. Several research and academic institutions are involved in research on the nominated property, with the consequent production of significant amount of information and documentation.

ICOMOS understands that a great deal of documentation is located in several different institutions: it would be useful if digitisation of all archival documentation be envisaged and integrated into the database being prepared, for accessibility and risk management reasons.
Legal protection
The nomination dossier contains a detailed description of the protection legislation at the Federal and State levels covering the nominated component parts and their buffer zones. The key legal instrument for the protection of the nominated serial property is the Monument Protection Act of Rhineland-Palatinate (DSchG). Building and planning regulations are a Federal responsibility: the Federal Regional Planning Act (Raumordnungsgesetz – ROG) and the Federal Building Code (Baugesetzbuch – BauGB) are relevant for the protection of both the nominated component parts and their buffer zones. The ROG includes provisions related to the historic cultural landscapes and the World Heritage properties, whilst the BauGB guarantees that cultural and urban heritage are duly taken into account in urban planning development.

The key authorities implementing the legislation concerning monument protection include: the Lower Monuments Protection Authority which grants permissions in consultation with the State Conservation Office; in case the Lower Authority wishes to deviate from the State Office, the matter is reverted to the Higher Monuments Protection Authority, which can take a decision or again revert to the Lower Monuments Protection Authority. The Highest Monuments Protection Authority is the Ministry for Science, Further Education and Culture.

The key planning instruments relevant for the protection of the nominated serial property and of the buffer zones include Land-use Plans, as well as Local Building and Construction Plans (LBCP). The nominated property and the buffer zones will be submitted in text form to be included in the plans, as required by the BauGB.

All component parts of the nominated property are afforded legal protection under the State law on the protection of monuments. The buffer zones are afforded protection as surrounding areas of protected monuments and by binding provisions of local planning instruments. A set of municipal statutes exist in Speyer, Worms and Mainz protecting the townscape and regulating development activities.

Following the request for additional information by ICOMOS, the State Party has clarified that new local building and construction plans are being prepared in order to incorporate fully the Speyer Jewry-Court and its buffer zone (LBCP 056 A), to cover the entirety of the Worms Synagogue Compound (LBCP O 128) and for the area surrounding the Old Jewish Cemetery Worms (LBCP O 127). The existing LBCP covering the area adjoining the Old Jewish Cemetery Mainz include developments that are being completed.

ICOMOS notes that in Worms an area to be carefully monitored for possible future development lies outside the proposed LBCP O 127, on the other side of the railway.

The safeguarding and overseeing of the cemeteries is regulated on the basis of an agreement among Federal Government, Federal States and Jewish organisations. Relevant state authorities are responsible for the supervision of the cemeteries with the specialised involvement of the State Association of Jewish Communities of Rhineland-Palatinate.

Upon ICOMOS’s request, the State Party explained that revised local building and construction plans await public participation procedures, which could not be implemented due to the pandemic, before being approved. However, the State Party expects to finalise the procedures and enforce the local plans in the second half of 2021.

Management system
Coordination at the federal level between the Federal Government and the Federal states falls under the responsibility of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany. At the State level, the institutions responsible for the implementation of the legal and planning frameworks include four ministries, their respective specialised branches as higher state authorities in heritage protection, building supervision, spatial planning and nature and environmental protection, and finally the local authorities, namely the self-governing cities of Speyer, Worms and Mainz.

The management system for the nominated serial property relies on legal, planning and institutional frameworks already in place and established via Federal, State and municipal legislation. A management structure has been set up: it includes all relevant stakeholders and comprises a steering committee, supported by a special monitoring group and an advisory council, three management groups, one for each component, participating in the management group for the ShUM sites and implementing decisions at each component part. Subject-oriented management groups exist to address specific matters, e.g. tourism. Three monitoring groups, one for each city, participate in the Monitoring Group for the ShUM Sites. The Managing Director of the ShUM-Cities Speyer, Worms and Mainz Association is planned to assume the role of the World Heritage site manager, in the event of World Heritage listing. The position is available and financed.

Quality assurance and conflict management processes have been established to inform monitoring and guarantee that decision–making on matters pertaining to, or impacting on, the nominated property are based on qualified procedures, including World Heritage Impact Assessment, and that conflicts are managed at an early stage.

In its additional information received in November 2020, the State Party explains that the State of Rhineland-Palatinate, the State Association of Jewish Communities of Rhineland-Palatinate, and the cities of Speyer, Worms and Mainz, signed a cooperation agreement in 2012, further updated in 2020, therefore management arrangements are already in place.
A Management Plan has been prepared and contains a list of measures and courses of action developed for effective and long-term protection addressing both the nominated serial property and the buffer zones. Priorities have also been identified and addressed through specific projects.

Risks of disasters from natural causes, namely earthquakes and floods, are deemed rather low for the nominated serial property. A state earthquake registration system is in place and in the medium-term, an earthquake network for monitoring effects of seismic activities is expected to be established. General safety measures exist at all component parts for lightning and fire. Torrential rains and storms represent the highest risk for the two mikvehs: in Speyer a glass roof has been installed and in Worms options for sealing the external surfaces are being discussed.

In its Interim Report, ICOMOS requested additional information on measures against vandalism. The State Party responded that during 2020 further ad-hoc protection measures and security recommendations have been introduced and implemented following terrorist attacks in Germany and Austria. An updated assessment of hazards for all nominated components is planned to be performed by the State Criminal Police Office of Rhineland-Palatinate.

**Visitor management**

Plans exist to develop an ad-hoc common tourism policy for the ShUM sites which can be integrated into the larger tourism policies at the municipal level. The management approach is to give priority to the ritual use and religious dignity over visitors. Component parts are not fully accessible to the public, but consideration is being given to improving accessibility in the long-term. At the moment the overall visitor numbers are less than 100,000 per year. Both the nomination dossier and the Management Plan discuss interpretation and presentation but policies and programmes for education, interpretation and presentation are not yet in place for the whole nominated serial property, the main recognised challenge being the coordination of relevant stakeholders and alignments of approaches.

**Community involvement**

The nomination dossier documents the involvement of a variety of administrations and of the State Association of Jewish Communities of Rhineland-Palatinate; however it does not show whether and how the inhabitants of the buffer zones and, more widely, the citizens of the three cities have been involved in the nomination process.

In the February 2021 additional information, the State Party has provided details on activities carried out to inform the population about the nomination process and the significance of the nominated property.

**Evaluation of the effectiveness of the protection and management of nominated property**

The nominated component parts are adequately protected under the State specialised legislation for cultural heritage. Federal law concerning spatial planning and construction also includes provisions addressing protection of nationally important cultural heritage. The legal and planning protection measures and mechanisms are adequate.

The buffer zones are partly covered by provisions offering an added layer of protection; local building and construction plans have been developed but await being approved and enforced. ICOMOS observes that the capacity of the buffer zones to deploy in full their added layer of protection to the nominated property relies on these plans being finalised and put into effect. Therefore, their finalisation and implementation is essential to complement the legal protection mechanisms of the nominated property.

The management system is multi-tiered, it relies on the existing legal and planning framework and mechanisms and includes Federal, State, and municipal institutions, the owners and interest groups’ associations. The main elements of the management structure are in place and have already cooperated for the nomination; further working groups are being established to address specific matters, e.g. tourism interpretation and presentation.

The Management Plan is adequate for the specific conditions of the nominated serial property and for the purpose of safeguarding the proposed Outstanding Universal Value, the integrity and authenticity of the ShUM sites.

A joint interpretation policy and strategy harmonising the approaches at the different components is under preparation but not yet in place. Addressing this aspect is essential to offer a coordinated and consistent presentation of the proposed Outstanding Universal Value of the nominated property.

The Jewish Community Mainz has been involved in the nomination process and in the management of the nominated series. Various activities have been implemented in recent years to inform citizens of the nomination process: the involvement and participation of local inhabitants needs to be continued and enhanced.

Risk preparedness measures are embedded in the general management system; however, additional ad-hoc measures have been implemented to prevent potential terrorist attacks.

ICOMOS considers that the management system is adequate; however, the finalisation of the local plans currently being revised is a key step to complement existing legal protection mechanisms. Equally important is achieving a joint interpretation strategy for the nominated series, which addresses the property as a whole and also includes the reconstruction processes at the Worms component.
6 Conclusion

The ShUM sites are nominated for inscription on the World Heritage List because they bear exceptional testimony to Jewish community life in the diaspora and reflect the formation of the fundamentals of Ashkenazic Judaism in the High Middle Ages, with a lasting impact on the culture of Ashkenazic Jews throughout the centuries.

The nomination dossier and the additional information have demonstrated the outstanding importance of the serial nominated property. The comparative analysis, complemented by the details on the wider context in which the nominated property is to be understood, justifies consideration of the nominated property for inclusion in the World Heritage List. The three proposed criteria (ii), (iii) and (vi) have all been justified, although some of the proposed arguments have not been proved. Some nominated components experienced turbulent historical developments but, overall, the nominated property meets the conditions of integrity and authenticity. A reappraisal of the reconstruction processes at the Worms Synagogue Compound would be useful also for the interpretation and presentation of the ShUM sites.

The conservation measures are adequate to guarantee the maintenance of the nominated property and its attributes and adequately resourced. All sections of the cemeteries would benefit from the same level of care as the medieval tombstones. The monitoring system for the state of conservation of the nominated series is adequate for its purpose, although the Management Plan would benefit from the inclusion of performance indicators.

The nominated component parts are adequately protected under the State specialised legislation for cultural heritage. The legal and planning protection measures are adequate. The buffer zones are partly covered by provisions offering an added layer of protection; new local planning provisions have been developed but are yet to be approved. The capacity of the buffer zones to deploy in full their added layer of protection depends on the finalisation and implementation of these plans.

The management system relies on the existing legal and planning framework and mechanisms. The main elements of the management structure are in place and have already cooperated for the nomination. The Management Plan is adequate for the specific conditions of the nominated serial property and for the purpose of safeguarding the proposed Outstanding Universal Value of the ShUM sites.

A joint interpretation policy and strategy harmonising the approaches at the different components is essential for the nominated property: it is under preparation but not yet in place. The involvement of the local inhabitants and communities is crucial and the efforts deployed so far need to be continued and enhanced.

Risk preparedness measures have been updated to respond to the escalation of terrorist attacks in 2019 and 2020.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the ShUM Sites of Speyer, Worms and Mainz, Germany, be inscribed on the World Heritage List on the basis of criteria (ii), (iii) and (vi).

Recommended Statement of Outstanding Universal Value

Brief synthesis

ShUM Sites of Speyer, Worms and Mainz are located in the state of Rhineland-Palatinate, Germany. It is a serial property of four component parts, which are located in the Upper Rhine cathedral cities of Speyer, Worms and Mainz: Speyer Jewry-Court, Worms Synagogue Compound, Old Jewish Cemetery Worms, and Old Jewish Cemetery Mainz. The property is an exceptional testimony of Jewish communal diasporic life, from the 10th century onwards. The community centres and cemeteries date back to the origins of Jewish history beyond the Mediterranean region. ShUM (ש"ע מ) is a traditional Hebrew acronym for the league of prominent qehillot of Ashkenazi Jews in Speyer, Worms and Mainz, made up from the initial letters of their Hebrew city names. The ShUM communities were uniquely connected by joint community ordinances, passed around 1220 and known as the Taqqanot Qehillot ShUM. The fundamentals of Ashkenazic Judaism were established between the 10th and 13th centuries: the scholars of Speyer, Worms and Mainz played a prominent role in this process. Their statutes are vividly reflected in the property by its architecture and the associated development of culture.

The unique community centres and cemeteries have had a lasting impact on the material Ashkenazic culture and are directly and tangibly associated with the creative achievements of the early Ashkenazic scholars.

Criterion (ii): The ShUM Sites of Speyer, Worms and Mainz are pioneering ensembles of Jewish diasporic community centres and cemeteries from the High Middle Ages. Their form and design influenced Jewish architectural design, ritual buildings and burial culture across Central Europe north of the Alps and northern France and England.

Criterion (iii): The ShUM Sites of Speyer, Worms and Mainz provide a unique and exceptional testimony to the formation of European Jewish cultural tradition and identity. There is no other property with a comparable range of elements that can bear witness to such profound developments in the formation phase of the continuing cultural tradition of Ashkenazic Judaism. Their community centres and cemeteries form an exceptional complex of early religious sites that contributed profoundly to the creation of a distinctive cultural identity.
Criterion (vi): The ShUM Sites of Speyer, Worms and Mainz, as the cradle of Ashkenazic Jewish living tradition, are directly and tangibly associated with a major group of the Jewish diaspora which settled in Europe in the High Middle Ages. There is no other location with a comparable range of Jewish community centres and cemeteries to bear witness to the cultural achievements of Ashkenazic Jews. The ShUM sites were treated as prime places of Jewish identity and of reflection on Jewish-Christian relations. The joint ordinances (Taqkanot ShUM) around 1220 constitute the most comprehensive corpus of Jewish community ordinances from medieval Ashkenaz. The writings of ShUM scholars, poets and community leaders during the 10th to the 13th centuries provide evidence of profound influence at a crucial point at the crossroads of cultural developments in Ashkenazic Judaism. Their writings are still part of Jewish tradition to this day.

Integrity

The ShUM Sites of Speyer, Worms and Mainz include all elements necessary to express the Outstanding Universal Value. Altogether, they represent the closely linked cultural tradition of the qehillot ShUM in the cities of Speyer, Worms and Mainz and reflect the special contribution of each component part to the series. None of the component parts are threatened by development or neglect, each being afforded the strongest possible legal protection under the Monuments Protection Act of Rhineland-Palatinate and the State Building Ordinance of Rhineland-Palatinate, and the Monuments Protection Act of Rhineland-Palatinate (in accordance with Article 8 DSchG), and ongoing conservation of the property being adequately funded and well-supported by local communities.

Authenticity

The form and design, essential layout, spatial organisation of the ShUM Sites of Speyer, Worms and Mainz and the respective interrelationships and visual links between the elements within the component parts, together with their architectural forms and designs, reflect the significant and influential development of these sites in the High Middle Ages in a clear and unambiguous manner. Elements are well-preserved according to historical development from the 11th to the 14th centuries, with additions in the 17th century and interventions in the 20th century; post-trauma reconstructions have been carried out respectfully and have retained the heritage significance of the monuments. As early as the late-19th century, measures towards the protection of the substance were introduced. Each component part and their elements have been scientifically investigated from the middle of the 18th century, and their signification increasingly realised. Existing documentation is thorough, and research continuous, thus enhancing knowledge of the property.

Management and Protection requirements

The ShUM Sites of Speyer, Worms and Mainz are protected by national instruments of protection. The central instrument for the protection of the property at national level is the Federal Building Code (Baugesetzbuch – BauGB), and the State Building Ordinance of Rhineland-Palatinate (Landesbauordnung – LBauO) and the Monuments Protection Act of Rhineland-Palatinate (Denkmalschutzgesetz – DSchG). Being placed under protection in accordance with Article 8 DSchG, the property enjoys the strongest possible legal protection. The legal principles of regional and urban planning and the municipal legal regulations and statutes provide effective additional protection to the property, so as to guarantee that the attributes of the Outstanding Universal Value are protected from development, particularly in more dynamic urban areas.

A single Management Plan has been developed so that the protection and the integrated and coordinated management of the property are ensured. For implementing this plan, centrally coordinated management and monitoring groups have been organised in cooperation with the owners and other stakeholders. The cooperation of all those involved guarantees that statutory and legal provisions will be respected, and that ShUM Sites of Speyer, Worms and Mainz will be sustainably protected.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Approving and implementing the revised local building and construction plans,

b) Monitoring closely potential developments in the setting of the components of the series, particularly the cemeteries, given the high dynamicity of these urban areas,

c) Finalising the joint interpretation strategy for the ShUM sites to ensure a coherent presentation of the whole series at each component, and including in the presentation programme the reconstruction processes that have occurred at the Worms Synagogue Compound,

d) Considering adopting mitigation measures for the potential visual impact of the upper part of the Hotel on “Das Wormser”, being built immediately outside the buffer zone of the Old Jewish Cemetery Worms,

Map showing the location of the nominated components
Frontiers of the Roman Empire –
the Lower German Limes
(Netherlands, Germany)
No 1631

Official name as proposed by the States Parties
Frontiers of the Roman Empire – The Lower German Limes

Location
NETHERLANDS
Province of Gelderland:
Municipalities of Arnhem, Berg en Dal, Nijmegen,
Overbetuwe, Zevenaar
Province of Utrecht:
Municipalities of Bunnik, Utrecht, Woerden
Province of South Holland (Zuid-Holland):
Municipalities of Katwijk, Leiden, Leidschendam-Voorburg,
Voorschoten

GERMANY
Federal state of North Rhine-Westphalia (Nordrhein-Westfalen):
Municipalities of Kleve, Bedburg-Hau, Kalkar, Uedem,
Xanten, Wesel, Alpen, Moers, Duisburg, Krefeld, Neuss,
Monheim am Rhein, Dormagen, Köln, Bonn, Bornheim,
Alten, Swisttal, Bad-Münstereifel
Federal State of Rhineland-Palatinate (Rheinland-Pfalz):
Municipality of Remagen

Brief description
Following the left bank of the Lower Rhine River for
approximately 400 km from the Rhenish Massif in Germany
to the North Sea coast in the Netherlands, this transnational
serial nomination of 106 components represents the Lower
German Limes, a section of the frontiers of the Roman
Empire. At its fullest extent in the 2nd century CE, the
Roman Empire stretched across Europe, the Near East,
and North Africa, a distance of 7,500 km.

The nominated serial property comprises military and
civilian sites and infrastructure that marked the edge of
Lower Germany from the 1st to 5th centuries CE. Amongst
the archaeological remains are military bases, forts, fortlets,
towers, temporary camps, roads, harbours, a fleet base, a
channel, and an aqueduct, as well as civil settlements, towns,
cemeteries, sanctuaries, an amphitheatre, and a palace.
The dynamic lowland river environment created novel
challenges for Roman military engineers and has left
almost all of these archaeological remains buried beneath
present-day ground levels. The waterlogged deposits have
enabled a high degree of preservation of both structural and
organic materials from the Roman periods of occupation
and use.

Category of property
In terms of categories of cultural property set out in Article I
of the 1972 World Heritage Convention, this is a
transnational serial nomination of 106 sites.

1 Basic data

Included in the Tentative List
Netherlands: 21 January 2018
Germany: 29 November 2018

Background
This is a new nomination.

The nomination occurs within the context of a longstanding
programme of cooperative efforts to nominate sites of the
frontiers of the Roman Empire in coherent segments. An
overall nomination strategy for the frontiers of the Roman
Empire was finalised in 2017, with the participation of
ICOMOS. The World Heritage Committee took note of the
Thematic Study and the development of the Nomination
Strategy by its Decision 41 COM 8B.50. Alongside the
existing transnational serial World Heritage property, the
Nomination Strategy proposes that three future
nominations within Europe are considered – the Roman
frontiers along the Danube River, along the Rhine River
(Lower German Limes), and in the Roman province of
Dacia (present-day Romania) – each of which, if inscribed,
would constitute a separate World Heritage property with
different attributes and therefore possibly a different
expression of Outstanding Universal Value.

Hadrian’s Wall (United Kingdom) was inscribed in 1987 and
was extended to include Upper German-Raetian Limes
(Germany) in 2005 and Antonine Wall (United Kingdom) in
2008 to form the property known as Frontiers of the Roman
Empire (United Kingdom and Germany, 1987, 2005, 2008,
criteria (ii), (iii) and (iv)). Frontiers of the Roman Empire –
the Danube Limes (Austria, Germany, Hungary, Slovakia),
also nominated under criteria (ii), (iii) and (iv), was
considered by the World Heritage Committee at its
43rd session (Baku, 2019) but was referred back to the four
States Parties in order to allow an Advisory Mission to
Hungary to take place. A revised nomination was
subsequently submitted by the States Parties. It has been
evaluated by ICOMOS and will be examined by the World
Heritage Committee at its 44th extended session
(July 2021).

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS
International Scientific Committees, members, and
independent experts.

An ICOMOS technical evaluation mission visited the
property from 14 to 26 September 2020.
Additional information received by ICOMOS
A letter was sent by ICOMOS to the two States Parties on 28 September 2020 requesting further information about boundaries and buffer zones, archaeological research and conservation strategy, reconstructions and visualisations, climate change impacts, and community involvement. Additional information was sent by the States Parties on 10 November 2020. In addition, a “Fact Sheet” summarising the system of legal protection in place for components in the Netherlands was provided to ICOMOS following discussions held during its technical evaluation mission.

An Interim Report was provided to the States Parties on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report concerning the selection of components, documentation of the wider landscape context, legal protection, delineation of boundaries and buffer zones, the use of “vertical buffer zones”, threat assessments, management system components, excavated archaeological materials, planned reconstructions/visualisations, and the status of existing development proposals associated with several of the nominated serial components. The States Parties responded on 25 February 2021. All responses received throughout the evaluation process have been incorporated into the relevant sections of this report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated property consists of 106 components occurring across a distance of approximately 400 km along the historical path of the Lower Rhine River. In presenting the serial nomination, the States Parties have organised the 106 components into 44 clusters, some of which having several sites, others only one. Located predominantly on the left and southern bank of the historic river course, these sites represent the external boundary of the Roman province of Lower Germany (Germania Inferior) that existed from the late 1st century BCE until the disintegration of the Roman Empire in Europe in the 5th century CE. It extends from the Rhenish Massif south of Bonn in Germany to the North Sea coast in Netherlands and was established to protect the Roman Empire from Germanic peoples.

The Roman Empire expanded from 500 BCE onwards, eventually extending across parts of Europe, the Near East, and North Africa. At their maximum extent in the 2nd century CE, the frontiers, or limes, measured more than 7,500 km, and featured a range of defensive structures and works across many landforms and environments. Taken together, these frontiers mark the extent of the Empire and constitute a complex monument to Roman civilisation.

The Lower German Limes formed the first fixed frontier and linear defence of the Roman Empire, following a failed conquest of the Germanic lands located across the Rhine River from Roman Gaul. The river bank was fortified and developed over time, remaining in use until the disintegration of the Roman Empire in Europe. It therefore represents a long span of time in the history of the Roman Empire, from the consolidation of the frontier in the late 1st and early 2nd centuries, to increasingly frequent cycles of disturbance and consolidation in the late 2nd, 3rd, and 4th centuries, and finally to the collapse of the Empire in Europe in the middle of the 5th century CE.

The Lower German Limes is distinctive from other Roman frontiers because of its long period of use and because of its location within a riverine environment. The construction of its military and civilian elements over a number of campaigns required a high degree of organisation and coordination as well as adaptation to local conditions. The configuration of the defences and associated settlements and the infrastructure works demonstrate the impact of the Roman Empire throughout this part of Europe.

One of the distinctive features of the Lower German Limes was the dynamism of the riverside environments, which created challenges for Roman military engineers, particularly in relation to water management. There were changes in the course of the Rhine River during the Roman period – and substantial changes since that time – creating the need for specific infrastructure and changes to the frontier structures over time. As a further consequence, almost all elements of the nominated components are entirely underground: over time, they have been covered by processes of siltation, and many of them are also distant from the current river course. Environmental conditions have subsequently enabled an unusually high degree of preservation of organic materials in the nominated sites.

The palaeogeographic and fluvial history of the Rhine is complex, and is the subject of ongoing research. In response to a request by ICOMOS, the States Parties provided additional explanations of the known fluvial sequences prior to, during and after the Roman periods. Changes to the broad course of the river during the Roman periods created challenges for the military engineers, particularly in the late Roman period. The relationship between the property components and the river courses has been explained in greater detail for two areas where archaeological excavations have occurred (Xanten and Bunnik-Vechten). These demonstrate the importance of continuing research and incorporation of environmental histories in the interpretation frameworks. The States Parties also clarified that within the 44 component clusters, 28 were connected to the Rhine, 21 of which were located on or close to the banks of the river. For four of these component clusters, the Rhine still follows the same course as in the Roman period.
The nominated components have been selected by the States Parties to represent all known aspects of the frontier system, including military and civilian functions. The archaeological remains include military bases, forts, and fortlets, temporary camps, roads, harbours, a fleet base, a canal, and an aqueduct that collectively demonstrate the adaptations of Roman military architecture and structures to the lowland environments in this region, as well as civil settlements, towns, cemeteries, sanctuaries, an amphitheatre, and a palace. The significant collections of excavated archaeological artefacts, particularly the wealth of organic remains and metal objects are now exhibited in museums or stored ex situ, and form key sources of knowledge about the Roman Frontier. In this regard, ICOMOS considers that these collections and repositories should be more explicitly integrated into the management system.


Boundaries

The area of the nominated 106 components in 44 clusters totals 756.1 hectares. Buffer zones have been established for each site/cluster (some containing several component sites) totalling 3,760.96 hectares. Boundaries of the nominated components are presented as based on existing archaeological knowledge and on the integrity of each site in relation to the proposed Outstanding Universal Value.

The boundaries of the buffer zones are presented as being based on various factors, including topography, land use patterns, and features such as roads and railways. In some cases the buffer zones include areas of archaeological potential, or are intended to protect the setting or important views.

Following request from ICOMOS, additional information provided by the States Parties clarified a number of issues concerning the locations of proposed property boundaries and buffer zones. ICOMOS considers that the delineation of these boundaries is generally satisfactory, although a number of minor changes have been discussed with the States Parties in order to better align with the extents of key features and to provide a greater level of protection. These have been agreed in principle with the States Parties, with the caveat that the legal procedures will require support from municipalities and owners, and that the final outcomes may vary from what has been proposed. It is expected that these processes can be undertaken and completed by the end of 2021. In brief, these include:

- (1) Valkenburg-Centrum (Netherlands): extension of the proposed property boundary to include a further area of 500m² will be proposed for designation as an archaeological monument. Other areas within the area of the fort cannot be protected by the Heritage Act because they have been built over, because destruction of the north-eastern corner by river erosion, or because the potential for surviving remains cannot be attested. There are strict provisions in place to protect any surviving archaeological materials in these locations. The State Party has agreed to extend the buffer zone to the edge of the modern Rhine to provide further protection to the spatial connections between the fort and the river, to the full extent of the fort area (with the exception of the north-east corner);

- (5a-b) Leiden-Roomburg (Netherlands): although there is little archaeological evidence beyond the nominated components, the State Party has proposed to extend the buffer zone to cover some gaps in between the two components and to ensure that the full extent of the extra-mural settlement is included in the buffer zone;

- (8) Utrecht-Hoge Woerd (Netherlands): the State Party has agreed to extend the property boundary to include all unexcavated areas. This will require the inclusion of several housing plots and an area where several further houses will be constructed. Further municipal policies for protection are expected to be in place by January 2022;

- (14) Nijmegen-Valkhof area (Netherlands): while ICOMOS requested additional information about the possibility of extending this component area in order to improve the connection between it and the Late Roman fort, the State Party has advised that this is not feasible due to the destruction of archaeological elements by various past constructions. However, the State Party has agreed to extend the buffer zone further to the south, and to connect the buffer zone of this component with the buffer zone for component/cluster 15 (Nijmegen-Hunerberg). In essence, this will result in a single larger buffer zone for component/cluster 14, 15, 16, linking these with the buffer zone of component/cluster 17. The area to the east of the Hunnerpark component (14b) has been excluded due to the presence of a major road crossing which would have removed Roman period remains during construction;

- (15) Nijmegen-Hunerberg (Netherlands): the State Party has agreed to extend the property boundary to include the full extent of the early operational base; and to extend the buffer zone to the west, south, and east, to ensure the inclusion of the extra-mural settlement, burials, and other surviving remains;
• (16) Nijmegen-Kops Plateau (Netherlands): the State Party has agreed to extend the buffer zone to the northwest, east and southwest to include areas with potential remains of an extra-mural settlement of Nijmegen-Hunerberg (component 15). The buffer zone will also be extended to include the whole topographic unit in the east;

• (17) Berg en Dal-Aqueduct (Netherlands): the State Party has agreed to include the “cut-out” area (a cemetery) within this cluster to the buffer zone in order to strengthen the protection of views over the earthworks of the aqueduct;

• (18) Berg en Dal-De Holdeurn (Netherlands): the State Party has agreed to extend the buffer zone to the west to include the valley that constituted the setting of the kilns and buildings;

• (24) Kalkar-Bornsches Feld (Germany): the State Party has agreed to extend the buffer zone to the north to encompass the silted-up Roman Rhine river course and parts of its former right bank to protect the topographic setting and views;

• (39) Köln-Alteburg (Germany): the State Party has advised that the Römisch-Germanisches Museum in the city of Köln is establishing a register for the interior of the fleet base as a step toward improved understanding of the potential for archaeological remains that have not yet been included in this component. This will inform the possibilities for future extensions;

• (44) Remagen (Germany): the State Party has agreed to extend the property boundary to the east and southeast to include the auxiliary fort, the civilian settlement, and a section of Roman road. The buffer zone will be slight extended to the north to improve the protection of the setting and important views, and to assist with the presentation and interpretation of the property.

Because most of the components are buried, the States Parties have also identified the possibility of recognising “vertical buffer zones” for some of the components as an added layer of protection. This is based on the recommendations of ICOMOS in relation to the nomination of the Upper German Raetian Limes and the Antonine Wall in circumstances where significant buried archaeological material was covered on the ground surface by reconstructions, above-ground visualisations or other post-Roman buildings. Modern buildings occur in almost all components, but substantial reconstructions and visualisations occur at only seven, namely, components/clusters 5, 8, 11, 12, 27, 34 and 43. Where above-ground visualisations have been installed, a distinction is made between the introduced materials above the ground (which are not considered part of the property area) from the authentic materials that lie below. In additional information provided in February 2021, the States Parties have emphasised that these do not require additional legal protection because any proposed interventions will be considered within the provisions of the heritage laws that already apply to these areas.

**State of conservation**

Based on the information provided in the nomination dossier and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation of the buried archaeological remains is good. The above-ground historic structures and features also exhibit a stable state of conservation, although ICOMOS notes some deterioration of fabric at (38) Köln-Deutz; a conservation programme is planned at this component part.

Because the nominated components are notable for the high degree of preservation of organic materials, ICOMOS considers that rigorous regular monitoring of their condition is required.

**Factors affecting the property**

ICOMOS considers that the main factors affecting the property are agriculture, forestry, urban development (including infrastructure), flooding, and climate change.

In its Interim Report, ICOMOS requested clarification about the condition of components and the presence of threats. The State Party provided corrected captions for Tables 4.2 and 4.3 and accompanying text confirming that the threats are assessed as either “minimal” or “minor” for all components, aligning these parts of the nomination dossier with the text in the Statement of Integrity.

Most of the nominated components are wholly sub-surface archaeological sites. These exist in various contexts of current land uses, including urban and peri-urban settings, and areas used for agriculture or forestry. Many of these areas are under cultivation – though the depth of cultivation is controlled. Management measures are needed in relation to erosion in these areas, and management agreements that curtail cultivation should be considered in components where damage is evident, such as (24) Kalkar-Bornsches Feld. Improved inter-agency cooperation in forested areas is also recommended.

The components located within urban contexts are vulnerable to future commercial and residential development and thus require the provisions of the spatial planning processes to be implemented. Some damage has occurred through the excavation of cellars and other small-scale developments, although research has found that considerable archaeological material can survive these intrusions. Small-scale infrastructure is generally restricted to previously disturbed areas, and larger interventions are subject to the restrictions of national laws and spatial planning processes.

The contexts of some components have inevitably been compromised by urban development. Where they are not already in place, ICOMOS recommends that detailed deposit/cellar surveys be completed for all components in urban areas as part of the development of the individual management plans for each component/cluster. This will allow baseline data to be established about the surviving extent of archaeological remains and will provide important input to future spatial planning decisions.
The States Parties provided additional information in February 2021 on existing development proposals for the following components/clusters. In each of these cases, the development approvals have ensured minimal potential for impact on archaeological materials.

- (2) Valkenburg-De Woerd: the nominated component is part of a larger development area for housing and business uses. There is an overarching masterplan, and work is currently occurring to ensure the protection of archaeological values in accordance with the requirements of the Heritage Act.
- (4d) Corbulo’s canal – Vlietvoorde: a residential area is being developed in the Vlietvoorde area, and the canal areas will be part of a public park and constructed wetland. Housing development is also planned for the buffer zone following extensive archaeological research.
- (8) Utrecht-Hoge Woerd: an assisted living centre and several houses are planned, utilizing ‘archaeology-friendly building’ in an area recommended by ICOMOS to be added to the buffer zone;
- (36) Dormagen: interpretation rooms are planned for the interior of the historical town hall.
- (41) Bonn: additional houses will be added to an existing housing complex located within the component boundary, designed to have shallow foundations and no cellars.
- (44) Remagen: planning is yet to be finalised for planned construction of a bridge for cyclists and pedestrians, a hotel complex and residential buildings at the north-eastern edge of the buffer zone.

ICOMOS considers that Heritage Impact Assessments should be conducted for all future developments within the nominated components, and for component (2) Valkenburg-De Woerd before the planned developments proceed. The Heritage Impact Assessment should directly address the proposed Outstanding Universal Value of the nominated component, in addition to meeting the provisions of the Heritage Law.

ICOMOS observes that some components have been subjected to quarrying in the past, and that some extraction permits are current, including in the buffer zone of (19) Herwen-De Bijland. Past metal detecting had an impact on some components. This is not permitted within archaeological monuments.

The dynamic nature of the Rhine during and since the Roman period further complicates the conservation and presentation of many of the components due to significant movement of the river across its floodplain, causing severe erosion in some areas, among them (35) Monheim-Haus Bürgel. Flooding of the Rhine and water quality issues are also factors that could affect the conservation of the nominated property, particularly for the components in the Netherlands. In November 2020, the State Party provided additional information on the climate change impacts in relation to the waterlogged conditions and water quality. In February 2021, the States Parties provided additional information on the monitoring of waterlogging and water quality through the implementation of national programmes and individual site management plans. ICOMOS considers that these important mechanisms are appropriate.

In general, the impact of visitors is not a major factor for most components, although there are several where footpath erosion needs to be controlled, including (17) Berg en Dal-aqueduct and (28) Xanten-Fürstenberg Amphitheatre.

ICOMOS considers that while the nominated components occur across a diverse range of contexts, and are therefore vulnerable in different ways, the exposure to threats is well-managed in most cases. The potential impacts of climate change are well understood by the States Parties, but ICOMOS considers that continued vigilance is needed.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the States Parties to be of Outstanding Universal Value as a cultural property for the following reasons:

- The archaeological evidence of the Lower German Limes allows an understanding of the first Roman linear defence line, representing the militarisation of the frontiers and demonstrating the complete array of Roman military installations specifically adapted to the changing riverine conditions, including military installations, roads and logistical facilities, and civil structures.
- The extremely well-preserved archaeological evidence (particularly of timber and other organic remains) provides a testimony to the long span of history of the defence of the Roman Empire in Europe from the 1st century CE, through several stages of the changing tensions, to the disintegration in the 5th century CE.
- Through its long period of defensive use, the archaeological sites of the Lower German Limes demonstrate the development of Roman military architecture and the establishment of a permanently garrisoned frontier, including civilian settlements and water management technologies that were adapted to the conditions of the environment.
- As a permeable frontier, the sites of the Lower German Limes have the capacity to demonstrate the interchanges between different cultural groups, as well as the impact of the expansion of the Roman Empire on the wider region.

Comparative analysis

The Frontiers of the Roman Empire. A Thematic Study and Proposed World Heritage Nomination Strategy (Vienna/Nijmegen/Munich, 2017) was prepared by ten States Parties with the participation of ICOMOS. The nomination strategy provides a basis for considering different sections of the Roman frontiers for nomination to the World Heritage List. In particular, it recommends that
the remaining European frontiers could form a number of distinct World Heritage nominations: the Lower German Limes or frontier of *Germania Inferior* (the present nomination); the Danube frontier, in two sections, one of which, the Danube Limes (Western Segment), was examined by the World Heritage Committee in 2019; and the frontier of the Roman province of Dacia (in present-day Romania). The strategy is based on historical, typological, cultural, and environmental distinctions between these sections. It envisages the group of separately inscribed properties, including the current inscribed property Frontiers of the Roman Empire (United Kingdom and Germany), to be under a common framework that could eventually be extended to properties in the Near East and North Africa.

The comparative analysis is presented in three parts: a very brief comparison that contends there are no other comparable sites associated with linear barriers of defence at a global level; a comparison of sites associated within other European segments of the frontiers of the Roman Empire, including sections not yet inscribed on the World Heritage List; and a comparison supporting the selection of the nominated property’s component parts.

The comparative analysis discusses the Lower German Limes in relation to other European segments. As noted above, the Lower German Limes has a number of distinctive characteristics within this comparative context. ICOMOS notes that the comparative analysis is overly brief, particularly concerning comparisons with sites associated with linear barriers of defence, but considers that the thematic study provides an adequate basis for establishing the comparative context for this nominated property.

Beyond the consideration of the comparative analysis for Frontiers of the Roman Empire as a whole and the comparisons between the Lower German Limes and other major sections of the Roman Frontiers, the comparative analysis is also required to justify the serial approach and the selection of components.

ICOMOS notes that the two States Parties have cooperated over a number of years to finalise the selection of sites for this nomination, based on a format and criteria that were determined jointly. These criteria focus on the diversity of features that comprise the establishment of the frontier over time, taking into account the integrity and authenticity of sites and the state of conservation of their significant archaeological materials. The nominated sites were also selected for their ability to demonstrate the linearity of the frontier, the full range of military installations and related sites, the responses of the Roman military engineers to the dynamism of the river environment, and the impact of the frontier on the landscape and its inhabitants.

ICOMOS also notes that the rigour used in applying the selection method has resulted in some geographical gaps, such as the area east of Leiden where the information concerning the three forts was considered inadequate to justify their inclusion. ICOMOS notes that some other important sites have not been selected to be part of the series as they do not meet the conditions of integrity and authenticity requirements, or because particular categories of site would have been over-represented. However, ICOMOS sought additional information about the omission of the stone quarry at Drachenfels. Additional information clarified that there was insufficient evidence at this site from the Roman period to include it in the serial property, and that further research was ongoing.

ICOMOS considers that the process of component site selection has been systematic and rigorous and is consistent across the series, and that the proposed range of features and linearity of the nominated property is coherent.

ICOMOS considers that the serial approach is justified, and that the comparative analysis justifies consideration of this property for the World Heritage List.

**Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (ii), (iii) and (iv). These are the same criteria as the other sections of Frontiers of the Roman Empire already inscribed on the World Heritage List.

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the States Parties on the grounds that, by their very nature, the frontiers of the Roman Empire demonstrate the interchanges between the Roman Empire and other peoples. The establishment of a complex frontier system of military strongholds and civilian settlements was not an impervious barrier, but one that regulated the movement of people, technologies, and goods. The settlement patterns, architecture, landscape design, and spatial organisation demonstrated by the nominated components are evidence of these encounters. Additional information provided by the States Parties emphasises that the civil settlements were as much a part of the Frontier landscape as the military establishments. A summary of existing knowledge about the non-Roman settlements was provided. Extra-mural settlements are increasingly understood as providing a link between the military establishments and the wider civilian context. This is supported by the analysis of the material culture of excavated archaeological materials.

ICOMOS considers that the inter-cultural exchanges of the Roman Frontier are evident, based on the rich archaeological record. There is a need for continuing research on how these interactions created the complex linear landscape in the Roman periods. The lay-out of towns, *... infrastructure, landscape modifications (aqueducts, roads, canals, lime kilns, water management, shipbuilding), and military and civil architecture all transformed these areas. Presentation of the Lower German Limes could give greater prominence to the*
historical peoples of this area during the Roman period, and the interactions and exchanges between Roman and other cultures along this permeable river frontier.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the States Parties on the grounds that, together with the other major portions of the frontiers of the Roman Empire, the Lower German Limes segment is an exceptional testimony and physical manifestation of the power and imperial strategies of the Roman Empire. The colonisation of new territories occurred across three continents over time, with the consequent spread of military, engineering, architectural, and religious aspects of Roman culture. The Lower German Limes was the first defensive frontier established by the Roman Empire, and it continued until the disintegration of the Empire in Europe. The sequences of modifications to the landscape and the well-preserved archaeological materials are therefore important sources of insight into this long history.

ICOMOS considers that this section of the frontiers of the Roman Empire demonstrates unusual adaptations to the low-lying river environments, and a rich testimony to the Roman Empire. ICOMOS considers that this criterion has been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the States Parties on the grounds that the Lower German Limes was the earliest linear frontier established by the Roman Empire, demonstrating strategic, military, commercial, and water management capacities. The archaeological sites, structures, and wealth of well-preserved organic materials illustrate this stage in human history, including the development of defensive architecture over several centuries, along with civilian settlements, infrastructure, and water management technologies.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (iv).

Integrity and authenticity

Integrity

The integrity of the nominated serial property is based on the rationale for the selection of the components, their ability to convey the potential Outstanding Universal Value of the nominated property, and the intactness of the material evidence of the selected components. The intactness of the individual components and of the series as a whole, the state of conservation, and the way major pressures are managed are determinants of integrity.

The States Parties contend that the integrity of the nominated property has been met by the careful selection of components and their ability to represent the qualities of the Roman defences, including military establishments and associated structures. The general state of conservation is good with few significant threats, and the key elements within the sites are largely intact.

The selection of the components of the series is based on a coherent method that has been developed and rigorously applied by the States Parties. ICOMOS considers that the archaeological research undertaken over a long period of time has enabled the extent and physical condition of the nominated sites to be established. In general, the intactness of archaeological deposits is considered to be high, although appears to be less so for (18) Berg en Dal-De Holdeurn and (36) Dormagen. Nevertheless, these two components are considered to be important to the overall completeness of the serial nomination. ICOMOS also notes that erosion and other pressures have had an impact on the key sites of (1) Valkenburg-Centrum, (2) Valkenburg-De Woerd, (12) Arnhem-Meinerswijk, (14) Nijmegen-Valkhof area, (16) Nijmegen-Kops Plateau, and (38) Köln-Deutz.

ICOMOS notes that there are some issues that affect the integrity of the serial property and adjustments have been suggested to the boundaries of several components in order to fully encompass the evidence relevant to the proposed Outstanding Universal Value. As discussed above, the States Parties have responded positively to these proposals, although the required consultations and legal processes will not be completed until the end of 2021.

ICOMOS considers that the conditions of integrity of the individual components and of the whole series are met. The state of conservation and management of pressures are adequate, and aside from several recommended minor changes, ICOMOS considers the boundaries and buffer zones to be appropriate.

Authenticity

The authenticity of the nominated serial property is based on the burial of all components during or soon after the Roman period, protecting them from later alterations. The settings of many components have seen significant changes due to environmental processes, as well as modern developments above ground. There are reconstructions at a small number of the nominated components, and other forms of visualisation have been used, but these have not had a detrimental impact on the original materials. Most of these are separated physically from the original structures. As noted above, these structures are considered to be "vertical buffer zones" and not strictly part of the nominated property.

ICOMOS considers that the authenticity of the nominated components is very high in terms of locations, forms and designs, and materials and substances. The nominated components have been well-researched and contain
physical features and materials that are in good condition, including an unusually high degree of preservation of organic materials due to the waterlogged deposits. The archaeological remains can thus be said to credibly and truthfully convey the proposed Outstanding Universal Value of the nominated property.

Most components are sub-surface archaeological sites where their original forms and plans have survived largely unaltered. Three components have undergone extensive changes: (10) Utrecht-Domploen, (14a) Nijmegen-Valkhof area – Valkhofpark, and (14b) Nijmegen-Valkhof area – Hunnerpark. However, ICOMOS considers that these components have retained their authenticity to a sufficient degree.

The original settings of many components have been altered due to changes in the course of the Rhine River over time. This means that the current spatial and visual relationships with the river vary across the length of the frontier. For some components, the locational setting and views are relatively more intact in relation to the Roman river course (components/clusters 29, 38, 29, 41 and 44).

In response to requests by ICOMOS, the States Parties confirmed that these settings are protected by the delineation of buffer zones. The links between the historical and present-day landscapes should be presented, based on further research and interpretation strategies.

ICOMOS considers that the conditions of authenticity of the whole series as well as the conditions of authenticity of the component parts are satisfactory.

In conclusion, ICOMOS considers that the requirements of integrity and authenticity of the individual components and of the whole series have been met. Recommendations to further support and strengthen the integrity have been made for several components, including modifications to their boundaries and buffer zones.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the comparative analysis justifies consideration of this nominated serial property for the World Heritage List. The nominated property meets criteria (ii), (iii) and (iv).

ICOMOS considers that the conditions of integrity and authenticity of the nominated components are satisfactory. Some issues and vulnerabilities have been identified which should be addressed through minor alterations to boundaries and buffer zones of a number of components.

**Attributes**

The attributes of the property include the archaeological and landscape evidence relating to the Roman periods, including the in situ remains of military bases, forts, fortlets, towers, temporary camps, roads, harbours, a fleet base, a canal, and an aqueduct, as well as civil settlements, towns, cemeteries, sanctuaries, an amphitheatre, and a palace. The inter-relationships between in situ archaeological materials and excavated artefacts associated with these attributes are important contributions to the Outstanding Universal Value of the serial property.

ICOMOS considers that the identification of attributes is comprehensive and supports the justification for inscription.

**4 Conservation measures and monitoring**

**Conservation measures**

Many of the nominated components have been the subject of extensive archaeological investigations, some of which have resulted in the destruction of portions of the archaeological deposits. In some locations, parts of larger sites that have been fully excavated have been excluded from the nominated property and included within buffer zones. Development of cooperation for a research strategy is indicated as an action in the Management Plan, and there are current processes in place through the Netherlands National Research Agenda for Archaeology and the German Limes Commission to identify gaps and priorities.

Based on additional information received from the States Parties, ICOMOS understands that very little archaeological excavation will be permitted in the nominated components in the future. ICOMOS considers that the materials that have been recovered through past archaeological research are of great importance to the proposed Outstanding Universal Value of the property, and that consolidated information about the documentation and curation of these materials should be part of the management system.

ICOMOS considers that the conservation measures are appropriate, and that regular maintenance is in place.

**Monitoring**

A monitoring system established by the States Parties covers indicators, methods of measurement, periodicity, and organisational responsibilities for monitoring and record keeping. These include monitoring the state of conservation of the components as well as monitoring potential pressures on them.

ICOMOS considers that the monitoring arrangements are satisfactory, and emphasises the importance of active monitoring of water levels and water quality for all components that have waterlogged archaeological deposits.

ICOMOS considers that the conservation measures are appropriate, although actions by the various municipalities, private owners, and communities must be well coordinated. The monitoring arrangements are adequate, although ICOMOS stresses the importance of
active monitoring of water levels and water quality for components that have waterlogged archaeological deposits.

5 Protection and management

Documentation
Archaeological investigations at these sites have occurred over a long period of time. The nominated components are therefore well-documented. An overall site typology has previously been established as part of the thematic study and nomination strategy for Frontiers of the Roman Empire (2017).

There are differences on the methods of documentation used between the two States Parties’ heritage agencies. However, ICOMOS considers that the documentation has been achieved to a high standard. Work is in progress to develop a shared geographic information system, which will provide useful baseline data.

Documentation on the past archaeological research should be consolidated as being a useful tool for the management and the protection of the nominated component parts.

Legal protection
The States Parties have outlined the legal frameworks for protecting the nominated components, and state that all nominated components are protected by national and state laws for heritage protection. ICOMOS notes that the designation of some components is still in progress. The additional information received from the States Parties in February 2021 updated the information provided in Tables 5.7 and 5.10 of the nomination dossier, confirming that the designation of several further components has been finalised for some component clusters in Germany (components 20, 21a-b, 26a-d, 42a-j and 43). In the Netherlands, the procedure for legal protection of the remaining component clusters was initiated in January 2021. Those yet to be fully designated are: (Germany) 22, 23, 24, 28, 29, 33, 34a, 40a-c, and 40f-k; and (Netherlands) 2021. Those yet to be fully designated are: (Germany) 22, remaining component clusters was initiated in January 2021.

In the Netherlands, legal protection is provided through the national Heritage Act and the Spatial Planning Act. Beginning in 2022, the Environment and Planning Act will replace the Spatial Planning Act and the Water Act and will provide the basis for land use planning, including cultural heritage. Likewise, the National Environment Vision will be in force from 2022. It identifies properties on the World Heritage List and sites on the Tentative List as places of national interest. The national legal protection is supported by municipal planning regulations. Buffer zones are protected by heritage laws (for archaeological sites) and by provincial environmental ordinances and land-use plans. These mechanisms are outlined in the Management Plan.

ICOMOS considers that urgent review of the State Party of the Netherlands’ system of exemptions that apply to spatial planning regulations is needed, in order to ensure that the levels of protection that are applied to buffer zones through the spatial planning system are consistent and effective in practice. In particular, exemptions regarding archaeological deposits should be standardised and reduced to the minimum requirement.

ICOMOS sought additional information regarding a number of the components in the Netherlands that have boundaries resulting in “island” spaces or “cut-out” areas within an overall cluster. According to the additional information provided by the States Parties, this is due to the existence of other designations, such as national built monuments (component 14a), a cemetery (component 17), and a municipal built monument (component 18b). The State Party has agreed to resolve this for component 17 by including the cemetery in the buffer zone. In relation to the other two instances, the State Party has confirmed that these areas are protected, ICOMOS considers that these arrangements are satisfactory, but will rely on the effectiveness of the coordination mechanisms between the relevant national and municipal agencies.

ICOMOS emphasises the importance of protecting the setting of the nominated components where the original riverside context still survives. In the additional information provided, the States Parties confirmed that there are relatively few sites that retain their riverside context. In each of these cases, the delineation of the buffer zone provides protection to the setting.

As noted above, all components have buffer zones. In Germany, buffer zones are protected through the Spatial Planning Law, which includes heritage agencies in planning decisions. The management of buffer zones is the responsibility of the state heritage agencies. Archaeological sites located in the buffer zones are protected by the Cultural Heritage Protection Act (Rhineland-Palatinate) and the Monument Protection Law (North Rhine-Westphalia).

In the Netherlands, protection of the buffer zones, including disturbance of the ground surface, is regulated by provincial environmental ordinances and by municipal land-use plans (which will be replaced by the new Environment and Planning Act in 2022). All provinces have regulations for the Lower German Limes in their spatial ordinances.
Management system
An Intergovernmental Committee for the Lower German Limes has been established to provide an overarching coordination of the management system. Management of the nominated property occurs through a joint Dutch-German Management Group, which coordinates the overall management system, implementation of national management plans, and reporting to UNESCO. Coordination and communication is foreseen in relation to the management authorities of the existing and future segments of Frontiers of the Roman Empire inscribed on the World Heritage List through the international Frontiers of the Roman Empire World Heritage Cluster established in 2018.

Each State Party has identified a site manager, and specific roles have been identified for each of the management organisations. In Germany, the Limes coordinator for the Upper German Raetian Limes has the function of site manager for Remagen and for Rhineland-Palatinate; and in North Rhine-Westphalia, the LVR-State Service for Archaeological Heritage will continue its work as site manager. In the Netherlands, the function of site manager is provided by the province of Utrecht on behalf of the three Dutch provinces in which the nominated components are located. National focal points have also been established.

Working groups have been established on a national basis for protection, knowledge, public awareness, and presentation. In Germany, guidelines have been developed for conservation, restoration, reconstruction, and protective covering of the archaeological monuments in the nominated property (these are included in the Management Plan). In the Netherlands, a pilot project has been conducted in relation to these issues (2017-2019), providing the basis for a common international approach. In additional information provided in February 2021, the States Parties have indicated that this will be further developed as part of the Interpretation Framework, and in the individual site management plans.

A Management Plan for the period 2021-2027 has been submitted with the nomination dossier, and mid-term review is envisaged by the States Parties. The Management Plan focuses on the priorities for the first six years following inscription of the serial property, and a mid-term review is envisaged in 2023. A wide range of governmental and non-governmental stakeholders have been involved in developing the Management Plan. The Plan considers the sources of threats to the nominated components, including development (urban, industrial, transport, wind energy); agriculture, forestry and quarrying; environmental pressures (groundwater level reduction, climate change, air pollution); natural hazards; and metal detecting and visitor pressure. Information is provided about budgets and staffing for the implementation of the Management Plan.

ICOMOS considers that the Management Plan sets out the elements required for a common framework for the transnational serial property. Given the breadth of the nominated property, the Management Plan is understood to be strategic and high-level, and that much of the needed detail will be developed in the first six years following inscription. Unfortunately, the very different formats in the Management Plan contributed by each State Party is conspicuous, raising questions about the consistency and effectiveness of the coordination. ICOMOS notes that many aspects of the Management Plan will be developed further through the implementation plan provided in the Plan’s Appendix 1.

ICOMOS considers that the management system is adequate as an overarching framework, but that much of the essential work to develop specific standards and responses lies ahead. In particular, ICOMOS recommends as a matter of priority that management plans and actions be established for each of the nominated components/clusters, as indicated in the list of actions in the Management Plan. In the additional information provided in February 2021, the States Parties confirmed that individual management plans will be prepared, based on a common approach. A draft outline has been provided, along with an indicative timeline for completion.

ICOMOS also considers that improvements should be implemented by the States Parties. Management planning materials should be presented in a common format by the two States Parties. There is also a need for the development of clear and consistent approaches to local government liaison. In addition, active measures to mitigate the impact of agriculture on nominated components (and their buffer zones) located in areas subject to agricultural land uses need to be developed and implemented. And finally, an overarching Management Plan for nominated components located within forests needs to be developed, possibly through an inter-agency management agreement between the Municipal Association of the Rhineland-Palatinate Service for Archaeological Heritage and the State Forestry Agency.

Additional information provided by the States Parties in February 2021 confirmed that provisions for Heritage Impact Assessments (HIAs) are in place in the Netherlands. In Germany, the Standing Conference of the Ministers of Education and Cultural Affairs has recommended the use of HIA’s for planning processes concerning World Heritage, and comprehensive HIA’s have been conducted for some proposals concerning World Heritage properties. Considering that many of the components are partly or wholly in private ownership, and that there are many different land uses and potentials for development and presentation proposals that could affect the proposed Outstanding Universal Value of the serial property, ICOMOS recommends that HIA processes be developed within the frameworks for legal protection and management as a priority. Proposed or foreseen developments such as a business park in the nominated components at Valkenburg-De Woerd should also be
subject to HIA processes before the development proceeds to determine the level of impact on the nominated component’s proposed Outstanding Universal Value.

ICOMOS is particularly concerned about the potential dewatering impacts of new developments, because the water table has enabled the high degree of preservation of organic materials in the nominated components. All HIA processes for the nominated property should be required to explicitly consider this aspect.

Additional information provided by the States Parties indicated updated timeframes for the completion of the some of the major elements of the management system, such as the frameworks for research, interpretation and sustainable tourism.

**Visitor management**

Visitors are currently concentrated at a few key urban locations: (8) Utrecht-Hoge Woerd, (10) Utrecht-Domplein, (27) Xanten-CUT, (35) Monheim-Haus Burgel, and (37) Köln-Praetorium. The States Parties anticipate growth in the number of visitor if the nominated property is inscribed on the World Heritage List.

The tourism potential of the components varies and is currently under-developed in a number of areas. There are no immediate concerns about carrying capacity. Access to the components is generally good, including cycling and walking routes in the Netherlands, and through the German Limes Road Association in Germany. These provide a form of sustainable tourism, enabling the individual components to be appreciated as parts of an interlinked system. Guided tours are available at a number of the components, utilising community-based volunteer guides in some instances. Further capacity-building activities could support these means of presenting the nominated sites. Additional information provided by the States Parties in February 2021 mentioned that initial desk studies have been completed, and that an expert meeting is planned in 2023. ICOMOS considers that a joint sustainable tourism strategy should form part of the implementation of the Management Plan.

ICOMOS notes that the nominated components currently exhibit variable levels of interpretation and presentation, based on the fact that some sites are very well known and others less so. Most sites seem to have information boards and signs, and there is some use of Quick Response (QR) codes and digital interpretation, although this could be further developed in collaboration with other segments of the frontiers of the Roman Empire. A number of components have on-site museums. Based on existing work on the Dutch sections, an overarching interpretation and presentation framework was developed as part of the Management Plan. It outlines a core narrative and themes while providing for local adaptations.

Because the archaeological materials are below ground and not visible at most component sites, ICOMOS considers that interpretation planning is a key issue for the management system, and welcomes the proposed detailed interpretation framework, and the intention to develop interpretation plans for each component, as this will strengthen the ability to appreciate the linearity and interconnectedness of the frontier. ICOMOS recommends developing clear commitments and timeframes, and exploring digital interpretation methods.

As part of the Management Plan implementation, the States Parties have agreed to develop a more detailed joint interpretation strategy and framework, including story lines for individual components, and common interpretation standards for on- and off-site interpretation. Interpretation plans will be developed for each component as part of this process. ICOMOS notes that the States Parties have already agreed to develop a common design guide, linked with the approach developed for the Upper German Raetian Limes segment of Frontiers of the Roman Empire.

The components that have above-ground standing features are those that are more prominently presented to visitors, such as (10) Utrecht-Domplein, (14) Nijmegen-Valkhof area, (27) Xanten-CUT, (37) Köln-Praetorium, (35) Monheim-Haus Bürgel, (38) Köln-Deutz, (43) Iversheim, and (44) Remagen. For the components that are mostly or entirely buried, a range of techniques has been used to visualise them, such as marking the locations of features with paving treatments. Examples of other techniques include topographic modifications at (8) Utrecht-Hoge Woerd, earthen embankments at (5) Leiden-Roomburg, lighting schemes at (10) Utrecht-Domplein, and planting at (5) Leiden-Roomburg, (8) Utrecht-Hoge Woerd, and (27) Xanten-CUT. Small-scale visualisations have been built using modern materials to indicate the arrangements of spaces at (5a) Leiden-Roomburg – Park Matilo, (12) Arnhem-Meinerswijk, (15) Nijmegen-Hunerberg, (38) Köln-Deutz, and (44) Remagen. Two sites have architectural constructions in modern materials: (8) Utrecht-Hoge Woerd and (27) Xanten-CUT.

Reconstructed elements occur at six of the nominated components. The most extensive occurs at (27) Xanten-CUT in the Municipal Association of the Rhineland Archaeological Park. ICOMOS notes that these are all clearly modern and based on adequate documentation. Given that the archaeological materials at these sites are primarily preserved below the ground, these reconstructions are not of great concern in relation to the authenticity of the nominated serial property. However, the further development of the management system should provide clear guidance for any future projects of this nature, including the need for Heritage Impact Assessments. In additional information provided in February 2021, the States Parties advised that a concepts for visualisation has been developed for component (4d) (Corbulo’s canal – Vlietvoorde), which will be included in a wetland/parkland as part of a new residential development in the area; (41) Bonn where some above-ground marking is planned; (33) Neuss-Koenenlager where the course of the defensive wall is planned; and (27) Xanten-CUT where visualisation of two already
excavated Gallo-Roman temples is planned as part of the established development concept. ICOMOS is also aware of plans for new interpretation at (36) Dormagen, and considers that all of these projects should be reviewed in order to more directly reflect an overarching Lower German Limes presentation and interpretation framework.

Community involvement
There are many communities involved, given the immense breadth of the nominated serial property, including both large urban areas and rural areas. Although COVID-19 restrictions meant that it was not possible for the ICOMOS technical evaluation mission to engage directly with local interests throughout the nominated area, ICOMOS is aware of a number of examples that demonstrate strong community involvement. Volunteer guides work at a number of the nominated sites.

ICOMOS considers that continuing efforts and measures could be developed by the States Parties to encourage the engagement of communities in managing and interpreting the sites, particularly in rural areas. Building capacity for community participation and volunteer guides is also recommended.

Evaluation of the effectiveness of the protection and management of nominated property
Although there are some differences between the protection and management frameworks in place in the Netherlands and Germany, the frameworks are well established and have the capacity to protect the proposed Outstanding Universal Value of the transnational serial property. Legal protection is in place for archaeological sites and materials in the components and buffer zones, and spatial planning frameworks are used to ensure that the other purposes of the buffer zones are secure. Given the broad span of the series of nominated components, and the multiple present-day land uses in which they exist, coordinating management activities and protection may present a continuing challenge for the two States Parties. Recommendations to further strengthen the effectiveness of the management system have thus been provided.

ICOMOS considers that the protection and management of the nominated serial property is adequate, although the legal designation of some components is still in progress and should be finalised by the end of 2021. Further recommended improvements include the establishment of coordinated systems for Heritage Impact Assessment; development of a detailed interpretation framework; and community involvement in the management and presentation of the components.

6 Conclusion
The transnational serial nomination of the Lower German Limes adds to the existing World Heritage inscriptions and nominations of segments of the Frontiers of the Roman Empire in Europe. The 2017 thematic study prepared in support of an overall nomination strategy for individual segments of the Roman frontiers has provided a sound basis for the comparative analysis. ICOMOS considers that the justification for selecting the 106 components in 44 clusters that comprise the transnational serial property of the Lower German Limes has been well established through rigorous and coordinated research and analysis by the States Parties of the Netherlands and Germany. The selected components demonstrate the range of functions and structures that created the frontier, as well as its linearity.

The authenticity of the nominated components as well as the whole series is generally very high. The integrity of the individual components and of the whole series is generally satisfactory, although a number of minor revisions to the boundaries and buffer zones are recommended, and have been agreed in principle by the States Parties. All the elements needed to express the proposed Outstanding Universal Value of the nominated serial property are present.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (iv).

Although there are some differences in the legal protection provided by the two States Parties, ICOMOS considers that the protection of the nominated property is adequate. The management system is also considered to be adequate, although much of the important work to implement it on the ground lies ahead. ICOMOS notes the commitments by the States Parties to further develop the management system, including the development of individual site management plans and actions and the development of detailed strategies for interpretation, sustainable tourism, and research. The monitoring arrangements are sufficient, although continued attention to the impacts of climate change as well as to monitoring water quality and water levels are essential.

Noting that the nominated components occur within diverse modern contexts that include forests, agricultural lands, and urban and peri-urban areas, ICOMOS considers that the potential threats are varied. Overall, the main threats to the property arise from urban development and infrastructure, agriculture, forestry, flooding, and climate change. Tourism does not pose a pressure at present.

ICOMOS considers that all development projects within the nominated serial property and buffer zones, including interpretation facilities, infrastructure improvements, reconstructions and visualisations, and all other planned constructions that may affect the proposed Outstanding Universal Value of the property, must be subjected to a Heritage Impact Assessment to ensure that they do not have a negative impact on the proposed Outstanding Universal Value, integrity and authenticity of the nominated property.
7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Frontiers of the Roman Empire – the Lower German Limes, The Netherlands and Germany, be inscribed on the World Heritage List on the basis of criteria (ii), (iii) and (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis

Frontiers of the Roman Empire – The Lower German Limes ran for 400 km along the Lower Rhine, along the north-eastern boundary of the Roman frontier province of Germania Inferior (Lower Germany), from the Rhenish Massif south of Bonn (Germany) to the North Sea coast (the Netherlands). For more than 450 years from the late 1st century BC, it protected the Roman Empire against Germanic tribes. The first military bases were built in the last decades BC for the conquest of Germanic territories across the Rhine. Once this ambition had failed the left river bank was converted into a fortified frontier. Military installations of varying types and sizes and associated civil structures and infrastructures were built on the edge of the river. The frontier shared the phased disintegration of the Western Roman Empire until the mid-5th century. The remains of the Frontier illustrate the important impacts of the Roman military presence on the landscape and society of the periphery of the Empire.

The serial property of 106 components in 44 clusters illustrates the innovative responses of Roman military engineers to the challenges posed by the dynamic landscape of a lowland river, as witnessed by the positioning and design of the military installations and by water management works. Large early bases and small later strongholds are represented, reflecting strategic adaptation and development of military engineering. These first military bases represent the very beginning of the linear perimeter defence of the Roman Empire, which would develop into a coherent frontier system extending over three continents in the 2nd century AD. The wetland conditions have led to an outstanding preservation of timber and other organic remains, providing unparalleled insights into military construction, shipbuilding, logistics and supply of the Empire. Through an extensive supporting network. The frontier did not constitute an impregnable barrier, but controlled and allowed the movement of peoples including civilians and merchants, and profound changes and developments in settlement patterns, architecture, landscape design and spatial organisation.

Criterion (iii): As part of the Roman Empire’s system of defence, the Lower German Limes bears an exceptional testimony to the maximum extension of the power of the Roman Empire through the consolidation of its north-western frontiers. The Frontier constitutes a physical manifestation of Roman imperial policy, and the spread of Roman culture and its traditions – military, engineering, architecture, religion, management and politics. The large number of human settlements associated with the defences contribute to an understanding of how soldiers and their families lived in this part of the Roman Empire.

Criterion (iv): Frontiers of the Roman Empire – The Lower German Limes was the earliest linear frontier of the Roman Empire, created as an answer to Rome’s inability to control its northern neighbours by means of diplomacy. Its military installations illustrate the development of the large operational bases of a field army to the smaller installations required by an extended frontier line. Situated in an area which has always been a wetland, with outstanding preservation conditions, Frontiers of the Roman Empire – The Lower German Limes exhibits water management strategies and constructions employed by the military command of the Roman Empire. The components contain organic materials and artefacts bearing information of exceptional value to understandings of frontier life and on vanished traditions such as river boat building.

Integrity

The components of the serial property have been selected to represent the linearity and attributes of the Frontier, demonstrating the early development of the perimeter defence. They include the range of military installations and associated structures of a frontier system, explaining its functioning and development. The general state of conservation is good to very good. Most archaeological materials and structures are buried and are not exposed to significant threats. The component boundaries and buffer zones are generally appropriate, although a number of minor revisions to the boundaries and buffer zones are recommended.

Authenticity

The archaeological sites that comprise the Frontiers of the Roman Empire – The Lower German Limes have a high level of authenticity. Virtually all the remains were buried during or soon after the Roman period and have been protected from later developments. The authenticity of form and design of nearly all elements is unaffected by changes after the Roman period. Stone walls, timber and organic remains have been preserved to a high level. The location and setting of the elements of the frontier have in most cases changed considerably by changes to the
Rhine and changes in land use, including urbanisation. At four sites the present setting is reminiscent of the Roman landscape. Reconstructions occur at five sites and at others, interpretive visualisations have been established.

Protection and management requirements

The transnational serial property is legally protected by national and state laws on heritage protection of Germany (federal states of North Rhine-Westphalia and Rhineland-Palatinate) and the Netherlands. Management is coordinated by a joint Dutch-German Management Group, which is overseen by an Intergovernmental Committee. The joint Management Group sets out the main lines of the management and supervises the implementation of the national management plans and the periodic reporting, based on a Joint Declaration. The management organisation will cooperate with counterparts of the existing and future inscribed segments of the Frontiers of the Roman Empire. A framework for this international cooperation is provided by the Frontiers of the Roman Empire World Heritage Cluster set up in 2018 to support international collaboration in those fields relevant to the overall management and development of the Frontiers of the Roman Empire in Europe as World Heritage.

The Management Plan is strategic and high-level, and sets out the elements required for a common framework for the transnational serial property. Much of the needed detail will be developed at a later stage, including the development of individual site management plans. Recommendations for strengthening the management include the development of frameworks for research, interpretation and sustainable tourism, and establishment of Heritage Impact Assessment processes (for the components in Germany). Development of policy guidance on reconstructions and visualisations should be advanced through the transnational cooperation mechanisms established for the Frontiers of the Roman Empire.

Additional recommendations

ICOMOS further recommends that the States Parties give consideration to the following:

a) Completing the processes for legal designation of all components,

b) Providing a timeframe for agreed minor revisions to the boundaries and buffer zones and any needed revisions to legal designations and municipal policy provisions,

c) Further developing the Management Plan to:
   o present the two national parts in a common format to assist clarity and integration;
   o confirm the process and schedule for the timely development of site management plans for each of the components
   o provide active measures to mitigate the impact of agriculture on the components (and their buffer zones) located in areas subject to agricultural land uses (e.g., (24) Kalkar-Bornsches Feld);
   o conduct detailed deposit/cellar surveys for all components in urban areas to provide baseline data about the extent of surviving archaeological remains,

d) Developing a formal inter-agency management agreement between the Municipal Association of the Rhineland-Palatinate Service for Archaeological Heritage and the State Forestry Agency that includes an overarching plan and approach for managing all the components located within forests,

e) Developing a joint sustainable tourism strategy as part of the management system,

f) Establishing consistent baseline information for each component and establishing a basis for consolidated information about the documentation and curation of cultural materials excavated from the sites (including repositories) to be accessed and shared as part of the management system,

g) Continuing to research and articulate a comprehensive and contextual appraisal of the character of the river corridor landscape, including changes to it during and after the Roman period, and the known locations of settlements in the wider setting,

h) Supporting continued research and interpretation that gives greater prominence to the historical peoples of the Lower Rhine regions, and articulating the interactions and exchanges between these peoples and Roman culture along the frontier,

i) Developing the overarching research strategy (2021-2024) for the Lower Limes as a whole, providing a framework for national strategies and partnerships,

j) Ensuring that active monitoring of water levels and water quality occurs for all components/ clusters with waterlogged archaeological deposits, and that rigorous monitoring of the state of conservation of all organic materials is undertaken on a regular basis,

k) Prioritising further development of the detailed interpretation framework to:
   o present the linearity and the environmental context of the Lower German Limes, and the interconnectedness of the individual sites;
   o review the proposals for (36) Dormagen within the context of the Lower German Limes framework for interpretation and presentation;
   o explore opportunities for the interpretation of components located in nature conservation
areas and landscape protection areas, including engagement with younger-generations volunteers who have a strong interest in nature conservation,

l) Developing Heritage Impact Assessment (HIA) processes for the components located in Germany in line with the ICOMOS HIA guidance document,

m) Subjecting the proposed business park development associated with the components at (2) Valkenburg-De Woerd to a full Heritage Impact Assessment in relation to the Outstanding Universal Value of the property,

n) Establishing a process to develop an over-arching policy framework and guidance for reconstructions and visualisations through the transnational mechanisms of cooperation for existing and future segments of the Frontiers of the Roman Empire inscribed in the World Heritage List;
Map showing the location of the nominated components
The Porticoes of Bologna
(Italy)
No 1650

Official name as proposed by the State Party
The Porticoes of Bologna

Location
City of Bologna
Emilia-Romagna Region
Italy

Brief description
The serial nominated property comprises twelve component parts consisting of ensembles of porticoes and their surrounding built areas, located within the Municipality of Bologna. These portico ensembles are considered to be the most representative among a total length of 62 km of porticoes within the city. Together, the selected porticoes reflect different typologies, urban and social functions and chronological phases. Defined as private property for public use, the porticoes have become an expression and element of Bologna’s urban identity.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of twelve sites.

1 Basic data

Included in the Tentative List
1 June 2006

Background
This is a new nomination.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 23 to 25 September 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 28 September 2020 requesting further information about the description of the nominated property, the overall justification for inscription, the justification for the criteria, the proposed boundaries and the comparative analysis.

An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: scope of the nomination and selection of the component parts; reconstruction after the Second World War; and the Municipal Statutes of 1288.

Additional information was received from the State Party on 13 November 2020 and 17 February 2021 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The twelve component parts that comprise the serial nominated property epitomise the most representative portico ensembles among a much larger assemblage of porticoes within the city of Bologna, spanning a period from the 12th century to the present day.

The selected components reflect different portico typologies: porticoed roads; porticoed squares; porticoed paths and porticoed buildings. Porticoed roads reflect covered walkways, either on one or both sides of a street, formed by the juxtaposition of buildings with porticoes – components exemplifying this typology include the Portici residenziali di Santa Caterina, the Strada porticata di Galliera, the Portico del Baraccano, the Portici accademici di via Zamboni and the Portici trionfali di Strada Maggiore.

Porticoed squares reflect wide open urban spaces flanked by porticoes (Piazza porticata di Santo Stefano, Portici commerciali del Pavaglione e dei Banchi and Portici di piazza Cavour e via Farini). Porticoed paths are structurally independent; the two component parts exemplifying this typology – Portico della Certosa and Portico devozionale di San Luca – reflect covered passages leading from the city centre to places of worship or with ceremonial and devotional functions located outside the area of the city that was in the past surrounded by walls. The components defined as porticoed buildings as a typology – Edificio porticato del quartiere Barca and Edificio porticato del MAMbo – reflect buildings that do not form a structural continuum with other buildings and therefore are not part of a comprehensive covered walkway or passage.

The timeframe of the component parts spans several centuries, reflecting the evolutionary process of the development of the porticoes in Bologna. As such, the series includes three main categories of porticoes in terms of building materials: wooden porticoes; stone and brick porticoes; and reinforced concrete porticoes. Through the centuries, the porticoes became a distinct urban feature of the city.
Wooden porticoes are the earliest form of sheltered passage which emerged in Bologna. The first evidence of a house with a portico on its façade dates back to 1041; this is a small house overlooking Strada Maggiore. Unlike the use of porticoes in the Roman-Hellenistic traditions, the porticoes of Bologna developed from the practical need to respond to growing housing needs. The extension of the houses on their upper floors, and the need to support these extensions, encroached on the roadways. This raised questions as to the ownership of the land on which the portico stood, leading to difficulties with how to deal with illegal porticoes. While other cities made it mandatory to eliminate the porticoes in order to regain the urban spaces, in Bologna the porticoes were regularized and, through the Municipal Statutes of 1288, made obligatory. These Statutes determined that all buildings located within the civitas and the burgi, corresponding to the area enclosed by the Circa walls, needed to have porticoes and that the owner of the plot should be responsible in perpetuity for its maintenance at their own expense.

In the 15th century, wooden supports gradually started being replaced by stone porticoes including the construction of a wall separating the covered walkway and the road. This continuous wall often extended deep into the ground and corresponded to the retaining wall of the cellars below. Consequently, while the portico was intended for public use, it was considered private property, like the spaces above and below the floor of the portico, and as determined by the 1288 Municipal Statutes, which was transposed into later legislation. In 1567, regulations compelled owners to replace wooden columns with stone ones, contributing to the development of long stretches of porticoes, built with durable and resistant materials. Hence, the portico became a structural element of the building but also assumed the function of protecting the commercial activities carried out at ground level.

Initially opposed for narrowing the streets, obstructing traffic and contributing to hygiene concerns, over time they were appreciated as shelters against the weather, as prime locations for merchant activities and as sheltered walkways. In the 20th century, the use of concrete allowed the replacement of the traditional vaulted arcades of the porticoes. This new material offered new construction possibilities and a new architectural language for the porticoes, as exemplified by the portico building in the Barca district (i.e. Edificio porticato del quartiere Barca) with a curvilinear shape and extending for about 600 meters. Throughout the centuries, the porticoes of Bologna became an expression and element of the city’s identity.

Boundaries
As presented in the nomination dossier, the area of the nominated property comprising the twelve components totals 7.67ha, with two buffer zones totalling 1123.81ha. The boundaries of the component parts were drawn mainly in relation to the space defined by the porticoes at ground level, without including much of the built fabric around and above it, since in some cases, the boundaries do not include the entirety of the buildings of which the porticoes are part, or the urban spaces associated with them.

Concerned by this approach, in its request for supplementary information sent to the State Party on 28 September 2020, ICOMOS requested clarification as to the rationale used for defining the boundaries of the component parts. The State Party replied that the boundaries were the result of the integrated application, case by case, of the typological, chronological and functional criteria. In the case of porticoed roads, and the question as to why the boundaries sometimes included only one side of the road, the State Party clarified that this was dependent on the presence or absence of porticoes on each side of the road as well as the relevance of each side of the road, considering their functional or chronological characteristics. A similar approach was used to delineate the boundaries of the component parts defined as porticoed squares; that is, buildings without porticoes were largely excluded from the boundaries, regardless of their contribution in defining the urban space of the square.

In the Interim Report sent to the State Party on 17 December 2020, ICOMOS noted that the approach of selecting only porticoes without their built and urban context was inappropriate because they were disassociated from their context. The nominated serial components did not provide the full picture of their creation, use and place in the urban context. Consequently, in the supplementary information sent in February 2021, the State Party submitted revised boundaries for each component part, including a larger portion of the built fabric associated with and surrounding the porticoes.

Whilst ICOMOS acknowledges the State Party’s efforts to revise the boundaries within such a short period of time, it notes that some of the fundamental problems remain for a few component parts. For instance, the component of the Portici residenziali di Santa Caterina was extended to include the entire medieval block said to be associated with it but still only includes one side of the street of Via Santa Caterina. A similar situation occurs for the component of the Portico del Baraccano, which does not include the other side of the street of Via Santo Stefano. In the case of the Portico di San Luca, the boundary was expanded to include the exact space occupied by the Basilica di San Luca but not the place itself nor part of the landscape surrounding the porticoed path. ICOMOS recalls that this component represents the connection between the city centre and the extra moenia religious sites (that is, sites located outside of the walls of the city) and therefore the connection between the city and the rural space surrounding it. As such, it considers that the immediate landscape setting of the porticoed path is integral to its significance and should be included within the boundaries of the component part.
ICOMOS also notes that the areas of some component parts were considerably expanded (such as in the case of the component of Strada Maggiore, the length of which is almost doubled following the State Party modifications). Since these areas were not visited during the ICOMOS technical evaluation mission, it is not possible to adequately evaluate the integrity and authenticity of those areas and whether they include attributes that would justify their inclusion within the boundaries of the nominated property or not. For these reasons, ICOMOS considers that the boundaries of the nominated property are not adequate at this stage.

Two buffer zones are proposed: one surrounding eleven of the twelve component parts (buffer zone A), which includes the historic centre of the city and part of the neighbouring areas; and a second one surrounding the Edificio porticato del quartiere Barca, located in a suburban district of the city (buffer zone B). The perimeters of the buffer zones have been defined in relation to existing legal and planning instruments as well as in view of maintaining the visual integrity of some of the component parts. Whilst ICOMOS recognises the validity of this approach, it however appears that the function of the buffer zone in providing a coherent context to the nominated property and its potential Outstanding Universal Value, which is not fully expressed by the selection of the component parts as it currently stands, has been privileged on the function of the buffer zone as an added layer of protection to the nominated property, as advised by the Operational Guidelines for the Implementation of the World Heritage Convention. As such, this issue needs to be considered also in relation to the proposed justification for inscription and the conditions of integrity of the nominated property.

State of conservation
The conservation history of the component parts is to a large extent determined by the timeframe when the porticoes that constitute them were built. This is especially the case with the Edificio porticato del quartiere Barca, which was built between 1957 and the mid-1980s, and therefore would not have suffered the effects of the bombardments of the city during the Second World War.

The nomination dossier states that the city was strongly hit by the Allied bombings of 1943 and 1945, so much so that 43.2% of the available housing needed reconstructive intervention. It adds that during this period, part of the Portico della Certosa, adjacent to the stadium, was transformed into accommodation for those who had lost their homes; each arch became a small apartment.

In its Interim Report, ICOMOS noted that the nomination did not include clear information on the areas that were damaged or destroyed, nor on the extent of post-war reconstructions and asked the State Party to provide further details in this regard. It also asked if such information had influenced the selection of the component parts.

According to the State Party’s reply, mainly the areas surrounding the train station were hit by the bombing and that the damage to the twelve nominated portico ensembles was minimal. The information provided includes some details on the elements that were affected in each component but notes that the porticoes themselves were largely unaffected. The State Party added that the selection of the component parts took into account porticoes that were authentic and well-preserved over the course of the centuries.

The MAMbo building was built in 1915-1917 as a municipal bakery. An extension project in 1928-1929 led to the creation of the portico, added against the pre-existing façade. Partially damaged during the Second World War, it remained unused until the mid-1990s, when its transformation into a museum began. The project involved 12 years of demolitions, recovery and reframing of the overall structure.

Based on the information provided by the State Party and the observations of the technical evaluation mission, ICOMOS considers that the state of conservation of the nominated property is overall satisfactory. Given the different typologies, construction materials, and use and function of the porticoes as public spaces, ICOMOS considers that there may be slight variations in the state of conservation of the different components, partly dependent on the factors affecting the property such as traffic pressures and graphic vandalism (graffiti).

Factors affecting the property
Based on the information provided by the State Party and the observations of the technical evaluation mission, ICOMOS considers that the main factors affecting the property are development pressures, in particular heavy traffic and resulting pollution, graffiti and potential natural disasters.

The effect of traffic on the state of conservation of the nominated property is twofold: firstly, because vibrations impact the stability of the structures; and secondly, because pollution contributes to material degradation. To address these issues, the municipality has developed an Urban Sustainable Mobility Plan (PUMS) towards reducing the use of cars and motorcycles and promoting the use of public transport and bicycles, within the next decade.

Many of the porticoes included in the nominated property are linked to commercial activities. Therefore, changes from traditional shops to new businesses, such as money changing, money transfers or phone centres, also raise concerns. The main consequences deriving from such changes are the potentially negative visual impacts of the signage, shop décor and advertisements associated with some of the new commercial activities. ICOMOS also notes the visual impact of past interventions in the Stadium Renato Dall’Ara on the Portico della Certosa.

The nomination provides some details about a new project, expected to have started in 2020, in which the stadium will be partly covered, with a roof terrace. In a
In terms of seismic risk, Bologna is classified as an area that can be subject to strong earthquakes, although these are rare. Floods are also increasingly considered as a risk factor since more and more episodes of extreme weather phenomena are occurring due to climate change.

Other factors affecting the nominated property include tourism pressures, population density and accumulated uncollected waste.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Bologna’s porticoes are a representative example of an architectural typology of global interest; the portico is an architectural element adopted for centuries throughout the world, but finds its most complete representation in Bologna.
- The nominated property illustrates the architectural and historical evolution of the porticoes from the 12th century to the present. Over time, the porticoes have become an expression of the identity of the city.
- The series of porticoes that compose the nominated property represent the most complete and varied catalogue of porticoed elements in the world. Collectively, the twelve components represent an extraordinary range of porticoed elements that differ both in their architectural language and in their period of origin, as well as in their function, urban role and in their relationship with the surrounding spaces.

In the request for supplementary information sent to the State Party on 28 September 2020, ICOMOS noted that it considered that the nomination was ambiguous as to the nature of what was being nominated: a series of porticoes or the historic city of Bologna? Therefore, ICOMOS requested the State Party to explain in more detail what was the rationale for the focus of the nomination. The State Party’s reply confirmed that the focus of the nomination was on the porticoes, as architectural and urban elements that convey universal cultural, social and functional values, as testified by their diffusion all over the world and by their permanence and recurrence through the centuries.

In its Interim Report, ICOMOS noted that in the supplementary information submitted in November 2020, the State Party referred to the porticoes as a system, which make up a full-scale urban infrastructure. However, ICOMOS considered that the idea of the porticoes as an urban system was not reflected through the twelve component parts as had been presented. Therefore, the approach of selecting only porticoes was seen as inappropriate since it did not provide the full picture of their creation, use and place in the urban context. ICOMOS added that the focus on the porticoes as individual elements made it difficult to comprehend the urban system that the State Party had referred to. Consequently, ICOMOS asked the State Party whether a different approach, focused on a broader urban context – the wider city or key parts of it – has been considered in order to explicitly contextualise the distinctive urban character of Bologna, as a city of porticoes.

In response to ICOMOS’s concerns, the State Party enlarged the areas of the component parts, as previously explained, and provided further clarifications on the scope and selection of the component parts.

Comparative analysis
The comparative analysis is presented in two parts: firstly, it focuses on comparisons with properties included on the World Heritage List and with properties included on Tentative Lists as well as other areas throughout the world with a comparable combination of values and attributes; and secondly, it provides information related to the choice of the component parts.

Because there are porticoes and porticoed cities all over the world, the comparative analysis as presented has a global scope. Therefore, it starts by analysing historic centres inscribed on the World Heritage List, that include porticoes, to assess whether they have been highlighted as elements that characterise the urban formation of those centres. The properties identified include several historic centres and urban areas in Italy (e.g. Florence, Venice, Rome, Naples and Turin) as well as in other European countries (e.g. Berne in Switzerland, Lübeck in Germany, Prague and Telè in Czechia, and Vienna in Austria). Comparisons are also made with historic centres in other regions, namely Old Havana in Cuba, Cuzco in Peru, Puebla in Mexico and Brasilia in Brazil, among others. Other sites included on Tentative Lists are then
considers (e.g. Padova and Pavia in Italy, Brussels in Belgium, Lisbon in Portugal, Sibiu in Romania and Izamal in Mexico). Bologna is also briefly compared with a number of other historic centres, mostly from Europe, not yet included on the World Heritage List or on Tentative Lists. The comparisons are structured according to five parameters: chronology, extent, function, sociality and typology.

ICOMOS notes that the basic premise for the selection of potential comparisons is the typology of the sites as historic centres or cities. However, what is reflected in the nominated property is a group of portico ensembles, not an urban settlement. For this reason, in its first request for supplementary information, sent in September 2020, ICOMOS asked the State Party to refocus the comparisons on the qualities of the porticoes of the sites identified as comparators and in particular on the values that the porticoes embody. ICOMOS also requested the State Party to expand the comparative analysis in relation to the justification proposed under criterion (ii); that is, on how the selected porticoes may have prompted the interchange of human values through inspiring ideas that influenced other areas.

The response of the State Party stated that the comparative analysis focused on historic city centres, because it is where the urban and architectural character of the portico in different periods of urban history is fully visible. In relation to ICOMOS’s request to expand the comparative analysis with regard to the values of the nominated property underlying the justification given for criterion (ii), the State Party added that the nominated components represent the paradigm of how the portico, as a private covered space for public use, open to citizens and visitors, favours meetings and promotes relationships between people. The supplementary information also includes additional references on how their porticoes are an element of identity of other cities in Italy, namely Padua, Turin and Mantua.

ICOMOS notes that the portico as an architectural and urban element is a common element in many buildings and that porticoed walkways are also found in many historic cities, as presented in the comparative analysis. Despite the additional information received, ICOMOS considers that the comparative analysis mainly focuses on the portico as a typology, which is widespread, and on secondary and mostly measurable aspects of the nominated components (e.g. number, variety of style, period of construction and materials of porticoes) rather than the values that the porticoes convey. ICOMOS considers that it remains difficult to understand if some of the cities selected as comparisons would present a similar catalogue of porticoes, particularly if larger areas of those cities would be considered and not just their historic centres.

Regarding the additional information in relation to the justification proposed under criterion (ii), ICOMOS considers that some comparisons deserve to have been further explored, as in the case of Turin. The State Party argues that the porticoes of this city were mainly built between the 17th and 20th centuries, and are the expression of an urban design aimed at turning Turin into the capital city of a Kingdom. The State Party also claims that the porticoes in Turin did not foster social life, as a meeting place of people of all social classes, nor do they have an international reputation. ICOMOS notes that the State Party did not provide any evidence or details to support these claims.

Overall, the comparisons offered are not conclusive as to why the twelve component parts being nominated, should be considered to stand out in relation both to the influences they exerted over other places or as a type of architectural ensemble.

The second part of the comparative analysis focuses on the choice of components, among a stated total linear length of 62 km of porticoes located both inside and outside the city centre of Bologna. This part of the analysis briefly explains why the porticoes selected are considered the most representative according to their chronological phases, social and functional contexts and architectural types. However, there is little information as to why other porticoes were not considered or were excluded from the series. In its Interim Report, ICOMOS noted that the term ‘catalogue’ is used several times throughout the nomination dossier. ICOMOS recalls that the conclusions and recommendations of the International World Heritage expert meeting on serial properties and nominations, held in 2010, in Ittingen, Switzerland, warned against this type of approach and that an adequate definition of the functional links between the component parts should be provided.

ICOMOS considers that the comparative analysis does not include a robust justification for the selection of the component parts included in the nominated property, particularly when it comes to more recent porticoes, from a chronological perspective.

ICOMOS does not consider that the comparative analysis justifies consideration of this property for the World Heritage List at this stage.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that Bologna and its porticoes have long represented a diffusionary centre of models emulated at international level, aided by the role of its University in the dissemination of knowledge. Numerous architects, painters, sculptors and artists in general who visited Bologna to study or for pleasure, worked on the porticoes and lived in them, experiencing their liveliness and social
activity, and thereafter they took this model elsewhere in Italy and the world, in every historical period.

ICOMOS considers that the arguments presented for the justification of this criterion relate mainly to the porticoes of Bologna in general and not the series of porticoes that constitute the nominated property. Therefore, ICOMOS requested the State Party to provide further evidence of how this selection of twelve components exhibits an important interchange of human values and influenced the diffusion of the architectural portico model all over the world. The response of the State Party emphasizes mainly the social value of the porticoes, as public spaces open to visitors and citizens that facilitate social relations.

ICOMOS considers that the response of the State Party does not provide sufficient information as to what areas were influenced by the nominated property or how. ICOMOS also notes that the justification refers to the role the University played in this regard but that this claim relates to the dissemination of knowledge in general, and not to any particular aspects related to the nominated property.

The nomination refers to the testimonies of artists such as Leon Battista Alberti, Sebastiano Serlio and Jacopo Barozzi, known as “Vignola”, who recommended the construction of porticoes in architectural treatises they wrote. ICOMOS considers that these treatises refer mostly to the qualities of the porticoes of Bologna in general, not the selection of porticoes that are included in the nominated property. Even if that argument could be considered, such references would only apply to the component parts that existed at the time those architectural treatises were written, whereas many of the porticoes were built afterwards, given that the timeframe of the series as a whole extends to the 20th century. Therefore, ICOMOS considers that criterion (ii) has not been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the nominated property represents in an exemplary manner an architectural typology – the portico – of ancient origin and wide diffusion, never abandoned even today, but in continuous transformation through precise historical periods of the town’s transformation. The series represents, in the various chronological, typological, technological and functional characteristics, a variety of porticoed building typologies, developed from the 12th century to the modern era.

In its request for supplementary information sent on 28 September 2020, ICOMOS noted that there are ambiguities as to what characteristics are essential to distinguish some typologies from others but also how certain component parts fit the definitions of those typologies. In its response, the State Party asserted that the typology of porticoed buildings is used for isolated buildings in the suburbs (that is, the Edificio Porticato del quartiere Barca and the Edificio Porticato del MAMbo), which are not part of a comprehensive system of covered walkways as in other parts of the city. However, ICOMOS questions why the location of the building should be so determinant for the definition of that typology, assuming that there are other isolated buildings that are not part of a continuous covered walkway, within the historic centre of Bologna.

ICOMOS considers that it is unclear what is the exact nature of the typology of the nominated property: the portico as an architectural element of a building; the four typologies defined by the State Party in the nomination (e.g. porticoed roads, porticoed squares, porticoed paths and porticoed buildings); or the porticoes as urban elements with the function of walkways, which could form the basis of a system.

ICOMOS notes that the portico as an architectural element and the covered walkway as an urban element exist in many other cities and that this criterion relates to the outstanding nature of the typology of a nominated property. While the series presents an extensive variety of porticoes, from a chronological, typological and material perspective, ICOMOS considers that the nomination does not demonstrate how they could be considered of an outstanding nature.

As explained in the nomination, the porticoes originated as a response to growing housing needs, by expanding the living areas on the upper floors and simultaneously providing a space for people to carry out activities, while being protected from bad weather and heat and with the possibility of exploiting as many hours of natural light as possible. The obligation of building porticoes introduced by the Municipal Statutes of 1288 led over time to the juxtaposition of buildings with porticoes and their gradual evolution into walkways.

In its Interim Report, ICOMOS asked the State Party for further information as to how the porticoes came to assume more of the function of a walkway over time, in order to better understand how these porticoes could be seen to constitute a system, as is argued especially in the supplementary information submitted in September 2020. The State Party provided a short reply stating that the citizens of Bologna immediately understood the many advantages of covered walkways separate from the street busy with traffic, allowing them to move more safely and protected from the elements in all seasons. ICOMOS considers that it would be important to further explain and especially to document the evolution of the portico from an architectural element of a building, which when multiplied assumes a different identity and contributes to forming a different typology, that of the walkway providing an urban function.
ICOMOS also notes that the essence of this criterion requires that the property must illustrate a significant stage in human history, in an outstanding way. However, the span of time considered in the series is mainly defined by the time since porticoes started being built in Bologna and cannot be considered to reflect a significant stage in human history, be it from a political, economic history, artistic or scientific viewpoint. Hence, ICOMOS considers that criterion (iv) has not been justified.

ICOMOS does not consider that any of the cultural criteria have been demonstrated at this stage.

Integrity and authenticity

Integrity

ICOMOS has already noted that the boundaries of the component parts as initially presented in the nomination dossier did not include the totality of the buildings they are an integral part of. The revised boundaries submitted with the additional information provided in February 2021 only partly addresses this problem, since some component parts do not include the totality of some streets and the component of the Portico of San Luca was expanded to include the exact space occupied by the Basilica di San Luca but not the place itself nor part of the landscape surrounding the porticoed path. In addition, the areas of some component parts were considerably expanded and now include buildings and urban spaces that were not visited during the technical evaluation mission. Therefore, it is not possible for ICOMOS to adequately evaluate if they include important attributes or not.

As a serial nomination, integrity is also a measure of how each component part contributes to the Outstanding Universal Value of the property as a whole in a substantial and discernible way. ICOMOS has already expressed its concerns regarding the selection of the component parts and how they are functionally linked in such a way that they could express an urban system. In its Interim Report, ICOMOS asked the State Party why another approach, focused on a broader urban context – the wider city or key parts of it – was not proposed in order to explicitly contextualize the distinctive urban character of Bologna as a city of porticoes; it added that it also considered it necessary that the links between the porticoes themselves be explained and expressed.

The State Party replied that a serial approach was adopted because it was considered to be the most suitable for recognizing and highlighting those parts of the city that best represent the various architectural typologies and historical phases of the Bolognese portico, thus providing an effective overview of the whole. It added that the series is a synthesis of the totality of the system and that with the enlargement of the component parts, key areas of the city were now included in the nominated property. According to the State Party these larger areas are supposed to also explain better the links between the porticoes and that the redefined component parts correspond to specific areas of the city that represent different phases of Bologna’s urban development: the oldest nucleus of the city of Bologna until the construction of the Torrioni Walls in the 13th century; the area between those walls and the Circia Walls, the line of which corresponds to the modern ring road, and marks the expansion of the city during the 15th century; and the urban area beyond the perimeter of the modern ring road, into which the city grew after the 17th century.

Whilst ICOMOS appreciates the additional information and the State Party’s efforts in expanding the areas of the component parts, it considers that the fundamental nature of the series remains a catalogue of porticoes, that the functional links between them have not been sufficiently and comprehensibly justified, and that it remains unclear how the nominated property would reflect an urban system; that is, an identity that would be apparent beyond the sum of its constituent parts but show the connections between them as well. Therefore, ICOMOS considers that the wholeness of the nominated property has not been sufficiently demonstrated.

Furthermore, for the nominated property to meet the conditions of integrity it is necessary to consider the extent to which it is affected by adverse effects of development and neglect as well as how other pressures are managed. Based on the observations of the ICOMOS technical mission, the majority of the component parts are not currently threatened by development, deterioration or neglect. The exception is the Portico della Certosa, already affected by the visual impact of previous interventions in the Stadium Renato Dall’Ara, which could be exacerbated by a new project, expected to have started in 2020. The State Party has informed ICOMOS that it does not consider that the project will affect negatively this component part; however ICOMOS considers it important that a Heritage Impact Assessment should be undertaken to assess potential impacts.

For the various reasons expressed above, ICOMOS considers that the necessary conditions of integrity have not been met at this stage.

Authenticity

ICOMOS considers that the porticoes have retained their use and function as public spaces over time. However, as Bologna was bombed during the Second World War, and the nomination stated that 43.2% of the available housing needed reconstructive intervention, ICOMOS in its Interim Report asked for further information in this regard since it could raise potential concerns regarding form, design and materials. The State Party replied that the nominated porticoes were largely unaffected by the destruction during the war. The information provided includes some details on which buildings and sections of the component parts were damaged during the war, and in a few cases provides minimal information on the works carried out afterwards.
In the nomination, it is stated that it was only in the early 1950s that architects, engineers and highly skilled artisans were involved in restoring the original features of the monuments. The original appearance was deduced from surveys, photographs and studies on recovered materials, so that the rebuilds might adhere to and respect the original architectural and artistic typology. Whilst ICOMOS considers that certain underlying issues remain. The immediate setting of the Portico della Certosa, which is one of the examples of the relationship with extra moenia sites, has been significantly altered over time. ICOMOS has already noted the impact that past interventions in the Stadium Renato Dall’Ara have had on this component part, which could potentially be aggravated by the project scheduled in 2020.

Regarding the setting, ICOMOS noted that despite the changes proposed to the perimeter of the component parts some issues remain. The immediate setting of the Portico della Certosa is associated with that (such as proportions, type of structural elements, colours, total length, height in general as well as height of the pavement in relation to the street) are also reflected by the different porticoes. As such, materials, construction techniques and associated decoration vary according to the period when the porticoes were built, ranging from wood to reinforced concrete elements. Many of the porticoes in the nominated property also function as structural elements of the buildings they are part of, therefore their relationship with the upper floors and the ground level (where sometimes they are part of the retaining wall of the cellars below) needs also to be considered. The buildings themselves, of which the porticoes are part, and the urban spaces associated with them (streets and squares) should be recognised as important potential attributes; the same applies to the immediate landscape setting around the Portico di San Luca.

The design of the porticoes and the characteristics associated with that (such as proportions, type of structural elements, colours, total length, height in general as well as height of the pavement in relation to the street) are also important proposed attributes.

The relationships and functional links between the porticoes, the urban system they form, should also be mapped and identified as important potential attributes, and are not currently reflected in the way the nominated property has been delineated.

ICOMOS considers that further work as regards the identification and mapping of important potential attributes is needed, in particular with regards to the buildings themselves, of which the porticoes are part, and the urban spaces associated with them (streets and squares) and with regards to the relationships and functional links between the porticoes and the urban system they form. These potential attributes are not currently reflected in the way the nominated property has been delineated.
4 Conservation measures and monitoring

Conservation measures
Since the different porticoes that form the nominated property date to different periods and are built using different construction techniques and materials, appropriate conservation measures will vary according to their characteristics. As private property for public use, the conservation and maintenance of the porticoes is dependent both on actions and interventions carried out by private and public actors. In addition, since the component parts result from the juxtaposition and combination of different buildings and structures, conservation work in the past has been carried out mostly on an ad hoc basis rather than centred around a comprehensive and systematic conservation programme.

Because of their use and function as public spaces, the floor surfaces of the porticoes are subject to heavy wear and tear, contributing over time to their deterioration. The porticoes are mainly paved with cobblestones or brick but there are several pavements made from marble slabs. Overall, the floor surfaces are quite durable and resistant, therefore regular maintenance is the simplest and most effective approach for their conservation. Municipal regulations establish that original porticoes and pavements belonging to buildings of historical and architectural interest have to be preserved and restored, cleanliness must be observed and all causes of structural and visual alteration must be removed. The Municipality has published the manual "Portici. Istruzioni per la cura e l'uso" (Porticoes. Instructions for care and use), which provides instructions according to issues such as how porticoes are to be used based on the needs of commercial activities, the setup of construction sites and scaffolding, and how to carry out cleaning and hygiene operations.

Since graphic vandalism (graffiti) is one of the main factors affecting the nominated property, the Municipality of Bologna in collaboration with Direzione regionale per i beni culturali e paesaggistici del Emilia Romagna (Regional Direction for Cultural and Landscape Heritage) and the Soprintendenza Archeologica, Belle Arti e Paesaggio per la città metropolitana di Bologna e le province di Modena, Ferrara e Reggio Emilia (Superintendency of Archaeology, Fine Arts and Landscape for Bologna, Modena and Reggio Emilia Provinces, and the Municipality of Bologna) have issued Guidelines for Cleaning Surfaces Affected by Graphic Vandalism.

Monitoring
The nomination dossier includes information on the development of a monitoring programme for the serial nominated property, taking into consideration the list of “Factors affecting the property” used for the Periodic Reporting exercises. Based on this list, the State Party has identified a number of “phenomena to be monitored” accompanied by a set of indicators. The nomination also states that the Management Plan for the nominated property will also include a monitoring programme for the implementation of the plan itself to help evaluate individual projects.

ICOMOS notes that the information related to the monitoring of the state of conservation of the nominated property included in the management plan, offers little additional information to what is included in the nomination. ICOMOS considers that a comprehensive monitoring programme is yet to be developed by the State Party.

ICOMOS considers that present conservation measures are appropriate but that a comprehensive monitoring programme for the serial nominated property has not yet been developed. Further research and documentation on the evolution of the porticoes into walkways and the role of the Municipal Statutes of 1288 in shaping the urban system of walkways is also needed.

5 Protection and management

Documentation
Bologna and its porticoes have been the subject of many studies and publications, resulting in extensive bibliographic records. Documentary materials are kept by the Municipality and the State Archives of Bologna; the Cineteca di Bologna possesses an extensive filmographic, graphic and sound archive.

Building inventories are kept by the Municipality and other relevant authorities. Much of this information is available on Geographic Information Systems, allowing quick access to data. The nomination dossier includes many historical records, namely architectural drawings and photographs.

ICOMOS notes that the justification for inscription builds on the importance of the Municipal Statutes of 1288 and how the provisions of those Statutes were incorporated later on into other legal, planning and regulatory instruments. Therefore, ICOMOS considers that additional documentation on this should be compiled to better understand how those provisions were implemented, changed and adapted over time and how they influenced the construction, conservation and evolution of porticoes throughout the centuries.

Legal protection
The Municipal Statutes of 1288, which established that new houses should have porticoes, paved the way for the diffusion and the definitive recognition of the portico as an emblematic element of the city of Bologna. In the information provided in February 2021, the State Party asserted that the provisions included in those Statutes were incorporated in subsequent statutes and in urban planning regulations: however, no further documentation was provided to support this claim.

Regarding the legal designation of the porticoes at present, the nomination does not include precise information on whether the porticoes are listed as cultural heritage at the national level, with the exception of graphical information included in some of the maps. Based on the information gathered by the ICOMOS technical evaluation mission,
only the *Portico della Certosa* and *Portico devozionale di San Luca* are designated in their entirety as listed buildings. A number of listed buildings that include porticoes that are part of the nominated property are protected under the Legislative Decree no. 42 of 22/01/2004 "Code of Cultural Heritage and Landscape". All changes to these buildings and related construction works need to be approved by the competent Superintendency. None of the buildings included in the component parts of *Portici residenziali di Santa Caterina* and the *Edificio porticato del MAMbo* are the object of any protective designation as cultural heritage, either at the national or regional levels.

The protection of cultural heritage at the regional level is dictated by the Regional Law no. 24/2017 "General regulations on the protection and use of the territory", which also establishes the regional regulations on territorial governance, and the protection of the environment, in compliance with the fundamental principles of state legislation and with European laws.

At the municipal level, there is long-standing experience with the protection of the historic centre of Bologna, particularly since the approval of the "Plan of the Historic Centre" in 1973. According to the nomination, this was the first detailed urban plan that provided for the integrated protection of a large historic centre in its entirety, composed both of its monumental parts and its popular buildings of lesser architectural value.

The protection of the buffer zone surrounding most of the component parts and covering the historic centre of Bologna is ensured by multiple instruments and in particular the Municipal Structural Plan, which came into force in 2008, and the Urban Planning Regulation, dating from 2009. This buffer zone also covers the protected natural area of the hill up which the *Portico devozionale di San Luca* climbs. The Municipal Structural Plan establishes it as a rural area with the aim of integrating policies to safeguard the natural, environmental and landscape value with the development policies for sustainable farming.

The buffer zone surrounding the *Edificio porticato del quartiere Barca* includes the perimeter of the agglomeration of modern documentary interest, according to the Urban Building Regulations. Building interventions in this area require the favourable evaluation of the Commission for the Architectural Quality and the Landscape.

**Management system**

No specific management system has been developed for the serial nominated property, given that the majority of the porticoes are located within the historic centre of Bologna, which is already managed in its entirety at the municipal level from a heritage perspective. Hence, the Municipality of Bologna is the responsible authority for managing the nominated property in collaboration with the *Direzione regionale per i beni culturali e paesaggistici dei Emilia Romagna* and the *Soprintendenza Archeologica, Belle Arti e Paesaggio per la città metropolitana di Bologna e le provincie di Modena, Ferrara e Reggio Emilia*, when legal provisions so require.

A Steering Committee is made up of the public bodies responsible for governing the territory and cultural heritage protection, local representatives of national institutions, economic stakeholders and the most important local institutions in both religious and social spheres. This Committee will meet at least twice a year and will supervise the plan and implementation of the Management Plan for the nominated property.

The Management Plan is intended mainly as a coordination instrument and extends also to the buffer zones of the property. This plan includes a table with a list of projects to be achieved and the funding allocated for it. These projects are then detailed individually, adding more information as to when they are to be implemented and by whom. There is no indication of the overall timeframe or duration of the plan.

ICOMOS considers that the plan is of a theoretical nature rather than an operational one; the defined projects and actions are a compilation of existing and planned projects. In view of the changes proposed to the boundaries of the nominated property, and the enlargement of the component parts, ICOMOS considers that the State Party should revise the Management Plan to encompass those changes and the needs of managing these larger areas and the elements they include.

ICOMOS acknowledges that the Management Plan complements existing planning tools that already guide the protection of the heritage resources within the city of Bologna. The main planning instrument is the Municipal Structural Plan, which establishes the general provisions to guide urban development and protection measures by means of two more operational instruments: the Municipal Operational Plan and the Urban Planning Regulations. The Municipality has also issued a series of guidelines that contribute to the protection of the nominated property.

Because of the nature of the porticoes as private property for public use, sources of funding are varied, deriving from both private and public sources. Levels of staffing and expertise are considered adequate.

**Visitor management**

There is no specific tourism strategy for the nominated property but there are a number of legislative instruments and programs for tourism management at city and metropolitan level. Based on the information included in the Management Plan, in 2019 the Metropolitan Council approved two important instruments: the Local Promotion Tourist Plan; and the Annual Operational Programme for the promotion and marketing of tourism.

A number of digital projects related to the presentation and interpretation of the porticoes of Bologna are being developed, in line with a communication strategy presenting the nominated property as a whole.
Community involvement
Based on the observations of the ICOMOS technical evaluation mission, there was strong interest and involvement of the population of Bologna in the nomination process. In the past year, the municipality of Bologna has developed a number of public policies to engage citizens in the governance of the city. In 2017, it launched a participatory budgeting process and created a series of city labs to encourage engagement at the community level. The Management Plan for the nominated property includes concrete measures to involve the local communities in the presentation and management of the nominated property, such as developing a guide about the porticoes specifically for children, an education programme on legal issues and respect for the urban environment, and activities for fighting graffiti vandalism.

Evaluation of the effectiveness of the protection and management of nominated property
ICOMOS considers that further documentation on how the provisions of the Municipal Statutes of 1288 were incorporated into other legal, planning and regulatory instruments throughout the centuries should be compiled. Such documentation should help to create better understanding of how those provisions were implemented, changed and adapted over time and how they influenced the construction, conservation and evolution of porticoes throughout the centuries.

The current legal protection for the property is considered inadequate since only two of the components (Portico della Certosa and Portico devozionale di San Luca) are designated at the national level. ICOMOS considers that all components should have the highest level of protection available.

The State Party has put in place adequate management responses to the main threats affecting the property and the state of conservation of the nominated property is overall satisfactory. Only a few adverse effects of development are observed in relation to the Portico della Certosa because of past interventions in the Stadium Renato Dall’Ara.

ICOMOS considers that the Management Plan serves mainly as a coordination instrument and complements existing planning tools that already guide the protection of the heritage resources within the city of Bologna. Because of the changes to the boundaries of the nominated property, ICOMOS considers that the State Party should revise the Management Plan to adapt it to the needs of managing these larger areas and the elements they include. ICOMOS also notes that the timeframe or duration of the Management Plan is unclear and that the nominated property should have a precise cycle of planning, implementation, monitoring, evaluation and feedback, as required by paragraph 111 of the Operational Guidelines.

The planning and decision-making planning processes are considered adequate and inclusive. ICOMOS also considers that the financial and human resources available are adequate.

ICOMOS considers that the legal protection is inadequate and that some aspects of the monitoring system need to be reinforced.

6 Conclusion
The serial nomination of the Porticoes of Bologna has been presented by the State Party as a catalogue of porticoes constituting the identity of the city of Bologna. Despite the additional information and revisions provided by the State Party following ICOMOS’s concerns about the use of the word “catalogue” throughout the nomination dossier in relation to the sites, ICOMOS considers that the potential Outstanding Universal Value of the nominated property as an example of an urban system of covered walkways, that is essential to Bologna’s identity, has not yet been demonstrated.

ICOMOS also considers that the series, and particularly the delimitation of the component parts, should not be seen merely as a synthesis of a system but rather as reflecting the functional links between the porticoes. In this sense, it would reflect how collectively, through the articulation of the elements and interconnections between them, they generate a different entity, which is more than the sum of the component parts. These interconnections between the porticoes which define the city’s identity and the sense of place would need to be tangibly expressed in the boundaries of the nominated property.

In ICOMOS’s view, the identity of this system is dependent on the role that the Municipal Statutes of 1288 played in laying the foundation for its development over time. ICOMOS considers that this has not been sufficiently explained and documented. Based on ICOMOS’s own research, through the Municipal Statutes of 1288, Bologna seems to have played a fundamental role in shaping the relationship between public and private space in the medieval city, marking one of the decisive moments in the history of the capacity of the public authorities to assert their power and political control over the administration of a city.

Therefore, understanding and documenting how the provisions included in the Municipal Statutes of 1288 were incorporated into other legal instruments throughout the centuries, and how that influenced the evolution of the porticoes, from architectural elements of buildings built as a response to growing housing needs, to becoming full covered walkways with an urban function, is fundamental.

Based on the information received from the State Party, the area of influence of those Statutes referred to the civitas and the burgi, that is, the area enclosed by the Circla Walls, the line of which corresponds to the modern ring road. ICOMOS considers that this area should be the focus for the delimitation of the so-called urban system of porticoes with the exceptions of the Portici della Certosa and San Luca, since these extra moenia religious sites existed already in the medieval period. As such, ICOMOS...
also considers that the *Edificio porticato del quartiere Barca* and *Edificio porticato del MAMbo* should be excluded from the nominated property as they were created at a much later stage and shaped by different influences. In addition, the nomination explains that these two components were defined as belonging to a typology called “porticoed buildings”, used for isolated buildings in the suburbs and which are not part of a comprehensive system of covered walkways as in other parts of the city.

In conclusion, ICOMOS considers that further work is needed: to document and articulate in more detail the role that the Municipal Statutes of 1288 played in setting the foundations for the urban system of porticoes and walkways as well as its influence over time; to refocus the proposed justification for Outstanding Universal Value on this urban system and how it evolved over time; and to revise the boundaries to reflect the elements as well as the interconnections of that system.

ICOMOS recalls that the revised boundaries, proposed by the State Party in February 2021, include areas that were not assessed during its technical evaluation mission and that its suggestions on how to refocus the nomination would require another mission. ICOMOS also considers that the legal protection for the nominated property is not appropriate at this stage and that the monitoring and other aspects of the management system should be strengthened.

### 7 Recommendations

**Recommendations with respect to inscription**

ICOMOS recommends that the examination of the nomination of The Porticoes of Bologna, Italy, to the World Heritage List be deferred in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Further research, document and explain the role that the Municipal Statutes of 1288 had on the relationship between public and private spaces in the medieval city, marking one of the decisive moments in the history of the capacity of the public authorities to assert their power and political control over the administration of a city;
- Further research and document the evolution of the porticoes as a typology, from an architectural element of a building into covered walkways with an urban function;
- Refocus the justification for inscription from a catalogue of porticoes to a city of porticoes and reflect an urban system of covered walkways, which defines the urban identity of the city of Bologna, contributing to the sense of place and social dynamics;
- Revise the boundaries to reflect not only the elements but also the interconnections of that system, by incorporating the functional links between the covered walkways within the perimeter of the nominated property;
- Ensure that all components that would constitute the nominated property will have the highest level of protection available;
- Revise and strengthen the management and monitoring system in light of the refocus of the nomination.

Any revised nomination should be visited by a mission to the site.
Revised map showing the boundaries of the nominated components and their buffer zones (February 2021)
Petroglyphs of Lake Onega and the White Sea (Russian Federation) No 1654

Official name as proposed by the State Party
Petroglyphs of Lake Onega and the White Sea

Location
Pudozhsky District
Belomorsky District
Republic of Karelia
Russian Federation

Brief description
The Petroglyphs of Lake Onega and the White Sea nomination refers to 4,500 petroglyphs carved in the rocks during the Neolithic period dated 6-7 thousand years ago, located in the Republic of Karelia in the Russian Federation. The petroglyphs produced by the Pit-Comb Ware culture and Rhomb-Pit Ware culture provide material evidence documenting Neolithic culture in Fennoscandia. The nominated serial nomination includes the petroglyphs of Lake Onega extending over a territory of 6944.14 hectares in the District of Pudozhsky and those of White Sea, extending over an area of 105.4 hectares in the District of Belomorsky located at a distance of 300 kilometres from one another. The nomination comprises 33 sites within the two component parts, including a total of 22 archaeological sites at Lake Onega and 11 located at the White Sea.

Category of property
In terms of the categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of two sites.

1 Basic data

Included in the Tentative List
17 September 2018

Background
This is a new nomination.

Consultations
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

Technical Evaluation Mission
An ICOMOS technical evaluation mission took place from 17 to 25 October 2020.
a total of 45 archaeological sites including settlements and burial grounds.

The petroglyphs of the White Sea include 3,411 figures divided into 11 groups extending over 11 sites spread over 7 islands on the Vyg River’s delta in the following areas:

- Zalavruga (about 2000 figures);
- Besovy Sledki;
- Erpin Pudas (I to IV) (some 200 figures);
- No-name islands (I to III) (some 300 figures);
- Island Bo’shoj;
- Zolotec.

Zalavruga is considered to be the main sacred centre of the area. The petroglyphs are associated with 80 archaeological sites including 42 camp sites dated as contemporary with the rock art.

Information on the archaeological sites located near the rock art sites has also been provided at ICOMOS’s request: archaeological evidence dates these sites to between the Late Mesolithic up until the Middle Ages. Late Mesolithic settlements have been excavated at Besov Nos and Kladoverts Nos.

ICOMOS requested also additional information on the history and development of the human groups that populated the area. The State Party provided concise additional information in November 2020 and explained that, according to scientific evidence, the first signs of human activity in south and central Karelia date back to the Late Mesolithic Age (around 10,000 BP), thanks to more favourable climatic conditions in the northern territories.

Lake Onega is presented in the nomination dossier as an ‘unchanged landscape’ where petroglyphs have been preserved in their original environment. Research undertaken since the 1970s has led to indications that the petroglyphs of Lake Onega appeared earlier than those of the White Sea and influenced the emergence and development of a carving tradition at the White Sea.

Their initial phase dates back to the Neolithic, witnessing the transition from hunter-gathering to food producing by sedentary societies. The petroglyphs attest to the beliefs and lifestyle of the hunter-fisher-gatherers over a period of 3,000 years and speak of the high point of these semi-nomadic cultures that used these rock art centres as meeting places. The petroglyphs are associated with the Neolithic Pit-Comb Ware culture and Rhomb-Pit Ware culture (broadly speaking 4200 – 2000 BCE; more recent dating hypothesis 4200 – 3000 BCE for the nominated rock carvings).

The nominated serial property includes representations of waterfowl including swans that the State Party considers to be unique in the rock art of Northern Fennoscandia and in Europe, and were identified as the earliest manifestation of the rock carvings in the region. Research has revealed that the earlier petroglyphs can be found at Capes Koryushkin Nos, Kladoverts Nos and Gazhy Nos and on Capes Peri Nos and Karetsky Nos. These early petroglyphs mainly represent sketchy waterfowl where swans appear, linear boats with rowers and geometric symbols (circles, half-moon).

A second phase of evolution is characterized by the diversification of themes, representations and techniques using the natural shape of the rocks to serve the representation of the carvings. Representations of birds are predominant as well as their related contexts including waterfowl represented through a much wider range of forms. This period also attests to an imagery composed of conceptual forms including geometrical representations associated with solar and lunar symbols as mentioned in the nomination dossier, together with half-animal half-human figures such as moose-man, bird-man or boat-man. The later period is associated with the large-scale petroglyphs located at Kochkovnavolok peninsula where carvings up to 4 meters in length preserved.

The petroglyphs of the White Sea focus mainly on hunting scenes, which depict sea hunting, including of whales or other sea animals in larger numbers, as well as hunting inland with representations of the hunter in action, or isolated depictions of hunters’ equipment (bows, arrows, spears, skis) and animal footprints. These carvings are said to be particularly informative about life in the Neolithic for the level and quality of details provided, especially for whale hunting.

The petroglyphs of the White Sea are dated after the petroglyphs of Lake Onega with a first stage located at Besovy Sledki, Erpin Pudas I, II and IV. Research has noted similarities with the petroglyphs of Lake Onega for the petroglyphs dated from the second period considering the presence of similar images of humans and boats.

The third stage of evolution is represented by the carvings located at Zolote I, Erpin Pudas III, a group of small islands in the channel of the river Vyg. The fourth period is represented by the narrative compositions located at Zalavruga where scenes of hunting depict whale or ringed seal hunting in great details as well as reindeers, moose and bears, geese and woodcocks. Similar to Lake Onega, the last phase of development is characterized by gigantism, with figures extending over 3 meters long at Staraya Zalavruga.

In response to ICOMOS’s interim Report, in February 2021 the State Party explained that scientific research has concluded that there are similarities between the rock art production of Lake Onega and the White Sea especially in the rock carving technique, rock art compositions, in the scenes depicted and their style, as well as in the locations chosen for carving horizontal motifs on the rock surface. The detailed analysis of the rock carvings revealed that they were produced by a population of the same Neolithic culture; excavated archaeological material attests that part of the Pit-Comb
Ware population of Lake Onega gradually migrated to the White Sea by way of navigation. Their settlement led to the initial development of rock art at the River Vyg and in the south-western region of the White Sea.

**Boundaries**
The nominated property has an area of 7,049.54 ha; 6,944.14 ha at Lake Onega and 105.4 ha at the White Sea.

The buffer zone at Lake Onega extends over an area of 15,100 hectares and extends over 18.5 kilometres from north to south and up to 7.6 kilometres from west to east. It includes the 22 rock art sites. At the White Sea, the buffer zone surrounds 11 groups of rock carvings, representing a total surface of 15,557 hectares.

Additional Information provided by the State Party in November 2020 indicates that the buffer zone of the petroglyphs of Lake Onega are part of the Natural Reserve “Muromsky” and includes a total of 47 archaeological sites dating from the Mesolithic and Neolithic periods. The petroglyphs included in the buffer zone of component 2 of the White Sea are together with a total of 36 archaeological sites dating from the Neolithic to Bronze Age periods.

ICOMOS noted that the rationale followed to delineate the nominated components sites and the buffer zones was unclear; some archaeological elements have been included in the nominated areas, whereas some in the buffer zones and others have not been considered for inclusion in either of them.

Therefore, in its Interim Report, ICOMOS requested further clarification on the boundary delineation. The State Party responded that the buffer zones were delimited based on the research commissioned by the Administration for the Protection of Cultural Heritage of the Republic of Karelia in 2019 that examined the location of the rock art and archaeological heritage the within landscape and provided a visual impact analysis. Beyond the results of this research, the delimitations were also conditioned to the existing protection zones.

Based on the further explanations provided by the State Party, ICOMOS recommends that the delineation of the nominated areas and buffer zones be reconsidered in order to include the existing archaeological heritage, much of it currently located outside the nominated property, in light of its contribution to the proposed Outstanding Universal Value.

**State of conservation**
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is overall good at Lake Onega but is concerned about the conservation of the petroglyphs at the White Sea due to regular flooding.

One of the main conservation concerns is the presence of lichen covering most of the rocks surfaces at both Lake Onega and the White Sea, that affects the visibility of the petroglyphs. Since 2000, studies have focused on the presence of lichen and, since 2008, this has led to the adoption of the use of an alcohol solution on the rocks where petroglyphs are carved to remove lichens. ICOMOS suggests a cautious approach to the use of this solution in the long-term and recommends that tests are made to verify whether this substance might reveal negative impacts in the medium- and long-term.

The abrasive effects of lichen, water, snow, ice and weather conditions in general, have led to the partial or complete disappearance of the petroglyphs on the peninsula of Kochkovnavolok and those on the island of Bol’shoj Gurij at Lake Onega, and the petroglyphs at Erpin Pudas I and III, on the no-name islands II and III, and at Zolotec I at the White Sea. Evidence of human degradation in the form of graffiti is only noted in a very few instances at Besov Nos and Besovy Sledki.

**Factors affecting the property**
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property include the high-voltage Vygoostrovskaya hydroelectric power station and its facilities at the White Sea.

The hydroelectric power station at Vygoostrovskaya is located next to the pavilion of Besovy Sledki where petroglyphs are exhibited. In the past, water has overflowed over the petroglyphs as far as Zalavruga located some 2 kilometers away. The canyon called Kamennyj Kan’on located next to the exhibition pavilion is regularly covered with water causing cracks in the carved rock at the Besovy Sledki Pavilion. To address this issue, the State Party seems to have planned the installation of a water filtration system.

Further affecting factors are represented by development pressures, including forestry harvesting operations, the installation and operation of maritime and inland water transportation facilities and sea hunting.

At Lake Onega, the ICOMOS Technical Evaluation Mission indicated that a quarry is under exploitation on the borders of the Vodla River in the area of Shalskiye, on the outskirts of the buffer zone. The Technical Evaluation Mission observed that the quarry does not seem to have a direct effect on the conservation of the nearest petroglyphs located at Kochkovnavolok peninsula.

The Republic of Karelia had a global tourism strategy and programme approved in 2016 to attract a higher number of visitors to the federal province. The Petroglyphs of Lake Onega and the White Sea stand as one of the major tourism attractions.
At the White Sea, the federal government has approved the creation of a tourist recreation and caravanning tourism centre, focussing on Besovy Sledki, where the Pavilion has been rehabilitated, and Zalavruga, outside the buffer zone, for tourism infrastructure development, including road upgrading and the construction of a hotel, a camp site and a conference centre. At Zalavruga, wooden pathways as well as wooden buildings that will not exceed the height of the surrounding trees are planned to be completed in 2023 but works have not started yet.

At Lake Onega, which has been spared from development to date, plans exist to develop an “eco-archaeological park”, including visitor infrastructure, i.e., a boat-landing facility, one restaurant, hotels and guest houses, an exhibition space and a research centre, in the area surrounding the villages of Karshevo and Shalskiye.

The Republic of Karelia has also planned to set up the “Historical and Archaeological Natural Museum of Karelian Petroglyphs” at Petrozavodsk where the visitors’ centre would introduce the rock art of Lake Onega and the White Sea.

The Department for the Protection of Cultural Heritage Properties of the Republic of Karelia is entrusted with the role of evaluating the design proposals and projects. It has also worked on architectural concepts that would respect the petroglyphs and their surrounding heritage.

ICOMOS expresses its concerns with regard to the potential cumulative impacts of these projects on the nominated series and of the increase of tourism, as they could change profoundly the state of conservation, the integrity of the nominated series and its setting and their possibility to convey the significance of the petroglyphs in their physical context, particularly where this is almost untouched.

In its Interim Report, ICOMOS asked whether an overall Heritage Impact Assessment has been carried out for all these projects. The State Party explained that studies looked into the carrying capacity of the nominated property and its buffer zones, and into the visual impact of infrastructure development on the outskirts of the buffer zones but failed to confirm if an overall Heritage Impact Assessment was completed.

In its Interim Report, ICOMOS asked whether a specific tourism strategy for the nominated property, with the purpose of sustaining its proposed Outstanding Universal Value has been developed. In its response, the State Party did not indicate if the development projects planned at the nominated property are part of such a strategy.

The State Party has indicated the need to prepare a Risk Preparedness Plan in order to address the environmental pressures and develop measures responding to potential natural disasters. ICOMOS considers that risk preparedness is critical for all the nominated serial property but particularly urgent at the pavilion of Besovy Sledki and at Zalavruga to ensure their long-term conservation.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The petroglyphs are one of the rare examples of rock art from the Neolithic period that was preserved without alterations or additions.
- They represent a unique testimony of extinct and distinctive cultures as they provide information on the northern Europe Neolithic lifestyle and beliefs of the Pit-Comb Ware and Rhomb-Pit Ware cultures.
- The petroglyphs are unique forms of art emanating from high quality carving techniques and artistic expression while the natural shape, cracks, colours of the rocks are also used to form the artistic expressions.
- The petroglyphs attest to the change in society in the Neolithic period, providing a window on the hunter-fisher-gatherers at the high point of their development, with the representation of unique themes including daily hunting scenes, specific animal representations, sailing techniques and technologies used in Neolithic times.

Comparative analysis

The comparative analysis is presented in two parts: comparison with sites within the Russian Federation; and comparison including two World Heritage properties and rock art sites in northern Fennoscandia with a comparable combination of values and attributes.

The comparative analysis establishes a comparison at national level with archaeological sites on the Tentative List and others listed under the national legislation. In October 2020, ICOMOS requested additional clarifications about the reasons for not also including in the serial nomination the rock art of Kanozero, in the Kola Peninsula. The State Party replied that the petroglyphs at Kanozero were discovered rather recently. Whilst documentation has been carried out, the state of the research on these rock art sites is still in its infancy and, so far, they appear to share greater similarity with the World Heritage property “Rock Art of Alta” (Norway, 1985, (iii)).

Regarding the wider European region, the nomination dossier draws a comparison with the World Heritage properties “Rock Art of Alta” (Norway) and “Rock carvings in Tanum” (Sweden, 1994, (i), (iii), (iv)). Major differences between the nominated serial site and Alta include the timespan - more than 5,000 years for Alta,
whereas it is confined to the Neolithic period at Lake Onega and the White Sea sites; the techniques – there are both rock carvings and rock paintings at Alta, but only rock carvings at the nominated series; the modified natural environment at Alta, whereas the geographic setting is preserved at the nominated property; the purported superiority of the carvings at the nominated property for their highly realistic scenes, their masterful execution and expressive details compared to the rock art carvings at Alta; and the better preservation of the carvings in the nominated series.

In its response to ICOMOS in February 2021, the State Party provided with detailed illustrations, further documentation and explanations as well as an illustrative comparative table demonstrating that the rock art sites at Lake Onega and the White Sea can be considered for the World Heritage List. The additional information has confirmed the crucial importance, for the understanding of the outstanding specific significance of the nominated rock art, of the related archaeological sites and settlements, most of which are not included in the nominated property but are in the buffer zone. ICOMOS therefore considers that the nominated property should be extended to include the archaeological sites, currently outside the nominated property.

The nomination dossier holds that a comparison with the rock art sites at Tanum would not be relevant due to the different periods of their respective creation: Neolithic for the nominated series and Bronze Age and Early Iron Age for the carvings in Tanum; and the cultural contexts: hunting for the nominated series and agriculture for Tanum.

ICOMOS notes that later research has clarified that the rock art at Tanum relates to maritime cultures rather than to agriculture-based ones and therefore a comparison between the nominated series and the Tanum rock carvings would have highlighted interesting diachronic considerations.

Among sites not inscribed on the World Heritage List or included in the Tentative Lists, the comparative analysis examines Nämforsen in Northern Sweden, and the petroglyphic complexes of Vingen, Ekeberg and Skogerveien (Norway), described as largely similar but inferior for the lower quality of the scenes, the largely modified settings or the limited number of carvings.

The comparative analysis establishes that the nominated property deserves recognition for the uniqueness of its themes including: the presence of the images of waterfowl, with swans in particular, at Lake Onega, that are not represented elsewhere in the rock art sites of North Fennoscandia; the presence of abstract geometrical symbols (solar and lunar signs) as well as animals (otter, burbot, beaver, snake, plus trees) and various anthropomorphic images that are usually not found in Northern Europe; and the more limited timespan of the production of the rock art carvings.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List but only if the archaeological sites and settlements, contemporary with the rock arts and currently in the buffer zone, are included in the nominated property, given their close interconnections.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (i), (iii) and (iv).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that the Petroglyphs of Lake Onega and the White Sea served as an important place for the performance of Prehistoric cults and rituals. The petroglyphs attest to outstanding artistic techniques of rock carving whilst making use of the rock surface features and colours. The unique imagery of the petroglyphs represents symbols and fantastic figures as well as reflects lifestyle and beliefs from the Neolithic period. These qualities are the result of a collective creative genius of the Neolithic people.

In ICOMOS’s view, neither the comparative analysis, nor the additional information has demonstrated how the rock art and its related techniques can be considered to stand out in its nature as opposed to similar rock art sites produced in the same period in other parts of the world. Therefore, ICOMOS considers that criterion (i) has not been demonstrated.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the Petroglyphs of Lake Onega and the White Sea are unique testimonies of rock art providing information on a variety of the daily activities of an extinct society. The components of the property testify to the emergence and the evolution of Neolithic rock art from its early development to the most elaborate compositions showing detailed hybrid and fantastic figures as well as conceptual geometric images. As such, the nominated property bears unique information about the material and spiritual culture of the extinct hunter-gatherer societies of Northern Europe, as well as providing elements allowing a better appreciation of economies, lifestyles and worldview in the Neolithic period.

ICOMOS considers that the rock art and the related archaeological heritage, including settlements and burial grounds are an exceptional testimony of the lifestyle and beliefs of the Pit-Comb culture population in the Neolithic.
ICOMOS considers that criterion (iii) would be demonstrated when the archaeological heritage located in the buffer zones, that directly supports the significance of the petroglyphs and provides contextualisation as sites representative of the Pit-Comb culture population who generated them, will be included in the nominated areas.

Criterion (iv): _be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that these rock art sites are the most well-preserved Northern European rock art sites associated with the Neolithic age, testifying to this significant prehistoric period which was seeing major changes in the traditional nomadic lifestyle. The petroglyphs have been preserved in their original forms with no later additions or alterations, and are outstanding examples of Neolithic rock art preserved in their original landscape.

Using criterion (iv) is not usual for rock-art sites unless these are set within a wider landscape which as a whole can illustrate a particular phase in human history – for instance, a relict landscape in which rock art is just one of the pieces of evidence. Extensive documentation and clear evidence would be needed to demonstrate how the Petroglyphs of Lake Onega and the White Sea form part of an outstanding cultural landscape that testifies to the Neolithic age.

ICOMOS considers that criterion (iv) has not been demonstrated.

ICOMOS considers that the nominated property has the potential to meet criterion (iii), but that criteria (i) and (iv) have not been demonstrated.

**Integrity and authenticity**

**Integrity**

The nominated property rests on the exceptional character of the petroglyphs testifying to the lifestyle and beliefs of the Neolithic cultures present in Northern Europe. According to the nomination dossier, the nominated component parts and their buffer zones are of an adequate size to guarantee a comprehensive illustration of the proposed Outstanding Universal Value. Common or close themes in both components would demonstrate mutual influence as well as chronological closeness and complementarity in illustrating the northern Neolithic period in an exceptional manner. Cultural layers from the Mesolithic period up to Middle Ages are preserved in the vicinity of the petroglyphs.

The boundaries have been established according to the legal framework in place in the Russian Federation and on the basis of interdisciplinary research.

The rock art carvings are well preserved and, at Lake Onega, their setting has survived almost untouched. At the White Sea, the construction of the White Sea-Baltic Canal in the 1930s and of two hydroelectric power stations in the 1960s have altered the setting of this component, with the exception of the site in Zalavruga, which has remained unchanged.

ICOMOS requested additional information both in October 2020 and in its Interim Report on the rationale for the inclusion of archaeological settlements, and other elements, such as, for instance, burial grounds, into the component parts, and in the nominated areas, while some remain in or outside the buffer zones.

The State Party replied that the archaeological sites included in the buffer zone at Lake Onega and at the White Sea (Vyg River) are directly supporting the significance of the petroglyphs when they provide, for example, archaeological evidence of the earliest settlements.

Based on the additional information provided by the State Party, ICOMOS considers that the archaeological sites located in the buffer zones contribute to the Outstanding Universal Value of the nominated property and should be included in the nominated areas in order to meet the conditions of integrity of the serial property.

ICOMOS considers that the integrity of the component at the White Sea has been undermined by the construction of the above-mentioned infrastructure and that preserving the intactness of the component at Lake Onega is crucial for the understanding and appreciation of the proposed justification for inscription.

**Authenticity**

The Petroglyphs of Lake Onega and the White Sea include preserved representations of Neolithic rock art in their natural landscape. At Lake Onega, the landscape has not been affected by major changes nor by human activities since the Neolithic period. The same case cannot be made for the White Sea where the hydroelectric power station at Vygostrovskaya has largely affected the petroglyphs of Besovy Sledki and Zalavruga.

ICOMOS observes that the unspoiled conditions of the setting of the rock art sites at Lake Onega facilitate an understanding of the prehistoric setting and context of the rock art, particularly its location at the lake shoreline, and the connection it makes with different elements of the landscape. On the other hand, the landscape of the rock carvings at the White Sea has been altered due to land uplift, the White Sea Canal, two hydroelectric stations, and connected dams.

ICOMOS considers that for the nominated property to convey truthfully and credibly the proposed justification for inscription, the archaeological sites, which are crucial attributes of the value of the nominated property, will
also have to be included in the boundaries of the components and not only in the buffer zones.

ICOMOS considers that the conditions of integrity and authenticity would be met when the archaeological heritage contributing to the significance of the rock art sites will be included in the nominated areas. ICOMOS also considers that both integrity and authenticity are highly vulnerable due to the new tourism development projects. An overall Heritage Impact Assessment for the plans and projects for tourism development needs to be carried out that takes into consideration the potential impacts of the projects and of the increase of visitors on the conditions of integrity and authenticity of the nominated property.

**Evaluation of the proposed justification for inscription**

The nominated serial property is presented as ‘one of the largest rock art sites of the world as regards the number of images and the spread of the concentration of rock art’.

The cultural context of the rock art is Neolithic and specifically the Pit-Comb Ware Culture. In this area of Northern Europe ‘Neolithic’ denotes significant changes in material culture, such as the adoption of pottery but also continuity in subsistence and lifestyles of hunting, fishing and gathering.

The two components are deemed to provide a unique source of data and to represent a coherent image of the Neolithic culture and period in North Fennoscandia.

In response to the request of ICOMOS in its Interim Report, the State Party provided information on the relationship between the different types of archaeological sites and the petroglyphs generated by the Neolithic Pit-Comb Ceramic culture population, that supported the appreciation of their lifestyle and the capacity to situate the production of rock art as an outstanding practice of this specific culture at Lake Onega and at the White Sea.

On the basis of the documentation provided by the State Party in February 2021, ICOMOS considers that the nominated property would have the potential to demonstrate criterion (iii) if the significant archaeological heritage, including the settlements, currently outside the nominated property are included therein.

On the other hand, neither criterion (i) nor criterion (iv) have been demonstrated.

ICOMOS is concerned about the planned developments of tourism infrastructure in relation to their potential cumulative impacts on the nominated serial property, including the planned increase of tourism, as these factors could have a negative impact on the significance of the property, its integrity and authenticity. A heritage-value-based visitor strategy needs to be developed with the utmost urgency and an overall Heritage Impact Assessment of the planned projects carried out so as to ensure that tourism development does not jeopardise the heritage significance and conservation of the rock art sites.

**Attributes**

The attributes that convey the Outstanding Universal Value of the nominated serial property are related to the production of the Neolithic engravings of the Pit-Comb Ware and Rhomb-Pit Ware cultures, as well as to the natural and archaeological setting of their execution. They combine the rock art and the natural environment that inspired these engravings and which contributed to maintaining their very good state of preservation. The archaeological sites, those related to the settlements and the burial grounds, are also important attributes of the property, and the relationship between the rock art sites and the associated archaeological sites represent one of the most important attributes of the proposed Outstanding Universal Value. Therefore ICOMOS considers that the archaeological sites located outside the limits of the component parts, should be included in their limits, as being important attributes of the proposed Outstanding Universal Value.

ICOMOS considers that the identified attributes contribute to the justification of the inscription, and strongly recommends that the archaeological heritage located outside the delineations of the property be included in the component parts’ delineations.

**4 Conservation measures and monitoring**

**Conservation measures**

The conservation and monitoring of the Petroglyphs are under the responsibility of the local institutions. At Lake Onega, the Directorate of Specially Protected Natural Territories of Regional Importance of the Republic of Karelia and the Republican Centre for State Protection of Cultural Heritage Sites subordinated to the Cultural Heritage Protection Department of the Republic of Karelia are entrusted with the mandate to monitor the conservation of the petroglyphs and their natural landscape.

At the White Sea, the Municipality of Belomorsk through the White Sea Petroglyphs Belomorsk District Local Lore Museum is in charge of the conservation of the petroglyphs and their monitoring. The state of conservation of the petroglyphs is assessed by the relevant staff of the authorities in charge of their conservation with the support of the various experts involved in the archaeological campaigns and in the scientific documentation of the petroglyphs. However, the documentation provided does not indicate how the conservation of the petroglyphs is currently monitored.

In the future, the Museum of the Petroglyphs of Karelia and the Coordination Council will take over the coordination of the conservation and the monitoring of the petroglyphs.
In response to the ICOMOS Interim Report, in February 2021, the State Party replied that the state of conservation of 200 petroglyphs was assessed as part of the Database “Petroglyphs of Karelia” developed in 2002, while the database “Archaeological Sites of Karelia” contains a total of 2,500 entries for the archaeological sites of Karelia. The State Party also reported that the assessment of the conservation of the petroglyphs was the subject of international scientific seminars in 2017 and 2018. However, the State Party did not provide further information regarding the conservation strategy for the nominated property.

ICOMOS recommends a conservation plan including preventive conservation measures be developed.

**Monitoring**

The nomination dossier indicates that the Cultural Heritage Protection Department of the Republic of Karelia will report on the state of conservation of the sites and their surroundings.

A database was developed to catalogue all the petroglyphs of Karelia; however, the nomination dossier admits that currently no systematic and periodic monitoring activities are in place due to shortage of staff.

Indicators for monitoring the state of conservation have been set out and are planned to be used in the period 2020 – 2027.

ICOMOS considers that it would be advisable that the monitoring system is further developed on the basis of the affecting factors of the Periodic Reporting questionnaire and of the attributes supporting the proposed justification for inscription.

ICOMOS considers that there is a need to develop a conservation plan and a monitoring programme dedicated to the systematic monitoring of the conservation of the nominated property.

**5 Protection and management**

**Documentation**

Abundant research is available on the Petroglyphs of Lake Onega and of the White Sea that was initiated in the 1920s. Regular and in-depth research has been conducted to document the nature and the significance of the petroglyphs. The research and in-depth surveys have led to the establishment of inventories and databases developed through collective initiatives such as the database on the “Petroglyphic Database of North Fennoscandia” led by the Russian State Research Foundation. The most recent documentation dates back to 2013 and 2015 when a monograph entitled “Petroglyphs of the Lake Onega” was published and the database on the “Petroglyphs of Karelia” was completed.

At the White Sea, the project “Conservation of Petroglyphs of Karelia” was initiated in 2001 with the objective of creating a database collecting all detailed field documentation on the petroglyphs. The Karelian Research Centre of the Russian Academy of Sciences, Petrozavodsk State University in collaboration with Norwegian professionals from the University of Tromso and the Research Centre Riksantikvaren (Oslo, Norway) and the University of Cambridge (UK), have conducted comprehensive archaeological field surveys. This collaborative research also led to the compilation of detailed data on the petroglyphs of the White Sea integrated in the database “Petroglyphs of Karelia”.

In response to the requests of the Interim Report, the State Party explained that the databases have technical limitations and access issues due to their development using a software that is now out of date. Additional information provided by the State Party indicated how the research process has systematically documented the petroglyphs and their related archaeological sites. However, the information received did not allow an appreciation of the current recording system in place. ICOMOS recommends that an adequate documentation system be set up and an operational and up-to-date database for the nominated property to ensure monitoring of its conservation, be developed.

**Legal protection**

The first level of protection is the territory of the monument (Federal Law No. 73-FZ and Regional Law No. ZRK-883): in the Russian legislation each monument has its territory on which the physical protection of the monument is ensured. Two types of actions are allowed: physical protection of the monument, and scientific research. Federal Law No. 73-FZ represents the main legal instrument governing the process of preservation of historical and cultural heritage in the Russian Federation. At the regional level, the Law of the Republic of Karelia 06.06.2005 regulates the conservation, development, promotion, and state protection of the cultural heritage sites of the peoples of the Russian Federation in the Republic of Karelia.

The second level of protection is the monument protection zone (orders issued by Chairman of the Government of the Republic of Karelia No. 518-r of 05.09.1996 and 163.03-r of 25.03.1998). They are usually the basis for defining buffer zones when nominating properties for inclusion in the World Heritage List. These zones protect both rock art sites and any other associated archaeological sites as well as the surrounding landscape.

A third level of protection is the specially protected natural area, i.e., the “Muromsky Landscape Reserve of Regional Significance”.

A final level of protection is applied to lands of historical and cultural significance: all economic activity may be prohibited therein as well as on lands with monuments and archaeological sites that are the subject of research.
ICOMOS notes that only some of the nominated rock art sites enjoy protection under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation. The remaining ones are currently being considered for this designation that would offer an optimal level of protection at national level and secure funding. The State Party also indicated that the listing process of the nominated property under the State Code will be initiated after the effective listing of 6 components of Lake Onega as cultural heritage sites of federal significance, projected to happen in February 2021 but delayed in the context of the Covid-19 prevention measures. ICOMOS observes that most of the petroglyphs are protected at federal level and encourages their listing under State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation.

Regarding the buffer zones, ICOMOS understands that there are various levels of protection for the buffer zones, since this concept is not reflected in the national legislation. Additional information provided by the State Party in November 2020 indicates that the boundaries of the protection zones for the buffer zones include the heritage related to the petroglyphs located at Lake Onega and the White Sea and were delimited and approved in the 1990s.

The archaeological sites located in the buffer zone of Lake Onega component are included in the protected zone of the Cultural Heritage Sites, in the “Muromsky Natural Reserve” or in both. Any activity is prohibited therein under the Federal Law on “Objects of the Cultural Heritage of the Russian Federation” and also under the protected area of the Natural Reserve “Muromsky”.

At the White Sea, the delimitations of the buffer zone follow that of the protected zone of the Cultural Heritage Sites (or Objects).

The archaeological sites and material in the buffer zone of Lake Onega and the White Sea are also protected by the regulations of the Water and the Forest Codes stipulating restrictions on the use of natural resources and economic activities located in protected forests, water protection zones and green zones.

Regarding the archaeological sites located along the river at Chjornaja included in the Natural Reserve, they do not benefit from protection under the protection zone of Cultural Heritage Sites. In this respect, the status of the archaeological sites beyond these boundaries but located in the buffer zone would deserve further clarification so as to know if they are protected under the law. Therefore, in its Interim Report ICOMOS has requested clarifications on the above matter. The State Party responded that the cultural heritage is protected as part of “Muromsky” Landscape Reserve, whose boundaries were expanded in 2019 to provide for the protection of all the petroglyphs, under the Decree of the Government of the Republic of Karelia No. 304-p of 28.12.2009. The State Party also informed that the Administration for the Protection of Cultural Heritage of the Republic of Karelia completed the required documentation and initiated the process to list the buffer zones as remarkable places of federal significance. This designation process should be completed in 2021 according to the State Party.

Management system
Several public bodies are involved in the management of the nominated property including the Department for the protection of cultural heritage sites of the Republic of Karelia under the authority of the Ministry of Culture of the Republic of Karelia, the Belomorsk Regional Museum of Local Lore, the Directorate of Specially Protected Natural Areas of Regional Significance of the Republic of Karelia and the Belomorsky and the Pudozhsky Municipal districts. The Environmental Recreational Institution of the Republic of Karelia called the “Directorate of Specially Protected Natural Areas of Regional Significance of the Republic of Karelia”, is also involved as far as tourism development is concerned.

In 2018, the Scientific Expert Council on historical and cultural heritage of the Republic of Karelia was established. The Council is an advisory body given the functions for the conservation, use, promotion and state protection of the cultural heritage sites from the Ministry of Culture of the Republic of Karelia.

At Lake Onega, the Directorate of Specially Protected Natural Territories of Regional Importance of the Republic of Karelia (hereinafter Directorate) and the Republican Centre for State Protection of Cultural Heritage Sites are currently managing the proposed sites while the sites of the White Sea are managed by the Municipality of Belomorsk and the Petroglyphs Belomorsky District Local Lore Museum.

Currently, there is no overarching body for the management of the Petroglyphs of Lake Onega and the White Sea, which are located 300 kms apart. The Management Plan makes provision for the establishment of a Coordination Council comprising a number of private and public stakeholders that will meet at least once every 6 months.

ICOMOS requested clarifications on the overarching management system and the State Party explained in the November 2020 supplementary information that, in the future, the forthcoming Regional Museum of the Petroglyphs of the Lake Onega and the White Sea to be established at Petrozavodsk will formally be in charge of the management of the nominated property and will coordinate the work of its branches at Lake Onega and the White Sea. The Reserve Museum will also interact with a yet-to-be-established Coordination Council, which shall involve state authorities, local governments, and representatives of the scientific and the local communities. At the moment, all issues pertaining to the nominated property are considered within the framework
of the Scientific Expert Council on the Historic and Cultural Heritage of Karelia

The Regional Museum will be in charge of the Besovy Sledki Pavilion, of the visitor infrastructures at Zalavruga at the White Sea and of those at the villages of Shalskiye and Kashevo including the landing stage, the fishermen’s housing and the reconstructed village (16th-18th century CE) near Besov Nos at Lake Onega. The nomination dossier informs that a phased implementation is planned to ensure a gradual transition from the current management bodies to the centralized coordination operated by the Regional Museum (or the Historical and Archaeological Natural Museum of Karelian Petroglyphs).

However, there is no indication of the timeframe for the establishment of this overarching management structure and all its elements. ICOMOS requested further clarification on this aspect in its Interim Report.

The State Party replied that coordination will be entrusted to the Coordination Council after its creation under the Petroglyphs of Karelia Museum which was the object of a formal decision for its establishment by the Head of the Republic of Karelia in 2020 (under the protocol of 27.01.2020). Information also indicated that the draft concept of the museum was developed and that feasibility studies will be conducted in 2021 while the establishment of centralised management of the nominated property is an objective identified in the short term. In the meantime, the administration for Cultural Heritage Protection of the Republic of Karelia is in charge of the coordination with communities, private sector, experts and scholars and the federal, regional and local authorities.

The Management Plan sets out a vision for the nominated property that advocates the involvement of the community in the property’s management, the reliance on the best standards of conservation, as well as sustainable tourism development.

ICOMOS considers that the management plan would need to identify focused and achievable measures and coordinated actions directly addressing identified issues, especially because a large number of stakeholders are involved. ICOMOS considers also that the management plan would benefit from the inclusion of consolidated policies for the conservation and monitoring of the nominated property.

The Management Plan announces the scope of a long-term cycle divided into short-term (2020), medium-term (2021-2023) and long-term activities (2024-2027) but provides a work plan divided into immediate (2020) and mid-term (2021-2023) phases. However, there is no indication as regards its formal adoption.

Visitor management
Currently, the White Sea Petroglyphs Belomorsky District Local Lore Museum monitors the visitors at Zalavruga where basic infrastructure is set up. The number of visitors annually is 13-15,000 visitors at the White Sea.

Basic interpretation and documentation are available at the Lake Onega and at the White Sea where the site of Zalavruga and the Pavilion of Besov Sledki are open to visitors. Lake Onega has very few interpretative tools at the natural Reserve “Muromsky”, which receives 3-4,000 annual visitors.

The nominated property is integrated in the global strategy of the Republic of Karelia whose aim is to develop tourism and plans for increasing tourism. However, the State Party did not confirm if a specific Tourism strategy for the nominated property has been developed and is being implemented.

Community involvement
The Republic of Karelia is sparsely populated, with an average of some 3.5 inhabitants per square kilometre.

Socio-economic analyses on, and awareness-raising work with, local communities has been carried out: for instance, at Zalavruga, a prehistoric festival is organised every year, where information is disseminated on the rock art sites. Pupils are introduced to rock art at the Besov Sledki Pavilion.

As a result, an increase in volunteer guides, locally-produced souvenirs, and transport services have been noted.

The federal legislation supports small businesses, with preferential conditions for carrying out their activities and plans exist to involve the local community through economic and tourism development and promotional activities.

Members of the local communities concerned will also be included in the Coordinating Council. However, it appears that there is no statutory mechanism in place to ensure public consultation.

Evaluation of the effectiveness of the protection and management of the nominated property
While most petroglyphs are protected as Cultural Heritage Objects, ICOMOS notes that the legal protection is still in progress for a few sites of the nominated property and that optimal protection would be ensured by their designation under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation. In addition, ICOMOS notes that the designation process to list the buffer zones as remarkable places of federal significance is in progress and should be completed in 2021.
Several public bodies are involved in the management of the nominated property. ICOMOS’s concerns are focused on the management system, yet to be implemented to manage the nominated property effectively when the two components are located 300 kilometres from one another and when the extent of these components mobilises a large amount of stakeholders with different mandates. The Coordination Council that will be responsible for the integrated management of the nominated property as a whole is not yet formally established.

The approval of the Management Plan with a set timeframe for policies and measures to be implemented should be completed and a conservation plan and a monitoring programme for the petroglyphs dedicated to the systematic monitoring of the conservation of the nominated property should be developed.

ICOMOS considers that the legal protection and the proposed management mechanism are not fully in place at this stage to ensure integrated management and protection at the two nominated property’s components, therefore the effectiveness of the protection and management of the nominated property is partially met.

6 Conclusion

The nominated serial property is presented as ‘one of the largest rock art sites of the world as regards the number of images and the spread of the concentration of rock art’. The rock art is described as the outstanding example of Neolithic rock art with unique themes, distinguished quality of carvings and special artistic expressiveness. The cultural context of the rock art is specifically the Pit-Comb Ware Culture. In this area of Northern Europe ‘Neolithic’ denotes significant changes in material culture, such as the adoption of pottery but continuity in subsistence and lifestyles of hunting, fishing and gathering.

The additional information received in February 2021 provided a useful overview of the complementarity and relationship between the two components and confirmed the serial nomination as a coherent approach. On this basis, ICOMOS considers that the Petroglyphs of Lake Onega and the White Sea have the potential to meet the requirements of the Outstanding Universal Value under criterion (iii).

The additional information provided by the State Party has clarified the extreme importance for the proposed justification for inscription under criterion (iii) to be reflected in the archaeological sites and heritage, including settlements. In fact, the relationship between the rock art sites and the associated archaeological sites represent one of the most important attributes of the proposed Outstanding Universal Value and one of the aspects that make the rock art and archaeological areas at Lake Onega and the White Sea stand out amongst their comparatives. Therefore, ICOMOS considers that the boundaries of the nominated areas should be amended to include this archaeological heritage, including settlements, in order to ensure that all necessary attributes of the proposed Outstanding Universal Value are included within the nominated components.

ICOMOS also noted that the petroglyphs are protected at federal level under various planning and legal regulations falling under several authorities. While most petroglyphs are protected as Cultural Heritage Objects, it was noted that the legal protection is still in progress for a few sites of the nominated property and that optimal protection would be ensured once their designation under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation is achieved for all sites.

Consideration was also given to the development projects planned in the province of Karelia in relation to their direct impact on the nominated property. Given the scope of the intended development, ICOMOS considers that an overall Heritage Impact Assessment should be carried out for all these projects. The development of a specific value-based Tourism strategy to mitigate the impact of tourism on the proposed Outstanding Universal Value of the nominated property would be needed as well.

ICOMOS considers that the establishment of the Coordination Council to manage the two components should be finalised as a matter of urgency in order to ensure integrated management of the two components. The approval of the Management Plan with a set timeframe for policies and measures to be implemented should be completed and a conservation plan and a monitoring programme for the petroglyphs dedicated to the systematic monitoring of the petroglyphs should be developed.

7 Recommendations

Recommendation with respect to inscription

ICOMOS recommends that the nomination of the Petroglyphs of Lake Onega and the White Sea, Russian Federation, be referred back to the State Party to allow it to:

- Adjust the boundaries of the nominated areas of both components, and consequently their buffer zones, to include archaeological heritage, including settlements, to ensure that all necessary attributes of the proposed justification for inscription of the petroglyphs at Lake Onega and the White Sea are included in the nominated areas;

- Complete the process of legal designation of the components in the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation;
• Complete the process of establishing two Remarkable Places of Federal Significance cultural heritage sites, whose boundaries coincide with the buffer zones of both components;

• Complete the process of establishing a centralised management system to ensure coordinated and integrated management of the two components;

• Finalise the approval of the Management Plan with a set timeframe for policies and measures to be implemented;

• Establish a conservation plan and a monitoring programme for the petroglyphs, dedicated to the systematic monitoring of the conservation of the nominated property.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Setting up an adequate documentation system and developing an operational and up-to-date database for the nominated property to ensure monitoring of its conservation,

b) Conducting a study on the impact of the alcohol solution used to remove lichen on the rock art,

c) Developing a specific Tourism Strategy for the nominated property,

d) Developing a Risk Preparedness Plan for the nominated property in order to address the environmental pressures, and developing measures responding to potential natural disasters. This is particularly urgent at the Pavilion of Besovy Sledki and at Zalavruga to ensure their long-term conservation,

e) Submitting all projects planned at the nominated property and its buffer zones to an overall Heritage Impact Assessment, to ascertain whether they and the expected increase of tourism could have adverse impacts on the nominated component parts and on their setting, particularly where it is intact, as at Lake Onega,

f) Developing an ongoing programme of research within a research framework and linked with conservation strategies;
Map showing the location of the nominated components
Ljubljana
(Slovenia)
No 1643

Official name as proposed by the State Party
The works of Jože Plečnik in Ljubljana – Human Centred Urban Design

Location
City of Ljubljana
Slovenia

Brief description
The works of Jože Plečnik in Ljubljana are nominated as an example of a human centered urban design that successively changed the identity of the pre-existing city. Following the disintegration of the Austro-Hungarian Empire, Ljubljana changed from a provincial city into a symbolic national capital for the Slovenian people. The architect Jože Plečnik contributed to this transformation with his personal, profoundly human vision for the city. The nominated property consists of a series of public spaces (squares, parks, streets, promenades, bridges) and public institutions (national library, churches, markets, funerary complex) that Plečnik designed throughout the city in the period between the two World Wars. The selected works are sensitively integrated into the pre-existing urban, natural and cultural context and contributed to the city’s new identity. This highly contextual and human-scale urbanistic approach, as well as Plečnik’s distinctive architectural language, is seen to stand apart from the other predominant modernist principles of his time.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of one sites, three monuments and three ensembles.

1 Basic data
Included in the Tentative List
29 January 2018

Background
This is a new nomination.

The State Party received input from ICOMOS within an upstream process in October 2017 for a transnational serial nomination project with Czechia with the name: “The timeless, humanistic architecture of Jože Plečnik in Ljubljana and Prague”.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 28 September to 2 October 2020.

Additional information received by ICOMOS
A letter was sent to the State Party on 5 October 2020 requesting further information about the concept and presentation of the nomination, the selection of component parts, development projects, recent and planned conservation works, and community involvement. An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: the scope of the nominated series and number of component parts; the boundaries of the buffer zones; legal protection; landscape design; urban development; and the name of the nomination. Additional information was received from the State Party on 13 November 2020 and 24 February 2021 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
18 March 2021

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated property consists of a series of public spaces (squares, parks, streets, promenades, bridges) and public institutions (national library, churches, markets, funerary complex) designed by Jože Plečnik throughout the city of Ljubljana in the period between the two World Wars. Following World War I and the disintegration of the Austro-Hungarian Empire, a desire to create independent nation states triggered various state and city building projects in Central and South-Eastern Europe.

The national awakening sentiment in Central Europe reaches back to the 19th century, and a destructive earthquake in 1895 constitutes a turning point in the urban development of Ljubljana. From the mid-20th century, after the Slovenian provinces had become part of the Kingdom of Yugoslavia, Plečnik contributed to developing Ljubljana from a provincial city to a symbolic national capital for the Slovenian people according to his personal, profoundly human vision. In 1921, he was appointed professor at Ljubljana’s newly-established School of Architecture and returned to his hometown from Vienna, where he had studied, and Prague, where he remained chief architect of Hradcany Castle until 1934. Until his death in 1957, he was...
frequently commissioned by the city, the province, the university and several church institutions. His works range from large-scale urban schemes to small-scale architectural interventions in the public spaces and were supported by two influential acquaintances: Matko Preložek, the director of the city building department, and France Stele, land conservator in the Ljubljana Monument Office.

Plečnik’s highly contextual and human-scale urbanistic approach, as well as his distinctive architectural language, stood apart from the modernist principles that generally prevailed at this time and beyond this geographical region. The serial property constitutes a selection from a greater number of works by Plečnik throughout the city. Despite their variety of scale, function and architectural expression, the components share certain characteristics: a human scale, which focuses on the needs of modern citizens. They embrace various meanings, functions and symbolic references to different cultures and architectural epochs. Against the backdrop of the global financial crisis of the 1930s, they are also testimony to an economic use of resources. Apart from integrating the existing built and natural context, the architecture involves the meaningful up-cycling of materials and historic artefacts, symbolic references as well as the use of local materials and traditional craftsmanship, among other things. Materials employed for structural and decorative elements include natural stone, concrete, brick, wood and metal, among others.

The serial components include 2 parallel land and water axes, which were redesigned and connected with shorter transversal axes by Plečnik, as well as an archaeological park in the city centre. The series also includes two churches of different styles and a funerary complex of Plečnik’s Žale – Garden of All Saints (component 7) which includes a propylaea gateway, 14 chapels and other facilities.

Another component in the city centre (component 3) is the Roman Walls in Mirje, around which Plečnik established a public archaeological park and recreational area. The component includes the walls as restored by Plečnik with gates, a stone pyramid, a lapidary and a balustrade made of prefabricated concrete sewage pipes, as well as other landscaping features including vegetation.

The serial components located in the suburbs are the Church of St. Michael (component 5) in the setting of the Ljubljana Marshes, the neoclassical Church of St. Francis of Assisi (component 6), and the funerary complex of Plečnik’s Žale – Garden of All Saints (component 7) which includes a propylaea gateway, 14 chapels and other facilities.

Following Slovenian independence in 1991, systematic conservation works started throughout the nominated property. All serial components remain in use and play an important role in Ljubljana’s urban life.

**Boundaries**

The area of the 7 components totals 19.122 ha. The property boundaries are set up adequately on the basis of existing legal stipulations and encompass the nominated interventions designed by Plečnik.

Through additional information requests, the State Party explained that some of Plečnik’s works, such as less representative transversal axes in the city centre, were excluded from the series due to concerns about their current state of conservation.

The buffer zones originally totalled 178.613 ha but are in the process of being slightly expanded. The buffer zones were set up on the basis of existing legal protection regimes and encompass the immediate setting of Plečnik’s interventions of all the serial components. The buffer zones are subject to a uniform protection regime as stipulated in point 9 of Article 56 of the 2009 Ordinance.

An enlargement of the buffer zones was initiated by the State Party after ICOMOS had raised concerns in four locations: Congress Square with Zvezda Park; the western and eastern extremities of the serial component of the Roman Walls in Mirje; the land across the road south of St. Michael’s Church; and the area across the roundabout located south-west of Plečnik’s Žale. In addition, the State Party designated a new wider buffer zone for Plečnik’s work in the city centre, that is subject to the same Ordinance on the proclamation of national importance, in order to enhance protection of the nominated components. It includes the immediate setting, views, and other areas that are functionally important as support to the property and its protection.

**State of conservation**

Conservation works in the past entailed structural assessments and repair including a few reconstructions at various scales as well as some modernizations. Conservation works also encompassed the vegetation and landscaping design as well as changes to traffic
schemes. Systematic conservation works, mostly carried out under the supervision of the concerned authorities, occurred following Slovenia's independence in 1991. Major works included the rehabilitation of Plečnik's Žale after 20 years of interrupted service, the pedestrianisation of Vegova Street, the Three Bridges and Cobbler's Bridge, as well as the construction of an underground car park at Congress Square.

Based on the information provided by the State Party and the observations of the technical evaluation mission, ICOMOS considers that the state of conservation of the nominated property is satisfactory. While some elements require attention, such as the subsiding side of the monumental stairs at the Church of St. Michael, or the overgrown beech trees in Vegova Street, most components are generally in a good physical state and remain in use.

ICOMOS also notes that some of the minor interventions, such as repairs, are not differentiable from the original substance and considers that, where appropriate, subtle differentiation is desirable for future conservation works. In addition, there have been attempts in the past to complete some of Plečnik's work with mimetic additions. ICOMOS recommends that such an approach should be avoided in the future. ICOMOS also stresses the need to retain or restate original vegetation species of the landscaping designs wherever possible and appropriate.

**Factors affecting the property**

According to the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, the main factors affecting the property are development and modernisation pressures, urban development, motorised traffic, overgrowth of vegetation, storms, torrential rains, floods and earthquakes.

The continued use of the nominated property's buildings and spaces comes with constant development and modernisation pressures. Necessary modernisations and adaptations throughout the nominated property appear to be controlled by the private and public management entities. The conservation plans for the individual serial components are an important tool in this regard.

Urban development pressure seems generally under control due to urban development regulations and monument protection. ICOMOS nevertheless requested updates concerning several development projects: a new library building in the immediate vicinity of the National and University Library; construction work on the unfinished line of construction along the western border of Congress Square; a visitor centre and exhibition premises at Plečnik's Žale; future replacement of the added auxiliary building next to the Church of St. Michael; reorganization and technical upgrade of Plečnik's Market which is to improve the operation of the market; an underground car park at Plečnik's Market and related archaeological investigations.

The State Party provided detailed information on the archaeological finds and on the technical report assessing the effects of garage construction on buildings at Ljubljana Central Market, on the basis of which the design of the garage construction was modified. The additional information moreover describes how the development projects relate functionally and architecturally to the nominated property and its setting.

In the Interim Report, ICOMOS pointed to the need for a heritage impact assessment to be carried out for the proposed new library building in Emonska Street. In response, the State Party provided a preliminary assessment based on Heritage Impact Assessment (HIA) methodology. ICOMOS nevertheless strongly recommends that a full Heritage Impact Assessment is carried out prior to the development of this and any project within the nominated property or its buffer zones.

Traffic calming schemes are in place at several serial components and significantly reduce the impact from motorised traffic. Stationary traffic and lack of parking spaces, however, remains a problem at the Church of St. Francis of Assisi. The State Party is taking action against negative impacts from overgrown vegetation, with rejuvenation schemes for vegetation throughout the nominated property. Response schemes to severe weather events such as floods, storms and torrential rains are in place.

As Slovenia is a country with a medium seismic risk, potentially vulnerable serial components have been seismically retrofitted. Other factors affecting the property to a lesser extent, due to being adequately controlled, include vandalism, pollution, and wear and tear, particularly in relation to public events and tourist visits, as well as fire hazards. With a view to managing visitor numbers, which are rising due to growing international interest in Plečnik's work, the State Party plans to expand its offer of guided tours and suchlike.

### 3 Proposed justification for inscription

**Proposed justification**

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The urban design interventions, architectural elements and building types of “Plečnik's Ljubljana” reflect a distinctive architectural expression which represents an important masterpiece of human creative genius. That architectural expression stands apart from the prevailing modernist approaches of the time and is based on an architectural dialogue with the existing older city while serving the needs of the emerging modern 20th century society.
- Jože Plečnik’s transformation of Ljubljana from a peripheral city into a national capital in the period between the two World Wars, following the
In its Interim Report, ICOMOS raised concerns that the name initially proposed for the 19th proposed criteria: architectural languages from the end of the 19th century relate to the city from the end of the 19th century. ICOMOS requested that the State Party suggest alternative names, to better reflect the proposed nominated series. The State Party suggested the following name: “The works of Jože Plečnik in Ljubljana – Human Centred Urban Design”. ICOMOS considers this name to be adequate.

Comparative analysis

The comparative analysis is essentially structured around two elements associated with the justification of the proposed criteria: architectural languages from the end of the 19th to the mid-20th century; and transformation of the city from the end of the 19th to the mid-20th century. The first element relates to the proposed justification for criterion (i) and focuses on the first four out of the five languages in which the architect Anthony Alofsin divided the architectural works of the Austro-Hungarian Empire: the language of history; the language of organicism; the language of rationalism; the language of myth; and the language of hybridity. The second element focuses on post-Austro-Hungarian Empire architectural and urban planning in Central Europe. Finally, a sub-chapter, “Plečnik’s Ljubljana and the transformation of the selected capitals in Europe and around the world” compares Ljubljana with capitals of countries from different continents that are on the World Heritage List or on Tentative Lists. That analysis is complemented with tables identifying relevant properties already inscribed or included in Tentative Lists, on the basis of a set of criteria that relate to the proposed attributes of the proposed Outstanding Universal Value.

As a serial property, the comparative analysis also includes information on the selection of the component parts. A further table lists all of Plečnik’s works in Ljubljana and assesses each of the 57 sites identified in terms of legal protection, state of conservation, management and potential contribution to the proposed Outstanding Universal Value in terms of: displaying a distinctive architectural expression; revealing the context of the city; creating a city in human scale; diversity of functions and meanings; and economy of the interventions. As per the request of ICOMOS, the State Party provided additional information on the rationale for the serial selection and particularly on how the components in the suburbs relate to those in the centre.

ICOMOS considers the comparative analysis to be overall comprehensive despite some weaknesses. Namely, it tends to overemphasise the comparison of Plečnik’s work with the Modernist movement and newly-designed cities, while falling short in comparing with works of architects or urban planners who, during the same period, were following more comparable approaches, such as New Delhi designed by Edwin Lutyens.

Despite this shortcoming of the comparative analysis, it demonstrates that the nominated property is an outstanding urban and architectural work of global relevance. In both the narrowest as well as the broader geographical and cultural contexts there seem to be few urban designs that would be comparable to “Plečnik’s Ljubljana”, which stands out as a highly individual, creative interpretation of the city as a work of art, using classical and traditional language in a post-historicist, pluralist manner, creating crafted contextual spaces and urban landscapes that were truly successful in forming, even within a rather small scope, a coherent urban experience.

The comparative analysis highlights the choice of components that complement each other in illustrating the exceptional urban and architectural approach that Plečnik took in Ljubljana.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (i) and (iv).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that “Plečnik’s Ljubljana” represents an important masterpiece of human creative genius of the first half of the 20th century in architecture. His architectural expression draws on various, predominantly classical, sources to create entirely new, original and unique forms. It is clearly recognisable, formally rich and semantically multi-layered and differs from modernist architecture of the time. The synthesis of old and new buildings and spaces, including green areas, represents a continuity of the city’s memory and serves to construct its new identity.

ICOMOS agrees that Plečnik’s highly contextual and human-scale urban design approach, as well as his distinctive architectural language, stand apart from the modernist principles that generally prevailed at this time and beyond this geographical region. However, this argument is seen as supportive of criterion (iv). In addition, while there is no doubt about the architectural quality of the nominated property, ICOMOS considers that outstanding architectural mastery is not equally well represented throughout the component parts so as to justify criterion (i).

417
Criterion (v): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the public space of Ljubljana created by Plečnik in the short period between the two World Wars is an example of a renewed urban space, where the city was not built anew but improved with innovative and economic solutions for new architectural ensembles, buildings and urban accents both small- and large-scale. The new urban space is characterized by multiple functions and meanings that continue to draw the users to connect and identify with the city.

ICOMOS considers that the criterion is applicable on the basis of Plečnik’s contextual approach in transforming the former provincial town into a symbolic national capital after the demise of the Austro-Hungarian Empire. This type of approach is rooted in the reformist architectural movements of the early 20th century and is currently underrepresented on the World Heritage List. ICOMOS considers this criterion is justified in relation to the period of nation building after the demise of the Austro-Hungarian Empire, which can be seen as a significant stage in history.

ICOMOS considers that the nominated property meets criterion (iv) but that criterion (i) has not been demonstrated.

Integrity and authenticity

Integrity
The nominated property’s integrity is based on the physical, architectural and functional intactness of all the architectural elements and buildings as well as of the urban design interventions and landscape features in the nominated open spaces. Moreover, it is based on the completeness of the serial composition in terms of comprehensively conveying Plečnik’s urban approach and vision.

The main thrust of the nomination is on a selection of public spaces and public institutions designed by Plečnik which gradually changed the identity of Ljubljana from a provincial town to a symbolic capital, endowing it with particular qualities. At the request of ICOMOS, the State Party clarified, in the additional information provided in November 2020, the rationale for nominating portions of Plečnik’s work and justified this choice in terms of reflecting his completed projects. It was explained why it was not considered desirable to join up into one component his interventions in component sites 1, 2 and 3, as these were designed individually. ICOMOS agrees with the proposed justification. In addition, ICOMOS requested through its Interim Report additional information from the State Party with regard to the inclusion of transversal axes and on how the individual components relate to each other. Jože Plečnik’s approach to (re)shaping the city built on an architectural dialogue with the existing city. He created two urban axes – the land axis and the water axis – which best illustrated this approach. Transverse links, streets and walkways between the land and water axes had been shaped over previous historical periods and Plečnik only reshaped some of them, giving the city a clearer and more explicit spatial structure. ICOMOS considers that the series includes all necessary elements to comprehensively convey Plečnik’s vision for the city and how he gradually changed the urban identity of Ljubljana. Despite being scattered throughout the city and although only some of the components have visual contact with each other, the series forms one entity based on a shared architectural expression respecting the existing fabric and natural elements, at a human scale. ICOMOS nevertheless considers that some of Plečnik’s interventions in Ljubljana that were excluded due to their current state of conservation could in the future, if improved to meet the conditions of authenticity and integrity, be included in the series, and further enhance the presentation of the property’s proposed Outstanding Universal Value.

On the basis of the information provided in November 2020, ICOMOS considers that the integrity of the individual components is satisfactory in terms of current physical state of conservation, function and use. They equally appear adequately protected by proper legislation and management. The integrity of the setting of the serial components is satisfactory in the sense that there have been only moderate changes since the mid-20th century, despite a few rather intrusive urban developments as well as interventions that erred by trying to mime and complete Plečnik’s work. Overall, the spatial, architectural and functional relationships of Plečnik’s interventions with the setting remain intact.

Authenticity
The nominated property’s authenticity is primarily based in its ability to truthfully convey Plečnik’s contextual and human-scale urbanistic approach. The nominated property’s values need to be credibly expressed by the selected architectural, urban and landscape features in terms of location, form, design, and layout. This also applies to urban greenery. In the case of built features this also encompasses materials and craftsmanship, right up to the details and extent of fittings, furnishings and decorative elements in interior and exterior spaces. Lastly, it is also based on the ability to truthfully illustrate the spatial, architectural, functional and symbolic relationship of Plečnik’s interventions with the pre-existing setting.

According to the information provided by the State Party and the technical evaluation mission, the nominated architectural, urban and landscape features largely comply with their original design even in the case of reconstructions, including the weather station on Congress Square, some pavements, technically upgraded fittings, as well as replicas of individual decorative features in the interior and outdoor spaces. Apart from such cases, material authenticity throughout the property appears high. Repairs and reconstructions were generally carried out using the same materials as originally used. ICOMOS
requested and received detailed additional information about the landscaping features throughout the nominated property. Landscaping designs are mostly kept by rejuvenating the vegetation when necessary and ICOMOS strongly recommends to maintain or reinstate the original species used wherever possible and appropriate. A few original features, such as some urban furniture or the earthen pyramids at the Roman Walls in Mirje, are missing. Most additions, such as the underground car park and its entrances at Congress Square, and the new visitor centre and car park at Plečnik’s Zale, are described as respectful to the property’s architecture, functions and atmosphere. With few exceptions, the original functions and uses of all components and their features are preserved and the outdoor spaces are accessible to the public. Lastly, the level of authenticity of the series’ setting is satisfactory in the sense that there have been only moderate changes since the mid-20th century.

In conclusion, ICOMOS considers that the conditions for integrity and authenticity have been met.

Evaluation of the proposed justification for inscription
ICOMOS considers that the proposed justification for inscription is appropriate in relation to criterion (iv) but it considers that the nominated property does not meet criterion (i). Despite some weaknesses, ICOMOS also considers that the comparative analysis adequately justifies consideration of this property for the World Heritage List. The serial approach is justified and the selection of component parts is appropriate. ICOMOS further considers that the nominated property satisfies the conditions of integrity and authenticity.

Attributes
Attributes of the proposed Outstanding Universal Value are the buildings as well as the architectural interventions and landscape features in the selected open spaces throughout Ljubljana which were designed by Jože Plečnik, including their form, design, layout and materiality, both in the exterior and interior (in the case of buildings) and extending to street pavements and urban furniture. The spatial and functional relationships between Plečnik’s interventions are also important attributes, where these have remained intact.

Plečnik’s interventions and their characteristics rely on interaction with pre-existing buildings and urban spaces. Therefore, the relationships between his interventions and the pre-existing elements need to be considered, as supportive to the attributes of the proposed Outstanding Universal Value, and need to be subject to protection measures appropriate to the role they play.

ICOMOS considers that the attributes that convey the proposed Outstanding Universal Value have been carefully identified, while pre-existing urban buildings and structures that support the attributes need further detailed identification.

4 Conservation measures and monitoring

Conservation measures
Conservation works are carried out based on conservation plans drawn up for all components and prioritised interventions for maintenance and repair, as well as modernisations as required to ensure continued usage. Available skills and resources appear adequate as per the information provided. Responsibilities and competencies seem clearly assigned to different custodians, which include local communities in the case of the churches, and to ensure specialist advice and supervision by the responsible authorities.

Apart from regular maintenance, planned or ongoing conservation measures throughout the nominated property or within its setting as per the prioritisation in the management plan include: the restoration of the propylaea at Plečnik’s Zale; restoration of the stone and concrete structure of Tmavo Bridge and its decorative features as well as of the adjacent river banks, including the access to the Gradaščica River; upgrading of the advertising, street furniture and lighting at the Three Bridges; reconstruction of the landscaping designs at the Churches of St. Francis and St. Michael; provision of visitor lavatories at the Church of St. Michael; upgrading technical infrastructure at Plečnik’s Market in order to improve the conditions for its operation, potentially including an underground multi-level car park; replacement of overgrown beech trees with a beech hedge along Vegova Street; the thermal upgrade of windows in the National and University Library. ICOMOS requested and received updates on several of these projects as well as the conservation plans of all serial components.

Monitoring
The property’s state of conservation is continuously monitored by the different custodians in close cooperation with the supervising agencies, the Museum of Architecture and Design (MAO), the Institute for the Protection of Cultural Heritage of Slovenia (IPCHS) and the City Administration of Ljubljana.

Monitoring of the nominated property is planned to be carried out on two levels. Monitoring of the physical substance of an individual property (as defined in individual management plans), which falls under the responsibility of the IPCHS. Monitoring of buffer zones and of spatial planning is also provided by IPCHS. Monitoring of implementation of so-called soft contents and of accessibility (defined in the joint management plan), falls under the responsibility of the joint manager. In the future a joint manager is to coordinate the monitoring at the different levels.

The nomination dossier provides a comprehensive list of indicators for the entire nominated property and for its individual serial components. The tables link the indicators to the related factors affecting the property to concrete actions and responsible agencies and indicate the periodicity of the monitoring activities. ICOMOS considers the choice of indicators and the periodicity adequate for the protection of the proposed Outstanding Universal Value.
ICOMOS considers that the conservation measures and monitoring mechanisms respond to the vulnerability of the attributes of the proposed Outstanding Universal Value.

5 Protection and management

Documention
Plečnik's body of work, including his works included in the nominated property, has been subject to a wealth of early and ongoing scientific research, documented in numerous publications in several languages. The main institution for the documentation of Plečnik's work is Plečnikova hiša (Plečnik House), which is a part of the institution of Museum and Galleries of Ljubljana. Original documents can also be found at the following institutions in Ljubljana: the Museum of Architecture and Design, the Historical Archives of Ljubljana, the Archives of the Republic of Slovenia, the IPCHS, and Regional Office Ljubljana. Data on conservation measures and developments within the nominated components and their buffer zones is archived at the Ministry of Culture of the Republic of Slovenia and IPCHS and its regional office, which make accessible paper copies and digital inventories of the nominated property and related heritage assets as well as the conservation plans of the serial components. These include baseline data for monitoring. Publications are available at the National and University Library. Further documentation of spatial planning and urban development throughout Ljubljana is undertaken at the municipal level.

Legal protection
All components are legally protected as national monuments. Some are protected by several laws. The legislative protection of the nominated property is based on the Cultural Heritage Protection Act. Since 2009, the whole of Plečnik's heritage in Ljubljana has been protected under the Ordinance designating the work of the architect Jože Plečnik in Ljubljana as a cultural monument of national importance. Thereby, the Ordinance represents a single comprehensive protection mechanism for the entire immovable and movable heritage of the nominated property. It defines the boundaries of the components and their buffer zones, as well as their protection regimes. An important part of the cultural heritage protection system is spatial planning at the national and local level. Before spatial plans are adopted, the IPCHS must issue guidelines which must be taken into account when drawing up spatial plans. Construction permits and planning permissions throughout the nominated property and its buffer zones require consent from the IPCHS.

Various other local regulations and development plans are applicable to the nominated property or parts of it, particularly in the medieval city centre. These include listings as cultural (including archaeological) and natural heritage. Of particular relevance to the protection of the nominated property are spatial planning instruments such as the municipal spatial plan.

ICOMOS requested and received additional information on how the multi-layered legal protection ensures the protection of the nominated property and its buffer zones. In the course of enlarging the buffer zones, the State Party amended or supplemented existing decrees and thereby moved the responsibility for the new buffer zones parts from the municipal to the State level. The IPCHS informed the owners and the local community, the City of Ljubljana, about the proposed amendments and supplements to the Ordinance. The public consultation process was completed at the end of February 2021 and the adoption of the amended Ordinance is expected in the following months.

Management system
The management system as it was devised in the course of the nomination process aims at complementing the existing system for the preservation of Plečnik's heritage in Ljubljana from the professional, organisational as well as legal and financial perspectives, and involves owners, managers and public bodies. The different owners of the serial components are, in the case of public owners, the Republic of Slovenia, the Ministry of Culture, the City of Ljubljana, the Ministry of Environment and Spatial Planning, as well as the Faculty of Natural Sciences and Engineering of the University of Ljubljana. Private owners are Ljubljana's Parkings and Markets Public Company, Ltd., and ZALE, Public company, Ltd. The churches are the property of the Roman Catholic Church, Archdiocese of Ljubljana.

The management of the nominated property operates on two levels. Based on the existing legal protection and the individual conservations plans, individual management plans have been developed for each component in addition to a joint management action plan for the timeframe 2020-2025. They address the management of the physical substance and include an overview of the values that need to be protected, including short-term and long-term objectives and responsibilities that lie with the owners and/or managers. On the second level, the IPCHS monitors the state of conservation of the entire nominated property. The Museum of Architecture and Design, as joint manager, has the overall responsibility for the implementation of the joint management plan by coordinating the concerned individual owners, managers, public institutions and professional bodies. The main members of the Steering Body are the Ministry of Culture of the Republic of Slovenia and the City of Ljubljana.

Funds for the implementation of individual management plans are principally provided by the owner and/or manager. Funds for the joint manager are provided by the Ministry of Culture of the Republic of Slovenia and the City of Ljubljana. Funds for scientific research, valorisation and presentation, as well as protection and monitoring, are provided under a public service financed by the Ministry of Culture at the state level, and by the City of
in the direct vicinity of the nominated property. The centre is the most important visitor facility and is located in the line of the nominated property. Plečnik house is a permanent exhibition, a lecture room and a library with study rooms. Professional institutions and Tourism Ljubljana work together in providing regular training sessions on Plečnik’s heritage for tourist guides. The museum facility at Plečnik’s House plays a major role in outreaching to the wider public.

**Evaluation of the effectiveness of the protection and management of nominated property**

ICOMOS considers that the protective legal provisions and the management system are appropriate and effective. The human and financial resources, including available expertise and skills, are also considered adequate. ICOMOS encourages the State Party to complete the adoption of the amended Ordinance related to the expanded buffer zones. ICOMOS moreover encourages the development of a joint visitor and interpretation scheme for the whole nominated property.

ICOMOS considers that the legal protection and management system are adequate to preserve the nominated property.

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**6 Conclusion**

The nominated property consists of a series of public spaces and public institutions designed by Jože Plečnik throughout the city of Ljubljana in the period between the two World Wars. Following World War I and the disintegration of the Austro-Hungarian Empire, a desire to create independent nation states triggered various state and city building projects in Central and South-Eastern Europe.

ICOMOS considers that the comparative analysis provides sufficient evidence in support of the justification for Outstanding Universal Value despite certain shortcomings in focusing on comparison to modernist sites and their fundamental differences, while falling short in comparing with sites that were shaped by more comparable urban design approaches.

Concerns about the serial composition were resolved with the additional information received in February 2021. ICOMOS considers that the serial components complement each other well to comprehensively and truthfully illustrate the exceptional approach that Plečnik took when transforming Ljubljana into a symbolic national capital for the Slovenian people. Despite their variety in type, scale and stylistic features and being scattered throughout the city, and although only some of the components have visual contact with each other, the series forms one entity based on common characteristics. They display Plečnik’s contextual urban design approach, share a human scale, focus on the needs of modern citizens, embrace various meanings, functions and symbolic references to various cultures and times, and testify to an economic use of resources. ICOMOS notes that a few works by Plečnik in Ljubljana have been excluded from the series primarily due to concerns about their state of
The current management system is considered adequate and effective. Interpretation and presentation of the property to the public is satisfactory. Nevertheless, ICOMOS encourages the development of a joint visitor and interpretation scheme that links the serial components in the suburbs to those in the city centre.

Concerns about the nomination’s name “Ljubljana: The Timeless, Human Capital Designed by Jože Plečnik” were resolved by the State Party by proposing an alternative name: “The works of Jože Plečnik in Ljubljana – Human Centred Urban Design”.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that The works of Jože Plečnik in Ljubljana – Human Centred Urban Design, Slovenia, be inscribed on the World Heritage List on the basis of criterion (iv).

Recommended Statement of Outstanding Universal Value

Brief synthesis
The urban design for Ljubljana was conceived by Architect Jože Plečnik (1872–1957) in the period between the two World Wars. Following World War I and the disintegration of the Austro-Hungarian Empire, a desire to create independent nation states triggered various State and town building projects in Central and South-Eastern Europe. In the changed social contexts, the urban planners and architects introduced new urbanistic and architectural approaches under the influence of the Modernist movement. The transformation of Ljubljana from a peripheral town of the former Empire into a national capital emerged during the introduction of these modernist guidelines, although from entirely different architectural starting points.

The urban design of “Plečnik’s Ljubljana” is based on an architectural dialogue between his interventions and the existing older city. Based on the man-made cityscape and its natural features, two urban axes were conceived: the land axis and the water axis. These two axes are connected by transversal axes, which help to form the urbanistic network of the city. The land axis – the Green Promenade starts at the Trnovo Bridge and runs through the Square of the French Revolution, along Vegova Street with the National and University Library, and ends at the Congress Square with Zvezda Park. Running parallel is the water axis – the Promenade along the Embankments and Bridges of the Ljubljanica River – which extends from the Trnovo district to the Sluice Gate. The historical city centre is connected with vital points in both the rural and urban suburbs, and with the broader spatial network of Ljubljana: the Church of St. Michael, the Church of St. Francis of Assisi, Plečnik’s Žale – Garden of All Saints.

The city centre was interpreted anew and developed into a series of public spaces (squares, parks, streets, promenades, bridges) and public institutions (library, churches, markets, funerary complex).

The property is an outstanding example of urban renewal developed in the context of existing buildings and spaces and tailored to suit the inhabitants. Together, Plečnik’s
interventions have created a different type of urban space and architecture, which is not limited to a certain specific use, but instead gives rise to a connecting of the different uses and meanings and creates a new identity for the space. The architectural elements, types and spaces of classical architecture are innovatively summarised, transformed and modernised.

Criterion (iv): The interventions designed by the architect Jože Plečnik throughout the city of Ljubljana in the short period between the two World Wars combine to become an outstanding example of human-centred urban renewal for the purpose of nation building after the demise of the Austro-Hungarian Empire. They are based on a harmonic relationship with the context of the space and its natural possibilities. The city is not built anew but improved with small- or large-scale interventions – new architectural ensembles, buildings and urban accents. The relationship with the past is established in various ways, from adapting the urban network and incorporating existing structures through architectural reminiscences and by establishing new cityscapes. The new urban space is not limited to a specific use but has various functions and the whole is thus imbued with new meanings.

Integrity

The urban design in Ljubljana, as a result of the intervention by Jože Plečnik, includes the readily identifiable characteristics of a symbolic capital city created between the two World Wars by the architect. Ljubljana’s urban landscape comprehensively illustrates an upgrade of the existing space with regards to the topography and based on its continuous use and interpretation of historical layers. The topography of the space is expressed through the urban landscape design of the two axes: the land axis and the water axis. The design of both promenades originates and draws from the continuous use of the space, which defines the positions and use of squares, markets, bridges, parks and other public spaces as well as buildings. A series of public spaces endows the city with public amenities, from spiritual spaces (the Churches of St. Michael and St. Francis of Assisi, Plečnik’s Žale – The Garden of All Saints), spaces for relaxation (archaeological park along the Roman Walls, and promenades along the embankments of the Ljubljanica River, Trnovo Quay), to market activities (Plečnik’s Market), socialising (Congress Square, the Three Bridges, the Cobbler’s Bridge), and intellectual and cultural activities (Vegova Street, National and University Library).

A unified protection regime ensures that the currently unbuilt upon areas remain building-free, that the space preserves its traditional use, and provides comprehensive protection from interventions that could potentially endanger the integrity of the serial property.

Authenticity

The serial property has maintained its original urban design and characteristics, in which the preservation and enhancement of the context of the space are reflected. The serial components have faithfully preserved their original design in the exterior arrangements, in the interiors as well as on the facades, in the interior furnishings and the masterful attention to detail. The building materials were reinforced in most components in the 1990s, but regardless of the individual repairs or conservation and restoration interventions, which were a consequence of continuous use, material authenticity in general has not been compromised. Larger urbanistic areas have remained unchanged; in some cases, repairs were performed in order to meet the requirements of modern use and ensure the greater safety and structural stability of the property. With few exceptions, the original functions and uses of all components and their features are preserved and the outdoor spaces are accessible to the public. The characteristics of the original urban design have been preserved as well, although partial changes have appeared due to the overgrowth of the original vegetation and in some places the pressure of local traffic, which has been strategically addressed over the course of the previous decade.

Management and protection requirements

Plečnik’s architectural heritage is a monument of national importance and is protected by the Ordinance designating the Ljubljana work of the architect Jože Plečnik as a cultural monument of national importance (Official Gazette RS, Nos. 51/09, 88/14, 19/16, 76/17 and 17/18). The Ordinance represents a single comprehensive protection mechanism for the entire immovable and movable heritage of the serial property.

All of the serial components have conservation plans that form the basis for any interventions on the monuments. Works are coordinated by the Institute for the Protection of Cultural Heritage (IPCHS) and supervised by the specially-appointed conservator for Plečnik’s heritage. The management system complements the existing system for the preservation of architect Jože Plečnik’s heritage in Ljubljana from the professional, organisational as well as legal and financial perspectives, and involves owners, managers and public bodies alike. The management of the property operates on two levels. All component parts have their specific management plans and procedures for the implementation and approval of such plans. State of conservation is monitored by the IPCHS, with a special emphasis on the factors likely to affect the property, in particular development pressures and tourism. The coordination of individual owners, managers, public institutions and professional bodies that form the Management Body is ensured by a joint manager that has overall responsibility for the implementation of a joint management plan. The Museum of Architecture and Design of Ljubljana, as an appointed joint manager, cooperates with those institutions at the state and local level that are responsible for protection, monitoring, presentation, education and research, promotion and cultural tourism.
Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Submitting a minor boundary modification of the extended buffer zones, when formalised, with an updated map showing the property and the buffer zones’ boundaries, indicating the total area of the buffer zones in hectares; considering submitting in the future a minor boundary modification with a view to including relevant transversal axes, if their state of conservation could be improved to fully meet the conditions of authenticity and integrity,

b) Submitting to the World Heritage Centre a complete Heritage Impact Assessment for the planned new library building in Emonska Street for review by the Advisory Bodies, before irreversible decisions are made,

c) Retaining or reinstating original vegetation species of the landscaping designs wherever possible and appropriate,

d) Ensuring subtle differentiation of additions and repairs from the original substance, where appropriate, and avoiding mimetic additions that would try to complete Plečnik’s original work,

e) Developing a joint visitor and interpretation scheme that will link the serial components in the suburbs to those in the city centre,

f) Undertaking further detailed identification of the relationships between Plečnik’s interventions and pre-existing buildings and spaces, to allow appropriate protection measures to be put in place for the latter, relative to the role they play in supporting the Outstanding Universal Value,

g) Carrying out Heritage Impact Assessments for all development proposals within the property or its buffer zones;
Map showing the boundaries of the nominated components and their buffer zones
**Ribeira Sacra**  
*(Spain)*  
No 1639

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**Official name as proposed by the State Party**  
Ribeira Sacra

**Location**  
Provinces of Ourense and Lugo  
Autonomous Community of Galicia  
Spain

**Brief description**  
The Ribeira Sacra cultural landscape, which is located in northwestern Spain in the provinces of Lugo and Ourense, Autonomous Community of Galicia, covers large portions of the steep valleys of the Miño and Sil rivers. With its diverse and rich cultural and natural heritage and concentration of churches, monasteries, and hermitages, the nominated property is an important example of the sacralization of a territory.

The property is a serial nomination of four components, all of which encompass monastic estates: the Ribeiras, the largest component comprising the agricultural and sacred landscape along the river valleys; the Heredad de San Pedro de Rocas; the Heredad de Montederramo; and the Heredad de Ferreira de Pantón. The nominated property includes 78 parishes and 170 population centres.

Ribeira Sacra preserves evidence of an intense occupation from the Paleolithic to the present day, including petroglyphs, castros (fortified villages), nomadic sanctuaries, pazos (stately homes), and great Renaissance and Baroque houses, as well as 20th century hydroelectric power stations and their infrastructure. Its foremost historic importance, however, is linked to the evolution of Western monasticism and that movement’s particular social organization systems, land use, and economic production.

Along with its built legacy and natural landscape features, the nominated property highlights intangible ethnographic heritage, emphasizing traditional land management such as parcellation into micro-small holdings (cavaduras) and steep-slope agriculture on dry-stone terraces (socalcos).

**Category of property**  
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial property of four sites.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (July 2019) paragraph 47, it has also been nominated as a cultural landscape.

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1 **Basic data**

**Included in the Tentative List**  
16 July 1996

**Background**  
This is a new nomination.

**Consultations and Technical Evaluation Mission**

Desk reviews have been provided by ICOMOS International Scientific Committees, members, and independent experts.

Comments on the natural features of this property and their conservation and management were received from IUCN in November 2020 and have been incorporated into relevant sections of this report.

An ICOMOS technical evaluation mission visited the property from 4 to 11 October 2020.

**Additional information received by ICOMOS**

A letter requesting additional information on the monastic landscape, the early hermitages and monasteries, the impact of dams, legal protection, and management was sent to the State Party on 13 October 2020. A response was sent by the State Party on 13 November 2020 containing clarifications on the requested subjects.

An Interim Report was provided to the State Party on 17 December 2020 summarizing the issues identified by the ICOMOS World Heritage Panel.

Following the Interim Report, supplementary information was sent by the State Party on 19 February 2021, with additional clarifications on the sacred character of the property and a reformulation of the justification of the proposed criteria for inscription.

**Date of ICOMOS approval of this report**  
18 March 2021

2 **Description of the property**

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

**Description and history**  
The diverse and rich cultural and natural heritage of the Ribeira Sacra cultural landscape includes a concentration of churches, monasteries, and hermitages that collectively represent an important example of the sacralization of a territory. This continuing agricultural and sacred landscape, which has been occupied from the Paleolithic to the present day, includes features covering a wide temporal and typological span from Roman archaeological remains to contemporary dams and
reservoirs within its 78 parishes and 170 population centers.

The nominated serial property is comprised of four components covering 16,973.16 hectares in total along the valleys of the Miño and Sil rivers in northwestern Spain’s provinces of Lugo and Ourense, Autonomous Community of Galicia. The components focus on the following monastic estates: Ribeiras, Heredad de San Pedro de Rocas, Heredad de Montederramo, and Heredad de Ferreira de Pantón. Apart from monasteries and churches, the region is rich with features that speak to the property’s religious heritage, such as hermitages, rectories, and crosses (cruceiros).

The Ribeiras, the largest of the four components at 16,470.87 hectares, is characterized by deep river valleys, although these valleys have been transformed to a certain degree as a result of the construction of large dams in the mid-20th century. The topography and climate have historically conditioned the development of steep-slope, terraced agricultural practices, which continue to the present day.

The Heredad de San Pedro de Rocas component (452.09 hectares) symbolizes the ascetic landscape. Built on the site of a hermitage, it marks the transition in Western Europe from solitary eremitism to community worship in a monastic order.

The Heredad de Ferreira de Pantón component (39.86 hectares), which traces its roots back to the 12th century, houses the only monastic community still active in the area.

The Heredad de Montederramo, the smallest component (10.34 hectares), is one of the main Cistercian monasteries in Galicia and bears witness to the historical origin of the Ribeira Sacra name.

The cultural landscape of Ribeira Sacra exhibits the history of human habitation and sustainable exploitation of land in rough mountainous terrain, with steep-slope agricultural terraces (socalcos) and characteristic land parcellation (cavaduras). The socalcos are mostly located on hillsides with slopes of more than 30 % and represent a specific character of the landscape. The cavadura, which is the surface area that a person is able to cultivate in one day for sustenance, is the historical basis of land division and has been preserved to the present day.

The land use associated with the nominated property is an expression of the sacred character of the territory and the history of evangelization. The monasteries, churches, hermitages, sanctuaries, and other sacred features documented and preserved within the boundaries of the nominated serial property illustrate various stages in the development of Christianity in Western Europe through interchange with Eastern Christian traditions.

Historically, the monasteries of Ribeira Sacra originated in eremitism, specifically in an early Christian movement called Priscillianism, which was inspired by Eastern Christian traditions. Historical evidence, including the remains of a world map preserved on the walls of the Heredad de San Pedro de Rocas, indicates a cultural transfer between the East and the West. Monasticism in this region was endorsed in the 6th century by Martin de Dumio, bishop of Braga. The founding inscription of the Heredad de San Pedro de Rocas (573 CE) is presented by the State Party as material evidence supporting a claim that this is the birthplace of Western monasticism.

Important historical events and processes began here with the Christian evangelization influenced by Priscillianism and the development of eremitism, followed by the transition from eremitism to monasticism in the wake of the formation of the Swabian kingdom and the political-administrative strengthening of the Catholic Church during the 5th and 6th centuries CE. The Arab invasion of 711 triggered the flight of Christians from the south of the Iberian Peninsula and North Africa to this region, and the subsequent intensive colonization and cultivation of the territory. Benedictine and Cistercian monasticism expanded here in the 11th and 12th centuries. Reformation and reorganization of the monastic orders and strengthening political integrity with the Catholic Church and the Kingdom occurred in the 16th century.

Monastic rule of the territory was first challenged by local civic powers amidst the political, economic, and social crisis of the Late Middle Ages, leading to the decline of the monasteries. In modern times, with the Spanish War of Independence (1808-1814) and the Catholic Church’s laws of disentailment and exclastration, the State confiscated all monastic goods, which led to the expulsion of religious communities and largely put an end to more than 1,000 years of monastic orders in this region. The modern era brought significant physical as well as socioeconomic transformations, placing energy production and its infrastructure at the heart of this sacred landscape.

In the additional information sent by the State Party in February 2021, the State Party remarks that, even though the nominated property includes an exceptional group of monasteries, it is a living and evolving cultural landscape that arose from the sacralization of nature by the communities, and therefore conveys spiritual values beyond its religious features. Letters from the bishoprics of Lugo and Ourense are included in the additional information as a confirmation of the continuation of the sacred character of Ribeira Sacra up to the present day.

**Boundaries**

The rationale for the delineation of the nominated property’s largest component, the Ribeiras, is based on geomorphological and cultural features so as to incorporate the highest concentration of heritage elements preserved in the landscape. The bocarribeira – the characteristic change of the slope gradient from values higher than 30 % (ribeiras) to values lower than 10 % (chairas) – defines the limits of this component.
Regarding the three smaller components, the rationale for the delineation of their boundaries is not obvious. The boundaries of the Heredad de San Pedro de Rocas, Heredad de Ferreira de Pantón, and Heredad de Montederramo each form separate polygons of different sizes, all embedded in the single buffer zone. There is insufficient explanation of the principles adopted for delineating each boundary or the spatial interrelationship between the monasteries and the wider landscape.

The proposed buffer zone covers 53,177.29 hectares and is comprised of 106 parishes and 668 population centres. It surrounds all four components of the nominated property and borders the Courel Mountains UNESCO Geopark (designated in 2019). The buffer zone is based on the boundaries of historical parishes and is intended to encompass the key components presented in the nomination as well as their wider landscape setting.

In addition to the buffer zone, a still wider study area has been defined, made up of 25 municipalities that have historically considered themselves to be part of the Ribeira Sacra cultural landscape. Even though most of this study area does not have special heritage protection, it is proposed to be important in terms of the nominated property’s management.

State of conservation
The nomination dossier provides information on the state of conservation of the nominated property at two different scales – the single-object level, and the landscape level. The information is based on evaluations carried out in 2017-2019. The state of conservation of the great majority of features is satisfactory or very good, particularly the religious sites and agricultural terraces, which are reported to be in a very good or optimum state of conservation.

Conservation institutions, human resources, and funding mechanisms are in place to ensure the continued conservation of different features of the cultural landscape over the long term. There is regular monitoring of their state of conservation.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is satisfactory.

Factors affecting the property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development, environmental, demographic, and tourism pressures. Other factors mentioned by the State Party are the open quarries, intensification of agriculture, and forestry. ICOMOS and IUCN consider that active quarrying should not be permitted within the boundaries of the nominated property, nor should indirect impacts from quarrying or mining be allowed.

Development pressures having the highest impact include large-scale energy production infrastructure such as dams, reservoirs, and transmission lines. In the additional information sent in November 2020, the State Party contends that the dams and reservoirs built for energy production in the mid-20th century have not had a significantly negative impact on the features that support the proposed Outstanding Universal Value of the nominated property, including the qualities of the physical landscape and, particularly, its sacred character. Moreover, the historic and cultural values of these modern engineering structures are highlighted by the State Party as valuable parts of the continuing cultural landscape.

Amongst the environmental pressures, the State Party highlights invasive species and changes to the local ecosystems. In addition, ICOMOS and IUCN note the negative impact of wildfires, which are observed to be related to the abandonment of forests and groves whose cultivation began in the Middle Ages. ICOMOS also notes the obstruction of visual links between monasteries and other sacred features and the rivers as a result of afforestation.

One of the major factors affecting the nominated property is the demographic trend towards an older population, which is related to the harsh working conditions and the precarious historic agrarian infrastructure that have resulted in the abandonment of plots that are difficult to cultivate. This trend threatens the traditional community-led agricultural production in micro-small holdings, which is one of the key features of the nominated property. Depopulation and ageing also affect the landscape’s sacred character: many religious buildings have lost their historic use or have been adapted to new non-religious functions. The only monastic community still extant is composed of eight nuns in the Heredad de Ferreira de Pantón.

The State Party highlights the major role planned for tourism in revitalizing the economy of Ribeira Sacra. A number of strategic plans and documents at various administrative levels have been put forward to ensure sustainable and socially sensitive tourism. Considering the demonstrated rapid growth of the tourism sector in the last decade, however, tourism could potentially threaten the sustainability of the local traditional agricultural economy, outcompeting the latter’s historically formative role in the character of the territory.

ICOMOS notes with some concern the visual impact of wind turbines on the proposed Outstanding Universal Value of the nominated property. One large wind farm is located in the buffer zone between two of the nominated property’s components, and three others, while more distant, are also visible.

ICOMOS considers that historical events and the physical transformation of the territory over the last 200 years, depopulation and ageing, abandonment and afforestation, and loss of visual links between the sacred components of the property have irreversibly altered the

427
character and meaning associated with the medieval monastic sacred cultural landscape. Despite significant efforts by the State Party to preserve the historical features and revitalize the local economy, ICOMOS considers that the territory is particularly vulnerable to demographic change and its negative influence on the formative sacred and agricultural features that support the proposed Outstanding Universal Value of the nominated serial property.

3 Proposed justification for inscription

Proposed justification

As presented in the nomination dossier, the nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Ribeira Sacra is a unique testimony of monasticism characterized by the influence that the Priscillianist heresy had on Galicia (4th-6th centuries) and the subsequent reform and correction undertaken by the Church headed by San Martín de Dumio, which allows us to document the birth of the Western monasticism in 573 with the consecration of the cenobitic community of San Pedro de Rocas made up of six monks of various origins, following the models of the Eastern monasteries, symbol of the new order and meeting point between East and West.

- Ribeira Sacra represents a unique example of the sacralization of an entire territory, as reflected in its historical name, which demonstrates the existence of an exceptionally high concentration of monasteries since the early Middle Ages in a small area around the deep valleys of the Miño and Sil, which has maintained a unique set of abbeys that in the 8th and 9th centuries served as a refuge for migrations from North Africa, bearers of classical culture, a meeting point of East and West, and that for a thousand five hundred years managed this territory.

- Ribeira Sacra is an exceptional cultural landscape in which the combined action of the local communities and a singular nature is represented, and which maintains the characteristics with which it was built, forming a unique testimony of the structure of the territory: some local communities organized in parishes, identity units that emerged in the 6th century and that by means of the presura and the forum (ecclesiastical and stately concessions), which were created between the 8th and 9th centuries, promoted the creation of anthropic and fertile lands in the ribeiras (deep valleys) by means of the construction of socaltos (monumental terraces) intended for the polyculture of subsistence in very small plots, the cavaduras (436 m²). A unique territory that also continues to work with traditional techniques and in which the built, humanized landscape coexists with the wild, untamed natural landscape.

The nomination dossier presents features of a wide temporal and typological span, from Prehistoric and Roman remains to contemporary dams, all of which are proposed as contributing to the proposed Outstanding Universal Value. However, the justification for the potential Outstanding Universal Value is predominantly based on the sacred character of the territory, the history of its evangelization, and the associated land-use. Although the nomination dossier describes the landscape as continuing, it is difficult for ICOMOS to see the large-scale infrastructural elements of the modern period as contributing or relating to the proposed Outstanding Universal Value of the nominated property.

In response to ICOMOS’ concerns about the continuity of the sacred character of the nominated property, the State Party in February 2021 presented a reformulated justification, withdrawing from the original version of the nomination dossier on emphasis on monasticism and the history of evangelization, and referring instead to the transcendent dimension of this landscape and the continuity of perception of its sacredness from the Paleolithic to the present day. ICOMOS considers that this reformulation does not justify the nominated property as being outstanding or exceptional: the evidence of sacralization of a natural landscape in the context of the evolution of human belief systems is preserved elsewhere in Europe as well as in many parts of the world.

Comparative analysis

The comparative analysis is presented in three parts: comparisons with other properties linked to the evangelization process of a territory; comparisons with other properties representing unique monastic ensembles; and comparisons with other cultivated landscapes on hillsides or terraces. The geo-cultural region is identified as primarily the Mediterranean area, though many examples from beyond this region are also included.

The analysis includes a selection of 57 sites, including properties on the World Heritage List, on national Tentative Lists (in Spain and in Italy), and a property not on either list (Tebaida Berciana in Castilla y León, Spain). Comparisons related to the evangelization process number 16 sites, to unique monastic ensembles number 19 sites, and to cultivated terraced agricultural landscapes number 21 sites. Such a large number of comparable properties highlights the fact that hillside terraced agricultural landscapes, sacred places, and monuments related to evangelization are not uncommon in Europe, or in other parts of the world – or on the World Heritage List.

The State Party states that the nominated serial property is outstanding within this group of comparators because it is associated with the establishment and expansion of monasticism in the West, specifically in relation to Priscillianism, and contributes to an understanding of the cultural interchange of Christianity between the East and the West. In addition, it states that the nominated property has an exceptional concentration of noteworthy architectural ensembles that illustrate more than
1,000 years of uninterrupted presence of religious communities. And finally, the topography and setting of the nominated property have greatly defined the shape and form of the agricultural landscape, illustrating the sustainable use of the harsh natural environment. The comparative analysis concludes that the Ribeira Sacra cultural landscape stands out from its comparators since none of the other sites have a comparable set of characteristics.

A similar approach is adopted by the State Party in the additional information it submitted in February 2021. In reassessing comparators originally selected, the State Party asserts that none have been defined by the sacredness of elements that generated an agricultural landscape and a symbolic relationship with nature and the territory.

ICOMOS considers that the analysis reveals close similarities with some properties, such as the World Heritage property of the Holy Valley and the Forests of Cedars of God in Lebanon (Lebanon, 1998, criteria (iii) and (iv)), where agricultural terraces historically cultivated by the monks, hermits, and peasants form part of a sacred landscape. Furthermore, similar patterns of human occupation, historical development, monasticism, subsistence steep-slope farming, micro-small holdings, and polyculture can be found in several areas of the European part of the Mediterranean region.

ICOMOS further considers that monasticism and its associated land use and water management practices can be seen to have shaped a large part of European landscapes. There are significant numbers of well-preserved ensembles of monastic structures in this geo-cultural region, and beyond. The comparison with Western European medieval church buildings also reveals similarities in architectural features and qualities in terms, *inter alia*, of preserved hagioscopes and anchorite cells.

The comparative analysis presented in the nomination, although in many ways confirming the qualities of Ribeira Sacra, leaves open the fundamental question of whether the nominated serial property can be considered outstanding for its combination of landscape features or its relation to particular events in the history of Western monasticism. As it has been observed, monasticism and its associated land use can be seen to have shaped a large part of European landscapes. In terms of ensembles of monastic structures, there are also many more intact ones elsewhere.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List.

**Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (iii), (iv) and (v):

Criterion (iii): *bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

This criterion is justified by the State Party on the grounds that the nominated property is a unique testimony to the development of Western monasticism characterized by the influence of Priscillianism (4th-6th centuries) and the subsequent reform undertaken by the Church. Consecration of the coenobitic community of San Pedro de Rocas in 573 represents the earliest documented evidence of a monastic community in Western Europe, following the models of the Eastern monasteries, illustrating the cultural interchange between the East and the West.

ICOMOS considers that the claim of this being the birthplace of Western monasticism based on the foundation stone of the Heralde de San Pedro de Rocas adds only a limited and singular argument to the proposed justification. There are several other areas in Western Europe that are known as refuges for early Christian hermits and their communities, as well as for early forms of monastic orders influenced by Eastern Christian traditions. Therefore, ICOMOS considers that the preserved evidence of the date of consecration of one of the monasteries – presented as a separate component of the nominated property – is not sufficient to demonstrate that the nominated serial property bears a unique or exceptional testimony to the identified cultural tradition.

The reformulated justification for criterion (iii) provided by the State Party in February 2021 places the emphasis on the transcendent dimension of the landscape, which is considered as the basis for eremitism and the birth of Western monasticism. The new formulation does not, however, assist in clarifying the arguments provided in the nomination dossier. Instead, it has made it more difficult to explain to which cultural tradition or civilization the nominated property is a unique or at least exceptional testimony.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates a significant stage in human history;*

This criterion is justified by the State Party on the grounds that the nominated property represents an outstanding example of the sacralization of a landscape, manifested in the high concentration of monasteries since the early Middle Ages around the deep valleys of the Miño and Sil rivers, which served as a refuge for migrations from North Africa and southern Spain, bearers of classical culture.

ICOMOS considers that the nominated property is described as a "continuous cultural landscape," but it is difficult to see the large-scale energy production infrastructure of the modern period as contributing or
relating to the historic sacred character of the landscape. ICOMOS also considers that the preserved material evidence of the high concentration of monasteries and religious features has been significantly reduced: of the 85 religious properties documented throughout history, only a few have been fully preserved today. And of these, only one has an active monastic community – that of eight Cistercian nuns. The disintegration of the majority of the monastic communities, abandonment, demographic change, afforestation, and loss of visual links between the sacred components makes difficult to perceive today the sacred character of the territory, or its continuity.

The reformulated justification presented by the State Party in February 2021 refers to outstanding Benedictine and Cistercian monastic ensembles that reflect the evolution of Western architecture up to the present day. ICOMOS acknowledges the high architectural quality and historical importance of these structures, but does not consider them to be outstanding examples of the development of Western architecture in the context of criterion (iv), as many more monastic ensembles of great architectural quality and historic value are found intact throughout Europe.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures) or human interaction with the environment, especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the nominated property is based on the exceptionality of the cultural landscape of Ribeira Sacra, which has maintained to the greatest extent the continuity of its spatial and socio-cultural organization (parishes, cavaduras, socalcos) since the early Middle Ages.

The reformulated justification provided by the State Party in February 2021 further stipulates that the structuring of society into parishes, the myths, and the animist vision of the landscape by local communities, together with sacred trees, stones, and other natural and human-made objects, convey the continuing sacredness of the territory. The State Party clarified that the churches and monasteries of Ribeira Sacra have not been desacralized, as has been the case in many other places in Spain, thus maintaining their sacred character and function. Furthermore, clarification was provided on the continuity of generations of families who have been cultivating the land from the time of the monastic orders to the present day.

ICOMOS considers that a rich diversity of cultural heritage features exists in the nominated serial property, but notes that the sacred landscape of Ribeira Sacra has undergone significant transformations in the last 200 years that have interrupted the continuity of the landscape in terms of the connections to its religious character and sacred origins. On the one hand, there has been the development of large-scale infrastructure that has changed the physical environment, while on the other hand, there has been a drastic decline of monasticism as a result of the reforms of 19th century that led to the confiscation of land and abandonment of many monasteries in the area.

ICOMOS does not consider that any of the cultural criteria have been demonstrated.

Integrity and authenticity

Integrity

Since integrity is a measure of the completeness or intactness of the attributes needed to demonstrate the Outstanding Universal Value proposed by the State Party (and to the absence of threats to those attributes), it is not possible to fully assess the integrity of the nominated property at this stage because its potential Outstanding Universal Value has not yet been established.

The integrity of the nominated serial property is based on it being a testimony to the development of Western monasticism since the year 573, the sacralization of this landscape as manifested in a high concentration of monasteries and other sacred features, and the continuity of its spatial and socio-cultural organization since the early Middle Ages.

According to the State Party, the historical events and developments of the 19th and 20th centuries – most notably the construction of large dams, reservoirs, and railways and the confiscation of land from the monasteries – have not had significant negative impacts on the integrity of the nominated serial property.

While acknowledging the detailed information provided by the State Party on the perceived impact of the dams and other modern-era infrastructure on the cultural landscape, ICOMOS considers that fundamental questions remain in terms of how these large-scale elements that have modified the riverain landscape can be seen as contributing or relating to the history of monasticism or its associated traditional land uses or sacred character of the landscape; and the way these aspects are understood, perceived, and valued today.

With regards to the landscape, and the way it has been shaped by monastic activities during the Middle Ages, ICOMOS observes that it is currently difficult to comprehend the current landscape as it could have been at this period. The lands have been abandoned in large part and forests cover more than half the territory.

In the additional information provided in February 2021, the State Party notes that most of the forests are part of the traditional agricultural system: chestnut forests (soutos), areas of scrublands for pasture (devesas), fruit orchards, and cork tree groves are all grown in humid areas near rivers and are not prone to forest fires. Nevertheless, information provided by the State Party confirms that significant damage to the landscape results annually from forest fires. Furthermore, afforestation is
observed to have led to the loss of visual connections between the monasteries, and between them and the rivers. The present state of the monastic sacred landscape does not allow the historic landscape shaped by the monasteries' activities to be readily visualized, which represents, in ICOMOS' view, an important issue of integrity.

In conclusion, there remain doubts about the degree to which the present landscape can be considered as having maintained the integrity of its formative socio-economic systems following the confiscation of monastic land possessions, the disintegration and abandonment of the once-powerful monasteries, and the consequent auctioning and subdivision of their land over several generations.

These questions and doubts apply both to the integrity of the whole series as well as the integrity of the component sites.

Authenticity

Without the potential Outstanding Universal Value having been established and the attributes relevant to conveying that value having been confirmed, the following comments on authenticity cannot be considered definitive at this time.

The authenticity of the nominated serial property is based on the features that support its proposed Outstanding Universal Value, including ensembles, buildings, structures, archaeological sites, and landscape features. Documentary sources dating back to the 10th century confirm historical events, phases of construction and reconstruction of churches and monastic buildings, processes of division of agricultural lands and administrative units, and construction of socalcos, roads, and railways that have shaped the Ribeira Sacra landscape for more than 1,000 years.

The historical transformations over the last 200 years have led to the disruption of the continuity of the socio-economic system that played a decisive role in the formation of the cultural landscape of Ribeira Sacra. The lands possessed by the monasteries, which historically owned and controlled the territory and fostered the agricultural development of the river landscape, were confiscated in the 19th century, leading to a drastic decline of monasticism in the area. The once-functional socio-economic relationship between the monasteries and the agricultural landscape of the river valleys has vanished, along with almost all the monastic communities.

The only remaining historical monastic community in the nominated serial property is composed of eight Cistercian nuns at the Heredad de Ferreira de Pantón. The reduction and abandonment of the region’s religious function has given rise to the adaptation of former religious buildings to new uses. These adaptations are commonly carried out to the highest conservation standards, though mostly in support of tourism functions. For example, Santo Estevo de Ribas de Sil, once an important Benedictine abbey, has been converted into a parador de turismo; the former Pantón priory is being converted into a winery and restaurant; and the former San Paio de Abeleda monastery will be converted into a hotel. A number of pazos (stately homes) dating to the Renaissance and Baroque periods have also been converted for cultural and tourism uses.

In terms of authenticity of the physical features, the 20th century transformations are of critical importance. The large-scale infrastructure for energy production, with four large dams, water reservoirs, and other infrastructural elements on the Miño and Sil river systems, has significantly altered the natural setting and ecosystem of the landscape. Some agricultural terraces, settlements, and traditional river crossings have been flooded. The relocation of the churches of San Xoán da Cova and Santo Estevo de Chouzán to prevent their flooding represents an exceptional undertaking of their time. These projects predate the well-known translocation of Nubian temples in Egypt, and are highlighted by the State Party as pioneering engineering and conservation achievements.

The information provided by the State Party in November 2020 makes clear that the appearance, geomorphology, ecosystems, and possibly even climate of the historic cultural landscape has been irreversibly altered. Despite the fact that majority of the individual features of the property – monastic buildings, sacred objects, traditional rural buildings, agricultural terraces, archaeological sites, etc. – retain the authenticity of their material substance, the above-mentioned transformations have compromised the authenticity of the monastic sacred landscape as a whole.

The changing demography – depopulation, ageing, and gentrification – adds a further challenge to maintaining the sacred spirit of place vis-à-vis the challenge of the socio-economic revitalization of the region.

These concerns apply both to the authenticity of the whole series as well as the authenticity of the component sites.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole series have not been met, and the conditions of integrity and authenticity of the individual component sites have been only partially met.

Evaluation of the proposed justification for inscription

Based on the information provided in the nomination dossier and in the additional information submitted in November 2020 and February 2021, ICOMOS does not consider that the comparative analysis justifies consideration of this serial property for the World Heritage List. It has not been demonstrated that the nominated serial property can be considered outstanding for its combination of landscape features or its relation to particular events in the history of Western monasticism.
Similar patterns of human occupation, historical development, monasticism, subsistence steep-slope farming, micro-small holdings, and polyculture can be found elsewhere. In addition, monasticism and its associated land use can be seen to have shaped a large part of European landscapes.

ICOMOS does not consider that any of the cultural criteria have been demonstrated. The proposed criteria, both as originally presented in the nomination dossier and as reformulated in February 2021, do not seem coherent with the 20th-century transformations of the landscape, nor with the drastic reduction of monastic communities and the alienation of the present socio-economic system from the system that fostered the creation of a distinctive agricultural and sacred landscape.

ICOMOS considers that the conditions of integrity and authenticity of the whole series, and of the individual component sites, have not been fully met. There are fundamental questions as to the degree to which the present landscape maintains a connection to its formative socio-economic system following the confiscation of monastic land possessions, and in light of the abandonment of the monasteries. Furthermore, there are questions about how the large-scale infrastructural elements that have modified the river landscape contribute or relate to the history of monasticism or the traditional land use; or the way these aspects are understood, perceived, and valued today.

For the reasons listed above, ICOMOS considers that the comparative analysis, proposed justifications, integrity, and authenticity of the nominated serial property do not point towards a conclusion that the exceptionality of the nominated property has been demonstrated.

Features

The nomination dossier includes features of a wide temporal and typological span, from Prehistoric and Roman archaeological remains to contemporary dams, all of which are seen by the State Party as contributing to the proposed Outstanding Universal Value. The justification for the proposed Outstanding Universal Value, however, is focused primarily on the sacred character of the territory, the history of its evangelization, and the associated land use. The features most directly associated with the proposed criteria are the natural landscape of the deep valleys of the Miño and Sil rivers; the Ribeiras, Heredad de San Pedro de Rocas, Heredad de Montederramo, and Heredad de Ferreira de Pantón, as well as other preserved monasteries, churches, and various places of religious significance; the dry-stone agricultural terraces that utilize traditional techniques for cultivation in a sustainable and self-sufficient way; and the historic administrative divisions of parishes and land parcellation in micro-small holdings (cavaduras).

The steep-slope (more than 30 percent) agricultural terraces form distinctive agricultural and landscape features. Their emergence about the 9th century was related to the monasteries, which owned the land. Over time, a subsistence polyculture of small holdings suited to the local climate and topography was developed. The transformation of the steep river valleys into fertile terraces is a remarkable work of engineering and resilience.

The parishes are referred to as one of the historically important features of the nominated property. More than simply administrative units, they are presented as the lowest level of social organization and have contributed to a specific and strong community identity and solidarity over the centuries. The historical parishes determine a sense of social belonging for local people.

Other features include vernacular architecture, stately homes, castles, and modern infrastructural elements such as dams, bridges, roads, and railways. The modern infrastructure demonstrates engineering achievements and the evolution of natural resource utilization, but are not easily associated with the proposed Outstanding Universal Value of the nominated property. Some of these modern structures have individually been declared as a Property of Cultural Interest.

ICOMOS considers that the specific features that convey the value of the property have been well identified, but that the nominated serial property cannot be said to demonstrate exceptionality at this stage.

4 Conservation measures and monitoring

Conservation measures

Actions related to research, conservation, rehabilitation, and adaptation have been developed in accordance with the Strategic Plan of Galicia 2015-2020 and its sub-plan for the protection and conservation of cultural heritage. Restoration and improvement of the state of conservation of unique heritage elements in Ribeira Sacra have been included in the relevant actions and programmes of that Plan. Some of these actions are dedicated to improving visitor experience, while others are directed at conserving unique elements such as mural paintings, sculptural elements, and altarpieces.

At the landscape level, the Galician Landscape Catalogue has delimited several “Areas of Special Landscape Interest” around Ribeira Sacra, as well as viewpoints and “Itineraries of Landscape Interest.” The Galician Landscape Guidelines, currently under preparation, will define landscape quality objectives, describe their indicators, and establish measures, specific actions, standards, and recommendations to integrate these objectives into the planning system. The conservation of important landscape features such as traditional land use is supported by the Land Conservation Act, which controls changes to land use.
Monitoring
In addition to various thematic programs for managing heritage and the landscape, the Management Plan for Ribeira Sacra includes a monitoring plan, all overseen by the Interdepartmental Commission of the Ribeira Sacra.

The nomination dossier describes two sets of key indicators for monitoring the nominated serial property’s state of conservation. One refers to the conservation of the landscape, and the other refers to the effectiveness of management measures and the physical conservation of its most significant features. ICOMOS considers that adding indicators regarding traditional land management and cultural practices would help ensure their continuity.

The key management organization for Ribeira Sacra, the Dirección Xeral de Patrimonio Cultural of the Xunta de Galicia, has sufficient technical and human resources to ensure regular monitoring, which is scheduled to take place annually or every 5 years, depending on the nature of the different elements. As the Management Plan has only recently entered the implementation phase, there are no detailed results of previous monitoring reports for the nominated property.

The Dirección Xeral de Patrimonio Cultural has collected information on the significant elements of the cultural landscape in a geographic information system, which it will continue to develop in order to be able to incorporate, as far as possible, most of the key indicators with their geographic information.

With regard to specific indicators related to tourism, an agreement is envisaged with the Ribeira Sacra Tourism Consortium for the control of those parameters specifically related to its functions.

ICOMOS considers that the conservation measures and monitoring system are adequate. The monitoring system could be further augmented to better ensure the continuity of traditional land management and cultural practices.

5 Protection and management

Documentation
The tangible and intangible cultural elements as well as the natural features of Ribeira Sacra have been studied for decades. These studies serve as a foundation for the protective measures and management mechanisms for the nominated property, its buffer zone, and the wider study area. The Dirección Xeral de Patrimonio Cultural is responsible for managing, archiving, and updating the documentation and information.

The information about the protected assets of Ribeira Sacra, as well as the geographic information system that connects the various types of information, can be accessed online. These serve as tools for systematizing information and integrating the various strands for planning and management. The geographic information system is managed by the Instituto de Estudios del Territorio of the Xunta de Galicia.

Legal protection
The Ribeira Sacra has comprehensive legal protection at the local and regional levels, supported by more general overarching national legislation. Formal legal protection has been applied to the territory since the early 20th century, with the first listings of sites in the nominated property in 1923 (San Pedro de Rocas and Santo Estevo de Ribas de Sil). There are more than 1,200 classified sites in the municipalities that make up this territory and study area. The Ribeira Sacra cultural landscape has recently been declared a Property of Cultural Interest (Decree 166/2018, of 27 December), the highest level of classification for a cultural property.

This declaration also includes the cultural landscape’s buffer zone. Following a request for clarification from ICOMOS, the State Party advised that the rationale for the nominated property’s buffer zone being larger than the buffer zone of the Property of Cultural Interest is to better ensure the integrity of the proposed Outstanding Universal Value of the four different components of the property.

For the part of the nominated property’s buffer zone that falls outside the Property of Cultural Interest’s buffer zone, control over interventions is exercised by the Dirección Xeral de Patrimonio Cultural and a special interdepartmental commission. Within the area of the buffer zone of the nominated property beyond the one included in the Property of Cultural Interest declaration, any intervention that may have territorial effects, including through planning and land use documents, must receive advice from the Dirección Xeral de Patrimonio Cultural.

The Land Conservation Act, which strictly controls changes in land use, also provides an important instrument for protection and control of traditional land use patterns and practices.

Comprehensive protection and an institutional framework are in place for the natural heritage located within the nominated property. Some parts have been identified as sites of special importance within the Natura 2000 network of protected areas in Europe.

Several other international protective instruments overlap the nominated property, most notably the Routes of Santiago de Compostela: Camino Francés and Routes of Northern Spain, which was inscribed on the World Heritage List in 1993 and extended in 2015. The Courel Mountains Geopark, designated in 2019, touches and overlaps slightly the nominated property. In addition, the central part of the nominated property is planned to be nominated as a Biosphere Reserve. These measures affirm the great diversity of values of this territory and provide cross-sectoral legal and institutional frameworks for its long-term protection.
Management system
The key management organization for Ribeira Sacra is the Dirección Xeral de Patrimonio Cultural, which has the legal capacity and extensive technical and human resources to control all interventions to ensure compatibility with protected cultural values. It also coordinates the design of specific measures relating to the protection, coordination, and dissemination of the cultural values of the nominated property. Staffing levels of the Dirección are sufficient and stable.

Various institutions at the local, supra-municipal, regional, and national levels make up a complex network of agents having a role in the management of the territory. Some of the most important stakeholders include the Axencia de Turismo de Galicia, for disseminating and interpreting the site; the Instituto de Estudos del Territorio, for developing and applying geographical and statistical information for the Ribeira Sacra geo-destination; the Ribeira Sacra Tourism Consortium, a public-private body for coordinating the tourism sector and promoting cohesion and identity in this region; and the Regulatory Board of the Ribeira Sacra Denomination of Origin, for controlling agricultural production activities.

The local parish and town councils have technical offices with which the Dirección collaborates in processing each file and with which coordination is maintained through training and exchange of information.

Established in 2020, the Interdepartmental Commission of the Ribeira Sacra ensures coordination of all these various actors. The Commission brings together different departments of the national, regional, provincial, and local authorities, the representatives of the non-governmental organizations in the matters of culture and local development, local associations, religious authorities, and “the people representing the parish communities that make up the cultural landscape of Ribeira Sacra.” The Dirección carries out the functional tasks for the Commission. The Commission is a key mechanism for measuring the implementation of the Management Plan.

Concerning management tools, there is a multiplicity of sectoral plans and strategies at the local, regional, and national levels. At the national level there are several thematic plans that set out a methodology, selection and categorization criteria, priorities, and objectives, and provide political visibility and a coordination framework for different regions and municipalities.

The Management Plan for Ribeira Sacra was adopted in 2019 for the period 2020-2023. The plan incorporates the various programs for heritage, landscape, and land use planning, conservation of natural values, sustainable economic development, tourism, education, training and research, communication, and participation. Each of these programs contains actions and monitoring indicators. The plan is overseen by the Interdepartmental Commission of the Ribeira Sacra.

The action plan for viticulture is of specific interest for the nominated property. Its main objectives include improving infrastructure to mechanize the production of wine, and encouraging the consolidation of existing farms. These processes are declared to be fully consistent with the values and long-term conservation needs of the territory. However, specific solutions that ensure these actions respect the proposed Outstanding Universal Value of the nominated property are yet to be devised. While there are protective instruments in place to control and protect the use of socalcos and cavaduras, owners are nevertheless allowed to consolidate lots of up to 2,000 square metres (or 4.5 times the size of a traditional cavadura) without administrative procedures.

Visitor management
The nominated serial property has a wealth of resources for tourists. There has been a regular increase in the number of visitor numbers over the last 10 years. The nomination dossier presents a detailed description of available tourism services and cultural products. Visitor management and coordination is implemented by the Ribeira Sacra Tourism Consortium and overseen by the Axencia de Turismo de Galicia, as well as the Interdepartmental Commission of the Ribeira Sacra.

The Ribeira Sacra Tourism Consortium was established in 2005 and encompasses all the communes in the nominated property. It is supported and funded by Turismo de Galicia. The basis for tourism management and stakeholder cooperation is the Tourism Revitalization Plan, which corresponds to the Local Development Strategy and other relevant strategies for developing the territory.

The nominated property’s Management Plan articulates a tourism promotion strategy focused on the protection of the values and features of the site to ensure that the effects of tourism are measured and managed with respect to the carrying capacity of the site. An appropriate carrying capacity has not yet been defined.

Community involvement
Significant efforts have been made by local authorities to ensure wide support of the nomination, to facilitate an exchange of information, and to promote the education and integration of the younger generation. Mechanisms for responsible participation have been strengthened through the dissemination of tools such as guides, manuals, and geographical information made available on digital platforms, and by criteria for interventions on historic buildings and the environment.

The State Party in November 2020 provided a clarification with regard to community involvement in the work of the Interdepartmental Commission: due to the large number of parishes involved (78 parishes in the nominated property and 106 parishes in the buffer zone), participation in the work of the Commission is exercised through elected representatives rather than local citizens.
Evaluation of the effectiveness of the protection and management of nominated property

The nominated property has been well documented and well-studied. It has comprehensive legal protection at the local and regional levels, and has been declared a Property of Cultural Interest, the highest level of classification for a cultural property. Comprehensive protection is also in place for the natural heritage located within the nominated property.

Institutions at various levels make up a complex network of agents having a role in the management of the nominated property. The key management organization is the Dirección Xeral de Patrimonio Cultural of the Xunta de Galicia, which collaborates with local parish and town councils. The Interdepartmental Commission of the Ribeira Sacra ensures coordination of the various actors.

A significant management challenge is the ongoing depopulation of the area. Other management challenges include protecting against wildfires; precluding visually intrusive wind farms and antennas; and re-establishing lost visual links by means of forestry management.

ICOMOS considers that the legal protection and the management system for the nominated serial property are adequate.

6 Conclusion

Ribeira Sacra is nominated as a testimony to a continuing sacred cultural landscape and a traditional way of life. The nomination dossier presents information on a large number of monasteries, churches, and other religious and sacred features, and on the specific land divisions that evolved from those monasteries. ICOMOS acknowledges that local identity and social bonding remain strong and that the community, albeit ageing, is dedicated to continuing traditional agricultural practices on the steep slopes of the river valleys.

Nevertheless, this sacred and productive landscape has changed significantly over the past 200 years. On the one hand, there has been the development of large-scale infrastructure that has changed the physical environment, while on the other hand, there has been a drastic decline of monasticism as a result of reforms in the 19th century.

The nomination dossier presents features that cover a wide temporal and typological span, all of which are seen by the State Party as contributing to the proposed Outstanding Universal Value, though the justification is predominantly based on the sacred character and history of evangelization of the territory and the associated land use. Although the nomination dossier describes the landscape as continuing, it is difficult for ICOMOS to see the large-scale infrastructural elements of the modern period as contributing or relating to the proposed Outstanding Universal Value of the nominated property. ICOMOS acknowledges the detailed supplementary information provided by the State Party on the impact of numerous dams on the landscape. However, there remain fundamental questions regarding how these elements that have modified the riverain landscape contribute or relate to the history of monasticism, the sacred character of landscape or the traditional land use; or the way these aspects are understood, perceived, and valued today.

It is also difficult for ICOMOS to understand the continuity of the sacred landscape when its key drivers – the monastic communities – are no longer involved in shaping that landscape. The nomination dossier provides information on the decline of monastic communities throughout Ribeira Sacra following the confiscation of land from the monasteries in the 19th century. Only part of the concentration of monasteries extant in the Middle Ages has been preserved, and only one small Cistercian monastic community is still active. Due to such transformations of the formative elements of the valleys, it is difficult to understand the present relationship of the monasteries with the agricultural landscape once managed by them. Depopulation, modernization, and the consequent challenges to the traditional way of life add further difficulty to demonstrating this relationship.

With regard to the landscape and the way it was shaped and cultivated by monastic activities during the Middle Ages, ICOMOS observes that it is difficult to comprehend the current landscape as it could have been during that period, as agricultural lands and cultivated forests have been abandoned and become overgrown. This leads to a situation where visual connections between the monasteries, and between the monasteries and the rivers, are no longer possible. The nominated property is left with a compromised representation of the monastic sacred landscape. ICOMOS considers that this constitutes an important issue of integrity.

The comparative analysis is a wide-ranging compilation of more than fifty sites worldwide. Such a large number of comparable properties highlights the fact that hillside terraced agricultural landscapes, sacred places, and monuments related to evangelization are not uncommon in Europe, or in other parts of the world. ICOMOS notes that the comparative analysis, although in many ways confirming the qualities of Ribeira Sacra, leaves open the fundamental question of whether the nominated serial property can be considered outstanding for its combination of landscape features or its relation to particular events in the history of Western monasticism. Monasticism and its associated land use can be seen as having shaped large parts of European landscapes. In terms of ensembles of monastic structures, there are significant numbers in this geo-cultural region, and beyond.

There appears to be an inherent tension between preservation of the sacred character of the territory and accommodating the contemporary needs of communities and modern infrastructure. ICOMOS is not convinced that the two can be reconciled in the way suggested, whereby
the dams and other such interventions are considered as
a logical development of a traditional landscape. Nor can
these interventions be seen as complementary to what
remains of the legacies of the once-powerful monastic
communities formerly resident in these valleys.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that Ribeira Sacra, Spain, should
not be inscribed on the World Heritage List.
Map showing the boundaries of the nominated property and its buffer zone
**Slate Landscape of Northwest Wales**  
*(United Kingdom)*  
No 1633

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**Official name as proposed by the State Party**  
The Slate Landscape of Northwest Wales

**Location**  
County of Gwynedd, Wales  
United Kingdom of Great Britain and Northern Ireland

**Brief description**  
The Slate Landscape of Northwest Wales illustrates the transformation that industrial slate quarrying and mining brought about in the traditional rural environment of the mountains and valleys of the Snowdon massif. The territory, extending from mountain-top to sea-coast, presented opportunities and constraints that were used and challenged by the large-scale industrial processes undertaken by landowners and capital investors, which reshaped the agricultural landscape into an industrial centre for slate production during the Industrial Revolution (1780-1914).

The nominated serial property is composed of six serial components each encompassing relict quarries and mines, archaeological sites related to slate industrial processing, historical settlements, both living and relict, historic gardens and grand country houses, ports, harbours and quays, and railway and road systems illustrating the functional and social linkages of the relict slate industrial landscape.

**Category of property**  
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of six sites.

In terms of the Operational Guidelines for the Implementation of the World Heritage Convention (2019) paragraph 47, it has also been nominated as a cultural landscape.

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**1 Basic data**

**Included in the Tentative List**  
27 January 2012

**Background**  
This is a new nomination.

**Consultations and Technical Evaluation Mission**  
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

Comments on the natural attributes of this property, and their conservation and management, were received from IUCN on 16 November 2020, and on 22 February 2021, and have been incorporated into the relevant sections of this report.

An ICOMOS technical evaluation mission visited the property from 27 September to 3 October 2020.

**Additional information received by ICOMOS**  
A letter was sent to the State Party on 22 September 2020 requesting further information about the rationale for selection of the serial components, the protection and management of the nominated property, current quarrying, mining and renewable energy activities, and potential developments within and adjacent to the nominated property.

An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including: specific measures for the protection of the setting and key views of the serial components, and management documents completed by the time of submission (Local Management Plans, Supplementary Planning Guidance, Risk Strategy, Tourism Strategy).

Additional information was received from the State Party on 13 November 2020 and on 25 February 2021, and has been incorporated into the relevant sections of this evaluation report.

**Date of ICOMOS approval of this report**  
18 March 2021

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**2 Description of the property**

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

**Description and history**  
The nominated serial property is located in the County of Gwynedd, Wales, at the heart of the mountains and valleys of the Snowdon range. In this region, the geological structure is composed of several outcropping belts which form a rich deposit of high-grade slate. The area was first settled by farming communities, and there is evidence of slate quarrying since Roman times. In the Middle Ages, quarrying became a part-time occupation alongside agricultural activities. From the end of the 18th century and throughout the 19th century, capital investment and the strategic access to the bay of Liverpool in the north and the Irish Sea in the west enabled the expansion of Welsh slate production and export to England, Ireland, and France. In this period, the extraction of slate went through a profound transformation, from small-scale, dispersed exploitations
to an industrialised organization that changed the traditional system of slate quarrying by small partnerships and independent groups of workers. This process dramatically impacted the agricultural society and the landscape, resulting in the creation and growth of planned and organically-evolved settlements for quarry workers and managers. Engineering complexes, cutting-edge technology and innovative transportation systems were developed at this time, as well as associated social infrastructure, such as hospitals, community facilities, churches and chapels, and businesses serving the growing quarrying population. The end-use of slate is still visible in the historical settlements and traditional slate-pillar fencing known as *crawiau*.

The nominated property is composed of six separate serial components spread over one Cambrian slate vein (Component Parts 1, 2 and 3) and three Ordovician slate veins (Component Parts 4, 5, and 6). Each serial component has been proposed as a cultural landscape unit with a nucleus in a relict quarry or quarries and mines with associated processing areas connected to a settlement or settlements, either deserted or still inhabited; elements related to the transport of slate, including parts of the railway system, as well as roads, and, in some cases, quays and harbours. Together, the six serial components provide a comprehensive picture of the scale of slate exploitation and impacts of the slate industry in this region, and the technology that was developed and exchanged throughout the Industrial Revolution in these quarries.

Component Part 1: Penrhyn Slate Quarry and Bethesda, and the Ogwen Valley to Port Penrhyn. This serial component illustrates the industrial functionality of the slate landscape, from quarry to sea, including physical and visual relationships to workers’ settlements and the quarry owner’s estate.

Component Part 2: Dinorwig Slate Quarry Mountain Landscape. Located in the Nant Peris Valley, at the foot of Mount Snowdon, this serial component covers one large area including the Dinorwig Slate Quarry, its associated processing areas and transport system, the Dinorwig Slate Quarry Hospital where quarry workers were treated, and four workers’ settlements. They are testimonies of the daily life and struggles of the emergent working class.

Component Part 3: Nantlle Valley Slate Quarry Landscape. This serial component with technology used to extract and process the slate remaining in situ, also illustrates the diversity of dwellings of workers and the transformation of the rural environment.

Component Part 4: Gorsesuadau and Prince of Wales Slate Quarries, Railways and Mill. This serial component represents the expansion of the slate industry in the mid-19th century through the replication, in a remote location, of the technology developed in Penrhyn Slate Quarry. Remains of barracks and the relict Treforys village are testimonies to the challenges of inhabiting this remote upland environment.

Component Part 5: Ffestiniog: its Slate Mines and Quarries, ‘city of slates’ and Railway to Porthmadog. This serial component illustrates the expansion of the slate industry and the further development of technology for slate working both on the surface and underground, and the different means used to transport it.

Component Part 6: Bryneglwys Slate Quarry, Abergoynolwyn Village and the Talyllyn Railway. This component illustrates the maturity of the slate industry, displaying the influence of the technology developed in the Nantlle Valley and Ffestiniog quarries, as well as the evolution in the planning of workers’ settlements.

As an industrial landscape, the nominated property depicts the tensions between the English landowners and aristocrats and the newly-formed Welsh working class. Anglican churches and Nonconformist chapels in the various historical settlements of the nominated property reflect the different religious faiths reflecting identity and class differences. This is further illustrated by the diverse settlements’ typologies, whether created by a quarry-owner, an industrialist or by the quarry population, contrasting with the quarry owners’ residences. Welsh quarrymen, who were seen as cultured, artistic, political and religious, came to symbolize Welsh culture with their precise use of the language in relation to their craftsmanship, including a detailed understanding of geology and the use of hand-splitting tools. Welsh, a Celtic language recognized as an Indigenous Language, is spoken by 70% of the population of the nominated property and is continuously being advanced.

Internal (Penrhyn Slate Quarry strike 1900-1903) and external (World War I and Great Depression) socio-economic and political factors contributed to the decline of the slate industry in North Wales, leading to a reduction in investment, whilst the USA and France increased their productivity and competitiveness. During and after World War II, the decline continued until all quarries within the nominated property were closed by 1970, leading to the adaptation of some of the industrial and residential infrastructure into museums (Penrhyn Castle 1951, National Slate Museum 1972, Plas Tan y Bwlch/Snowdonia National Park Study Centre 1975, Dinorwig Slate Quarry Hospital Museum 1979), tourist attractions (Talyllyn Railway 1951, Ffestiniog Railway 1982) or re-use for community and commercial purposes (barracks in Nantlle Village 1999, Felin Fawr Slate-Stab Mill 1990s.)

**Boundaries**

The area of the six serial components totals 3,259.01 ha. Their boundaries have been drawn based on archaeological research and an inventory of the historic assets related to slate quarrying and mining, in addition to geographical and historical features, and landscape and management designations based on national and local register and listing systems. In the nomination dossier, the State Party notes that all boundaries have been defined in agreement with landowners and the planning authority.
to include only historical areas where mineral operations have ceased, and to exclude areas with current mineral permissions or where landowners foresee possible mineral extraction in the future. Component Parts 4 and 6 are located in their entirety within the Snowdonia National Park. Component Parts 1, 2, 3 and 5 are adjacent to the boundaries of the National Park, and located within Landscapes of Outstanding Historic Interest, a non-statutory designation the objective of which is to retain the landscape’s historic character by guiding planning and development. Component Part 5 is also partially located within the National Park. These designations represent high-level landscape protection and recognise slate cultural heritage as a significant element.

The State Party has not proposed a buffer zone, arguing that the above mentioned mechanisms will function as an added layer of protection for the setting and key views into and out of the nominated property in an area totalling 250,400 ha. surrounding and between the six serial components. In the proposed Management Plan, the State Party mentions that Landscape Character Studies have been undertaken within all the serial components to inform planning policy and decisions. ICOMOS requested in September 2020 additional information on the identification, description and illustration of key views in order to understand how these would be protected by the landscape designations. The State Party replied in November 2020 that no individual key views have been identified as it highlights the need to protect the cultural landscape as a whole.

ICOMOS notes that the proposed serial components represent small and irregularly-shaped areas within the totality of the slate industrial landscape of the North Wales region. However, ICOMOS understands that the design of the serial components reflects the inclusion of the most complete remaining evidence of the functional and social systems of the cultural landscape of the Industrial Revolution, and the exclusion of areas with current or potential mineral activity. In this regard, ICOMOS considers that the serial components are clearly delineated and that the boundaries are adequate.

In the Interim Report, ICOMOS requested illustrations of the key views, and information on specific measures to protect them, especially for the highly vulnerable coastal areas and linear elements of the nominated property. ICOMOS also requested clarification regarding the decision to not use the existing landscape designations as a formal buffer zone for the nominated property. In February 2021, the State Party provided illustrations of examples of key viewpoints, detailed explanations on mechanisms protecting the coastal and marine protected areas, and the rationale for not proposing a buffer zone. In addition, the State Party submitted the draft of the Supplementary Planning Guidance which states the considerations for assessing development proposals that may have an impact on the nominated property and its setting.

In relation to the absence of a proposed buffer zone, ICOMOS recognizes that according to the Operational Guidelines, the creation of a buffer zone is not mandatory. The Operational Guidelines further states that “clear explanation of how the buffer zone protects the property should also be provided” to underline that designing a buffer area implies providing it with adequate legal, planning or customary mechanisms to protect the nominated property. The International Expert Meeting on World Heritage and Buffer Zones (Davos, Switzerland, 11-14 March 2008) found that “while every World Heritage property needed protection and management arrangements, not every property would have a buffer zone, as buffer zones are only one means to achieve protection and management. As outlined in the Operational Guidelines, there are also legal, regulatory and other methods available” (World Heritage and Buffer Zones – Paper Series 25, p. 187). However, the meeting further “recognized that actions may take place well beyond the boundaries of a property and any buffer zone that might nonetheless have a significant influence upon the outstanding universal value and integrity of a property. The concept of an area of influence may also be useful to describe a wider zone in which activities may take place that could have an impact upon the outstanding universal value and integrity of a property” (ibid., p. 190). Nevertheless, as factors affecting the property highlighted below suggest, ICOMOS considers that forms of regulatory protection of the immediate setting and key views of the nominated property should be set up, considering the necessity to protect the nominated property and its immediate settings.

ICOMOS recommends that further study of the settings and key views are undertaken following a landscape and historical analysis in order to strengthen the protection of the setting of the nominated property. ICOMOS considers that the protection mechanisms in place are comprehensive, and recommends to thoroughly enforce them in the absence of a formal buffer zone.

**State of conservation**

Each serial component and the heritage resources included in the nominated property have different conservation histories as quarries and engineering complexes have ceased functioning at different periods in time and are under differing ownerships, while most historical settlements are still inhabited. According to the State Party, the cultural landscape has experienced little change since the end of the heyday of the slate industry, and all successive industries are not visually intrusive.

The nomination dossier informs that Component Part 1 is in a good to fair state of conservation, with the relict hospital and other industrial structures covered by vegetation and in need of conservation action. Penrhyn Castle and Park are in a very good state of conservation and have become tourist attractions, while Port Penrhyn is in active industrial use for commercial fishing and associated uses. Mynydd Llandygai and Bethesda are inhabited and preserve their original layouts, with some areas and buildings having been designated.
Component Part 2 is generally in a good to very good state of conservation with some historical buildings in need of conservation. Recent renovations have been carried out in the Dinorwig Quarry Hospital which included both building improvements and interpretation work. The refurbishment of the National Slate Museum is being planned. The historical settlements of Deiniolen, Clwyd y Bont, Dinorwig and Fachwen are all still inhabited and retain their early 19th-century layout.

Component Part 3 is in a good state of conservation. Some structures, like the eastern bastion of the Dorothea Slate Quarry, are in very poor condition and in need of conservation. The Dorothea Slate Quarry Cornish Beam Engine is in fair condition and preserves its original machinery. Nantlle Village is still inhabited and retains its historic character, while some individual buildings’ historic character has been affected. The settlements in Cilgwyn Mountain retain their historic layout with some properties inhabited and some having been abandoned after quarrying ceased.

Component Part 4 is managed for grazing. The state of conservation is generally good and Trefoys Village is deserted and in good condition. Minor conservation of the Ynysypandy Slate-Slab Mill and associated structures is required.

Component Part 5 is in a generally good state of conservation with the underground structures prone to rock falls and water-ingress. Maenofferen Slate Quarry Main Complex has suffered deterioration and works have been initiated to stabilise some of the structures. Potential re-use of part of the complex is currently under discussion. The town of Blaenau Ffestiniog is inhabited and retains its 19th-century urban layout and historical character. Plas Tan y Bwlch is in very good condition and managed by the Snowdonia National Park Authority as their residential study centre. Major renovations were undertaken in 2004-2005 supported by the Heritage Lottery Fund and Cadw, the Welsh Government’s Historic Environment Service. The slate quarries on the Dwyryd River are relict and conserved. Portmadog Harbour is well conserved and in active use.

Component Part 6 is in a good state of conservation. The underground workings of the quarry are in good condition and preserve historical artefacts. The village of Abergynolwyn retains its mid-19th-century character and layout.

Ffestiniog (Component Part 5) and Talyllyn (Component Part 6) Railways remain operational, while relict railways and routes are under multiple ownership and overgrown, with the Cegin railroad viaduct (Component Part 1) having benefited from recent conservation. Community initiatives are undertaking vegetation removal.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation of the nominated property as a whole is good, while some relict elements need conservation action. Furthermore, ICOMOS notes that the historic character of the living settlements is vulnerable and requires regular monitoring.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factor affecting the property is natural decay, especially in some of the remote archaeological sites, threatening the structural integrity of historic industrial buildings. The nomination dossier notes that pit quarries are now generally flooded, former working-faces can be prone to infrequent and localized rock-falls, and vegetation growth is affecting quarry tips and relict roads and paths.

ICOMOS requested information in September 2020 about the operations of the Dinorwig Power Station located within the nominated property (Component Part 2) and its potential impact on the proposed Outstanding Universal Value. In additional information received in November 2020, the State Party indicated that the hydropower station, built between 1975 and 1984, operates in underground installations to preserve the natural beauty of the Snowdonia National Park. The State Party further states that all future upgrades to technology will be developed within the current installations with no visual impact or effect on the relict quarry. ICOMOS considers that the Dinorwig Power Station does not represent a threat as only some small-scale visual impacts exist from certain viewpoints opposite to the lake.

The State Party further assured in additional information that any potential renewable energy infrastructure proposals within the nominated property or wider protected area will be carefully analysed and assessed according to the planning policies set out in the Anglesey and Gwynedd Joint Local Development Plan, the Slate Landscape of Northwest Wales Supplementary Planning Guidance, and the Snowdonia National Park Authority Eryri Local Development Plan, potentially requiring a Development Consent Order. The State Party guarantees that all mineral extraction, tipping, processing and secondary reworking is conducted outside of the nominated property, with all operations planned to cease and site restoration works to be undertaken within the next 8 to 22 years. ICOMOS considers that currently, the mineral activity in the wider protected area has no impact on the integrity of the nominated property, and restoration measures should be coordinated with the management authorities in order to avoid negative impacts on its integrity and authenticity after the cessation of operations. Furthermore, ICOMOS considers that in the event that future mineral works are intended to be undertaken adjacent to the nominated property, Environmental Impact Assessments and Heritage Impact Assessments should be carried out prior to consent, especially given the lack of a formal buffer zone.
Adventure tourism is very popular in the area with potential to grow if the nominated property is inscribed on the World Heritage List. Currently, related infrastructure is reversible and mostly located outside of the nominated property, having no impacts on the heritage values to date. ICOMOS considers that new adventure tourism developments should be carefully assessed guided by a Heritage Impact Assessment and preferably take place outside of the nominated property.

An increase in tourism in a potential inscription scenario could eventually impact on the character of the historical settlements. Existing Urban Character Studies in conjunction with Conservation Area designation and Local Management Plans under elaboration are set to manage and avoid any potential negative impacts. In additional information, the State Party informed that Community Design Guides under elaboration will provide guiding principles on developments, renovations and investments to properties within the settlements located within the nominated property. In its Interim Report, ICOMOS requested an update on the status of potential housing projects mentioned in the proposed Management Plan. The State Party replied in February 2021 that planning applications are not yet approved or not yet submitted, and that to be considered, planning applications have to include relevant impact assessments and will be determined in accordance with the Anglesey and Gwynedd Joint Local Development Plan.

Socio-economic factors could potentially affect the nominated property, such as demographic change, with an outflux of young people and an influx of retired people and the potential loss of Welsh language and related cultural activities and events. ICOMOS notes that these concerns are addressed by the State Party in the proposed Management Plan. However, these factors need constant monitoring and careful corrective actions to redress potential negative processes that might emerge despite the measures proposed in the Management Plan.

Climate change presents potential challenges. Instruments created at national level for strategic action are the basis for the nominated property's proposed Management Plan and Risk Management Strategy. ICOMOS requested the State Party, in its Interim Report, to submit the completed Risk Management Strategy, as a necessary document to coordinate and communicate measures across the nominated property. The State Party submitted in February 2021 the draft of the Risk Management Strategy where hazards, both natural and human-made, as well as potential climate change impacts and potential visitor pressure to the nominated property, have been identified and policy frameworks addressing them referred to. ICOMOS considers that climate change threats are imminent but not yet significantly impacting the nominated property. ICOMOS further notes that the State Party is taking proactive adaptation and mitigation measures against potential negative impacts of climate change.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- It represents an outstanding interaction between humans and their natural environment which resulted in the creation of a large-scale industrial quarrying and mining landscape of global historical value;
- The slate quarried within the nominated property influenced architectural development internationally and can be found as an important material in World Heritage properties as well as in other historical buildings, from castles to vernacular architecture, around the world;
- The technological developments within the nominated property had influence at a regional and global scale through workers' knowledge, skills and technology transfers during the Industrial Revolution, both inward and outward, as well as within the nominated property;
- It is an outstanding testimony of a major industrial transformation of the landscape from an agrarian to an industrial land-use pattern, undertaken through capital investment and intelligent use of the natural environment and resources, with a partial transition from craft-skill to machine-based;
- The maintenance of Welsh language and quarrying culture represents the adaptation of a traditional minority culture to modernity.

Comparative analysis
The comparative analysis is presented in 3 parts: the comparison to properties already inscribed on the World Heritage List, including those located in the United Kingdom of Great Britain and Northern Ireland, which represent a similar typology (mining landscapes of the Industrial Revolution) with a comparable combination of values and proposed attributes; the comparison to properties on Tentative Lists; and a thematic comparison to quarrying and mining landscapes throughout the world which are neither inscribed on the World Heritage List nor included in Tentative Lists. In addition, the nomination dossier presents a justification for the selection of the six components of this serial nomination, including a comparison within the region of Wales, and the justification for the selection of the elements included in the six serial components.

The rationale of the comparison is based on seven parameters: the type of the property; the size of the property; the typology (quarrying and mining landscape); the period (Industrial Revolution); the geo-cultural region (global); the integrity, authenticity, protection and management; and the selection of comparable landscapes. The State Party examined comparable slate quarrying and mining sites at global and national level. From this comparison, the nominated property stands out
by its scale of influence and development, the diverse application of technology, of transport infrastructure, the high levels of authenticity and integrity, and the good state of conservation. Furthermore, it is indicated that many of the comparable sites were influenced by technology and knowledge developed in the nominated property.

The serial nomination approach is justified based on the need to reflect the territorial scale, the uneven geological distribution, and the diversity of the wider industrial landscape, including functional and social linkages that are essential to understand the significance of the cultural landscape. Sites within Gwynedd were selected for inclusion on the basis of their surviving archaeology, their authenticity and integrity as a cultural landscape and their potential to contribute to the proposed Outstanding Universal Value, as well as their means of legal protection. Other locations in Wales were considered in detail but not recommended for inclusion due to their small size and because significant elements lacked authenticity and integrity. In additional information provided in November 2020, the State Party clarified that a seventh location was identified as desirable but was eventually excluded on the basis of the extent of active mineral extraction, processing and tipping, and the wide areas of extant mineral permissions within it.

ICOMOS considers that the comparative analysis is rigorous and comprehensive and justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (ii), (iv) and (v).

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the nominated property exhibits an important interchange of human values, particularly in the period from 1780 to 1940, on developments in architecture and technology related to the slate quarrying and mining industry.

ICOMOS considers that the nominated property was internationally significant for the export of slates, but also in the export of technology and skilled workers from the 1780s to the early 20th century. It played a leading role in the field and constituted a model for other slate quarries in different parts of the world. It offers an important and remarkable example of interchange of materials, technology and human values.

ICOMOS considers that criterion (ii) is justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the nominated property is an outstanding example of a type of landscape which illustrates, in a dramatic way, the ‘combined works of nature and of man’ through the large-scale exploitation of natural resources.

ICOMOS considers that the nominated property represents an outstanding example of a stone quarrying and mining landscape which illustrates the extent of transformation of an agricultural environment during the Industrial Revolution. The existing evidence of quarries, mines, engineering complexes, processing sites, as well as settlements and transport routes, convey the functionality of the relict slate industrial cultural landscape in an exceptional manner.

ICOMOS considers that criterion (iv) is justified.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the nominated property is an outstanding example of the industrial transformation of a traditional human settlement and marginal agrarian land-use pattern, exemplifying how a remarkably homogenous minority culture, the Welsh, adapted to modernity in the industrial era.

ICOMOS considers that elements of the justification for this criterion are relevant for the justification of criterion (iv) since the change in land-use patterns from agrarian to industrial is part of the landscape typology proposed. ICOMOS notes that the nominated property has been proposed by the State Party as illustrative of a cultural landscape of the Industrial Revolution, which is not primarily representative of Welsh culture, since Welsh communities occupy a larger territory and not primarily as a slate quarrying culture. Furthermore, the argument of vulnerability proposed by the State Party refers to Welsh communities adapting to change during the Industrial Revolution and not to present vulnerabilities to irreversible change.

ICOMOS considers that criterion (v) has not been justified.

ICOMOS considers that the serial approach is justified and that the nominated property meets criteria (ii) and (iv) but that criterion (v) has not been demonstrated.
**Integrity and authenticity**

**Integrity**

All elements which composed the slate industrial landscape, including the quarries and mines, the processing areas and other related infrastructure, the transport systems and the settlements where workers, managers and land-owners established themselves, as well as their interconnections, are present. The preservation of these elements allows the understanding of the relationships and functions occurring at the nominated property during the industrial period, when the mineral works were active, and when major changes were undertaken in the landscape organization. The existence of continuing extraction of slate within the wider protected area enables the continuation of cultural practices related to the values of the nominated property.

ICOMOS considers that even though the six serial components are small, these adequately represent the totality of the cultural landscape that they illustrate and that the level of integrity of the six serial components individually and the nominated property as a whole is high. However, noting the irregular and linear shape of some of the serial components, ICOMOS considers that the integrity of the nominated property and its setting is vulnerable and requires careful monitoring. ICOMOS therefore recommends to consistently utilize the protective mechanisms in place to strengthen the integrity of the nominated property and its setting.

**Authenticity**

The authenticity of the nominated property is based on the presence of archaeological, technological, architectural and anthropological evidence of the life and functions of the cultural landscape during the Industrial Revolution until the beginning of World War II. The retention of the relict quarries’ landforms and locations as they ceased to be worked, the physical fabric of the associated settlements whose buildings conserve original materials, and the spatial distribution of the elements of the cultural landscape, including the railway and road systems which in some cases are still in use, provide testimony of the interactions between landowners, industrialists and quarry workers with their environment, at different scales, narrating how this cultural landscape evolved from an agriculture-based society into an industrial centre. Some of the cutting-edge technologies developed in the nominated property are being maintained and displayed in their original locations, as well as the railways and the use of these for educational and touristic purposes. Ports retain their original function as they continue to be used, though the emphasis is nowadays on different commercial and recreational activities rather than on the export of slate, which is less extensive.

The workers’ settlements, towns and villages present different levels of authenticity. In general, they provide a mixture of buildings from different time periods, from the early quarrying period in the 18th century to the last quarrying period in the 20th century, reflecting the dynamic process of an evolving quarrying and mining cultural landscape. Traditions and quarrying techniques are maintained by the working quarry population living in the nominated property and surroundings, as well as the Indigenous language, Welsh, in a variety of dialects across the nominated property.

ICOMOS considers that the location and setting of the six serial components and their elements as well as the wider setting are remarkably authentic. However, ICOMOS notes that the historical settlements present different yet acceptable levels of authenticity, which need to be closely monitored and controlled by the management system and respective Local Management Plans.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met. However, ICOMOS notes that due to the configuration of the serial components and the lack of formal buffer zones, the integrity of the nominated property could be vulnerable, requiring strict compliance to statutory protection mechanisms. Furthermore, ICOMOS considers that regular monitoring and effectively-coordinated management are required for retaining the integrity and authenticity of the historical settlements.

**Evaluation of the proposed justification for inscription**

ICOMOS considers that the comparative analysis justifies the consideration of the nominated serial property for the World Heritage List. The nominated serial property justifies criteria (ii) and (iv), but ICOMOS considers that criterion (v) has not been demonstrated. It meets the requirements of integrity and authenticity. However, ICOMOS considers that the integrity of the serial components and their setting could be vulnerable due to their configuration and the lack of formal buffer zones. ICOMOS recommends an in-depth study of the setting and key views of the nominated property to support the planning framework in the protection of the setting of the six serial components. Moreover, ICOMOS considers that the integrity and authenticity of the living historical settlements, including their intangible attributes, are vulnerable to potential tourism development. These vulnerabilities need to be further addressed and carefully monitored by the management system, particularly by the Local Management Plans, the Supplementary Guidance, the Risk Management Strategy and the Tourism Strategy.

ICOMOS considers that the state of conservation of the nominated property as a whole is good, while some relict elements require conservation works, as natural decay represents the main factor currently affecting the nominated property. Furthermore, potential factors that may affect the nominated property in the future are the development of tourism and its potential impact on the character of the historical villages and settlements, as well as on the language and local culture; the development of adventure tourism; and the initiation of new mineral activities or development of renewable energy infrastructure, for which ICOMOS recommends Environmental Impact Assessments and Heritage Impact...
Assessments prior to consent. In addition, climate change represents an imminent threat, especially for the coastal areas of the nominated property. Specific potential threats for each Component Part have been identified in the draft Risk Management Strategy, with reference to preventative measures and policy frameworks addressing them.

Attributes
The original location and overall setting of the nominated property are attributes which convey its historical value. The geological characteristics of the Snowdon massif and its valleys, as well as the landscape views, natural and human-made landforms (slate pits and tips), surface and underground workings, are important attributes for the understanding of the nominated property and its historical significance as a cultural landscape. The industrial process and its impacts on the environment and the society are illustrated by the interconnections between the diversity of elements included in the six serial components: the quarries, their associated industrial infrastructure, the settlements, quarry owners’ residences, road and railway systems, quays and ports are tangible attributes that demonstrate the process of slate quarrying and mining from the source of the mineral raw stone to its end-use and transport as a finished product. The original form and design, and in most cases, material and substance and the interrelationships between these different elements are also relevant attributes, even though the continuity of use and function is only present in the inhabited settlements. In addition, the persistence of Indigenous Welsh language, traditional cultural practices and festivities originating in the quarrying activities of the industrialisation period, as well as the continuous intergenerational transmission of traditional quarrying techniques, are intangible attributes of the nominated property.

ICOMOS considers that the identification of attributes is comprehensive and supports the justification for inscription.

4 Conservation measures and monitoring

Conservation measures
Conservation activities have been carried out within the nominated property since the 1950s by individuals, voluntary organisations and institutions and corporations, depending on the ownership of each historical asset. As part of the process of developing the nomination, the Slate Landscape of Northwest Wales Partnership Steering Group, the lead of the multi-stakeholders partnership working on the nomination, created links with stakeholders including quarry-owners, the National Museum of Wales, railway operating companies, individuals and education-providers in order to share best practice and to offer advice and support. The State Party maintains that efforts are under way to develop traditional skills’ training to create an informed workforce with the capacity to respond to the needs of the nominated property, and to raise awareness amongst communities of the importance of appropriate and sensitive maintenance and conservation of traditional buildings.

Each designation (Scheduled Monuments, Listed Buildings, Conservation Areas and Registered Landscapes) involves specific conservation guidelines developed by the respective authority or entity in charge that programs their actions in different cycles which have been referred to in the nomination dossier and proposed Management Plan. A programme of inspections for historic assets has been carried out in order to determine the state of conservation and conservation needs of non-designated heritage resources, as well as the potential to be designated in the short-term.

Local Management Plans under development are set to define conservation measures adapted for each type of heritage in coordination with owners, the heritage conservation and planning authorities and respective legislation and policies.

Monitoring
Monitoring is proposed for the state of conservation and the sustainable use of the nominated property. In the event of a successful inscription, the overall responsibility for monitoring the nominated property lies with the Slate Landscape of Northwest Wales Partnership Steering Group. Key indicators for the nominated property as a whole have been proposed based on existing monitoring programmes developed by the institutions in charge of the different heritage assets. The management effectiveness will be monitored based on the measurable outcomes of the implementation of the proposed Management Plan; however, key indicators have not been specified. ICOMOS recommends the development of key indicators for monitoring the management effectiveness which would include the monitoring of the measures in place and the effectiveness of the planning system to protect the nominated property and its setting. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

ICOMOS considers that conservation measures and monitoring arrangements are adequate, while actions by different owners and authorities in charge of the diverse heritage resources must remain coordinated in the nominated property as a whole. ICOMOS recommends the development of key indicators to assess the management effectiveness of the nominated property. Streamlining of the monitoring system with the Periodic Reporting questionnaire would also be useful.

5 Protection and management

Documentation
An Inventory of the Nominated Property has been attached to the nomination dossier, as well as Urban Character Studies, Register of Historic Landscapes and Historic Landscape Characterisation reports. The inventory is based on a series of archaeological assessments that were undertaken between 2015 and 2019. Other sources of this
inventory and photographic archive of the nominated property are held by relevant institutions such as the Gwynedd Archaeological Trust, Cadw’s records on designated historic assets in Wales and Gwynedd’s archives, among others, and are accessible online and/or open to the public. ICOMOS considers that the existing digital databases provide a comprehensive baseline for the future monitoring and management of the nominated property.

Legal protection

The protection and management of the nominated property is set out by Cadw (the Welsh Government’s Historic Environment Service) based on the Planning Guidance on inscribed World Heritage sites of the Welsh Government’s national policy guidance Planning Policy Wales 10 (2018) following three principles: the statutory designation of specific historic assets within the nominated property; the use of the Spatial Planning system, including policies that guide appropriate development; and the collaborative creation and implementation of a Management Plan involving all key stakeholders.

The nominated property and its setting are afforded legal protection through a diversity of instruments according to the type of heritage. The different elements within each of the serial components are under various ownerships and are subject to different legal arrangements. Some areas are under the ownership of Gwynedd Council and Snowdonia National Park Authority, others under individual farmers, many of whom have managed their land for generations. Many of the key assets, such as Penrhyn Castle and Park, the National Slate Museum at Llanberis, and the Ffestiniog and Talyllyn Railways, are operated by charitable organizations.

There are 17 designated Scheduled Monuments, protected under The Ancient Monuments and Archaeological Areas Act 1979 as amended by The Historic Environment (Wales) Act 2016, which correspond to the relict quarries and other archaeological sites; and 13 proposed Scheduled Monuments to be designated in the short-term in the event of an inscription.

Listed Buildings and Conservation Areas within the six serial components have been listed since 1949 under The Planning (Listed Buildings and Conservation Areas) Act 1990 as amended by the Historic Environment (Wales) Act 2016. These include workers’ dwellings, vernacular buildings, places of worship and other social infrastructure, as well as industrial and transport elements.

Conservation Areas have been designated in nine locations which correspond to the historical settlements associated with the slate industrial development. Additional Conservation Areas are expected to be designated in the short-term.

Historic parks and gardens like Penrhyn Castle and Plas Tan y Bwch are recognized in the Historic Environment (Wales) Act 2016, as Registered Parks and Gardens of Special Historic Interest which are afforded protection through the Planning system.

The National Parks and Access to the Countryside Act 1949 grants the highest level of landscape protection within the national planning system to the Snowdonia National Park (Parc Cenedlaethol Eryri) where three of the serial components are totally or partially located. Five of the serial components are located totally or partially within areas recognized in the Register of Landscapes of Outstanding Historic Interest in Wales. This is not a statutory designation but provides information to decision makers and landscape managers to help ensure that the historic character of the landscape is sustained. These landscape designations correspond to the surrounding areas of the six serial components and have been proposed to be used as added layers of protection to the nominated property and its setting in the absence of a formal buffer zone.

Parts of the nominated property are located within or adjacent to various environmental designations including: Statutory sites designated at international/European level as Special Areas of Conservation (SACs), Special Protection Areas (SPAs); at national level as Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs); at local level as Local Wildlife Sites, Local Nature Reserves and Ancient woodlands. Some of these designations and Special Landscape Areas protect the coastal strips and areas of Component Parts 1 and 5. National Marine Character Areas protect the seascapes of the Menai Straits, Tremadog Bay and Cardigan Bay. Existing protection is the responsibility of public and private sector organizations including Gwynedd Council, Natural Resources Wales and Dŵr Cymru - Welsh Water. Some rare or endangered bird species associated with the quarries and surrounding areas are protected under the Wildlife and Countryside Act 1981. In its report, IUCN noted that the nominated property falls within, adjacent to or in the surrounding of, important protected areas, notably, the Snowdonia National Park, an IUCN Protected Area Category V (Protected Landscape/Seascape), and which represent habitats for endangered, vulnerable or near threatened species according to the IUCN Red List. ICOMOS considers that these designations will contribute to the conservation of the natural values and the setting of the nominated property.

Management system

Gwynedd Council has established The Slate Landscape of Northwest Wales Partnership Steering Group involving all relevant stakeholders in the nominated property in order to coordinate its overall management. This includes the Snowdonia National Park Authority, in charge of the legal protection and management of the Snowdonia National Park and its historic assets, enforcing the National Parks and Access to the Countryside Act 1949, and Cadw, the Welsh Government’s Historic Environment Service, which is in charge of the legal protection and management of the historical assets in the nominated property (Scheduled
Monuments, Listed Buildings, Conservation Areas, Historic Gardens and Parks) as well as all Welsh World Heritage properties, enforcing the Ancient Monuments and Archaeological Areas Act 1979 and the Planning Act 1990 as amended by the Historic Environment (Wales) Act 2016 jointly with local planning authorities. Since ownership within the nominated property is varied, land-owners, private sector and local administrations are involved in the management system as being responsible for their heritage assets, including research institutions, charities and organizations in charge of specific historical buildings. Individual owners and other organizations receive guidance and support from Cadw and Gwynedd Council, who supervise monitoring at site level.

The Partnership is led by the Partnership Steering Group which is responsible for the strategic direction. It comprises officials and elected members from Gwynedd Council and the Snowdonia National Park Authority, representatives from Cadw, the National Museum of Wales, Bangor University, the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), the National Trust, ICOMOS-UK, and representatives from the private sector. It receives specialist advice from experts in heritage conservation, economic regeneration, and tourism. The Partnership Steering Group has led the drafting of a Management Plan that in the event of an inscription will be adopted as the overarching strategic document complemented by The Slate Landscape of Northwest Wales Joint Supplementary Planning Guidance which will provide detailed guidance in relation to the established planning policies (Town and Country Planning Act 1990, Planning (Wales) Act 2015, Eryri Local Development Plan 2016-2031, Anglesey and Gwynedd Joint Local Development Plan 2011-2022). A World Heritage Coordinator will be appointed to be in charge of the implementation of the management plan and respective action plan.

The Management Plan has been prepared for the period 2020-2030, and set to be reviewed in 2025. It will be supported by a series of Local Management Plans for heritage resources within each serial component, which are still under elaboration. ICOMOS requested the State Party in its Interim Report to provide the completed Local Management Plans in order to understand better the management at local level and for the individual serial components and elements within. The State Party submitted in February 2021 four of the 22 proposed Local Management Plans. ICOMOS considers that these instruments provide further information on the management of serial components and their elements, and that the completion of all the Local Management Plans is essential for an effective management of the nominated property.

The Management Plan is set to bring under one umbrella the diverse designations and respective stakeholders stating common objectives for conservation and sustainable development, visitors, interpretation and research strategies for the nominated property following the Conservation Principles for the Sustainable Management of the Historic Environment in Wales (Cadw 2011). It is accompanied by an Action Plan that sets the timetable for each of the objectives.

The spatial planning system guides compatible and appropriate development, informed by the Conservation Principles for the Sustainable Management of the Historic Environment in Wales (Cadw 2011); Managing Change in World Heritage sites in Wales (Cadw 2017); and the Town and Country Planning Act 1990. Certain applications for developments within World Heritage properties require Design and Access Statements. Large-scale developments require an Environmental Impact Assessment, and an Assessment of the Significance of the Impact of Development on Historic Landscapes (ASIDOHL) in accordance with Technical Advice Note 24, The Historic Environment. Applications for Scheduled Monument Consent and for Listed Building and Conservation Area consent must be accompanied by Heritage Impact Statements according to the Planning Regulations.

Visitor management
Gwynedd Council is currently reviewing its Tourism Strategy. An Interpretation Strategy has been presented in the nomination dossier, providing a basis for the future interpretation and presentation of the six serial components as World Heritage in the event of an inscription. The model proposed is intended to support the understanding of the industrial landscape and to disperse visitors across the region and the nominated property. Existing visitor infrastructure consisting of tourism attractions and interpretation centres will be used and no new visitor infrastructure is being planned.

ICOMOS notes that existing interpretative sites and visitor centres are currently not connected and the nominated property as a whole is not presented in any of the serial components. ICOMOS considers that the Interpretation Strategy needs to be implemented for the appropriate presentation of the nominated property as a whole.

Community involvement
Socio-economic regeneration across the region has been a key motivation for the nomination and the Partnership Steering Group has developed a Community Engagement Strategy to inform and involve local communities and businesses in the process. Local Management Plans and Community Destination Plans are being collaboratively prepared. Community initiatives and non-profit organisations provide platforms for participation in the interpretation strategy, especially involving youth. Community events have been held throughout the nomination process to raise awareness. The development of the nomination has included a seven-week public consultation on the proposed Management Plan, the results of which are available on the Gwynedd Council website.
Evaluation of the effectiveness of the protection and management of nominated property

Legal designations of landscapes and historical assets in conjunction with the Spatial Planning system have granted an adequate protection to the nominated serial property. However, ICOMOS notes the vulnerability of the setting due to the configuration of the serial components and the absence of a formal buffer zone. ICOMOS further notes the vulnerability of the historic character of the living settlements and its intangible attributes due to socio-economic factors and a potential tourism development scenario. Constant monitoring is recommended to address these vulnerabilities. ICOMOS considers that the setting up of the Slate Landscape of Northwest Wales Partnership Steering Group provides an inclusive governance basis and a good foundation for a coordinated management. ICOMOS considers that the coordination between the nominated property’s proposed Management Plan and Local Management Plans needs to be ensured. ICOMOS considers therefore that the completion of all Local Management Plans is essential. ICOMOS further recommends setting key indicators to monitor the management effectiveness of the nominated property as a whole.

ICOMOS considers that the protection of the nominated serial property is adequate; however, ICOMOS notes that the setting and living historical settlements are vulnerable and need careful monitoring and enforcement of protective mechanisms. ICOMOS considers that the proposed management system is adequate, and that the completion of the Local Management Plans is needed to ensure the effective protection and management of the nominated serial property. ICOMOS also recommends the development of key indicators to monitor the management effectiveness.

6 Conclusion

The Slate Landscape of Northwest Wales represents an outstanding testimony of the transformation of an agricultural environment into an industrial landscape, through a large capital investment in technological innovation for resource extraction and transportation during the Industrial Revolution. The nominated property preserves relict quarries and mines, relict industrial complexes, buildings and machinery, quays, ports, harbours in active use, living settlements and railway and road networks which convey the relict functionality of the industrial system. Festivities and Welsh cultural practices associated with the quarrying traditions are part of the intangible attributes of the nominated property.

The state of conservation of the serial property as a whole is good, while some relict industrial elements are in need of conservation action. Several historical industrial buildings have been adapted to new uses which have allowed their continuous maintenance, without compromising their integrity and authenticity.

The State Party has proposed a serial nomination of six components located within landscape designations that afford protection to the nominated property as a cultural landscape. ICOMOS considers that the serial nomination approach has been justified and that the boundaries of each serial component are adequate. However, ICOMOS considers that due to the configuration of the serial components and the lack of a formal buffer zone, a careful enforcement of the legal and planning mechanisms in place to ensure the integrity of the nominated property’s proposed Outstanding Universal Value and its setting is needed.

The comparative analysis is thorough and justifies the consideration of the nominated property for the World Heritage List. ICOMOS considers that the nominated property has justified criteria (ii) and (iv) as a centre of technological innovation in Europe which radiated out across the world and as an outstanding example of a landscape that illustrates the Industrial Revolution. ICOMOS considers that the nominated property meets the conditions of integrity and authenticity. However, ICOMOS notes the vulnerability of the integrity of the nominated property, its setting and the historic character of the living historical settlements, including intangible attributes, for which it recommends constant monitoring in order to ensure the integrity and authenticity of the cultural landscape.

The protection and management based on the statutory designation of historical assets, landscape designations, a comprehensive spatial planning system, the setting up of the Slate Landscape of Northwest Wales Partnership to coordinate the management system and implement the proposed Management Plan are adequate. Furthermore, Environmental and Heritage Impact Assessments are an integral part of the planning system. ICOMOS notes that the Supplementary Guidance, Local Management Plans, Risk Management Strategy and Tourism Strategy are important instruments providing fundamental guidance for the management of the serial components and for addressing their vulnerabilities. Finally, ICOMOS recommends that the common Interpretation Strategy for the whole series be implemented for the presentation of the nominated property as a whole.

7 Recommendations

Recommendations with respect to inscription
ICOMOS recommends that the Slate Landscape of Northwest Wales, United Kingdom of Great Britain and Northern Ireland, be inscribed on the World Heritage List as a cultural landscape on the basis of criteria (ii) and (iv).
Recommended Statement of Outstanding Universal Value

Brief synthesis

The Slate Landscape of Northwest Wales is located in the United Kingdom, in the mountains of Snowdon massif. Six areas together represent an exceptional example of an industrial landscape which was profoundly shaped by quarrying and mining slate, and transporting it for national and international markets. From 1780 to 1940 this industry dominated world production of roofing slates, transforming both the environment and the communities who lived and worked here. The quarries and mines are monumental in scale, comprising stepped hillside workings, deep pits and cavernous underground chambers, massive cascading tips, ingenious water systems, and a range of industrial buildings. Outstanding technical equipment and major engineering features survive. Innovative transport systems linked quarries and processing sites with purpose-built coastal export harbours and with main-line railways. Grand country houses and estates built by leading industrialists contrast with workers’ vernacular settlements, with their characteristic chapels and churches, band-rooms, schools, libraries and meeting-places.

By the late 19th century the region produced about a third of the world output of roofing slates and architectural slabs. Its use in terraced houses, factories, warehouses and elite architecture contributed to rapid global urbanization. It influenced building styles, encouraging the shallow-pitched roofs of the Georgian order. Technologies that were innovated, adopted and adapted in the property include the ingenious application of waterpower, the development of bulk handling systems and the first known application of the circular saw for cutting stone. These were diffused by specialists and by emigration of skilled Welsh quarrymen to the developing slate industries of the United States, continental Europe and Ireland. The Snowdon massif’s narrow-gauge railway systems gained global influence and were adopted from Asia and America to Africa and Australasia.

Criterion (ii): The Slate Landscape of Northwest Wales exhibits an important interchange, particularly in the period from 1780 to 1940, on developments in architecture and technology. Slate has been quarried in the mountains of Northwest Wales since Roman times, but sustained large-scale production from the late 18th to the early 20th centuries dominated the global market as a roofing element. This led to major transcontinental developments in building and architecture. Technology, skilled workers and knowledge transfer from this cultural landscape was fundamental to the development of the slate industry of continental Europe and the United States. Moreover, its narrow-gauge railways – which remain in operation under steam today – served as the model for successive systems which contributed substantially to the social and economic development of regions in many other parts of the world.

Criterion (iv): The Slate Landscape of Northwest Wales is an outstanding example of a stone quarrying and mining landscape which illustrates the extent of transformation of an agricultural environment during the Industrial Revolution. Massive deposits of high-quality slate defined the principal geological resource of the challenging mountainous terrain of the Snowdon massif. Their dispersed locations represent concentrated nodes of exploitation and settlement, of sustainable power generated by prolific volumes of water that was harnessed in ingenious ways, and brought into being several innovative and technically advanced railways that made their way to new coastal ports built to serve this transcontinental export trade. The property comprises the most exceptional distinct landscapes that, together, illustrate the diverse heritage of a much wider landscape that was created during the era of British industrialisation.

Integrity

The property contains all of the essential elements that convey attributes of Outstanding Universal Value. Its boundaries capture the principal non-active slate-producing areas in Northwest Wales, together with their associated industrial heritage that includes the most significant processing facilities, settlements and transport routes. The protective mechanisms in place should be consistently used to strengthen the integrity of the property and its setting.

Authenticity

The well-preserved cultural landscape retains a high level of authenticity, and has experienced little intervention since the main period of industrial operation. Attributes of Outstanding Universal Value are conveyed by physical elements that are clearly identified and understood in terms of date, spatial distribution, use and function (including living communities and operational railways), form and design, materials and substance, and their interrelationships including connectivity and overall functional and compositional integrity of the series. The serial property further embodies a vibrant cultural tradition, including slate-working skills and the continued widespread use of the Welsh language. Key attributes are reflected in landscape qualities and features of quarrying including the relict working areas, tips and transport routes, together with associated settlements and social infrastructure. The historical settlements present different yet acceptable levels of authenticity, which need to be closely monitored and controlled by the management system and respective Local Management Plans.

Management and protection requirements

Attributes of Outstanding Universal Value have been defined and articulated in The Slate Landscape of Northwest Wales Property Management Plan which establishes the over-arching strategies and mechanisms by which the serial property will be managed. This is complemented at local level by a series of Local Management Plans, developed in collaboration with landowners, which include site-specific information and practical recommendations. Responsibility for the implementation of the Management Plan will sit with a multi-organisational Partnership Steering Group established by the lead organization, to which an appointed World Heritage Coordinator will report. All of the serial components of the property lie within areas of Wales that are already subject to strong levels of landscape protection through designation as a National Park and registration as Landscapes of Outstanding Historic Interest. These will serve as an added layer of protection to the setting and key views into and out of the serial property, through a strict enforcement of the statutory mechanisms in place. There is no active quarrying or mining within the serial property; mineral activity takes place in the wider protected area outside the boundaries of the serial property. The application of existing statutory management procedures will ensure this does not negatively impact upon the Outstanding Universal Value of the serial property.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

a) Developing an in-depth analysis and inventory of the key views of the serial property to serve as a basis for the conservation of the setting,

b) Addressing the conservation issues in the relict quarries, industrial buildings and relict roads,

c) Completing the scheduling and listing of the proposed Scheduled Monuments and Conservation Areas,

d) Completing the Local Management Plans,

e) Completing the Tourism Strategy and implementing the Interpretation Strategy and visitor Management Plan in order to present the World Heritage values at serial component level,

f) Monitoring the effectiveness of the planning system to protect the living urban areas, and considering extending the Conservation Areas in the historical settlements within the serial property,
Map showing the boundaries of the nominated components