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# Patrimoine mondial

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ORGANISATION DES NATIONS UNIES  
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CONVENTION CONCERNANT LA PROTECTION DU  
PATRIMOINE MONDIAL, CULTUREL ET NATUREL

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**Point 8 de l'ordre du jour provisoire: Établissement de la Liste du patrimoine mondial et de la Liste du patrimoine mondial en péril**

**8E: Adoption des Déclarations Rétrospectives de Valeur Universelle Exceptionnelle**

## RESUME

Ce document présente un projet de décision concernant l'adoption de 81 Déclarations rétrospectives de valeur universelle exceptionnelle soumises par 27 États parties pour les biens n'ayant pas de Déclaration de valeur universelle exceptionnelle approuvée à l'époque de leur inscription sur la Liste du patrimoine mondial.

L'annexe contient le texte intégral des Déclarations rétrospectives de valeur universelle exceptionnelle dans la langue dans laquelle elles ont été soumises au Secrétariat.

**Projet de décision : 39 COM 8E, voir point II.**

Le document annule et remplace le document WHC-15/39.COM/8E.

## I. HISTORIQUE

1. La Déclaration de valeur universelle exceptionnelle est un élément essentiel, requis pour l'inscription d'un bien sur la Liste du patrimoine mondial, qui a été introduit dans les *Orientations* en 2005. Tous les biens inscrits depuis 2007 présentent une telle Déclaration.
2. En 2007, le Comité du patrimoine mondial, dans sa décision **31 COM 11D.1**, a demandé que les Déclarations de valeur universelle exceptionnelle soient rétrospectivement élaborées et approuvées pour tous les biens du patrimoine mondial inscrits entre 1978 et 2006, avant le lancement du deuxième cycle d'établissement de Rapports périodiques dans chaque région.
3. Par conséquent, dans le cadre de l'exercice de Rapports périodiques, les Etats parties ont rédigé, pour les biens du patrimoine mondial situés sur leur territoire, des projets de Déclarations rétrospectives de valeur universelle exceptionnelle qui sont examinés par les Organisations consultatives concernées.
4. Les 81 projets de Déclarations rétrospectives de valeur universelle exceptionnelle pour lesquelles le processus d'examen entre les Etats Parties et les Organisations consultatives a été finalisé depuis la 38e session du Comité du patrimoine mondial (Doha, 2014) sont présentés pour examen et adoption par le Comité du patrimoine mondial dans ce document.
5. Les projets de Déclarations rétrospectives proposés dans le projet de décision et en annexe sont présentés par région et par Etat Partie, dans l'ordre alphabétique. Elles se répartissent comme suit : Afrique (3), Etats arabes (1), Asie et Pacifique (7), Europe et Amérique du nord (55) et Amérique latine et les Caraïbes (15). L'annexe inclut un sommaire regroupant tous les sites concernés.
6. Suite à la décision **38 COM 8E**, le Centre du patrimoine mondial poursuit l'harmonisation de tous les sous-titres dans les Déclarations de « Brève synthèse », « Critère(s) », « Intégrité », « Authenticité » et « Eléments requis en matière de protection et de gestion ». Le Centre du patrimoine mondial procède également à l'actualisation des Déclarations à la suite de décisions ultérieures du Comité du patrimoine mondial qui concernent les modifications de noms des biens du patrimoine mondial ainsi que les modifications mineures des limites.
7. Les 81 projets de Déclarations rétrospectives sont présentés dans la langue dans laquelle ils ont été reçus par le Secrétariat. Une fois adoptées, les Déclarations seront progressivement traduites et mises en ligne sur le site du Centre du patrimoine mondial en fonction de la disponibilité des fonds.

## II. PROJET DE DECISION

### **Projet de décision: 39 COM 8E Rev**

*Le Comité du patrimoine mondial,*

1. *Ayant examiné le document WHC-15/39.COM/8E.Rev,*
2. *Félicite les Etats Parties pour l'excellent travail accompli dans l'élaboration de Déclarations rétrospectives de valeur universelle exceptionnelle pour les biens du patrimoine mondial dans leurs territoires ;*

3. Adopte les Déclarations rétrospectives de valeur universelle exceptionnelle, telles que présentées dans l'Annexe du document WHC-15/39.COM/8E.Rev, pour les biens du patrimoine mondial suivants:

**Afrique**

- *Mozambique : Ile de Mozambique ;*
- *Sénégal : Parc national des oiseaux du Djoudj ;*
- *République-Unie de Tanzanie : La ville de pierre de Zanzibar ;*

**Amérique latine et Caraïbes**

- *Brésil : Aire de conservation du Pantanal ; Aires protégées du Cerrado : Parcs nationaux Chapada dos Veadeiros et Emas ; Complexe de conservation de l'Amazonie centrale ; Côte de la découverte – Réserves de la forêt atlantique ; Forêt atlantique – Réserves du sud-est ; Îles atlantiques brésiliennes : les Réserves de Fernando de Noronha et de l'atol das Rocas ;*
- *Colombie : Sanctuaire de faune et de flore de Malpelo ;*
- *Haïti : Parc national historique – Citadelle, Sans Souci, Ramiers ;*
- *Honduras : Réserve de la biosphère Río Plátano ;*
- *Pérou : Centre historique de la ville d'Arequipa ; Lignes et géoglyphes de Nasca et de Pampas de Jumana ; Parc national de Huascarán ; Parc national de Manú ; Parc national Río Abiseo ;*
- *Saint Kitts-et-Nevis : Parc national de la forteresse de Brimstone Hill ;*

**Asie et Pacifique**

- *Inde : Parc national de Kaziranga ; Tombe de Humayun, Delhi ;*
- *Iran (République islamique d') : Behistun ; Meidan Emam / Ispahan ; Persépolis ; Soltaniyeh ; Tchogha Zanbil ;*

**Etats arabes**

- *Oman : Terre de l'encens ;*

**Europe et Amérique du nord**

- *Bélarus : Ensemble architectural, résidentiel et culturel de la famille Radziwill à Nesvizh ;*
- *Belgique : Béguinages flamands ; Les quatre ascenseurs du canal du Centre et leur site, La Louvière et Le Roeulx (Hainaut) ; Le centre historique de Bruges ;*
- *Canada / Etats-Unis d'Amérique : Parc international de la paix Waterton-Glacier ;*
- *Canada : Arrondissement historique du Vieux-Québec ; Le Vieux Lunenburg ; Parc national de Miguasha ; Parc national du Gros-Morne ; Parc national Wood Buffalo ; Parc provincial Dinosaur ; SGang Gwaay ;*
- *Espagne / France : Pyrénées - Mont Perdu ;*
- *Espagne : Art rupestre du bassin méditerranéen de la péninsule Ibérique ; Ensemble archéologique de Tarragone ; Parc national de Garajonay ; Paysage culturel d'Aranjuez ; Site archéologique d'Atapuerca ;*
- *Etats-Unis d'Amérique : Taos Pueblo ;*
- *Ex-République yougoslave de Macédoine : Patrimoine naturel et culturel de la région d'Ohrid ;*
- *Fédération de Russie : Centre historique de Saint-Pétersbourg et ensembles monumentaux annexes ; Ensemble architectural de la laure de la Trinité-Saint-Serge à Serguiev Posad ; Ensemble du couvent Novodievitchi ; Ensemble du*

*monastère de Ferapontov ; Le Kremlin et la place Rouge, Moscou ; Monuments historiques de Novgorod et de ses environs ;*

- *Grèce : Acropole d'Athènes ; Délos ; Sanctuaire d'Asclépios en Epidaure ; Sites archéologiques de Mycènes et de Tirynthe ; Site archéologique d'Olympie ;*
  - *Italie : Art rupestre du Valcamonica ; Castel del Monte ; Centre historique de la ville de Pienza ; Centre historique de San Gimignano ; Centre historique de Sienne ; Crespi d'Adda ; Gênes, les Strade Nuove et le système des palais des Rolli ; L'église et le couvent dominicain de Santa Maria delle Grazie avec « La Cène » de Léonard de Vinci ; Les Sassi et le parc des églises rupestres de Matera ; Monuments paléochrétiens de Ravenne ; Palais royal du XVIIIe siècle de Caserte avec le parc, l'aqueduc de Vanvitelli et l'ensemble de San Leucio ; Parc national du Cilento et du Vallo Diano, avec les sites archéologiques de Paestum et Velia et la Chartreuse de Padula ; Sacri Monti du Piémont et de Lombardie ; Syracuse et la nécropole rocheuse de Pantalica ; Ville de Vérone ; Ville de Vicence et les villas de Palladio en Vénétie ; Villes du baroque tardif de la vallée de Noto (sud-est de la Sicile) ; Zone archéologique d'Agrigente ;*
  - *Monténégro : Parc national de Durmitor ;*
  - *Serbie : Monastère de Studenica ; Vieux Ras avec Sopoćani ;*
  - *Slovaquie : Ville historique de Banská Štiavnica et les monuments techniques des environs ;*
  - *Suède : Forges d'Engelsberg ;*
  - *Ukraine : L'viv – ensemble du centre historique ;*
4. Décide que les Déclarations rétrospectives de valeur universelle exceptionnelle des biens inscrits sur la Liste du patrimoine mondial en péril seront examinées en priorité par les Organisations consultatives ;
5. Prend note que le Centre du patrimoine mondial, suite à la décision **38 COM 8E**, harmonise tous les sous-titres dans les Déclarations rétrospectives de valeur universelle exceptionnelle adoptées et actualise les noms et les surfaces ou les zones de protection, le cas échéant, à la suite des décisions pertinentes du Comité concernant des modifications des noms ou des modifications mineures des limites.
6. Demande aux États parties de fournir un soutien au Centre du patrimoine mondial pour la traduction des Déclarations de valeur universelle exceptionnelle adoptées vers l'anglais ou le français selon les cas, et demande en outre au Centre du patrimoine mondial de publier les versions dans les deux langues sur son site Internet.

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## Retrospective Statements of Outstanding Universal Value

### AFRICA / AFRIQUE

#### MOZAMBIQUE

##### Island of Mozambique (C 599)

#### **Brief synthesis**

The Island of Mozambique is a calcareous coral reef situated 4 km from the mainland coast in the entrance to the Mossuril Bay of the Indian Ocean in Nampula Province of the Republic of Mozambique. A bridge built in the 1960s join the island to the mainland. The island forms an archipelago with two small uninhabited islands, the Islands of Goa and Sena to the east.

The island communities are intimately associated with the history of navigation in the Indian Ocean as the island played a unique role in intercontinental trading links from the 10th century. Its international historic importance relates to the development and establishment of Portuguese maritime routes between Western Europe and the Indian subcontinent.

The Island of Mozambique has two different types of dwellings and urban systems. The stone and lime town of Swahili, Arab and European influences in the north half, and the macuti town (city of roofed palm leaves) of traditional African architecture in the south. The stone and lime town, with its administrative and commercial properties, was the first seat of the Portuguese colonial government that lasted from 1507 to 1898. Thereafter the capital was transferred to Lourenço Marques now Maputo.

The urban fabric and fortifications of Mozambique Island are exceptional examples of architecture and building techniques resulting from cultural diversity, and the interaction of people of Bantu, Swahili, Arab, Persian, Indian and European origin.

The incredible architectural unity of the island derives from the uninterrupted use of the same building techniques with the same materials and the same decorative principles. The island's patrimony also includes its oldest extant fortress (St. Sebastian, 1558-I 620), other defensive buildings and numerous religious buildings (including many from the 16th century).

**Criterion (iv):** The town and the fortifications on the Island of Mozambique are an outstanding example of an architecture in which local traditions, Portuguese influences and, to a somewhat lesser extent, Indian and Arab influences are all interwoven.

**Criterion (vi):** The Island of Mozambique bears important witness to the establishment and development of the Portuguese maritime routes between Western Europe and the Indian sub-continent and thence all of Asia.

#### **Integrity**

The boundaries encompass the whole of the Island of Mozambique. The other two islands of the archipelago are in the buffer zone. The boundary includes all the key attributes of outstanding universal value. However the setting of the island is vulnerable and the buffer zone needs to be extended.

The important architectural attributes and masonry building techniques of the unused fortress, and the defensive, religious and administrative buildings remain in the stone and lime town although all require restoration. Many historic buildings are in a state of advanced decay with some in ruins.

In macuti town an enormous population influx that occurred during the 16 years war (1976-1992), has led to overcrowding and poverty, water supply and sanitation problems, erosion and the serious decay of buildings, the technical infrastructure and built environment. In the macuti town the scarcity and elevated costs of building materials have not been conducive to carrying out maintenance or improvements.

The state of conservation of the architectural heritage was not fully satisfactory at the time of the ICOMOS evaluation. In 2011 the conditions were even worse due to extreme population pressures. The integrity of the main island is highly vulnerable.

The island is also in the path of cyclones and much remedial work to the damaged buildings has been required as a result of the devastating 1994 storm.

#### **Authenticity**

The existing houses and structures on the island provide evidence that the building materials and techniques are original. The majority of buildings that had administrative, commercial and military functions are still in the same general form and design of their period of construction but the conservation of a living monument, inter-twined with difficult socio-economic problems and changing demands on the urban fabric, requires a particularly sensitive approach.



Building upon and enhancing the remaining authentic nature of the property, a comprehensive study entitled 'An Agenda for Sustainable Human Development and Integral Conservation', with relevant recommendations that fully recognised the islands remaining authenticity, was prepared following a detailed mission in 1996.

However, the traditional residences have changed in form and design in consequence of the different influences and evolving social and economic circumstances affecting the island. If the present development trends are not reversed, and its transformation through the use of modern building materials continues, there is a real possibility that the authenticity of the macuti town could be compromised. The overall authenticity of the property is highly vulnerable.

### **Protection and management requirements**

Since 1878 local by-laws have restricted changes to the urban environment and, in principle, these are still valid. The list of Classified Historical Monuments drawn up by the former colonial Commission for Monuments and Historic Relics in Mozambique in 1943, and subsequent years, is presently being adjusted according to new criteria under the national Monument policy.

The Law for the Protection of the Mozambican Cultural Patrimony (Law No. 10/88) determines that the entire old town is explicitly classified as a urban ensemble, and that all buildings older than 1920 are classified as national cultural patrimony to be registered in the National Register for Cultural Heritage within the Ministry for Culture. Under that Law it is also defined duty of any holder of classified cultural patrimony to secure and maintain the property.

Since independence in 1975, the Mozambican Constitution stipulated building ownership whereby the conditions of use and profit are governed by the State. In 1976 all buildings for rent were nationalised and the Administração do Parque Imobiliário do Estado (APIE) "(State Housing Stock Administration)" was established as being responsible for rent collection - of which 30% was intended to cover the APIE administration and building maintenance. However, this measure did not result given the overall challenges to be faced.

In 1975 the National Service of Museums and Antiquities was organised and, in 1977, a Brigade for the Conservation and Restoration of Ilha de Moçambique was established, followed by an Office for the Conservation and Restoration of Monuments in 1980. A cooperation programme began with Nordic countries in 1983 but this only lasted two years, due to the insecurity created by war situation.

The Law for the Protection of the Cultural heritage of Mozambique was passed in 1988 and declared automatically the whole island, as a national cultural heritage. The Ministry of Culture was formally identified as being responsible for the protection of the cultural heritage through the National Directorate for Cultural Heritage but this unit was abolished by 1996. However, the two Departments of Museums and Monuments continued to coordinate activities in the island.

In consequence of the detailed 1996 mission report findings in the "Programme for Sustainable Human Development and Integral Conservation", a jointly funded two-year international programme initiated a number of micro-projects in water and sanitation, tourism development, and heritage restoration.

Subsequent reporting missions in 2000, 2003, 2005, 2006, 2007, and especially that of 2010, revealed some positive progress had been made, including the setting up of a new Ministry for Culture with the re-establishment of the National Directorate for Cultural Heritage, and the tightening up of development controls. Echoing the other findings, the 2010 mission observed that much still remained to be done, particularly with regard to coordinating conservation works and training; halting the collapse of buildings; addressing the water supply and sewage disposal problems; the implementation of an emergency action plan; the provision of a responsible authority; the delineation of a buffer zone; and progress against previous mission findings.

In addition, in 2006 the Government approved a Special status for the island and created a Conservation Office that is now established, but in need of more specialized staff.

A management plan for the World Heritage property was finalized and approved by the Government of Mozambique in 2010, with support from different international partners, including UNESCO, African World Heritage Fund, and the Africa 2009 Programme. The plan will ensure the protection of both tangible and intangible aspects of the property and its buffer zone, through the formal recognition of traditional protection systems that have been in existence for decades, and other measures. A Technical Commission was also established for the island. A cooperation Programme with the World Heritage Centre is looking at how the management system might benefit from ideas within the Urban

Historical Landscape initiative and is also helping to delineate a buffer zone which needs to be submitted to the World Heritage Committee for approval.

The property is at a critical stage and there is a need to bring in multi-disciplinary expertise to assist in supporting a major initiative to foster sustainable development in the light of massive problems of over-crowding and threats to the built fabric and urban spaces (Declaração submetida ao ICOMOS).

## SENEGAL / SENEGAL

### Parc national des oiseaux du Djoudj (N 25)

#### Brève synthèse

Dans le Delta du fleuve du Sénégal, le Parc national du Djoudj est une zone humide de 16.000ha comprenant un écosystème qui accueille plus d'un million et demi d'oiseaux migrateurs. Composé de lacs entourés de cours d'eau, le bien constitue un sanctuaire vital, mais fragile, pour des espèces telles que les pélicans blancs, la spatule d'Afrique, le cormoran, le flamant rose et la grande aigrette.

**Critère (vii) :** Par sa situation géographique, le Parc National du Djoudj est plus qu'un havre de paix pour les oiseaux migrateurs du Paléarctique. Il représente un Oasis dans le désert constitué d'une chaîne de lacs, marigots, gués et bancs de sables. Il constitue la première étape de la migration après la traversée du Sahara pour les espèces d'oiseaux paléarctiques et afro tropicales. Il faut ajouter que suite à des aménagements techniques réalisés dans le but d'améliorer les conditions d'accueil de la migration (construction de nichoirs) des espèces ont commencé à s'y reproduire. Avec la réhabilitation annuelle de ces aménagements et les efforts déployés pour la maîtrise du régime hydraulique, le nombre de migrateurs comme celui des espèces nicheuses augmentent.

**Critère (x) :** Le bien constitue une zone humide d'environ 16.000ha comprenant un grand lac entouré de ruisseaux, d'étangs et de bras morts. Cet habitat accueille plus de 1.500.000 oiseaux de 365 espèces dont plus de 120 espèces de migrateurs paléarctiques. Le bien constitue un sanctuaire vital pour la nidification des espèces telles que le pélican blanc (*Pelecanus onocrotalus*), le héron pourpré (*Ardea purpurea*), la spatule d'Afrique (*Platalea alba*), la grande aigrette (*Casmerodius albus*), le héron bicolore (*Nycticorax nycticorax*) et le cormoran (*Phalacrocorax carbo*). Le bien contient également d'importantes populations de crocodiles et de lamantins.

#### Intégrité

Les limites du parc sont correctement définies. Des menaces importantes pèsent sur le bien : les produits chimiques agricoles constituent une source de pollution des eaux du fleuve Sénégal, menaçant l'équilibre délicat de la chaîne alimentaire, et le projet de construction d'un barrage en aval pourrait fortement perturber l'équilibre hydrologique du bien. Après la mise en fonction du barrage de Diama, situé en aval du Parc, l'équilibre hydrologique du bien a été fortement perturbé. Ceci s'est traduit par la prolifération de plantes aquatiques envahissantes (*Pistia stratiotes*, *Savinia molesta*, *Typha australis*, etc.), l'amplitude réduite des niveaux d'eau, la diminution et/ou la disparition de certaines colonies d'oiseaux. Pour ces raisons, le bien a été inscrit sur la Liste du patrimoine mondial en péril pendant les périodes 1984-1988 et 2000-2006.

#### Mesures de gestion et de protection

La protection du bien est régie par différentes lois nationales et un plan d'aménagement et de gestion a été élaboré. Aucune forme d'exploitation n'y est permise sauf pour des buts scientifiques. Le bien est géré par une administration de gestion placée sous la tutelle directe de l'Etat à travers le ministère de l'Environnement et du Développement Durable et la Direction des Parcs Nationaux. Cette administration travaille en étroite collaboration avec un comité inter villageois aidé d'un GIE d'éco gardes impliquant les communautés locales dans la résolution des problèmes de gestion. À la suite de multiples efforts, l'Etat a réussi à réduire la prolifération des espèces invasives, espèces qui constituent une menace à éradiquer complètement. Cet effort constitue une des priorités de la gestion du bien, même si le souci principal demeure la restauration des caractéristiques écologiques du bien, dans le long terme, afin d'assurer que la population d'oiseaux retrouve ses niveaux antérieurs.

## UNITED REPUBLIC OF TANZANIA / REPUBLIQUE-UNIE DE TANZANIE

### Stone Town of Zanzibar (C 173rev)

#### Brief synthesis

Located on a promontory jutting out from the western side of Unguja island into the Indian Ocean, the Stone Town of Zanzibar is an outstanding example of a Swahili trading town. This type of town developed on the coast of East Africa, further expanded under Arab, Indian, and European influences, but retained its indigenous elements, to form an urban cultural unit unique to this region.

The Stone Town of Zanzibar retains its urban fabric and townscape virtually intact and contains many fine buildings that reflect its particular culture, which has brought together and homogenized disparate elements of the cultures of Africa, the Arab region, India, and Europe over more than a millennium.

The buildings of the Stone Town, executed principally in coralline ragstone and mangrove timber, set in a thick lime mortar and then plastered and lime-washed, reflect a complex fusion of Swahili, Indian, Arab and European influences in building traditions and town planning. The two storey houses with long narrow rooms disposed round an open courtyard, reached through a narrow corridor, are distinguished externally by elaborately carved double 'Zanzibar' doors, and some by wide verandahs, and by richly decorated interiors. Together with, the simple ground floor Swahili houses and the narrow façade Indian shops along "bazaar" streets constructed around a commercial space "duka".

The major buildings date from the 18<sup>th</sup> and 19<sup>th</sup> centuries and include monuments such as the Old Fort, built on the site of an earlier Portuguese church; the house of wonder, a large ceremonial palace built by Sultan Barghash; the Old Dispensary; St. Joseph's Roman Catholic Cathedral; Christ Church Anglican Cathedral commemorating the work of David Livingston in abolishing the slave trade and built on the site of the last slave market; the residence of the slave trader Tippu Tip; the Malindi Bamnara Mosque; the Jamat Khan built for the Ismaili sect; the Royal Cemetery; the Hamamni and other Persian baths. Together with the narrow, winding street pattern, large mansions facing the seafront and open spaces these buildings form an exceptional urban settlement reflecting the longstanding trading activity between the African and Asian seaboard. In particular the Stone town's is also marked by being the site where slave-trading was finally terminated.

**Criterion (ii)** : The Stone Town of Zanzibar is an outstanding material manifestation of cultural fusion and harmonization.

**Criterion (iii)** : For many centuries there was intense seaborne trading activity between Asia and Africa, and this is illustrated in an exceptional manner by the architecture and urban structure of the Stone Town.

**Criterion (vi)** : Zanzibar has great symbolic importance in the suppression of slavery, since it was one of the main slave-trading ports in East Africa and also the base from which its opponents, such as David Livingstone, conducted their campaign.

### **Integrity**

The individual buildings in the Stone town manifest, through their structure, construction materials and techniques, the interchange and influence of the different cultures around the Indian Ocean rim. The outstanding universal value of the property resides in the character of the assemblage of blocks (cluster) and buildings, the layout of the Town including the relationship of buildings to the open spaces, streets, roads and gardens, the character of the littoral edge viewed from the sea, and the nature of access to the sea from the land. These are all still intact but the buildings are vulnerable to deterioration and the visual aspect from the sea is vulnerable to inappropriate development. Work on the Malindi Port development project, including the loss of two historic warehouses, and erection of new, inappropriately scaled and designed port facilities without prior approval has created a precedent on how unintegrated development, and legitimate modern inspiration of Zanzibaris, if not well thought through and articulated, could be a threat to the integrity of the property.

The property boundary coincides with the boundary of the Urban Conservation Area including the port area to the north, bounded by beaches along the north-west and south-west, open areas to the east and older part of Darajani Street. The buffer zone covers the historic part of Ng'ambo that includes part of the modernist buildings of Michenzani and the main road of Mlandege.

### **Authenticity**

The ensemble of the town largely preserves its historic urban fabric and landscape. The buildings, their uses, and the layout of the streets continue to express the interchange of human values around the Indian Ocean rim. The materials and the skills of construction used in the town are still widely used in the Zanzibar archipelago and the Swahili coastal zone. The local artisans are competent in both the traditional building techniques and the skills needed to produce quality construction materials, namely laterite-sand, lime and coral stone. Traditional materials and construction techniques are still being employed to a large extent, though there is growing competition from modern materials, designs, and techniques. The continuity of traditional uses of most of the buildings in the historic town as residential and commercial space maintains the town as an important administrative and economic centre of the archipelago. Yet, the authenticity of the Stone Town in its setting is vulnerable to the inappropriate scale and design of new development in the property and its buffer zone.

### **Protection and management requirements**

Cultural property in the Zanzibar archipelago is protected under the "Ancient Monuments Act" of 1948. This legal framework protects individual monuments and sites Gazetted in the Official Gazette. Responsibility for the monitoring and management of these monuments falls within the jurisdiction of the Department of Museums and Antiquity. The Town and Country Planning act of 1955 also provides a clause to protect historically important houses. The Stone Town has been protected as a conservation area since 1985, under the Town and Country Planning Act of 1955. Finally, values, boundaries and features have been further protected by the Stone Town Conservation and Development Act of 1994 and the associated Master Plan which specifies actions and strategies to be taken to safeguard, conserve and develop the values of the Stone Town. Together with these legal frameworks, the Stone Town Conservation and Development Authority (STCDA) which was created in 1985 has a full mandate to coordinate and supervise the Master Plan of 1994. Many buildings of the Stone Town are

also protected by other institutions such as the Department of Housing and Human Settlement and the Commission of Waqf. A Management Plan for the property was prepared by the STCDA in consultation with all stakeholders, in 2007, with the stated vision to: “protect and enhance the Stone Town cultural heritage leading to it being well preserved as a sustainable human settlement supportive of its cultural diversity and maintaining its Outstanding Universal Values”.

The Stone Town is not only an historic living town but also a commercial and socio-cultural centre of the Zanzibar Archipelago. As such, the property is subject to the pressure of development, manifested through traffic problems, changes of land uses and the lack and high expense of accommodation inside the Stone Town. Tourist development since 1990 is an important factor in the development pressure on the town. However the absence of clear policies on heritage promotion, cultural tourism, and the lack of a strategy on how to accommodate tourism development, and on how to revitalize public spaces could result in random development that could threaten its Outstanding Universal Value.

The management system set out in the Management Plan (2007), produced by comprehensive consultative approach under the supervision of STCDA aimed to mitigate these pressures. Nevertheless, an integrated and sustainable conservation and development approaches are urgently needed in order to develop practical sustainable management strategies to ensure that the overall coherence of the town and its highly distinctive town planning, architecture and traditional methods and materials of construction are sustained.

## **ARAB STATES / ETATS ARABES**

### **OMAN**

#### Land of Frankincense (C 1010)

##### **Brief synthesis**

The four components of the Land of Frankincense dramatically illustrate the trade in frankincense that flourished in this region for many centuries. They constitute outstanding testimony to the civilizations in south Arabia since the Neolithic.

The successive ports of Khor Rori (4th century BC to the 5th century AD) and Al Baleed (8th century till 16th century AD) and an outpost close to the Great Desert Rub Al Khali, Shisr, about 170 km inland, represent in a unique way the distribution of frankincense which was produced in the wadis of the coastal hinterland. All three sites were exceptionally fortified. Wadi Dawka is an outstanding example of the growth of the frankincense tree 'boswellia sacra' from which the resin was produced, collected and traded.

The port of Khor Rori (the Moscha Limen of classical geographical texts) lies 40 km to the east of Salalah on a hilltop on the eastern bank of a sweet-water outlet (khor). About 400 metres from the open sea, it dominates the khor which opens to the sea and served as a natural harbour. The remains of the fortress are located on a rocky spur running east-west, forming part of a wider defensive system, details of which are still evident. The walls have dressed stone faces with rubble cores. The most heavily fortified part is on the north, where the entrance is located, itself a massive structure with three successive gates on the steep entry path. It is flanked by the remains of towers. The port was refounded at the end of the 1st century by LL'ad Yalutas (evidenced by an inscription still in situ) to control the trade in Dhofar incense. It was the hub of the trading settlements on this coast at that time. The process of disintegration began in the 5th century.

Al-Baleed, a harbor directly placed on the beaches of the Indian Ocean with a khor, a sweet water reservoir behind it, is the historically late name for the town. Artifacts from China (Ming) and other countries indicate its importance as a harbor along the 'Silk Road to the Sea' from where, in exchange, frankincense was also traded. Though heavily fortified, the town was attacked and partially destroyed on several occasions in the 13th century. By the late 15th century, radical changes to trading patterns imposed by Portuguese and other European trading nations sealed the fate of the town.

Shisr lies about 180 km north of Salalah in the desert. This agricultural oasis and caravan site was a very important station also for water supply on the routes from the Nejd and the hinterland from where frankincense was brought to the ports along the coast.

Wadi Dawkah is a major place where the frankincense tree (boswellia sacra) can still be found and frankincense is harvested to this day. The wadi seasonally drains the north-south mountains disappearing into the desert of the 'Empty Quarter', the Rub al Khali. The trees grow in the alluvial bed of the wadi under the extreme heat of this region.

**Criterion iii:** The group of archaeological sites in Oman represent the production and distribution of frankincense, one of the most important luxury items of trade in the Old World in antiquity.

**Criterion iv:** The Oasis of Shisr and the entrepots of Khor Rori and Al-Baleed are outstanding examples of medieval fortified settlements in the Persian Gulf region.

##### **Integrity**

The 'Land of Frankincense' sites include all elements necessary to express its Outstanding Universal Value. The property is of adequate size to ensure the complete representation of the features and processes underpinning the property's significance. All attributes of Outstanding Universal Value are fully present within the properties. All are fully present, none are eroded and the dynamic functions between them are fully maintained.

The property does not suffer from adverse effects of development and/or neglect. Due to the full protection of the sites no threats can be observed. Through protection of all four sites by the government of all sites the integrity is guaranteed. All buffer zones have been respected and no encroachment can be observed. All properties are fenced and the buffer zones marked.

##### **Authenticity**

The authenticity of the property is not open to question. Three components are archaeological sites that have had no inhabitants for centuries and the fourth is a natural site in a desert area.

##### **Protection and management requirements**

The property is protected by the Royal Decree No. 6/80 on the protection of the national heritage, and its buffer zone was given legal status by Royal Decree No. 16/ 2001. The property is managed through a Management

Plan. The sites are fenced and the buffer zones are marked. In Shisr, a small settlement of the Bedouins lies within the buffer zone (radius of 700 meters from the property center). Also in Shisr the palm trees of the oasis, part of the buffer zone, will be replaced by young trees by the authority. The re-generation and maintenance of plantation schemes will be essential in the future.

Major measures have been undertaken to maintain the property's authenticity and integrity and to protect the archaeological sites against interventions by visitors. Visitors must use only the access paths which are laid on Geo-textiles to protect the archaeological surfaces. In the ruins the stone walls of buildings have been protected with sacrificial layers of stone.

All the archaeological parks are in very good condition, and Al Baleed and Khor Rori have Visitor Interpretation Centres to manage the number of visitors (in 2104 more than 150000) and introduce them to the cultural background of the sites. An Interpretation Centre for Shisr is being planned. The 'Land of Frankincense' sites are an integral part of a long-term sensitive cultural tourism strategy to inform regional, interregional and international visitors about the rich tradition of the 'Land of Frankincense'.

## **ASIA AND THE PACIFIC / ASIE ET PACIFIQUE**

### **INDIA / INDE**

#### Humayun's Tomb, Delhi (C 232)

##### **Brief Synthesis**

Humayun's Tomb, Delhi is the first of the grand dynastic mausoleums that were to become synonyms of Mughal architecture with the architectural style reaching its zenith 80 years later at the later Taj Mahal. Humayun's Tomb stands within a complex of 21.60 ha. that includes other contemporary, 16th century Mughal garden-tombs such as Nila Gumbad, Isa Khan, Bu Halima, Afsarwala, Barber's Tomb and the complex where the craftsmen employed for the Building of Humayun's Tomb stayed, the Arab Serai.

Humayun's Tomb was built in the 1560's, with the patronage of Humayun's son, the great Emperor Akbar. Persian and Indian craftsmen worked together to build the garden-tomb, far grander than any tomb built before in the Islamic world. Humayun's garden-tomb is an example of the charbagh (a four quadrant garden with the four rivers of Quranic paradise represented), with pools joined by channels. The garden is entered from lofty gateways on the south and from the west with pavilions located in the centre of the eastern and northern walls.

The mausoleum itself stands on a high, wide terraced platform with two bay deep vaulted cells on all four sides. It has an irregular octagon plan with four long sides and chamfered edges. It is surmounted by a 42.5 m high double dome clad with marble flanked by pillared kiosks (chhatris) and the domes of the central chhatris are adorned with glazed ceramic tiles. The middle of each side is deeply recessed by large arched vaults with a series of smaller ones set into the facade.

The interior is a large octagonal chamber with vaulted roof compartments interconnected by galleries or corridors. This octagonal plan is repeated on the second storey. The structure is of dressed stone clad in red sandstone with white and black inlaid marble borders.

Humayun's garden-tomb is also called the 'dormitory of the Mughals' as in the cells are buried over 150 Mughal family members.

The tomb stands in an extremely significant archaeological setting, centred at the Shrine of the 14th century Sufi Saint, Hazrat Nizamuddin Auliya. Since it is considered auspicious to be buried near a saint's grave, seven centuries of tomb building has led to the area becoming the densest ensemble of medieval Islamic buildings in India.

**Criteria (ii):** Humayun's garden-tomb is built on a monumental scale, grandeur of design and garden setting with no precedence in the Islamic world for a mausoleum. Here for the first time, important architectural innovations were made including creating a char-bagh – a garden setting inspired by the description of paradise in the Holy Quran. The monumental scale achieved here was to become the characteristic of Mughal imperial projects, culminating in the construction of the Taj Mahal.

**Criteria (iv):** Humayun's Tomb and the other contemporary 16th century garden tombs within the property form a unique ensemble of Mughal era garden-tombs. The monumental scale, architectural treatment and garden setting are outstanding in Islamic garden-tombs. Humayun's Tomb is the first important example in India, and above all else, the symbol of the powerful Mughal dynasty that unified most of the sub continent.

##### **Integrity**

The inscribed property includes the Humayun's tomb enclosure, which comprises the gateways, pavilions and attached structures pre-dating Humayun's Tomb, such as the Barber's Tomb, Nila Gumbad and its garden setting, Isa Khan's garden tomb and other contemporary 16th century structures such as Bu Halima's garden-tomb and Afsarwala garden-Tomb. All of these attributes fully convey the outstanding universal value of the property. The tomb's in the complex have been respected throughout their history and so have retained original form and purpose intact. Recent conservation works, that have followed the urban landscape approach, have been aimed at preserving this character and ensured the preservation of the physical fabric, enhancing the significance while reviving living building craft traditions used by the Mughal builders.

##### **Authenticity**

The authenticity of the Humayun's Tomb lies in the mausoleum, other structures and the garden retaining its original form and design, materials and setting.

The tomb and its surrounding structures are substantially in their original state and interventions have been minimal and of high quality. Conservation works being carried out on the structures are focused on using traditional materials such as lime mortar, building tools and techniques to recover authenticity especially by removal of 20th century materials such as the concrete layers from the roof and replacement by lime-concrete, removal of cement plaster from the lower cells and replacement with lime mortar in original patterns and concrete

removal from the lower platform to reveal and reset the original stone paving, among other similar efforts. A similar conservation approach is being used on all garden-tombs in the complex.

### **Protection and management requirements**

As with other sites under the management of the Archaeological Survey of India (ASI), there is adequate protection through various legislations such as Ancient Monuments and Archaeological Sites and Remains Act 1958 and Rules 1959, Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act 2010, Delhi Municipal Corporation Act 1957, Land Acquisition Act 1894, Delhi Urban Art Commission Act 1973, Urban Land (Sealing and Regulation) Act 1976, Environmental Pollution Act, 1986, amongst others. The tomb and its gardens has been the focus of a conservation project in partnership with the Aga Khan Trust for Culture since 1997 with the enclosed gardens restored with flowing water in the first phase (1997-2003) and the conservation works on the tomb and other attached structures being undertaken since 2007.

Flowing water was an essential element of the Mughal char-bagh and at Humayun's Tomb, underground terracotta pipes, aqueducts, fountains, water channels were some of the elements of the gardens. Since the time of inscription, major conservation works have been based on exhaustive archaeological investigation, archival research and documentation, were undertaken on the garden by the Archaeological Survey of India (ASI) – Aga Khan Trust for Culture (AKTC) multi-disciplinary team culminating in restoring flowing water into the garden.

The availability of high craftsmanship ensures that significance is retained especially by removal of modern materials. A core committee comprising ASI Director General, ASI Additional Director General, ASI Regional Director, Director (Conservation) and the Superintending Archaeologist, ASI Delhi Circle review all on-going works being implemented by the Aga Khan Trust for Culture. Conservation works are further independently per reviewed on a regular basis.

The implementation of the participatory management plan will be critical for the sustained operation of the management system, including agreements to allow visitors to access the adjoining 70 acre Sunder Nursery and the Mughal monuments standing therein. Additional security requirements for the Humayun's Tomb site will need to be addressed, especially in view of the significant increase in visitor numbers. Visitor management will also require definition of guidelines for the potential development of infrastructure, such as an interpretation centre.

The physical setting of the property, with several hundred acres of green in the north, has also contributed to the preservation of additional buildings located in the buffer zone of the property. These include the garden-tombs standing in the adjacent Sundarwala and Batashewala Complexes. These buildings are also significant as they contribute to the understanding of the evolution of the inscribed property. Therefore adequate protection and management measures need to be systematically implemented at the buffer zone.

## **Kaziranga National Park (N 337)**

### **Brief synthesis**

Kaziranga National Park represents one of the last unmodified natural areas in the north-eastern region of India. Covering 42,996 ha, and located in the State of Assam it is the single largest undisturbed and representative area in the Brahmaputra Valley floodplain. The fluctuations of the Brahmaputra River result in spectacular examples of riverine and fluvial processes in this vast area of wet alluvial tall grassland interspersed with numerous broad shallow pools fringed with reeds and patches of deciduous to semi-evergreen woodlands. Kaziranga is regarded as one of the finest wildlife refuges in the world. The park's contribution in saving the Indian one-horned rhinoceros from the brink of extinction at the turn of the 20th century to harbouring the single largest population of this species is a spectacular conservation achievement. The property also harbours significant populations of other threatened species including tigers, elephants, wild water buffalo and bears as well as aquatic species including the Ganges River dolphin. It is an important area for migratory birds.

**Criteria (ix) :** River fluctuations by the Brahmaputra river system result in spectacular examples of riverine and fluvial processes. River bank erosion, sedimentation and formation of new lands as well as new water-bodies, plus succession between grasslands and woodlands represents outstanding examples of significant and ongoing, dynamic ecological and biological processes. Wet alluvial grasslands occupy nearly two-thirds of the park area and are maintained by annual flooding and burning. These natural processes create complexes of habitats which are also responsible for a diverse range of predator/prey relationships.

**Criteria (x) :** Kaziranga was inscribed for being the world's major stronghold of the Indian one-horned rhino, having the single largest population of this species, currently estimated at over 2,000 animals. The property also provides habitat for a number of globally threatened species including tiger, Asian elephant, wild water buffalo, gaur, eastern swamp deer, Sambar deer, hog deer, capped langur, hoolock gibbon and sloth bear. The park has recorded one of the highest density of tiger in the country and has been declared a Tiger Reserve since 2007. The park's location at the junction of the Australasia and Indo-Asian flyway means that the park's wetlands play a crucial role for the conservation of globally threatened migratory bird species. The Endangered Ganges dolphin is also found in some of the closed oxbow lakes.



## **Integrity**

The perimeter of Kaziranga on three sides is adjacent to human settlements leading to challenges in protecting the site from illegal incursions of poachers and herdsman. The introduction of rinderpest and domestic buffaloes has had negative effects on the wild water buffalo population, including hybridisation and genetic swamping of the remaining wild stock. Poaching of rhino has been a serious problem but the overall population levels are steady or rising. Another issue is seasonal flooding which causes many animals to migrate outside the park where they are susceptible to hunting and reprisal for crop damage. The presence of the busy national highway No. 37 along the southern border of Kaziranga has brought increased settlements which disturb wildlife movements in this landscape. While river migration has also resulted in the loss of some 5,000 ha of forest land from 1925 to 1986, the national park has been enlarged to the north to include part of the River Brahmaputra, although this area has not yet been proposed for inclusion within the World Heritage property. Maintenance of functional connectivity between the park and Karbi Anglong Hills, and the formation of a buffer zone to the south of the park would greatly add to the integrity of the park.

## **Protection and management requirements**

The property receives the highest legal protection and strong legislative framework under the provisions of the Indian Wildlife (Protection) Act, 1972 and Indian Forest Act, 1927/Assam Forest Regulation 1891. The park has a long history of protection for over a century, reflected in the dramatic recovery of the rhino. The park has been declared as a Tiger Reserve in 2007 and there have been six additions to the park area which has improved management and protection efforts. The property benefits from government support at both national and regional levels as well as involvement of national and international conservation organisations. The site is managed under the administration of the Assam Forest Department, guided by a legally approved Management Plan. The present state of protection and conservation of the property is regarded as one of the best in India. However, key threats include rhino poaching, riverbank erosion, invasive species, tourism pressure, heavy highway traffic, and livestock grazing (particularly in the areas which have been added to the park). The management needs a long-term strategy for dealing with tourism-related issues, research and monitoring for habitat and wildlife, human-wildlife conflicts and boundary issues relating to the addition areas to the national park. In order to ensure sustained financial flows which are essential for the functioning of the park, the constitution of the Kaziranga Tiger Conservation Foundation has been a landmark measure. The management has also taken steps towards improving infrastructure and staff welfare provisions. Strengthening institutional linkages with other government departments and line agencies for the benefit of the local communities in the fringe villages around the property remains an important management objective for the park authorities.

## **IRAN (ISLAMIC REPUBLIC OF) / IRAN (RÉPUBLIQUE ISLAMIQUE D')**

### **Bisotun (C 1222)**

#### **Brief synthesis**

On the sacred mountain of Bisotun in western Iran's Kermanshah province is a remarkable multilingual inscription carved on a limestone cliff about 60 m above the plain. Located along one of the main routes linking Persia with Mesopotamia, the inscription is illustrated by a life-sized bas-relief of its creator, the Achaemenid (Persian) king Darius I, and other figures. It is unique, being the only known monumental text of the Achaemenids to document a specific historic event, that of the re-establishment of the empire by Darius I the Great. Moreover, Bisotun is an outstanding testimony to the important interchange of human values on the development of monumental art and writing, reflecting ancient traditions in monumental bas-reliefs. The inscription, which has three versions of the same text written in three different languages, was the first cuneiform writing to be deciphered in the 19th century.

The inscription at Bisotun (meaning "place of gods"), which is about 15 m high by 25 m wide, was created on the orders of King Darius I in 521 BC. Much of it celebrates his victories over numerous pretenders to the Persian Empire's throne. The inscription was written in three different cuneiform script languages: Old Persian, Elamite, and Babylonian. Once deciphered in the 19th century, it opened the door to previously unknown aspects of ancient civilizations. In that sense, the inscription at Bisotun has had a value for Assyriology comparable to that of the Rosetta Stone for Egyptology.

The monumental bas-relief associated with the text includes an image of King Darius holding a bow as a sign of sovereignty, and treading on the chest of a figure which lies on his back before him. According to legend, the figure represents Gaumāta, the pretender to the throne whose assassination led to Darius' rise to power. This symbolic representation of the Achaemenid king in relation to his enemy reflects traditions in monumental bas-reliefs that date from ancient Egypt and the Middle East, and which were subsequently further developed during the Achaemenid and later empires.

The 187-ha site of Bisotun also features remains from prehistoric times to the Median period (8th to 7th centuries BCE) as well as from the Achaemenid (6th to 4th centuries BCE) and post-Achaemenid periods. Its most significant period, however, was from the 6th century BCE to the 6th century CE.

**Criterion (ii):** The monument created by Darius I the Great in Bisotun in 521 BCE is an outstanding testimony to the important interchange of human values on the development of monumental art and writing. The symbolic representation of the Achaemenid king in relation to his enemy reflects traditions in monumental bas-reliefs that date from ancient Egypt and the Middle East, and which were subsequently further developed during the Achaemenid and later empires.

**Criterion (iii):** The site of Bisotun is located along one of the main routes linking Persia with Mesopotamia and associated with the sacred Bisotun mountain. There is archaeological evidence of human settlements that date from the prehistoric times, while the most significant period was from the 6th century BCE to the 6th century CE. The Bisotun inscription is unique, being the only known monumental text of the Achaemenids to document a specific historic event, that of the re-establishment of the empire by Darius I the Great. It was the first cuneiform writing to be deciphered in the 19th century.

### **Integrity**

Within the boundaries of the property are located all the elements and components necessary to express the Outstanding Universal Value of the property, most notably the multilingual inscription in three different cuneiform script languages and the related monumental carved bas-relief. The property covers a reasonable area enclosing the most important monuments of the site as well as part of the mountain. While there has been some erosion, the text and bas-relief are still intact and comprehensible. The monument's integrity is threatened, however, by water infiltration behind the bas-relief.

### **Authenticity**

The inscribed and carved monument created by Darius I the Great at Bisotun is authentic in terms of its form and design, material and substance, and location and setting.

### **Protection and management requirements**

Bisotun is a state-owned property, and is under protection as a national monument on the basis of the Iranian Law on the Conservation of National Monuments (1982), the Purchase Law on historical properties, and the Law of City Halls. The principal management authority of the property is the Iranian Cultural Heritage, Handicraft and Tourism Organization (which is administered and funded by the Government of Iran) through its local office at Bisotun, Kermanshah. An initial management plan for the property, approved in 2004, set out the managerial mechanisms for a 6-year period. The current management plan, which was adopted in 2010, defines programmes related to equipment, research, conservation work, and repairs, as well as educational activities. This plan was prepared by the steering committee that replaced the National Board of Trustees of Bisotun World Heritage property, which had been established in 2008 to ensure the long-term conservation and sustainable development of the property.

Sustaining the Outstanding Universal Value of the property over time will require transforming the emergency actions taken to counteract the effects of water infiltration behind the bas-relief into a permanent solution for safeguarding the monument; and continuing to manage the development pressures that exist in the region.

## **Meidan Emam, Esfahan (C 115)**

### **Brief synthesis**

The Meidan Emam is a public urban square in the centre of Esfahan, a city located on the main north-south and east-west routes crossing central Iran. It is one of the largest city squares in the world and an outstanding example of Iranian and Islamic architecture. Built by the Safavid shah Abbas I in the early 17th century, the square is bordered by two-storey arcades and anchored on each side by four magnificent buildings: to the east, the Sheikh Lotfollah Mosque; to the west, the pavilion of Ali Qapu; to the north, the portico of Qeyssariyeh; and to the south, the celebrated Royal Mosque. A homogenous urban ensemble built according to a unique, coherent, and harmonious plan, the Meidan Emam was the heart of the Safavid capital and is an exceptional urban realisation.

Also known as Naghsh-e Jahan ("Image of the World"), and formerly as Meidan-e Shah, Meidan Emam is not typical of urban ensembles in Iran, where cities are usually tightly laid out without sizeable open spaces. Esfahan's public square, by contrast, is immense: 560 m long by 160 m wide, it covers almost 9 ha. All of the architectural elements that delineate the square, including its arcades of shops, are aesthetically remarkable, adorned with a profusion of enamelled ceramic tiles and paintings.

Of particular interest is the Royal Mosque (Masjed-e Shah), located on the south side of the square and angled to face Mecca. It remains the most celebrated example of the colourful architecture which reached its high point in Iran under the Safavid dynasty (1501-1722; 1729-1736). The pavilion of Ali Qapu on the west side forms the monumental entrance to the palatial zone and to the royal gardens which extend behind it. Its apartments, high portal, and covered terrace (tâlâr) are renowned. The portico of Qeyssariyeh on the north side leads to the 2-km-

long Esfahan Bazaar, and the Sheikh Lotfollah Mosque on the east side, built as a private mosque for the royal court, is today considered one of the masterpieces of Safavid architecture.

The Meidan Emam was at the heart of the Safavid capital's culture, economy, religion, social power, government, and politics. Its vast sandy esplanade was used for celebrations, promenades, and public executions, for playing polo and for assembling troops. The arcades on all sides of the square housed hundreds of shops; above the portico to the large Qeyssariyeh bazaar a balcony accommodated musicians giving public concerts; the tâlâr of Ali Qapu was connected from behind to the throne room, where the shah occasionally received ambassadors. In short, the royal square of Esfahan was the preeminent monument of Persian socio-cultural life during the Safavid dynasty.

**Criterion (i):** The Meidan Emam constitutes a homogenous urban ensemble, built over a short time span according to a unique, coherent, and harmonious plan. All the monuments facing the square are aesthetically remarkable. Of particular interest is the Royal Mosque, which is connected to the south side of the square by means of an immense, deep entrance portal with angled corners and topped with a half-dome, covered on its interior with enamelled faience mosaics. This portal, framed by two minarets, is extended to the south by a formal gateway hall (iwan) that leads at an angle to the courtyard, thereby connecting the mosque, which in keeping with tradition is oriented northeast/southwest (towards Mecca), to the square's ensemble, which is oriented north/south. The Royal Mosque of Esfahan remains the most famous example of the colourful architecture which reached its high point in Iran under the Safavid dynasty. The pavilion of Ali Qapu forms the monumental entrance to the palatial zone and to the royal gardens which extend behind it. Its apartments, completely decorated with paintings and largely open to the outside, are renowned. On the square is its high portal (48 metres) flanked by several storeys of rooms and surmounted by a terrace (tâlâr) shaded by a practical roof resting on 18 thin wooden columns. All of the architectural elements of the Meidan Imam, including the arcades, are adorned with a profusion of enamelled ceramic tiles and with paintings, where floral ornamentation is dominant – flowering trees, vases, bouquets, etc. – without prejudice to the figurative compositions in the style of Riza-i Abbasi, who was head of the school of painting at Esfahan during the reign of Shah Abbas and was celebrated both inside and outside Persia.

**Criterion (v):** The royal square of Esfahan is an exceptional urban realisation in Iran, where cities are usually tightly laid out without open spaces, except for the courtyards of the caravanserais (roadside inns). This is an example of a form of urban architecture that is inherently vulnerable.

**Criterion (vi):** The Meidan Imam was the heart of the Safavid capital. Its vast sandy esplanade was used for promenades, for assembling troops, for playing polo, for celebrations, and for public executions. The arcades on all sides housed shops; above the portico to the large Qeyssariyeh bazaar a balcony accommodated musicians giving public concerts; the tâlâr of Ali Qapu was connected from behind to the throne room, where the shah occasionally received ambassadors. In short, the royal square of Esfahan was the preeminent monument of Persian socio-cultural life during the Safavid dynasty (1501-1722; 1729-1736).

### **Integrity**

Within the boundaries of the property are located all the elements and components necessary to express the Outstanding Universal Value of the property, including, among others, the public urban square and the two-storey arcades that delineate it, the Sheikh Lotfollah Mosque, the pavilion of Ali Qapu, the portico of Qeyssariyeh, and the Royal Mosque.

Threats to the integrity of the property include economic development, which is giving rise to pressures to allow the construction of multi-storey commercial and parking buildings in the historic centre within the buffer zone; road widening schemes, which threaten the boundaries of the property; the increasing number of tourists; and fire.

### **Authenticity**

The historical monuments at Meidan Emam, Esfahan, are authentic in terms of their forms and design, materials and substance, locations and setting, and spirit. The surface of the public urban square, once covered with sand, is now paved with stone. A pond was placed at the centre of the square, lawns were installed in the 1990s, and two entrances were added to the northeastern and western ranges of the square. These and future renovations, undertaken by Cultural Heritage experts, nonetheless employ domestic knowledge and technology in the direction of maintaining the authenticity of the property.

### **Protection and management requirements**

Meidan Emam, Esfahan, which is public property, was registered in the national list of Iranian monuments as item no. 102 on 5 January 1932, in accordance with the National Heritage Protection Law (1930, updated 1998) and the Iranian Law on the Conservation of National Monuments (1982). Also registered individually are the Royal Mosque (Masjed-e Shah) (no. 107), Sheikh Lotfollah Mosque (no. 105), Ali Qapu pavilion (no. 104), and Qeyssariyeh portico (no. 103). The inscribed World Heritage property, which is owned by the Government of Iran, and its buffer zone are administered and supervised by the Iranian Cultural Heritage, Handicrafts and Tourism Organization (which is administered and funded by the Government of Iran), through its Esfahan office. The square enclosure belongs to the municipality; the bazaars around the square and the shops in the square's environs are owned by the Endowments Office. There is a comprehensive municipal plan, but no Management

Plan for the property. Financial resources (which are recognised as being inadequate) are provided through national, provincial, and municipal budgets and private individuals.

Sustaining the Outstanding Universal Value of the property over time will require developing, approving, and implementing a Management Plan for the property, in consultation with all stakeholders, that defines a strategic vision for the property and its buffer zone, considers infrastructure needs, and sets out a process to assess and control major development projects, with the objective of ensuring that the property does not suffer from adverse effects of development.

## Persepolis (C 114)

### Brief synthesis

Persepolis, whose magnificent ruins rest at the foot of Kuh-e Rahmat (Mountain of Mercy) in south-western Iran, is among the world's greatest archaeological sites. Renowned as the gem of Achaemenid (Persian) ensembles in the fields of architecture, urban planning, construction technology, and art, the royal city of Persepolis ranks among the archaeological sites which have no equivalent and which bear unique witness to a most ancient civilization. The city's immense terrace was begun about 518 BCE by Darius the Great, the Achaemenid Empire's king. On this terrace, successive kings erected a series of architecturally stunning palatial buildings, among them the massive Apadana palace and the Throne Hall ("Hundred-Column Hall").

Inspired by Mesopotamian models, the Achaemenid kings Darius I (522-486 BCE), his son Xerxes I (486-465 BCE), and his grandson Artaxerxes I (465-424 BCE) built a splendid palatial complex on an immense half-natural, half-artificial terrace. This 13-ha ensemble of majestic approaches, monumental stairways, throne rooms (Apadana), reception rooms, and dependencies is classified among the world's greatest archaeological sites. The terrace is a grandiose architectural creation, with its double flight of access stairs, walls covered by sculpted friezes at various levels, contingent Assyrianesque propylaea (monumental gateway), gigantic sculpted winged bulls, and remains of large halls. By carefully engineering lighter roofs and using wooden lintels, the Achaemenid architects were able to use a minimal number of astonishingly slender columns to support open area roofs. Columns were topped with elaborate capitals; typical was the double-bull capital where, resting on double volutes, the forequarters of two kneeling bulls, placed back-to-back, extend their coupled necks and their twin heads directly under the intersections of the beams of the ceiling.

Persepolis was the seat of government of the Achaemenid Empire, though it was designed primarily to be a showplace and spectacular centre for the receptions and festivals of the kings and their empire. The terrace of Persepolis continues to be, as its founder Darius would have wished, the image of the Achaemenid monarchy itself, the summit where likenesses of the king reappear unceasingly, here as the conqueror of a monster, there carried on his throne by the downtrodden enemy, and where lengthy cohorts of sculpted warriors and guards, dignitaries, and tribute bearers parade endlessly.

**Criterion (i):** The terrace of Persepolis, with its double flight of access stairs, its walls covered by sculpted friezes at various levels, contingent Assyrianesque propylaea, the gigantic winged bulls, and the remains of large halls, is a grandiose architectural creation. The studied lightening of the roofing and the use of wooden lintels allowed the Achaemenid architects to use, in open areas, a minimum number of astonishingly slender columns (1.60 metres in diameter vis-à-vis a height of about 20 metres). They are surmounted by typical capitals where, resting on double volutes, the forequarters of two kneeling bulls, placed back-to-back, extend their coupled necks and their twin heads, directly under the intersections of the beams of the ceiling.

**Criterion (iii):** This ensemble of majestic approaches, monumental stairways, throne rooms (Apadana), reception rooms, and annex buildings is classified among the world's greatest archaeological sites, among those which have no equivalent and which bear witness of a unique quality to a most ancient civilization.

**Criterion (vi):** The terrace of Persepolis continues to be, as its founder Darius would have wished, the image of the Achaemenid monarchy itself, the summit where likenesses of the king reappear unceasingly, here as the conqueror of a monster, there carried on his throne by the downtrodden enemy, and where lengthy cohorts of sculpted warriors and guards, dignitaries, and tribute bearers parade endlessly.

### Integrity

Within the boundaries of the property are located the known elements and components necessary to express the Outstanding Universal Value of the property, including the archaeological remains of the terrace and of its related royal palaces and buildings.

The most significant identified challenge to the integrity of the property and its buffer zone is controlling its borders and boundaries against agricultural, industrial, and constructional development. The principal potential threats are the growth of Marvdasht town, new village developments, and the arrival of polluting industries. These threats are considered to be increasing.

## Authenticity

The archaeological ruins at Persepolis are authentic in terms of their locations and setting, materials and substance, and forms and design. The present location of the Persepolis terrace and its related buildings has not changed over the course of time. Restoration work has carefully respected the authenticity of the monuments, utilizing traditional technology and materials in harmony with the ensemble. No changes have been made to the general plan of Persepolis. Moreover, there are no modern reconstructions at Persepolis; the remains of all the monuments are authentic.

## Protection and management requirements

The Persepolis Ensemble was registered in the national list of Iranian monuments as item no. 20 on the 24th of the month Shahrivar, 1310 SAH (15 September 1931). Relevant national laws and regulations concerning the property include the National Heritage Protection Law (1930, updated 1998) and the 1980 Legal bill on preventing clandestine diggings and illegal excavations. The inscribed World Heritage property, which is owned by the Government of Iran, and its buffer zone are under the legal protection and management of the Iranian Cultural Heritage, Handicrafts and Tourism Organization (which is administered and funded by the Government of Iran). The property and buffer zone are also under a regional master plan with its own regulations. A management plan covering the identification of borders, buffer zone, land ownership, conservation priorities, and time-tabled management interventions was introduced in 2001. Persepolis Research Base, a management and conservation office established in Persepolis in 2001, is responsible for the investigation, conservation, restoration, reorganization, and presentation of the property. Training and skills upgrading are offered by the office in cooperation with universities and scientific institutes in Iran and abroad. Financial resources for Persepolis are provided through national and provincial budgets, and site admission fees.

Sustaining the Outstanding Universal Value of the property over time will require creating monitoring and evaluation systems for air pollutants, weathering, and environmental factors; controlling the borders and boundaries of the property against agricultural, industrial, and constructional development; developing indicators for measuring the effects of the potential growth and development of Marvdasht town and new villages; and investigating, evaluating, and eliminating any negative impact such growth and development that may have on the Outstanding Universal Value, integrity or authenticity of the property.

## Soltaniyeh (C 1188)

### Brief synthesis

In north-western Iran's city of Soltaniyeh, which was briefly the capital of Persia's Ilkhanid dynasty (a branch of the Mongol dynasty) during the 14th century, stands the Mausoleum of Oljaytu, its stunning dome covered with turquoise-blue faience tiles. Constructed in 1302-12, the tomb of the eighth Ilkhanid ruler is the main feature remaining from the ancient city; today, it dominates a rural settlement surrounded by the fertile pasture of Soltaniyeh. The Mausoleum of Oljaytu is recognized as the architectural masterpiece of its period and an outstanding achievement in the development of Persian architecture, particularly in its innovative double-shelled dome and interior decoration.

The Mausoleum of Oljaytu is an essential link and key monument in the development of Islamic architecture in central and western Asia. Here, the Ilkhanids further developed ideas that had been advanced during the classical Seljuk phase (11th to early 13th centuries), during which the arts of Iran gained distinction in the Islamic world, thereby setting the stage for the Timurid period (late 14th to 15th centuries), one of the most brilliant periods in Islamic art. Particularly relevant are the mausoleum dome's double-shell structure (an inside shell and an outside shell), and the materials and themes used in its interior decoration. The very large 50-m-high dome is the earliest extant example of its type, and became an important reference for the later development of the Islamic dome. Similarly, the extremely rich interior of the mausoleum, which includes glazed tiles, brickwork, marquetry or designs in inlaid materials, stucco, and frescoes, illustrates an important movement towards more elaborate materials and themes. The Mausoleum of Oljaytu thus speaks eloquently to the Ilkhanid period, which was characterised by innovations in structural engineering, spatial proportions, architectural forms, and decorative patterns and techniques.

Excavations carried out in the 790-ha Mausoleum of Oljaytu property have revealed additional vestiges of the old city, and a large part of this property has retained its archaeological character. As the ancient capital of the Ilkhanid dynasty, Soltaniyeh represents an exceptional testimony to the history of the 13th and 14th centuries in Iran.

**Criterion (ii):** The Mausoleum of Oljaytu forms an essential link in the development of the Islamic architecture in central and western Asia, from the classical Seljuk phase into the Timurid period. This is particularly relevant to the double-shell structure and the elaborate use of materials and themes in the decoration.

**Criterion (iii):** Soltaniyeh, as the ancient capital of the Ilkhanid dynasty, represents an exceptional testimony to the history of 13th and 14th centuries.

**Criterion (iv):** The Mausoleum of Oljaytu represents an outstanding achievement in the development of Persian architecture, particularly in the Ilkhanid period, characterised by its innovative engineering structure, spatial proportions, architectural forms, and the decorative patterns and techniques.

#### **Integrity**

Within the boundaries of the property are located all the elements and components necessary to express the Outstanding Universal Value of the property, most importantly the Mausoleum of Oljaytu. The exterior decorations of the mausoleum have suffered severe decline, which has affected its integrity. Nevertheless, the internal decorations have remained intact to a large degree. Urban development around the property represents a potential threat, though such development is slow.

#### **Authenticity**

The historical monument of the Mausoleum of Oljaytu at Soltaniyeh is authentic in terms of its form and design, materials and substance, and location and setting. Restoration work has carefully respected the authenticity of the monument, utilizing traditional technology and materials in harmony with the ensemble.

#### **Protection and management requirements**

Soltaniyeh is state owned, and protected as a national monument on the basis of the Iranian Law on the Conservation of National Monuments (1982) and the Law on City Properties (1982). Parts of the buffer zone are in private ownership. The principal management authority of the property is the Iranian Cultural Heritage, Handicraft and Tourism Organization (which is administered and funded by the Government of Iran) through its local office in Zanjan. There is a management plan with short-term (1-year), mid-term (3-year), and long-term (5-year) objectives related to equipment, research, restoration and conservation, and development of tourism at Soltaniyeh. Financial resources for the property are provided through national budgets.

Sustaining the Outstanding Universal Value of the property over time will require continuing to respect scientific standards and to properly safeguard the monument when undertaking conservation and restoration projects; controlling the effects of urban development around the property by devising and executing appropriate management strategies in this regard; and directing studies of the Mausoleum of Oljaytu (including, among others, studies of the decorations, reinforcement projects, and scientifically justified tourist attraction programs) toward specific, detailed outcomes that maintain and/or enhance the Outstanding Universal Value, integrity, and authenticity of the property.

### **Tchogha Zanbil (C 113)**

#### **Brief synthesis**

Located in ancient Elam (today Khuzestan province in southwest Iran), Tchogha Zanbil (Dur-Untash, or City of Untash, in Elamite) was founded by the Elamite king Untash-Napirisha (1275-1240 BCE) as the religious centre of Elam. The principal element of this complex is an enormous ziggurat dedicated to the Elamite divinities Inshushinak and Napirisha. It is the largest ziggurat outside of Mesopotamia and the best preserved of this type of stepped pyramidal monument. The archaeological site of Tchogha Zanbil is an exceptional expression of the culture, beliefs, and ritual traditions of one of the oldest indigenous peoples of Iran. Our knowledge of the architectural development of the middle Elamite period (1400-1100 BCE) comes from the ruins of Tchogha Zanbil and of the capital city of Susa 38 km to the north-west of the temple).

The archaeological site of Tchogha Zanbil covers a vast, arid plateau overlooking the rich valley of the river Ab-e Diz and its forests. A "sacred city" for the king's residence, it was never completed and only a few priests lived there until it was destroyed by the Assyrian king Ashurbanipal about 640 BCE. The complex was protected by three concentric enclosure walls: an outer wall about 4 km in circumference enclosing a vast complex of residences and the royal quarter, where three monumental palaces have been unearthed (one is considered a tomb-palace that covers the remains of underground baked-brick structures containing the burials of the royal family); a second wall protecting the temples (Temenus); and the innermost wall enclosing the focal point of the ensemble, the ziggurat.

The ziggurat originally measured 105.2 m on each side and about 53 m in height, in five levels, and was crowned with a temple. Mud brick was the basic material of the whole ensemble. The ziggurat was given a facing of baked bricks, a number of which have cuneiform characters giving the names of deities in the Elamite and Akkadian languages. Though the ziggurat now stands only 24.75 m high, less than half its estimated original height, its state of preservation is unsurpassed. Studies of the ziggurat and the rest of the archaeological site of Tchogha Zanbil containing other temples, residences, tomb-palaces, and water reservoirs have made an important contribution to our knowledge about the architecture of this period of the Elamites, whose ancient culture persisted into the emerging Achaemenid (First Persian) Empire, which changed the face of the civilised world at that time.

**Criterion (iii):** The ruins of Susa and of Tchogha Zanbil are the sole testimonies to the architectural development of the middle Elamite period (1400-1100 BCE).

**Criterion (iv):** The ziggurat at Tchogha Zanbil remains to this day the best preserved monument of this type and the largest outside of Mesopotamia.

### **Integrity**

Within the boundaries of the property are located all the elements and components necessary to express the Outstanding Universal Value of the property, including, among others, the concentric walls, the royal quarter, the temples, various dependencies, and the ziggurat. Almost none of the various architectural elements and spaces has been removed or suffered major damage. The integrity of the landscape and lifestyle of the indigenous communities has largely been protected due to being away from urban areas.

Identified threats to the integrity of the property include heavy rainfalls, which can have a damaging effect on exposed mud-brick structures; a change in the course of the river Ab-e Diz, which threatens the outer wall; sugar cane cultivation and processing, which have altered traditional land use and increased air and water pollution; and deforestation of the river valleys. Visitors were banned from climbing the ziggurat in 2002, and a lighting system has been installed and guards stationed at the site to protect it from illegal excavations.

### **Authenticity**

The historical monuments of the archaeological site of Tchogha Zanbil are authentic in terms of their forms and design, materials and substance, and locations and setting. Several conservation measures have been undertaken since the original excavations of the site between 1946 and 1962, but they have not usually disturbed its historical authenticity.

### **Protection and management requirements**

Tchogha Zanbil was registered in the national list of Iranian monuments as item no. 895 on 26 January 1970. Relevant national laws and regulations concerning the property include the *National Heritage Protection Law* (1930, updated 1998) and the 1980 Legal bill on preventing clandestine diggings and illegal excavations. The inscribed World Heritage property, which is owned by the Government of Iran, and its buffer zone are administered by the Iranian Cultural Heritage, Handicrafts and Tourism Organization (which is administered and funded by the Government of Iran). A Management Plan was prepared in 2003 and has since been implemented. Planning for tourism management, landscaping, and emergency evacuation for the property has been accomplished and implementation was in progress in 2013. A research centre has undertaken daily, monthly, and annual monitoring of the property since 1998. Financial resources for Tchogha Zanbil are provided through national budgets.

Conservation activities have been undertaken within a general framework, including development of scientific research programs; comprehensive conservation of the property and its natural-historical context; expansion of the conservation program to the surrounding environment; concentration on engaging the public and governmental organizations and agencies; and according special attention to programs for training and presentation (with the aim of developing cultural tourism) based on sustainable development. Objectives include research programs and promotion of a conservation management culture; scientific and comprehensive conservation of the property and surrounding area; and development of training and introductory programmes.

Sustaining the Outstanding Universal Value of the property over time will require creating a transparent and regular funding system, employing efficient and sustainable management systems, supporting continuous protection and presentation, enjoying the public support and giving life to the property, adopting a "minimum intervention" approach, and respecting the integrity and authenticity of the property and its surrounding environment. In addition, any outstanding recommendations of past expert missions to the property should be addressed.

## EUROPE AND NORTH AMERICA / EUROPE ET AMERIQUE DU NORD

### **BELARUS / BÉLARUS**

#### Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh (C 1196)

##### **Brief synthesis**

The Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh in central Belarus exercised great influence in the sciences, arts, crafts and architecture of Central and Eastern Europe. The efforts of the Radziwill dynasty, which built and kept this ensemble of buildings and their associated landscape from 1583 until 1939 and which included some of the most notable personalities in European history and culture who introduced novel concepts based on a synthesis of Western traditions, led to the establishment of a new Central European school of architecture. The Radziwill family complex - and in particular the domed basilica Corpus Christi mausoleum-church represents an important stage in the development of building typology in 16th and 17th century Central European architecture.

The Radziwill family complex consists of a residential castle and the Corpus Christi mausoleum-church, along with their landscaped setting. The compact castle has ten interconnected buildings, including a palace, galleries, residence, family archive and arsenal, all of which were developed as a single architectural ensemble around a six-sided courtyard. The buildings are set within the remains of 16th century fortifications comprised of four bastions and four curtain walls in a rectangular plan, surrounded by a moat. An earthen dam with a stone bridge connects the castle to Corpus Christi Church in the adjacent urban area of Nesvizh. The ensemble of buildings, interspersed by artificial reservoirs and canals of the river Usha, is in a picturesque 100 ha landscape that includes a series of thematic parks and ponds.

Over the centuries the Radziwills supported activities in various spheres of science and culture, and also invited important cultural personalities, architects, artists and craftsmen to the small town of Nesvizh. These interactions introduced the latest architectural innovations from Southern and Western Europe and became seminal in synthesizing and transmitting these trends to Central and Eastern Europe. An architectural school emerged here that consisted of artists from Belarus, Poland, Italy, and Germany who developed sophisticated construction and building techniques. The buildings of the Radziwill family complex became important prototypes in Central Europe, and exercised considerable influence in this region.

**Criterion (ii):** The Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh was the cradle for the introduction of new concepts based on the synthesis of Western traditions, leading to the establishment of a new architectural school in Central Europe.

**Criterion (iv):** The Radziwill complex represents an important stage in the development of new a building typology and in the history of Central European architecture during the 16th and 17th centuries. In particular, this concerns Corpus Christi Church with its domed basilica typology.

**Criterion (vi):** The Radziwill family was particularly significant for its association with the interpretation of influences from Southern and Western Europe and the transmission of ideas within Central and Eastern Europe.

##### **Integrity**

All the elements that sustain the Outstanding Universal Value of the Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh are located within the boundaries of the 120 ha property, including the residential castle, the Corpus Christi church-mausoleum, and the landscaped parks and ponds. The property is therefore of adequate size to ensure the complete representation of the features and processes that convey its significance. There is also a 292 ha buffer zone. The state of conservation of the interrelated elements is good.

##### **Authenticity**

The overall historical authenticity of the property has been maintained regarding its location and setting, form and design, and materials and substance. The territory of the castle complex and the surrounding natural landscape have largely been preserved. Drawings and maps of Nesvizh from the 16th to the 18th centuries reveal a high degree of authenticity in the design of the complex. The castle and the church-mausoleum include construction materials, structures and craft, dating from the 16th to 18th centuries. The fortifications were destroyed in the 17th century, and more recently there has been some reconstruction (e.g. the bell tower). The landscaped park, with its romantic features dating mainly from the 19th century, has suffered from neglect, though it has been subject to some clearing and replanting in recent decades. As a whole, the landscape has maintained all its essential components, especially in the immediate surroundings of the castle and the Corpus Christi Church.

The castle's Eastern Gallery was demolished and rebuilt in 2006-2010 and a heating system has been planned for the mausoleum-church, both without benefit of an overall conservation plan. Some concerns have been raised



about these and other recent rehabilitation and modernization works, and in general about the balance between repair and renewal.

### **Protection and management requirements**

The castle, the church-mausoleum and the causeway that links them are in state ownership. The church-mausoleum, which has a religious function, is managed by the Ecclesiastical Council, while the causeway is under the management of the Nesvizh Region Executive Committee. The Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh, which is a Property of National Significance, is administered by the National Historical and Cultural Museum-Reserve "Nyasvizh", formed in 1996 in accordance with a Decree of the Cabinet of Ministers of the Republic of Belarus. In general, all activities related to the protection of the property are coordinated by the Department for the Protection of Historical and Cultural Heritage and Restoration in the Ministry of Culture of the Republic of Belarus. The Nesvizh General Plan (2007) controls the central part of the town and insures that the scale of development and the adaptation of buildings respect the character of the historic buildings. There is a Management Commission for the property established in 2005, and a Management Plan adopted by the decision of the Methodological Council on Historical and Cultural Heritage of the Ministry of Culture in 2006, and modified in 2010. The Management Plan seeks to organize the collective work for the protection of the Nesvizh urban landscape and the visual impact of interventions on the integrity of the urban environment within the property's buffer zone. The Management Plan for the property requires revision to respond to a very significant increase in the number of visits to the property and other pressures.

Sustaining the Outstanding Universal Value of the Architectural, Residential and Cultural Complex of the Radziwill Family at Nesvizh over time will require revising the Management Plan to address the significant increase in visits to the property and to clearly set out approaches for conservation, restoration and renewal, in particular concerning rehabilitation and modernization works, as well as to ensure that appropriate planning measures (such as a conservation plan) are in place and adopted in order to prevent interventions that could have a negative impact on the values, authenticity and integrity of the property.

## **BELGIUM / BELGIQUE**

### **Flemish Béguinages (C 855)**

#### **Brief synthesis**

The Flemish *béguinages* are a series of 13 sites in the Flanders Region of Belgium. They bear extraordinary witness to the cultural tradition of the Beguines that developed in north-western Europe in the Middle Ages.

These Beguines were either unmarried or widowed women who entered into a life dedicated to God, but without retiring from the world. In the 13th century they founded the *béguinages*, enclosed communities designed to meet their spiritual and material needs.

The Flemish *béguinages* formed architectural ensembles, enclosed by walls or surrounded by ditches, with gates opening to the outside world during the day. Inside, they were composed of houses, churches, ancillary buildings, and green spaces organized in a spatial conception of urban or rural origin, and built in styles specific to the Flemish cultural region.

**Criterion (ii):** The Flemish *béguinages* demonstrate outstanding physical characteristics of urban and rural planning and a combination of religious and traditional architecture in styles specific to the Flemish cultural region.

**Criterion (iii):** The *béguinages* bear exceptional witness to the cultural tradition of independent religious women in north-western Europe in the Middle Ages.

**Criterion (iv):** The *béguinages* constitute an outstanding example of an architectural ensemble associated with a religious movement characteristic of the Middle Ages, associating both secular and conventual values.

#### **Integrity**

The inscribed sites are the most representative *béguinages* of the Beguine tradition, identified on the basis of their historic and architectural development and their state of conservation. These 13 *béguinages* testify to their original function, even though many suffered damage during World Wars I and II. They have maintained their residential character as well as the configuration with church or chapel, streets or squares with community and individual houses etc. Today, most *béguinages* are still clearly defined components of the urban fabric, and considered havens of tranquillity, as they were in the past. In some places, the enclosed character is preserved, although many *béguinages* lost their enclosed aspect during the French period and the gates were removed. The boundaries of the inscribed areas are sufficient to include the attributes of Outstanding Universal Value, but many of the components have no buffer zone. The *béguinages* are generally in good condition.

## **Authenticity**

The Beguine movement in Flanders is extinct, but most of the *béguinages* continue to be sought after as havens of peace and settings appropriate to a lifestyle that is a blend of community and private.

Removed from the lively historic centres, the *béguinages* preserved a respect for habitat as an essential function and have thus retained, apart from certain generally superficial modifications, the characteristic organization and simple functional architecture that gives them their particular atmosphere of a utopian setting, in which a sense of community and respect for individuality are finely balanced.

No complete construction remains from the Middle Ages, except for certain churches. The earliest Beguine houses were replaced by municipal ordinance by buildings of brick or stone in the 16th and, particularly, 17th centuries, although they generally followed the original layout and area. In the 17th century, the rising numbers of Beguines dictated further construction within the space originally available. In the 18th century, the number of Beguines declined and houses were demolished. New houses or buildings were incorporated into some *béguinages* in the 19th and 20th centuries.

## **Protection and Management Requirements**

The 13 Flemish *béguinages* are listed as monuments, sites or urban sites. In a number of cases, singular buildings such as the church or chapel have been listed separately.

Ownership of the *béguinages* is quite diverse: in some cases, there is a single owner (generally a local public welfare authority). Elsewhere, the ownership has fragmented to the point where almost every house has a different private owner, which complicates the development of a common management strategy. Nevertheless, as a consequence of the listed character of the *béguinages*, any intervention on a *béguinage* and its components has to be approved by the regional monuments and sites administration.

This is not the case for the surroundings of the *béguinages*, most of which are not protected. Still, the *béguinages* and their surroundings are generally situated as a whole or in part in planning zones of special cultural, historical, and/or aesthetic interest (CHE Zones), whose main objective is the conservation and development of cultural heritage. However, most *béguinages* lack a buffer zone. If a buffer zone was identified at the time of inscription, these are now mostly considered insufficient. Therefore, an evaluation is in order, which should suggest a correction and/or extension of the buffer zones of the *béguinages* and the development of appropriate protection for their settings.

A common management strategy and management system for the whole of the World Heritage property of the Flemish *béguinages* and for individual *béguinages* will need to be developed.

## **Historic Centre of Brugge (C 996)**

### **Brief synthesis**

The Historic Centre of Brugge is an outstanding example of an architectural ensemble, illustrating significant stages in the commercial and cultural fields in medieval Europe.

Brugge in medieval times was known as a commercial metropolis in the heart of Europe.

The city reflects a considerable exchange of influences on the development of art and architecture, particularly in brick Gothic, which is characteristic of northern Europe and the Baltic. This architecture strongly determines the character of the historic centre of the city.

The 11th century city walls marked the boundaries of the medieval city. Although the walls themselves are lost today, they remain clearly visible, emphasized by the four surviving gates, the ramparts and one of the defence water towers. The medieval street pattern, with main roads leading towards the important public squares, has mostly been preserved, as well as the network of canals which, once used for mercantile traffic, played an important role in the development of the city.

In the 15th century, Brugge was the cradle of the Flemish Primitives and a centre of patronage and painting development for artists such as Jan van Eyck and Hans Memling. Many of their works were exported and influenced painting styles all over Europe. Exceptionally important collections have remained in the city until today.

Even after its economic and artistic peak at the end of the Middle Ages, building and urban development continued, although Brugge mostly missed the 19th-century industrial revolution. In the 18th and 19th centuries, many medieval parcels were joined to larger entities and new quarters were also developed. The most striking examples of large scale post-medieval interventions in the historic centre are the urbanization around Coupure (1751-1755), the Zand and the first railway station (1838), the Theatre quarter (1867), the Koningin Elisabethlaan and Gulden Vlieslaan (1897) and the creation of the Guido Gezelle-neighbourhood (1920-1930).

In the second half of the 20th century, some major changes occurred with Zilverpand (1976), the new Public Library (1975-1978), the new Palace of Justice and Kartuizerswijk (1980), Clarendam (1990) and Colettiijnenhof (1997).

Brugge is characterized by a continuity reflected in the relative harmony of changes. As part of this continuity, the late 19th century renovation of facades introduced a Neo-Gothic style that is particular for Brugge. The Brugge 'neo' style of construction and its restoration philosophy became a subject of interest, study and inspiration.

Still an active, living city today, Brugge has preserved the architectural and urban structures which document the different phases of its development including the central Market Place with its belfry, the *Béguinage*, as well as the hospitals, the religious and commercial complexes and the historic urban fabric.

**Criterion (ii):** The Historic Centre of Brugge bears testimony to a considerable exchange of influences on the development of architecture, and particularly brick Gothic architecture, over a long period of time. As the birthplace of the school of the Flemish Primitives, it has favoured innovative artistic influences in the development of medieval painting.

**Criterion (iv):** The Historic Centre of Brugge is an outstanding example of an architectural ensemble. The city's public, social and religious institutions illustrate significant stages in the history of commerce and culture in medieval Europe

**Criterion (vi):** The Historic Centre of Brugge was birthplace of the Flemish Primitives and a centre of patronage and development of painting in the Middle Ages with artists such as Jan van Eyck and Hans Memling.

### **Authenticity**

The Historic Centre of Brugge illustrates continuity on an urban site that has been occupied since the early Middle Ages. Historical records of the town administration and regulations are condensed in the city records from the 13th century onwards.

An area of continuous settlement, the Historic Centre of Brugge has retained the original pattern of streets and places, canals, and open spaces. A very specific skyline of towers and taller civic buildings (such as the cathedral, the belfry and the churches) dominates the city. For the most part, buildings have retained the original parcels of land. The transformations that have taken place over time respect the functional changes in the town, and have become part of its historic authenticity, in a parallel way to other historic cities such as Siena in Italy.

The history of the town is well represented in the urban and architectural structures that harmoniously unify all periods of history since the origin of the city.

Since the second half of the 19th century, much attention has been paid to the history and the architecture of the town, and major debates about modalities followed the international trends in the field of restoration and conservation. This chronological and historical stratification is clearly recognizable in the urban morphology and architecture and is part of the present character of Brugge.

Some modern transformations have occurred in the property, but their impact on the whole property is considered minor.

### **Integrity**

The overall urban structure still represents the medieval "egg-shaped" model that can be seen on the map of Marcus Gerards (1562). Apart from the religious wars in the 16th century and the French Revolution, Brugge more or less escaped the devastation associated with other conflicts that marked this part of Europe, including the First and Second World Wars. Similarly, the 19th century industrial revolution had almost no impact on the basic structure of the historic town, with the exception of the railway station in the southwest of the city.

The property includes all urban structures, associated ensembles and individual buildings that reflect its commercial and artistic development and the legacy of 19th century restoration philosophies.

The remarkable visual coherence that characterises its urban form is vulnerable to rebuilding. Large-scale development in proximity to the property could adversely impact the relationship between the property and its setting.

### **Protection and management requirements**

Since 1972, the municipal Department for Conservation and Heritage Management guides evaluates and closely monitors all changes in the urban environment, in collaboration with the regional heritage services. The specific municipal building regulations are very strict and include a *non modificandi* agreement when city funding is provided to carry out restoration works.

Around half of all buildings within the historic centre are either listed or registered in the Flemish inventory of Built Heritage and in the city's Heritage Evaluation Map (a dynamic instrument), which serves as a policy and management tool. In the case of listed buildings and sites, there is a mandatory and binding advice from the regional heritage authorities.

The coordination, communication and promotion of the World Heritage property is taken up as before by the municipal Department for Conservation and Heritage Management, in close collaboration with all partners on municipal and regional level.

Conservation and restoration of monuments and sites is based on a restoration philosophy and tradition in which the original materials and construction technique are the starting point. New constructions in the inner city never occur without a thorough art-historical evaluation and always respect the historical authenticity. As a rule, new constructions respect parcelling, pattern, heights, materials etc. of the surroundings. Large-scale developments in proximity of the property remain a possible threat and therefore require particular attention.

As a result, a World Heritage Management Plan was made in 2012, coordinated by the city of Brugge and its Department for Conservation and Heritage Management, which is a team of specialists qualified in the history of art, the history of Bruges in general and restoration philosophy and practice. This Management Plan aims to foster appropriate development within agreed constraints in relation to the acknowledged characteristics of defined areas. A UNESCO Expert Commission was set up by the city council in 2011, supported the development of a Management Plan in 2012 and continues to provide advice.

In continuation of the Management Plan, Conservation Plans are being prepared, as well as Preservation Plans, Detailed Survey Plans and a Thematic Spatial Implementation Plan for the historic urban landscape, covering the whole World Heritage property.

Historically and typologically, the city is home to a mixture of functions. This diversity is an essential urban feature that needs to be preserved and protected. This element, along with the historical urban structure and the specific and diverse architectural characteristics that reflect the evolution of Brugge, are at the essence of the future management of the property. However, Brugge is a living city, in which developments and changes should be possible but only in appropriate locations and with respect for the urban morphology of closed urban plots limited by streets and laneways in the historic centre.

Expansion is possible in the greater Brugge region, which historically and politically was linked with the city ("Brugs Ommeland", or the surroundings of Brugge) and Zeebrugge (the seaport of Brugge). In order to protect the setting of the property, effective links between the interests of this wider city of Brugge and the property, in terms of planning and protection, are needed and in progress. Important views from and to the property need to be protected and will be incorporated in the urban planning tools.

From a touristic point of view, Brugge has made considerable efforts to manage the impact of visitors. The development of durable cultural tourism of high quality will continue to remain the basis of the municipal policy in this regard, with a specific attention to events and activities related to the Flemish Primitives.

## Les quatre ascenseurs du canal du Centre et leur site, La Louvière et Le Roeulx (Hainaut) (C 856)

### **Brève synthèse**

Les quatre ascenseurs hydrauliques pour bateaux, regroupés sur un court segment de l'historique canal du Centre, sont des monuments industriels de la plus haute qualité. Avec le canal lui-même et ses structures associées, ils constituent un exemple remarquablement préservé et complet d'un paysage industriel de haute technologie de la fin du XIXe siècle.

La construction du canal du Centre visait à assurer la liaison entre les bassins de la Meuse et de l'Escaut et faisait partie du programme de désenclavement du Hainaut, région riche en industries, notamment charbonnière mais peu fournie en voies navigables naturelles pouvant permettre l'exportation du charbon. Le creusement a débuté en 1884 et l'ouverture à la navigation a eu lieu en 1917.

Dès le début du projet, les concepteurs ont été confrontés à un double problème : le franchissement d'une déclivité importante sur une courte distance et une faible alimentation en eau. La technique répondant le mieux à ces contraintes était celle des ascenseurs à bateaux, mise au point par des ingénieurs anglais et qui utilise uniquement la force hydraulique.

Sur un parcours de 7 km, une série unique au monde de 4 ascenseurs ont été construits, chacun permettant de franchir une dénivellation de 15 à 16 mètres. Le parcours est jalonné d'une série d'ouvrages d'art dont deux ponts fixes et deux ponts levants ou tournants. Le bien comprend également l'ancienne écluse n° 1 de Thieu, aujourd'hui désaffectée, ainsi que trois bâtiments abritant la machinerie hydraulique nécessaire au bon fonctionnement des ascenseurs. On recense également plusieurs maisons à deux étages pour héberger le personnel de fonction.

En 1911, un programme de plantation des berges accompagne la réalisation du canal. Des essences diverses d'arbres sont utilisées: ormes gras et frênes blancs d'Amérique, chênes, peupliers, érables et sycomores, avec des taillis d'aulnes, parfois associés à des saules, des bouleaux et des robiniers. Des espèces variées (pin noir,

robinier, érable, noisetier, sureau et peuplier) furent plantées autour des ascenseurs. Aujourd'hui, les plus répandues sont le tilleul, l'érable, le marronnier et le frêne.

Des huit ascenseurs hydrauliques à bateaux édifés à cette époque et au début du XXe siècle, les quatre ascenseurs du canal du Centre sont les seuls au monde subsistant dans leur état originel de fonctionnement et toujours en cours d'utilisation.

Le canal qui peut accueillir des bateaux de 300 tonnes est actuellement voué à la navigation de plaisance.

**Critère (iii) :** Les ascenseurs pour bateaux du canal du Centre sont un témoignage exceptionnel des remarquables développements de l'ingénierie hydraulique du XIXe siècle en Europe.

**Critère (iv) :** Ces ascenseurs pour bateaux représentent l'apogée de l'application de l'ingénierie à la construction de canaux.

### **Intégrité**

Même s'il est maintenant utilisé pour la navigation de plaisance, le canal du Centre a toujours été maintenu en activité, ce qui a assuré sa pérennité. Les ascenseurs sont toujours actionnés par la force hydraulique et les ouvrages d'art (ponts tournants, relevants, etc.) n'ont pas été modernisés et fonctionnent toujours selon les techniques d'origine.

### **Authenticité**

Le degré d'authenticité est très élevé à tous les égards. Les ascenseurs n'ont subi aucune modification depuis leur construction, et leur machinerie présente sa forme originale ainsi qu'un parfait état. De même, les autres composants de ce paysage industriel ont été préservés et maintenus dans leur forme originale, en dépit de quelques modifications minimales dues à des développements technologiques mineurs. Les édifices de briques et de pierre sont bien entretenus et restaurés, de manière respectueuse. Il en va de même des parties métalliques : la technique du rivetage n'étant plus utilisée en Belgique, il a dû être fait appel à une société étrangère afin d'assurer la restauration à l'identique d'un bac endommagé par une péniche.

### **Éléments requis en matière de protection et de gestion**

Le canal du Centre et les ascenseurs ont été classés par arrêté du 22 septembre 1992. Un second arrêté du 1er février 2002 a étendu le classement à la salle des machines des ascenseurs 2 et 3 incluant ses équipements, et aux maisons de fonction qui l'encadrent. Le même arrêté a établi une zone de protection autour du canal. En outre, la totalité des éléments classés figure sur la liste du patrimoine exceptionnel de Wallonie, soit le plus haut niveau de protection prévu par la législation wallonne. Les arbres qui longent le canal ont été inscrits sur la liste des arbres et haies remarquables en 1995.

Le canal du Centre et ses ascenseurs à bateaux sont des propriétés publiques. Elles relèvent de la Direction générale opérationnelle des Voies hydrauliques de Wallonie dont le personnel assure le fonctionnement, la maintenance et la gestion.

Les ingénieurs disposent des plans originaux pour orienter les décisions à prendre en matière de conservation et de gestion. La valorisation touristique est confiée à une association « Voies d'eau du Hainaut » qui dépend de la Province du Hainaut.

Suite à la décision du Gouvernement wallon du 25 août 2011 de doter les sites wallons inscrits sur la Liste du patrimoine mondial d'un plan de gestion, un Comité de pilotage, un Comité scientifique et un Comité de gestion ont été établis.

## **CANADA/UNITED STATES OF AMERICA / CANADA/ETATS-UNIS D'AMÉRIQUE**

### **Waterton Glacier International Peace Park (N 354rev)**

#### **Brief synthesis**

Waterton-Glacier International Peace Park has a distinctive climate, physiographic setting, mountain-prairie interface and tri-ocean hydrographical divide. It is an area of significant scenic values with abundant and diverse flora and fauna.

**Criterion (vii):** Both national parks were originally designated by their respective nations because of their superlative mountain scenery, their high topographic relief, glacial landforms and abundant diversity of wildlife and wildflowers.

**Criterion (ix):** The property occupies a pivotal position in the Western Cordillera of North America, resulting in the evolution of plant communities and ecological complexes that occur nowhere else in the world. Maritime weather

systems unimpeded by mountain ranges to the north and south allow plants and animals characteristic of the Pacific Northwest to extend to and across the continental divide in the park. To the east, prairie communities nestle against the mountains with no intervening foothills, producing an interface of prairie, montane and alpine communities. The International Peace Park includes the headwaters of three major watersheds, which drain through significantly different biomes to different oceans. The biogeographical significance of this tri-ocean divide is increased by the many vegetated connections between the headwaters. The net effect is to create a unique assemblage and high diversity of flora and fauna concentrated in a small area.

### **Integrity**

At 457,614 ha, the International Peace Park forms the centrepiece of the much larger transboundary “Crown of the Continent” ecosystem. The inscribed property alone is of sufficient size to maintain many of the scenic values and geomorphologic processes for which it was inscribed. Over 95% of the property is managed for wilderness values, but the property must be managed within the Crown of the Continent ecosystem context to ensure the genetic viability and long-term survival of many species, including top carnivores such as grizzly bear, cougar, gray wolf and wolverine, which may roam great distances outside the park boundaries. Likewise, the Flathead River system, which forms the western and southern boundaries of Glacier National Park and is home to important populations of fish species, originates outside the International Peace Park. Much of the property is bordered by other protected areas, adding important elements of connectivity for wildlife movement. While some barriers to connectivity within the larger ecosystem remain, there have been efforts by both countries to manage the Crown of the Continent to address these issues. These efforts will need to continue to ensure the long-term protection of the property’s Outstanding Universal Value.

### **Protection and management requirements**

The two national parks are each managed and protected under their respective national legislative frameworks. Glacier National Park is managed under the authority of the *Organic Act* of August 25, 1916 which established the United States National Park Service. Glacier National Park also has enabling legislation which provides broad congressional direction regarding the primary purposes of the park. Waterton Lakes National Park is managed under the authority of the *Canada National Parks Act* and its associated regulations, which govern the protection and management of the natural and cultural resources of the park. Day-to-day management is directed by the Park Superintendent of each park according to the relevant legislative and regulatory mandates of the U.S. National Park Service and Parks Canada. The U.S. National Park Service and Parks Canada respectively maintain government to government relations with the Blackfoot Tribe as well as the Confederated Salish and Kootenai Tribes (Kootenai, Pend d’Oreille, and Salish Tribes) in the United States and the Blackfoot Confederacy (the Kainai, the Siksika, and the northern Piikani Nations) and the Ktunaxa Nation in Canada.

Management goals and objectives for the property have been developed through management plans for both parks, specifically: the Glacier National Park General Management Plan (1999) and the Waterton Lakes National Park of Canada Management Plan 2010. Although the management of each component of the property is directed by its own management plan, there are a number of guiding principles related to natural and cultural resource management, visitor use and interpretation, science and research and relations with Aboriginal peoples that are common to both parks, reflecting strong cooperation among the property managers. The management plans and their associated goals and objectives are periodically reviewed and updated with aboriginal, public, stakeholder and partner input, direction and advice.

Park management plans for the property have identified a number of resource protection measures, such as environmental assessment processes, zoning, ecological integrity and visitor experience monitoring, and education programs to address pressures arising from issues outside the Peace Park, including residential, industrial and infrastructure development and forestry practices in both countries.

In 2011, further to the *Memorandum of Understanding on Environmental Protection, Climate Action and Energy* signed by the Government of the Province of British Columbia and the Government of the State of Montana in 2010, British Columbia passed legislation to remove mining, oil and gas exploration and development as permissible land uses in the Flathead watershed in Canada thereby providing added environmental protection to the International Peace Park. The Crown Managers Partnership (a group of federal, state, provincial, tribal and first nations land managers) promotes transboundary collaborative strategies that focus on the long-term ecological health of the larger transboundary Crown of the Continent Ecosystem. In addition, the American Great Northern Landscape Conservation Cooperative provides additional opportunities for cooperation across jurisdictional and national boundaries.

Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, attention will focus on the effects of infrastructure development, the potential for water and air pollution, livestock grazing, impacts of biological resource use, impacts of climate change, and invasive or hyper-abundant species. Attention will also be given to current or potential logging and physical resource extraction activities near the property.

## CANADA

### Arrondissement historique du Vieux-Québec (C 300)

#### Brève synthèse

Fondée au XVII<sup>e</sup> siècle, la ville de Québec témoigne de façon éloquente d'étapes importantes de la colonisation des Amériques par les Européens : elle fut notamment la capitale de la Nouvelle-France et, après 1760, celle de la nouvelle colonie britannique. L'Arrondissement historique du Vieux-Québec est un territoire urbain d'environ 135 hectares. Il est formé de deux secteurs : la Haute-Ville, située sur le promontoire du cap Diamant et protégée par un rempart bastionné, une citadelle et divers autres ouvrages défensifs, et la Basse-Ville, développée autour de Place-Royale et des installations portuaires. Ensemble urbain cohérent et bien préservé, l'Arrondissement historique du Vieux-Québec est un des meilleurs exemples de ville coloniale fortifiée, unique au nord du Mexique.

**Critère (iv) :** Ensemble urbain cohérent et bien préservé, l'Arrondissement historique du Vieux-Québec est un exemple exceptionnel de ville coloniale fortifiée, de loin le plus complet au nord du Mexique.

**Critère (vi) :** Québec, l'ancienne capitale de la Nouvelle-France, représente une des étapes importantes de la colonisation des Amériques par les Européens.

#### Intégrité

La délimitation du bien englobe tous les éléments nécessaires pour exprimer la valeur universelle exceptionnelle de l'Arrondissement historique du Vieux-Québec. Le centre historique, circonscrit dans les limites actuelles de l'arrondissement, est le résultat d'une évolution de plus de quatre siècles. Au cours de cette évolution, la ville fortifiée a maintenu l'intégrité de ses composantes historiques essentielles, particulièrement sur les plans de l'architecture et de l'organisation spatiale urbaine. La délimitation est d'une taille suffisante (135 ha) pour permettre une représentation complète des caractéristiques et processus qui transmettent l'importance de ce bien. Le bien ne subit pas indûment des effets négatifs liés au développement et/ou au manque d'entretien. Au cours des années, de nombreux projets d'insertion, de restauration, de réhabilitation, de réfection ou encore de protection et de stabilisation ont vu le jour. Somme toute, les projets réalisés dans l'Arrondissement historique du Vieux-Québec n'ont pas mis en péril son intégrité.

#### Authenticité

L'Arrondissement historique du Vieux-Québec est authentique en termes de forme et conception, matériaux et substances, situation et cadre. Depuis son inscription, le Vieux-Québec a considérablement évolué, notamment dans l'organisation de son paysage urbain historique. Cependant, les attributs du bien expriment correctement la valeur universelle exceptionnelle, c'est à dire de manière véridique et crédible.

#### Éléments requis en matière de protection et de gestion

Le Vieux-Québec jouit d'une solide protection juridique ainsi que de l'appui de tous les paliers de gouvernement impliqués. Un outil intergouvernemental, le Comité de concertation du patrimoine de Québec, a d'ailleurs été créé afin de coordonner les activités de divers niveaux de gouvernement.

Le territoire de l'Arrondissement historique du Vieux-Québec, désigné par l'autorité provinciale en tant que site patrimonial du Vieux-Québec, est légalement protégé par une loi de la province de Québec promulguée en 1963, la *Loi sur les biens culturels*. Ses limites ont été établies par décret provincial en 1964.

Depuis l'inscription du Vieux-Québec à la liste du patrimoine mondial en 1985, plusieurs biens du Vieux-Québec se sont ajoutés à la liste des biens protégés en vertu de la *Loi sur les biens culturels*. On peut notamment citer le site historique et archéologique de l'Habitation-Samuel-De Champlain, le monastère des Ursulines de Québec ou la collection archéologique de référence de Place-Royale.

La Ville de Québec assume toutes les responsabilités de gestion qui relèvent de sa compétence, en matière d'aménagement du territoire et d'urbanisme (réglementation de zonage). Par ailleurs, le *Règlement sur la politique de consultation publique* adopté en 2007 stipule que le Conseil de quartier Vieux-Québec–Cap-Blanc–Colline-Parlementaire doit être consulté avant toute modification à la réglementation d'urbanisme et de circulation. De plus, toute intervention de construction, de rénovation, de restauration et d'affichage dans le Vieux-Québec doit avoir préalablement été autorisée par la Commission d'urbanisme et de conservation.

Le gouvernement du Québec et la Ville de Québec, concluent régulièrement des ententes de développement culturel qui permettent d'offrir des programmes de subventions et des contributions financières importantes pour l'aide à la restauration des bâtiments patrimoniaux du Vieux-Québec.

Le gouvernement canadien, par l'entremise de différents ministères ainsi que Parcs Canada, gère un grand nombre de propriétés foncières patrimoniales. À cet égard, tous les ministères fédéraux, sauf les sociétés de la Couronne, doivent respecter la Politique du Conseil du Trésor sur la gestion des biens immobiliers et le Bureau d'examen des édifices fédéraux du patrimoine (BEÉFP) de Parcs Canada existe afin de les assister dans cette tâche. Les ministères de la Défense nationale, qui a la responsabilité de la Citadelle, ainsi que des Travaux publics et Services gouvernementaux Canada, ont tous deux un rôle à jouer dans la préservation du patrimoine

de l'arrondissement. Pour sa part, à titre de propriétaire et de gestionnaire des lieux historiques nationaux du Canada, Parcs Canada investit dans la mise en valeur et la préservation de ses propriétés, et par conséquent, de l'arrondissement. Avec à sa charge près de 70 lieux, personnages et événements désignés d'importance historique nationale, l'Agence contribue à sensibiliser le public à l'importance de l'Arrondissement historique du Vieux-Québec.

À long terme, une attention particulière continuera d'être accordée aux modifications qui pourraient être proposées pour le bien, notamment en ce qui a trait à leurs impacts visuels, et des mesures appropriées continueront d'être implantées afin d'en assurer la protection, l'intégrité et l'authenticité.

## Dinosaur Provincial Park (N 71)

### Brief synthesis

Dinosaur Provincial Park contains some of the most important fossil specimens discovered from the "Age of Dinosaurs" period of Earth's history. The property is unmatched in terms of the number and variety of high quality specimens which, to date, represent more than 44 species, 34 genera and 10 families of dinosaurs, dating back 75-77 million years. The park contains exceptional riparian habitat features as well as badlands of outstanding aesthetic value.

**Criterion (vii):** Dinosaur Provincial Park is an outstanding example of major geological processes and fluvial erosion patterns in semi-arid steppes. These badlands stretch along 26 kilometers of high quality and virtually undisturbed riparian habitat, presenting a landscape of stark but exceptional natural beauty.

**Criterion (viii):** The property is outstanding in the number and variety of high quality specimens representing every known group of Cretaceous dinosaurs. The diversity affords excellent opportunities for paleontology that is both comparative and chronological. Over 350 articulated specimens from the Oldman and Dinosaur Park formations including more than 150 complete skeletons now reside in more than 30 major museums. In addition to the significant number of high quality specimens, the property contains a complete assemblage of non-dinosaurian fossil material offering an unparalleled opportunity for the study of the Late Cretaceous paleo-ecosystem.

### Integrity

At 7493 ha in size, the property encompasses a significant portion of the badlands and riparian habitat elements found in the region. Geological processes that created and continue to be necessary to maintain the badlands landscape occur with virtually no impairment or human interference. The high natural aesthetic qualities of the badlands and riparian areas are largely intact. In many parts of the property few, if any signs of development outside of the World Heritage site's boundaries are visible.

The known presence of Late Cretaceous fossil material is closely associated with locations where the fossil-bearing formations are exposed through erosional processes. The large majority of these exposures in the region occur within the boundaries of the property. Both the fossil material and the highly valuable associated contextual information are wholly intact. Public access to the most sensitive areas of the site is strictly controlled. Research, collection and removal of fossil material are tightly regulated. Future facility development will only be permitted within the existing facility zone.

Protection of paleontological resources, badlands landforms, and riparian habitat was enhanced in 1992 through an extension of the property of 2033 ha.

### Protection and management requirements

The protection and management of the property is enabled through a number of different statutes of the Province of Alberta, notably the *Provincial Parks Act* and the *Historic Resources Act*. Strong collaboration with stakeholders and local landowners in relation to management issues is occurring on an ongoing basis. The park's 2012 Park Management Plan provides guidance in decision-making relating to the day-to-day operation of the park and managing identified issues. The Management Plan establishes a zoning system that restricts unguided public access to the most sensitive areas of the site.

All aspects of the management and operation of the site are overseen by a park manager located on-site. Proactive enforcement of statutes dealing with the protection of fossil resources is carried out by a number of trained staff. Land use activities are actively managed and impacts from visitor activities, facility operations and livestock grazing are being controlled and monitored.

The property is underlain by significant sub-surface petroleum resources. No surface access is granted for hydrocarbon extraction within the property; however, through the use of directional drilling techniques industry is able to access the subsurface resources underlying the property from outside of its boundaries. Hydrocarbon extraction activities that are occurring outside the property are actively managed and closely monitored to ensure that both the visual and environmental impacts are minimized.



Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, these include the potential development of infrastructure and facilities, livestock grazing, oil and gas extraction, impacts of tourism, visitors and recreation, potential impacts of climate change, as well as illegal removal of paleontological resources from the property.

## Gros Morne National Park (N 419)

### Brief synthesis

Gros Morne National Park, located on the Great Northern Peninsula in the Canadian province of Newfoundland and Labrador, illustrates some of the world's best examples of the process of plate tectonics. Within a relatively small area are classic, textbook examples of monumental earth-building and modifying forces that are unique in terms of their clarity, expression and ease of access. The property presents the complete portrayal of the geological events that took place when the ancient continental margin of North America was modified by plate movement by emplacement of a large, relocated portion of oceanic crust and ocean floor sediments. The park also presents an outstanding demonstration of glaciations in an island setting. The fjords, waterfalls and geological structures of the park combine to produce a landscape of high scenic value.

**Criterion (vii):** Gros Morne National Park, an outstanding wilderness environment of spectacular landlocked, freshwater fjords and glacier-scoured headlands in an ocean setting, is an area of exceptional natural beauty.

**Criterion (viii):** The rocks of Gros Morne National Park collectively present an internationally significant illustration of the process of continental drift along the eastern coast of North America and contribute greatly to the body of knowledge and understanding of plate tectonics and the geological evolution of ancient mountain belts. In glacier-scoured highlands and spectacular fjords, glaciation has made visible the park's many geological features.

### Integrity

Gros Morne National Park's clearly defined boundary encompasses an area measuring 180,500 hectares. This area is of sufficient size to completely portray the progression of geological events that took place when an ancient ocean and the ancient continental margin of eastern North America were destroyed and uplifted to form a mountain chain through the action of plate tectonics. Collectively the sequences of rocks that illustrate this geological evolution are represented by: an ancient continental crust composed of intensely metamorphosed granite and gneisses; a continental shelf with tropical carbonate sediments, containing abundant fossils; a continental slope of thick sequences of shales inter-bedded with limestone conglomerates, also with abundant fossils; a complete cross section of oceanic lithosphere including large exposures of mantle material; and significant sequences of volcanic rocks of oceanic origin.

These geologic features and the glacially-derived topography are in near-pristine condition in Gros Morne National Park. This condition is likely to persist since there is effective legislation to protect the property from development and since the property is managed in a way that can accommodate the current or projected number of visitors without adverse effects. Additionally, the collection of rocks and fossils is controlled and limited to research purposes. The natural process of erosion is ongoing and continues to shape and expose the geologic sequences upon which the World Heritage designation is based.

The integrity of the geological features on which the World Heritage inscription rests is not adversely affected by any of the stressors identified in the national park's management plan. However, a moose population introduced over 100 years ago in Newfoundland has expanded and degraded native forests creating visual and ecological impacts in the park. Steps are being taken to mitigate this problem.

### Protection and management requirements

The *Canada National Parks Act* provides effective legal protection for the property. As part of the formal management planning processes required under this legislation, the property's heritage resources are monitored in a structured way for early identification of threats and stressors. As a principle of practice, strategies to address vulnerabilities are developed in cooperation with area residents as well as with other stakeholders and user groups as appropriate. The park's management plan is updated every 10 years.

There are two right-of-way corridors that exist in Gros Morne National Park: a highway transportation corridor and a hydro-electric transmission corridor. Any decisions Parks Canada makes with respect to these corridors are made within the context of protecting the park's ecological integrity and its Outstanding Universal Value.

Developmental pressures external to the park boundary include offshore oil and gas exploration and potential developments on provincially-owned Crown lands. National park management monitors the progress of these as well as any other potential external developments and provides input into all formal regulatory consultation processes regarding them with a view to protecting the site's Outstanding Universal Value, in addition to its ecological integrity.

## Old Town Lunenburg (C 741)

### Brief synthesis

Old Town Lunenburg is the best surviving example of a planned British colonial settlement in North America. Established in 1753, it has retained its original layout and overall appearance, based on a rectangular grid pattern drawn up in the home country. The inhabitants have safeguarded the town's identity throughout the centuries by preserving the wooden architecture of the houses and public buildings, some of which date from the 18th century and constitute an excellent example of a sustained vernacular architectural tradition. Its economic basis has traditionally been the offshore Atlantic fishery, the future of which is highly questionable at the present time.

**Criterion (iv):** Old Town Lunenburg is a well-preserved example of 18th century British colonial urban planning, which has undergone no significant changes since its foundation, and which largely continues to fulfil the economic and social purposes for which it was designed. Of special importance is its diversified and well-preserved vernacular architectural tradition, which spans over 250 years.

**Criterion (v):** Old Town Lunenburg is an excellent example of an urban community and culture designed for and based on the offshore Atlantic fishery which is undergoing irreversible change and is evolving in a form that cannot yet be fully defined.

### Integrity

Within the boundaries of the 33 ha property are located all the elements necessary to express the Outstanding Universal Value of Old Town Lunenburg. The property encompasses the intact original town plan in its entirety, missing only the fortifications that surrounded the town in its early years, but of which there are no surviving above-ground remains. Its boundaries adequately ensure the complete representation of the features and processes that convey the property's significance, and there is a 48.72 ha buffer zone. The property does not suffer unduly from adverse effects of development and/or neglect.

### Authenticity

Old Town Lunenburg is authentic in location and setting, forms and designs, materials and substances, and uses and functions. The original British colonial town plan remains evident, including the regular layout of property parcels in a grid pattern with geometrically regular streets, central public spaces, and key community structures, with a functioning waterfront as its focus. In terms of forms and materials, there is a harmony of scale, siting and materials (predominantly wood) throughout the property, and a regional architectural vocabulary that includes the 'Lunenburg bump', an indigenous five-sided dormer. While a continuing vernacular architectural tradition is integral to the property's Outstanding Universal Value, there has been very limited infill in the modern era. Many of the property's historic uses and functions survive.

Most of the recent changes to the property are renovations to specific buildings, some of which have better conveyed the heritage value of Old Town Lunenburg than others. Due to long-term economic circumstances, there are also ongoing pressures on property owners in terms of rising property values, maintenance costs, and the challenges of retaining historical accuracy in restoration planning.

### Protection and management requirements

Old Town Lunenburg, which is almost entirely in private ownership, is commemorated by the Government of Canada as a National Historic Site (1991) and protected under two key pieces of provincial legislation, the Municipal Government Act (1998) and the Heritage Property Act (1989), which enable the municipality to create, respectively, land-use and heritage bylaws. In this context, the municipality adopted the Heritage Conservation District Plan, Bylaw and Guidelines in 2000 (consolidated in 2001). In order to better manage the community as a World Heritage property and ensure the continuing protection of the town's heritage resources, the Town of Lunenburg Heritage Sustainability Strategy (2010) has been developed to guide its development, including the identification of heritage, culture and tourism prospects that may produce economic opportunities for the community.

Sustaining the Outstanding Universal Value of the property over time will require managing, to the degree possible, ongoing pressures on property owners related to rising property values, maintenance costs, and the challenges of retaining historical accuracy in restoration planning. It will also require developing and implementing mechanisms to encourage building renovations that fully respect the heritage value of Old Town Lunenburg. Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, these include the potential impacts of climate change, and the impacts of tourism and visitation.

## Parc national de Miguasha (N 686rev)

### Brève synthèse

Situé au Canada, sur la côte Est de la province de Québec, le Parc national de Miguasha protège et met en valeur la Formation d'Escuminac, une formation rocheuse renfermant un patrimoine fossilifère reconnu pour sa qualité de conservation, pour la quantité de spécimens et pour la représentativité de la période du Dévonien. Les poissons, les invertébrés et les plantes fossiles de Miguasha témoignent de la vie telle qu'elle existait sur Terre il y a 370 millions d'années.

**Critère (viii) :** Pour son témoignage sur la vie vertébrée et son illustration de l'« âge des poissons » du Dévonien, le Parc national de Miguasha est le site fossilifère le plus exceptionnel du monde. Le site est d'importance capitale car il occupe le premier rang mondial pour le nombre et la qualité de conservation des spécimens fossiles des poissons sarcoptérygiens qui sont les ancêtres des premiers vertébrés terrestres à quatre pattes et respirant de l'air, les tétrapodes.

### Intégrité

Avec sa superficie de 87,3 hectares, le parc préserve l'intégrité de la falaise fossilifère et de la Formation d'Escuminac. La protection des grèves renforce cette intégrité, car elle permet la récupération des fossiles tombés de la falaise et déplacés par les marées. Avec ses quelques 13 000 spécimens, la collection nationale de fossiles du parc démontre aussi l'intégrité de ce patrimoine scientifique. Un grand nombre de ces fossiles sont d'une qualité exceptionnelle de conservation, avec des spécimens complets, des préservations en 3D et des tissus mous fossilisés. La qualité de conservation et quantité de spécimens s'ajoutent à la représentativité de la période du Dévonien comme facteurs d'unicité du site.

### Éléments requis en matière de protection et de gestion

La sauvegarde de l'intégrité de ce patrimoine est garantie par le statut de parc de conservation, créé par le décret « Règlement sur l'établissement du parc de Miguasha » du gouvernement du Québec (1985) et par la Loi québécoise sur les parcs (1978). Membre du réseau Parcs Québec, le Parc national de Miguasha est l'unique propriétaire du territoire dont il assure la protection et la conservation. Cette protection législative et institutionnelle assure l'intégrité du site pour le bénéfice des générations actuelles et futures.

En 1990, l'arrêté de la Loi provinciale sur les mines a soustrait un territoire de 775 hectares limitrophes au parc de toute forme de prospection pétrolière, minière et gazière. En 2004, ce statut a été modifié en une Réserve de l'État, un territoire sur lequel toute forme de développement doit obligatoirement recevoir l'assentiment du ministre des Ressources naturelles et de la Faune du Québec.

Le parc s'est donné des outils de travail pour assurer une gestion efficace et éclairée du patrimoine paléontologique et de l'environnement. Ces outils de gestion encadrent la recherche paléontologique, l'application de la loi sur les parcs, les opérations de terrain, les fouilles, le travail de laboratoire et de mise en collection, les patrouilles et la mission d'éducation et la gestion financière du parc.

À plus long terme, une attention spéciale sera accordée à la surveillance des modifications et des ajouts proposés au bien et ses environs, notamment l'exploration et l'exploitation minière potentielle; l'extraction illégale de fossiles du site; les changements climatiques; et l'érosion.

## SGang Gwaay (C 157)

### Brief Synthesis

On the island of SGang Gwaay, the remains of large cedar long houses, together with a number of carved mortuary and memorial poles at the village of SGang Gwaay Llnagaay (formerly Nan Sdins), illustrate the art and way of life of the Haida. The property commemorates the living culture of the Haida and their relationship with the land and sea. It also offers a visual key to their oral traditions. The village of SGang Gwaay was occupied until shortly after 1880. What survives is unique in the world, a 19th-century Haida village where the ruins of houses and memorial or mortuary poles illustrate the power and artistry of Haida society.

**Criterion (iii):** SGang Gwaay bears unique testimony to the culture of the Haida. The art represented by the carved poles at SGang Gwaay Llnagaay (Nan Sdins) is recognized to be among the finest examples of its type in the world.

### Integrity

The property is wholly contained within the natural boundaries of the island on which all remains are located, thus ensuring the complete representation of the features and processes that convey the property's significance. There is some degradation of the ruins and mortuary poles due to natural processes, but the property is protected from adverse effects of human development and invasive species. There has been no permanent settlement on the property since the early 19th century.

While no formal buffer zone is associated with this property, it is within the 147,000 ha Gwaii Haanas National Park Reserve and Haida Heritage Site (created in 1993) and the Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site (created in 2010).

### **Authenticity**

SḠang Gwaay is unquestionably authentic in terms of its location and setting, forms and designs, materials and substances as well as spirit and feeling. The property is an authentic illustration of the evolving Haida culture, as can be seen in the relationships between the forms and designs of the art and structures at the property, and contemporary Haida art. The property continues to hold significant spiritual value for the Haida and is still used today.

After consultation with chiefs and elders, in 1995 four poles were straightened and stabilized and in 1997 an additional pole was stabilized in an effort to prolong the period before they return naturally to the earth. Identified and potential threats to the authenticity of the property include the general decomposition of the cedar poles and house remains, the impact of deer on the in-situ artefacts (the situation is reviewed on a regular basis and culling happens as required), and unsupervised visitors who may inadvertently damage the fragile cultural resources by touching or walking on them.

### **Protection and management requirements**

SḠang Gwaay is commemorated by the Government of Canada as a National Historic Site (1981) and is protected under the *Constitution of the Haida Nation (2003)*, the *Canada National Parks Act (2000)*, and related management systems. Situated within the boundaries of the Gwaii Haanas National Park Reserve and Haida Heritage Site, the property is cooperatively managed by the Government of Canada and the Council of the Haida Nation. Cultural resource management requirements for the property are currently addressed under the management plan for the entire Gwaii Haanas National Park Reserve and Haida Heritage Site (2008).

An Archipelago Management Board (AMB), comprised of Haida and Government of Canada representatives, determines all operational, planning and management actions, using a consensus-based decision-making model. The AMB examines all initiatives and undertakings related to the planning, operation, and management of SḠang Gwaay. The Haida Hereditary Leaders have moral authority over the village sites and are consulted; solutions are based on advice provided by the Haida Hereditary Leaders. The Haida Gwaii Watchmen Program of site guardians and guides is managed by the Skidegate Band Council and is an essential part of the management structure.

Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, these include the following: potential impacts of climate change; potential building development; marine pollution; local conditions affecting physical fabric including wind, humidity, and temperature; impacts of tourism, visitation and recreational activities; deliberate destruction of heritage; effects of climate change and severe weather; possible sudden ecological and geological events; and invasive species.

## **Wood Buffalo National Park (N 256)**

### **Brief synthesis**

Wood Buffalo National Park is an outstanding example of ongoing ecological and biological processes encompassing some of the largest undisturbed grass and sedge meadows left in North America. It sustains the world's largest herd of wood bison, a threatened species. The park's huge tracts of boreal forest also provide crucial habitat for a diverse range of other species, including the endangered whooping crane. The continued evolution of a large inland delta, salt plains and gypsum karst add to the park's uniqueness.

**Criterion (vii):** The great concentrations of migratory wildlife are of world importance and the rare and superlative natural phenomena include a large inland delta, salt plains and gypsum karst that are equally internationally significant.

**Criterion (ix):** Wood Buffalo National Park is the most ecologically complete and largest example of the entire Great Plains-Boreal grassland ecosystem of North America, the only place where the predator-prey relationship between wolves and wood bison has continued, unbroken, over time.

**Criterion (x):** Wood Buffalo National Park contains the only breeding habitat in the world for the whooping crane, an endangered species brought back from the brink of extinction through careful management of the small number of breeding pairs in the park. The park's size (4.5 million ha), complete ecosystems and protection are essential for *in-situ* conservation of the whooping crane.

### **Integrity**

Wood Buffalo National Park straddles the boundary between the province of Alberta and the Northwest Territories, and encompasses 4.5 million hectares of forest, wetland and prairie, including the majority of the Peace-

Athabasca Delta. The size of the park allows for the protection of entire ecosystems and the ecosystem features that are the basis for the park's Outstanding Universal Value. The park's size, remoteness, very low human population density and the absence of resource extraction activities minimize human-related stress within the property, resulting in a high level of integrity. Bovine brucellosis and tuberculosis are present within the wood bison population in and around the park. The actual and potential impact on the delta from stressors originating outside the park, such as flow regulation, water withdrawals, industrial discharge and climate change, is monitored by the park and by working in collaboration with a network of partners to monitor and manage impacts from upstream development.

### **Protection and management requirements**

The *Canada National Parks Act* provides effective legal protection for the park. Under the requirements of the legislation, a park management plan was approved in June 2010 and provides direction for protecting the features of the park that are the basis for its Outstanding Universal Value, and for providing opportunities for visitors to experience and learn about the park. The park's two largest wetlands (the Peace-Athabasca Delta and the whooping crane nesting area) have also been declared Wetlands of International Importance under the RAMSAR convention.

Park managers work with 11 Aboriginal groups for whom Wood Buffalo National Park is an area of significant cultural value to cooperatively manage the park, as each group carries out traditional harvesting and other cultural activities within the park boundaries. Endangered species and their critical habitat, including the breeding grounds of the whooping crane, are protected under provisions of Canada's *Species at Risk Act*. Park staff also work with Environment Canada, international crane preservation groups and U.S. government agencies to ensure the long term viability of the park's whooping crane flock.

Park staff closely monitors upstream development on the major rivers that flow into the park and work closely with local Aboriginal partners, other government agencies, stakeholders and industry to maintain the ecological integrity of Wood Buffalo National Park. The park management plan commits park managers to developing an Area Management Plan for the Peace-Athabasca Delta to address the challenges of managing the delta's ecological and cultural values in cooperation with partners and stakeholders. The Peace-Athabasca Delta Ecological Monitoring Program, a multi-stakeholder group made up of Aboriginal representatives, government and non-government organizations, is a cornerstone in developing and implementing this plan.

Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in or near the property. Specifically, attention will focus on the actual and potential impacts of upstream development and climate change.

## **FRANCE/SPAIN / FRANCE/ESPAGNE**

### **Pyrénées - Mont Perdu (C/N 773bis)**

#### **Brève synthèse**

Le massif calcaire de Pyrénées - Mont Perdu, situé à la frontière entre la France et l'Espagne, est constitué par des formations géologiques classiques, notamment des canyons profonds sur le versant sud, du côté espagnol, et des cirques spectaculaires sur le versant nord, du côté français. Centré sur le pic du Mont Perdu, qui culmine à 3 348 m, et couvrant une superficie totale de 30 639 ha, le bien offre un paysage exceptionnel avec des prairies, des lacs, des grottes et des forêts sur les versants des montagnes. Le versant nord a un climat maritime humide, tandis que sur le versant sud, le climat est méditerranéen et plus sec.

L'installation de l'homme dans cette région remonte au paléolithique supérieur (40 000 – 10 000 av. J.-C.), comme en témoignent les sites tels que les cavernes d'Añisclot et d'Escuain, les cercles de pierre de Gavarnie et le dolmen de Tella. Des documents du Moyen Âge ont fait entrer ces établissements sédentaires dans l'histoire. Ils étaient situés sur les versants du massif et des vallées avoisinantes, formés par le réseau hydrographique de rivières qui irriguaient les champs le long des vallées du nord, ainsi que les sentiers et routes, ponts, maisons et hospices (comme les *espitau/hospices* de Gavarnie, Boucharo, Aragnouet, Parzan, Héas et Pinet).

Ces installations étaient au centre d'un système agro-pastoral basé sur le déplacement du bétail, des moutons, des vaches et des chevaux vers les pâturages d'altitude pendant les mois d'été, qui se distingue clairement de l'utilisation des terres dans les plaines environnantes. Les vallées du Mont-Perdu et leurs cols ont servi de liens entre les deux communautés, qui avaient davantage de points communs entre elles qu'avec leurs communautés respectives dans les plaines. En conséquence, le système juridique et politique spécifique de la région, établi de longue date, est depuis bien longtemps indépendant des gouvernements centraux.

L'exploitation des hauts pâturages comme ceux de Gaulis ou d'Ossoue sont un témoignage inestimable de ce système de transhumance. C'est l'un des rares lieux en Europe où la transhumance s'est maintenue depuis des siècles. Par des accords ancestraux, les fermiers espagnols font aussi paître leurs troupeaux du côté français. Cette pratique renforce la nature transfrontalière de ce bien du patrimoine mondial.

**Critère (iii) :** Les pâturages et les prairies de Pyrénées – Mont Perdu, avec leurs villages et les chemins qui les relient, sont un témoignage remarquable d'un système de transhumance aujourd'hui très rare en Europe, encore pratiqué par sept communautés qui vivent principalement à proximité des limites du bien.

**Critère (iv) :** Les hautes vallées et les sommets calcaires de Pyrénées – Mont Perdu sont un exemple exceptionnel de paysage façonné par un système de transhumance pastorale qui s'est développé au Moyen Âge et persiste encore.

**Critère (v) :** Le modèle de l'habitat de Pyrénées – Mont Perdu avec ses villages, ses champs et ses prairies, qui est à la base d'une migration saisonnière des hommes et des bêtes vers les pâturages d'altitude pendant la saison d'été, est un exemple exceptionnel d'un type de transhumance qui fut autrefois répandu dans les régions montagneuses d'Europe, mais qui est aujourd'hui devenu rare.

**Critère (vii) :** Le bien est un paysage exceptionnel avec des prairies, des lacs, des grottes, des montagnes et des forêts. De plus, la région présente un grand intérêt pour la science et la conservation, possédant toute une gamme d'éléments géologiques, panoramiques, faunistiques et floristiques qui en font l'un des espaces protégés alpins parmi les plus importants d'Europe.

**Critère (viii) :** Le massif calcaire du Mont Perdu présente une série de formations géologiques classiques telles que des canyons profondément creusés et des cirques spectaculaires. La région se distingue par le fait qu'il s'agit d'une zone de collision tectonique entre la plaque ibérique et la plaque d'Europe occidentale. Le bien présente une unité géologique exceptionnelle, car il s'agit d'un massif calcaire avec en son centre le Mont Perdu. Le paysage qui en résulte est considérablement différent sur le versant nord (France) et sur le versant sud (Espagne).

### **Intégrité**

En ce qui concerne l'impact anthropique, les Pyrénées font partie du continent européen, habité par l'homme depuis plusieurs milliers d'années et au sein duquel très peu de régions conservent encore leur intégrité naturelle. Malgré les nombreux changements intervenus au fil des siècles, le développement n'a affecté ni la géologie du site, ni sa topographie, tandis que la transformation du milieu biologique est restée harmonieuse. Une grande partie de la région, en particulier sur le versant espagnol, a subi peu de changements. Sur le versant français, on trouve encore des activités pastorales et forestières. La transhumance se poursuit dans la région avec de fréquents mouvements de troupeaux de part et d'autre de la frontière franco-espagnole. De nombreux projets de développement (lignes de chemin de fer, lignes à haute tension, zones skiables) ont été écartés depuis plusieurs décennies, et la chasse a été interdite dans les parcs nationaux en 1918 en Espagne et en 1967 en France.

Les limites du bien classé au patrimoine mondial ont été fixées en fonction de l'unité paysagère comprenant le massif calcaire du Mont Perdu comme pièce maîtresse, et non des limites administratives des aires protégées de chaque pays, ce qui pourrait entraîner quelques difficultés du point de vue de la gestion et de la présentation du site. Une extension du bien sur une petite partie du territoire français, principalement pour les critères culturels, a été adoptée en 1999.

### **Authenticité**

L'authenticité du bien est globalement très forte selon deux points de vue intimement liés : son utilisation et son aspect. Si l'utilisation est plus significative en termes de « paysage culturel », l'aspect physique s'avère capital pour distinguer la région concernée des Pyrénées. Le paysage a gardé son authenticité de façon remarquable : les éléments naturels dominent (géologie, altitude et climat), et la pâture pratiquée de façon régulière limite la flore de sorte que le paysage montagnard est entièrement dénué d'arbres et de buissons, particulièrement au-delà de 2 000 m d'altitude. Les éleveurs continuent d'assurer un pastoralisme extensif qui s'inscrit parfaitement dans le mode de vie traditionnel des Pyrénées centrales.

Le site constitue un témoignage inestimable sur la société montagnarde d'autrefois, au travers de ses paysages et de ses villages, fermes, champs, hauts pâturages et chemins de montagne. Le paysage agro-pastoral actuel est aujourd'hui le reflet de l'histoire du site. La qualité du bien demeure inaltérée depuis son inscription.

### **Éléments requis en matière de protection et de gestion**

Côté espagnol, le « Plan Rector de Uso y de Gestión » ou *Plan de gestion du Parque Nacional de Ordesa y Monte Perdido* est actualisé de façon périodique, tout comme le « Plan Director de la Red de Parques Nacionales » (Plan Directeur du Réseau des Parcs Nationaux).

La partie espagnole du site correspond approximativement aux deux tiers du site patrimoine mondial, et coïncide avec les limites du *Parque Nacional de Ordesa y Monte Perdido* qui fut créée en 1918 et agrandi en 1982, ainsi que sa zone périphérique de protection, ce qui offre le plus haut degré de conservation possible tant pour le patrimoine naturel qu'humain. Le *Parque Nacional de Ordesa y Monte Perdido* est inclus dans le Réseau Natura 2000, qui comprend les réseaux de Zones de protection pour les oiseaux et les Sites d'intérêt communautaire. En outre, il s'agit d'un site Réserve de Biosphère, Géoparc titulaire d'un Diplôme européen délivré par le Conseil de l'Europe et attribué de façon ininterrompue depuis 1988. Il fait partie du Réseau des espaces naturels d'Aragon et du Réseau des Parcs nationaux espagnols. Il existe huit routes pastorales ou *vías pecuarias* protégées au titre du patrimoine par des lois nationales et régionales. On y applique des Plans pour la conservation de deux

espèces menacées (*Gypaetus barbatus* et *Cyripedium calceolus*). Le personnel du Parc s'occupe de différentes tâches telles que le gardiennage, l'information, l'entretien, le nettoyage et la gestion administrative.

Le suivi du bien se fait à partir de différentes études scientifiques, y compris la mise en œuvre de projets de recherche liés aux parcs nationaux, la création d'une unité spécifique de recherche en vue de la surveillance environnementale sur les différents habitats du Parc National, la réalisation de contrôles de qualité au moyen d'enquêtes s'adressant aussi bien aux visiteurs qu'aux gens du pays, et la réalisation d'un inventaire du patrimoine culturel, comme les *mallatas* (cabanes traditionnelles de bergers).

Côté français, une grande partie du bien (60 %) se trouve dans la zone-cœur du Parc national des Pyrénées, qui fait l'objet d'une protection spécifique, le reste étant couvert par l'aire optimale d'adhésion du Parc. Le Parc national exerce une mission de gestion et de protection du patrimoine environnemental ainsi que de sensibilisation du public. Il dispose de documents cadre pour la gestion de son espace.

Le bien est également couvert par un complexe de zones du Réseau Natura 2000, qui a pour objectif la préservation de la biodiversité en cherchant à concilier les exigences des habitats naturels et des espèces avec les activités économiques, sociales et culturelles qui s'exercent sur les territoires. Par exemple, le site Natura 2000 « Estaubé, Gavarnie, Troumouse, Barroude » permet la mise en place d'une gestion concertée et assumée par tous les acteurs intervenant dans les espaces naturels.

Le site fait également l'objet de la part de l'État français de diverses réglementations qui régissent l'ensemble du territoire concerné (connues en France comme Loi du 2 mai 1930 sur les sites classés, et aujourd'hui codifiées dans le Code de l'Environnement).

Actuellement, le site présente le plus haut degré de conservation de la biodiversité au regard des normes européennes en vigueur.

La Charte de coopération commune (2010-2020) entre les deux parcs et la mise en place d'un comité technique transfrontalier, qui élabore un programme d'actions éligible aux financements européens dans le cadre du Programme Interreg IV (POCTEFA), sont de nature à améliorer la gestion du site.

Depuis l'inscription du bien, plusieurs points devaient être clarifiés, tels que le renforcement de la coopération transfrontalière, l'usage non vertueux de certaines aires du site, les pratiques touristiques, l'amélioration des systèmes de transport, le faible niveau de sensibilisation et d'éducation sur les valeurs du site, ainsi que le soutien aux modes de vie traditionnels. Pour aider la population locale et améliorer son niveau de vie, des subventions sont accordées annuellement par le gouvernement de la Région Aragon et l'État espagnol à des projets de développement durable conduits par des individus, des groupes locaux, des entreprises familiales, des municipalités ou des ONG.

L'État français investit également dans ce type d'actions permettant la reconnaissance par les populations locales de la valeur universelle exceptionnelle de Pyrénées – Mont Perdu. Cette appropriation, respectueuse de la protection de la valeur universelle exceptionnelle et de l'ensemble des caractéristiques du bien, est la seule garantie de son implication durable dans la préservation et la promotion du site, à condition naturellement qu'elles ne soient génératrices d'aucune atteinte à l'intégrité physique et à l'authenticité du site.

Le pastoralisme et ses valeurs culturelles sont soutenus grâce à d'importantes aides financières des États français et espagnol ainsi que des fonds européens : aide aux travaux (réhabilitation de cabanes pastorales, sentiers, pas canadiens, points d'eau), aides directes et subventions aux éleveurs pratiquant la transhumance. L'élevage y est en outre favorisé grâce à l'emploi d'hélicoptères par les administrations française et espagnole afin de permettre le transport vers les lieux d'accès difficile (sel, matériaux de construction, moyens de secours).

Bien que la survivance de l'élevage transhumant soit déterminée par les prix de la viande sur les marchés internationaux ainsi que par les aides dérivées de la Politique agricole commune, les deux États appuient et continueront d'appuyer le secteur de l'élevage transhumant dans le site Pyrénées – Mont Perdu.

## **GREECE / GRÈCE**

### **Acropolis, Athens (C 404)**

#### **Brief Synthesis**

The Acropolis of Athens is the most striking and complete ancient Greek monumental complex still existing in our times. It is situated on a hill of average height (156m) that rises in the basin of Athens. Its overall dimensions are approximately 170 by 350m. The hill is rocky and steep on all sides except for the western side, and has an extensive, nearly flat top. Strong fortification walls have surrounded the summit of the Acropolis for more than 3,300 years. The first fortification wall was built during the 13th century BC, and surrounded the residence of the local Mycenaean ruler. In the 8th century BC, the Acropolis gradually acquired a religious character with the establishment of the cult of Athena, the city's patron goddess. The sanctuary reached its peak in the archaic period (mid-6th century to early 5th century BC). In the 5th century BC, the Athenians, empowered from their

victory over the Persians, carried out an ambitious building programme under the leadership of the great statesman Perikles, comprising a large number of monuments including the Parthenon, the Erechtheion, the Propylaia and the temple of Athena Nike. The monuments were developed by an exceptional group of architects (such as Iktinos, Kallikrates, Mnesikles) and sculptors (such as Pheidias, Alkamenes, Agorakritos), who transformed the rocky hill into a unique complex, which heralded the emergence of classical Greek thought and art. On this hill were born Democracy, Philosophy, Theatre, Freedom of Expression and Speech, which provide to this day the intellectual and spiritual foundation for the contemporary world and its values. The Acropolis' monuments, having survived for almost twenty-five centuries through wars, explosions, bombardments, fires, earthquakes, sackings, interventions and alterations, have adapted to different uses and the civilizations, myths and religions that flourished in Greece through time.

**Criterion (i).** The Athenian Acropolis is the supreme expression of the adaptation of architecture to a natural site. This grand composition of perfectly balanced massive structures creates a monumental landscape of unique beauty, consisting of a complete series of architectural masterpieces of the 5th century BC: the Parthenon by Iktinos and Kallikrates with the collaboration of the sculptor Pheidias (447-432); the Propylaia by Mnesikles (437-432); the Temple of Athena Nike by Mnesikles and Kallikrates (427-424); and Erechtheion (421-406).

**Criterion (ii).** The monuments of the Athenian Acropolis have exerted an exceptional influence, not only in Greco-Roman antiquity, during which they were considered exemplary models, but also in contemporary times. Throughout the world, Neo-Classical monuments have been inspired by all the Acropolis monuments.

**Criterion (iii).** From myth to institutionalized cult, the Athenian Acropolis, by its precision and diversity, bears a unique testimony to the religions of ancient Greece. It is the sacred temple from which sprung fundamental legends about the city. Beginning in the 6th century BC, myths and beliefs gave rise to temples, altars and votives corresponding to an extreme diversity of cults, which have brought us the Athenian religion in all its richness and complexity. Athena was venerated as the goddess of the city (Athena Polias); as the goddess of war (Athena Promachos); as the goddess of victory (Athena Nike); as the protective goddess of crafts (Athena Ergane), etc. Most of her identities are glorified at the main temple dedicated to her, the Parthenon, the temple of the patron-goddess.

**Criterion (iv).** The Athenian Acropolis is an outstanding example of an architectural ensemble illustrating significant historical phases since the 16th century BC. Firstly, it was the Mycenaean Acropolis (Late Helladic civilization, 1600-1100 BC) which included the royal residence and was protected by the characteristic Mycenaean fortification. The monuments of the Acropolis are distinctly unique structures that evoke the ideals of the Classical 5th century BC and represent the apex of ancient Greek architectural development.

**Criterion (vi).** The Acropolis is directly and tangibly associated with events and ideas that have never faded over the course of history. Its monuments are still living testimonies of the achievements of Classical Greek politicians (e.g. Themistokles, Perikles) who lead the city to the establishment of Democracy; the thought of Athenian philosophers (e.g. Socrates, Plato, Demosthenes); and the works of architects (e.g. Iktinos, Kallikrates, Mnesikles) and artists (e.g. Pheidias, Agorakritos, Alkamenes). These monuments are the testimony of a precious part of the cultural heritage of humanity.

### **Integrity**

The Acropolis of Athens contains within its boundaries all the key attributes that convey the property's Outstanding Universal Value, as an ensemble of unique splendor in excellent condition. The perfection of ancient building techniques ensured the resistance of the monuments to natural forces through time. Despite the unavoidable damage of time, they still display their beauty and convey their inestimable artistic and historic value, preserving all the features that directly and tangibly associate them with the events and ideas of Democracy and Philosophy. Inevitably, the vicissitudes of history between the 5th century BC and our days have caused extensive damage that is being successfully addressed with the ongoing restoration and conservation works, which increase both the stability and the legibility of the monuments.

### **Authenticity**

The authenticity of the Acropolis hill, crowned with the masterpieces of Greek Classical art and architecture, is well preserved. In order to maintain the authenticity and structural integrity of the monuments, an integrated intervention begun in 1975 and continues today. The works are based on clear theoretical and scholarly foundations, and follow the principles of the Venice Charter. The interventions are limited to the absolutely necessary and respect the ancient structural system, while remaining consistent with the principle of reversibility. Moreover, the techniques and the tools used for the restoration works are similar to those of the ancient craftspeople, while the white marble used for completing the eroded architectural elements is quarried from the same mountain as in antiquity (Mt. Penteli). Therefore, the restorations are fully compatible with the original parts of the monuments.

### **Protection and management requirements**

The Acropolis has been operating as an archaeological site since 1833, shortly after the establishment of the modern Greek State. Nowadays, the property is strongly protected under the provisions of Law No 3028/2002 on the "Protection of Antiquities and Cultural Heritage in general". Moreover, the Acropolis and its surroundings,



which constitute monuments *per se*, are protected by legislative decrees (Ministerial Decrees F01/12970/503/25.2.82 concerning the designation of its buffer zone; and F43/7027/425/29.1.2004 concerning the designation of the peripheral zone of the city of Athens and imposing obligatory control before issuing any building or development permit within its boundaries). The fact that the property's buffer zone is a protected archaeological area itself, along with the implementation of the strict legal framework – especially for the urban tissue in the historical centre of Athens since 2002 – and the intense monitoring by the competent Ephorate, ensure that urban development pressures are adequately addressed. Special protection is provided by the Presidential Decree No 24/2007, which declares the Acropolis area a no-fly zone.

The property is under the jurisdiction of the Ministry of Culture, Education and Religious Affairs, through the Ephorate of Antiquities of Athens, its competent Regional Service, which is responsible for the site's security and protection, as well as the implementation of an efficient site and visitors' management system. Moreover, the Ministry of Culture, Education and Religious Affairs implements the legislative decrees concerning the safeguarding of the property and its peripheral zone (which corresponds to the boundaries of the ancient city of Athens and its surroundings) and ensures the visual integrity of the site. Especially for the restoration, protection and monitoring of the property, an advisory body, the Committee for the Restoration and Conservation of the Acropolis Monuments, was founded in 1975 and is responsible for planning, directing and supervising the interventions. In 1999, the establishment of the Acropolis Restoration Service allowed to increase the academic and technical personnel and made the immense development of the restoration works possible, under the supervision of the aforementioned Committee and in cooperation with the competent Ephorate. The extensive research programme and the methodology implemented are innovative in this field and act as a reference point for other restoration projects. The financial resources for the works on the site are derived from the State budget as well as from European Union funds.

Special attention has been paid to the accessibility of the site, to pathways and to visitor facilities, especially for disabled people. Furthermore, emergency plans for visitor security and scientific studies for the protection of the site, such as monitoring of earthquake activity, are being carried out.

The New Acropolis Museum (inaugurated in 2009), in which most of the original sculptural and/or architectural pieces of the monuments are conserved, the on-going project "Unification of the Archaeological Sites of Athens", as well as the long-term conservation works will enhance the protection and the presentation of the property.

## Archaeological Site of Olympia (C 517)

### Brief synthesis

The sanctuary of Olympia, in the North West of the Peloponnese, in the Regional Unit of Eleia (Elis), has been established in the valley created by the confluence of the Alpheios and Kladeos rivers in a natural setting of beauty and serenity. The Pan-Hellenic sanctuary has been established in the history of culture, as the most important religious, political and sports centre, with a history that dates back to the end of the Neolithic times (4th millennium BC). The famous sanctuary became the centre of worship of Zeus, the father of the twelve Olympian gods. For the Altis, the sacred grove and the centre of the sanctuary, some of the most remarkable works of art and technique have been created, constituting a milestone in the history of art. Great artists, such as Pheidias, have put their personal stamp of inspiration and creativity, offering unique artistic creations to the world. In this universal place, the Olympic Idea was born, making Olympia a unique universal symbol of peace and competition at the service of virtue. Here, too, prominence was given to the ideals of physical and mental harmony, of noble contest, of how to compete well, of the Sacred Truce; values, which remain unchanged in perpetuity.

**Criterion (i):** The sanctuary of the Altis contained one of the highest concentrations of masterpieces of the ancient Mediterranean world. Many have been lost, such as the Olympia Zeus, a gold-and-ivory cult statue which was probably destroyed by Pheidias between 438 and 430 BC and one of the seven wonders of the ancient world. Other masterpieces have survived: large votive archaic bronzes, pedimental sculptures and metopes from the temple of Zeus, and the famous complex of Hermes by Praxiteles. These are all major works of sculpture and key references in the history of art.

**Criterion (ii):** The influence of the monuments of Olympia has been considerable: the temple of Zeus, built in 470-457 BC, is a model of the great Doric temples constructed in the Peloponnese, as well as in southern Italy and in Sicily during the 5th century BC; the Nike by Paionios, sculptured circa 420 BC, so lastingly influenced iconographic allegories of victory that neoclassic art of the 19th century is still much indebted to it; the Olympian Palaestra with reference to the Roman period, a square and an open space for athletes' training as well as a place for their mental and physical preparation before the Games, is undoubtedly the typological reference made by Vitruvius in "De Architectura". Its value as a standard in architecture is in any case indisputable.

**Criterion (iii):** Olympia bears exceptional testimony to the ancient civilizations of Peloponnese, both in terms of duration and quality. The first human settlements date back to prehistoric times when the valley was occupied from 4000 to 1100 BC. Settlements and necropolises from the Bronze Age have been unearthed along the banks of the Alpheios river. The Middle Helladic and Mycenaean periods are represented at the site. Consecrated to

Zeus, the Altis is a major sanctuary from the 10th century BC to the 4th century AD, corresponding to the zenith of Olympia, marked more specifically by celebration of the Olympic Games from 776 BC to 393 AD. A Christian settlement survived for a time at the site of the ruins of the great Pan-Hellenic sanctuary: discovery of the workshop of Pheidias under the remains of a Byzantine church is an outstanding indication of continuous human settlement, which was interrupted only in the 7th century AD, as a result of natural disasters.

**Criterion (iv):** Olympia is an outstanding example of a great Pan-Hellenic sanctuary of antiquity, with its multiple functions: religious, political and social. Ancient sanctuaries, such as the Pelopion and a row of Treasuries to the north at the foot of Kronion Hill, are present within the peribolus of the Altis, consecrated to the gods, alongside the principal temples of Zeus and Hera. All around the divine precinct are the structures used by the priests (Theokoleon) and the administration (Bouleuterion), as well as common buildings (Prytaneion), accommodation (Leonidaion and Roman hostel), residences for distinguished guests (Nero's House), and all the sports structures used for the preparation and celebration of the Olympic Games: the stadium and the hippodrome to the east, and the thermal baths, the Palaestra and the Gymnasium to the south and west.

**Criterion (vi):** Olympia is directly and tangibly associated with an event of universal significance. The Olympic Games were celebrated regularly beginning in 776 BC. The Olympiad –the four-year period between two successive celebrations falling every fifth year- became a chronological measurement and system of dating used in the Greek world. However, the significance of the Olympic Games, where athletes benefitting from a three-month Sacred Truce came together from all the Greek cities of the Mediterranean world to compete, demonstrates above all the lofty ideals of Hellenic humanism: peaceful and loyal competition between free and equal men, who are prepared to surpass their physical strength in a supreme effort, with their only ambition being the symbolic reward of an olive wreath. The revival of the Olympic Games in 1896 through the efforts of Pierre de Coubertin illustrates the lasting nature of the ideal of peace, justice and progress, which is no doubt the most precious but also the most fragile feature of the world's heritage.

### **Integrity**

In 2007, the surrounding area of the sanctuary of Olympia was hit by fires which have burned out a great part of the Peloponnese, albeit not irreparably. Through immediate and coordinated efforts, in a short period of time, the natural environment has been restored, without significant alteration of its original form, while the ancient monuments inside the sanctuary were not affected and they are still preserved in very good condition. Consequently, the World Heritage property contains within its boundaries all the key attributes that convey the Outstanding Universal Value of the site. The restoration works on the sanctuary's monuments have been conducted in accordance with the ethics of science and techniques, while in 2008 the restriction of vehicles' circulation on the road passing through the foothills of Kronion Hill succeeded in protecting the monuments in its vicinity from vibration, noise and pollutants. The principal threats to the site are fire and flooding.

### **Authenticity**

The sanctuary of Olympia and its surrounding area are preserved in almost intact condition, from ancient times till today. In the sacred Altis, Zeus' sacred forest, the same tree and plant species are found, as in antiquity. The ancient monuments and the votives, which are displayed in the Museum of Olympia have not undergone any intervention, which would change their form and content. The values of fair competition and Sacred Truce, which were established during the ancient Olympic Games, are diachronic and always pertinent. The visitor of today, when visiting the archaeological site of Olympia, can feel the spirituality and ideological weight of this Olympian landscape.

### **Protection and management requirements**

The property is protected under the provisions of Law No 3028/2002 on the "Protection of Antiquities and Cultural Heritage in general". The sanctuary of Olympia and its surrounding landscape has been designated as an archaeological site (Government Gazettes 128/B and 216/B of 1992). The property has a sufficient buffer zone and sufficiently effective protection arrangements that prevent any potential threats by the future development of the small settlement of modern Olympia.

The property is under the jurisdiction of the Ministry of Culture, Education and Religious Affairs, through the Ephorate of Antiquities of Eleia, its competent Regional Service, which systematically supervises the area for any acts of illegal excavations, monitors and intervenes, when necessary, in case any antiquities are revealed during the course of digging works and performs control on excavation works for the foundation of new buildings as well as on their size and architectural design, when appropriate. Furthermore, the Ephorate supervises all the necessary conservation works on the site. The financial resources for the site are derived by the state budget as well as European Union's funds.

The archaeological site of Olympia is protected at all times. The fire protection infrastructure is checked and preserved annually for effectiveness by the personnel of the Ephorate, in collaboration with the local Fire Service. The dikes that have been constructed along the banks of Alpheios river, south of the sanctuary, protect the archaeological site effectively from the river's flooding phenomena.

Since 2007, during an annual open event, the competent Ephorate presents its work and activities at the area of the Regional unit of Eleia. Through this open dialogue with the local community and authorities, the enhancement

and promotion of the region's monumental wealth is attempted. Furthermore, the presentation of the Service's activities on the internet is planned to be created, in order for an open Forum concerning the history and culture of the area of Eleia.

In the archaeological site, many interventions have taken place, such as the new ticket office, the ramps for disabled people and the replacement of the old informative signs. Additionally, close to the site, the creation of the "Olympic Botanical Garden", containing flora native to the area which has grown since antiquity according to the descriptions of the ancient traveller Pausanias, provide visitors with an opportunity to investigate the native flora and enrich their knowledge concerning the history of Olympia from another perspective.

## Archaeological Sites of Mycenae and Tiryns (C 941)

### Brief synthesis

The Archaeological Sites of Mycenae and Tiryns, located in the Regional unit of Argolis in the North-East Peloponnese, are the imposing ruins of the two greatest cities of the Mycenaean civilization, renowned for its technical and artistic achievements but also its spiritual wealth, which spread around the Mediterranean world between 1600 and 1100 BC and played a vital role in the development of classical Greek culture. The palatial administrative system, the monumental architecture, the impressive artefacts and the first testimonies of Greek language, preserved on Linear B tablets, are unique elements of the Mycenaean culture; a culture that inspired the great poet Homer to compose his famous epic poems.

The citadel of Mycenae, with its strategic position for the control of the Argolid Plain, is the kingdom of the mythical Agamemnon and the most important and richest palatial centre of the Late Bronze Age in Greece. Its name was given to one of the greatest civilizations of Greek prehistory, the Mycenaean civilization, while the myths related to its history, its rulers and their family members (such as Klytaimnestra, Ifigeneia, Elektra, Orestes) have inspired poets, writers and artists over many centuries, from the ancient to the contemporary times. Significant stages in monumental architecture are still visible in the property, such as the massive defensive walls, the corbelled tholos tombs and the Lions Gate.

Tiryns, situated 20 km north-east of Mycenae on a low hill near the inlet of the Argolic Gulf, is another excellent example of the Mycenaean civilization. The fortification of the hill, completed at the end of the 13th century BC, surrounds the citadel with a total perimeter of approximately 750 m. The impressive walls, built of stones even larger than those of Mycenae, are up to 8 m thick and 13 m high. They can rightly be regarded as a creation that goes beyond the human scale, as reveals the word "cyclopean" – built by Cyclops, the mythical giants from Lycia – which was attributed to them in the Homeric epics.

**Criterion (i):** The architecture and design of Mycenae and Tiryns, such as the Lion Gate and the Treasury of Atreus and the walls of Tiryns, are outstanding examples of human creative genius.

**Criterion (ii):** The Mycenaean civilisation, as exemplified by Mycenae and Tiryns, had a profound effect on the development of classical Greek architecture and urban design, and consequently also on contemporary cultural forms.

**Criterion (iii):** Mycenae and Tiryns bear unique testimony to the political, social and economic development of the Mycenaean world, thus representing the peak of this early stage of Greek civilization.

**Criterion (iv):** Both sites illustrate in a unique manner the achievements of Mycenaean civilization in arts, architecture and technology, which laid the foundations for the evolution of later European cultures.

**Criterion (vi):** Mycenae and Tiryns are intricately linked with the Homeric epics, the *Iliad* and the *Odyssey*, which profoundly influenced European literature and arts for more than three millennia.

### Integrity

Both sites contain within their boundaries all the key attributes that convey their Outstanding Universal Value, bequeathing the spirit of the Mycenaean civilization from antiquity to the world of today. Their integrity is ensured primarily by the strict legal framework, which prohibits any construction within the boundaries of the sites and provides for the maintenance of the agricultural character of their surrounding area. Both sites are under the constant surveillance and monitoring of the Hellenic Ministry of Culture, Education and Religious Affairs. On-going archaeological research projects are conducted on both sites, aiming at further exploring the history and values of the property. These are carried out in a systematic way, taking into consideration all the international standards relating to archaeological fieldwork. The excavated monuments are building complexes or funerary monuments of big scale that are in a good state of preservation. Thus the integrity of the property is not compromised by the excavations, as all the necessary conservation interventions are simultaneously undertaken.

### Authenticity

The authenticity of both sites is unquestionable. Monuments of Mycenae maintain their authenticity since the various restoration works carried out in the past were based on the international standards for the intervention on

monuments, on archaeological evidence and on architectural remains of the Mycenaean period. Special studies based on the principle of reversibility have preceded all interventions.

The authentic character of the citadel of Tiryns is also well preserved. The interventions that took place during the 1950's were mild and compatible to the original building system. Moreover, restoration works carried out in 1998-2005 were based on the original construction methods, thereby preserving all the architectural elements of the Mycenaean period.

### **Protection and management requirements**

Both sites are protected under the provisions of the Greek Antiquities Law No 3028/2002, on the "Protection of Antiquities and Cultural Heritage in general". The boundaries of the archaeological site of Mycenae and its buffer zone were established by Ministerial Decree No 2160 of 1964. Protection extends to the Citadel (Acropolis), the areas outside the walls and the wider surrounding area, including the natural environment of the site. The site of Tiryns is covered by Ministerial Decrees No 102098/4753 of 1956 and 12613/696 of 1991.

The property is under the jurisdiction of the Ministry of Culture, Education and Religious Affairs, through the Ephorate of Antiquities of Argolis, its competent regional service. In 1999, a scientific Committee for Mycenae was established, which carried out several projects of stabilization, conservation and enhancement of the site. Special attention was given to the accessibility of monuments by all visitors, and to other visitor's facilities, such as an extensive network of pathways, stations and informative material.

The interpretation of the property is complemented by an archaeological museum, founded in 2003. Its collection comprises a great number of artefacts of Prehistoric and Historic times, giving special emphasis to the presentation of the Mycenaean period.

On both sites, systematic archaeological excavations are being carried out, while restoration works are conducted and others are scheduled. In Tiryns, the restoration project is jointly funded by the Greek state and the European Union. Restoration works in Mycenae, such as the restoration of the Tomb of the Lion, would further enhance the Outstanding Universal Value of the property, while the improvement of the network of ancient roads connecting Mycenae to other archaeological sites of the area (Heraion and Prosymna) would enhance our understanding of the broader area in antiquity.

## **Delos (C 530)**

### **Brief synthesis**

Delos, even though a small (350.64 ha), rocky island in the centre of the Aegean Sea, was considered as "*the most sacred of all islands*" (Callimachus, 3rd century BC) in ancient Greek culture. According to the legend, it was there that Apollo-Sun, god of daylight, and his twin sister Artemis-Moon, goddess of night light, were born.

The island was first settled in the third millennium BC. The Apollonian sanctuary, established at least since the 9th century BC, reached the peak of its glory during the Archaic and Classical period, when it acquired its Pan-Hellenic character. After 167 BC, as a result of the declaration of Delos as a free port, all the commercial activity of the eastern Mediterranean was concentrated on the isle. Rich merchants, bankers and ship-owners from all over the world settled there, attracting many builders, artists and craftsmen, who built for them luxurious houses, richly decorated with frescoes and mosaic floors. The small island became soon the *maximum emporium totius orbis terrarum* (S. P. Festus, 2nd century AD) – the greatest commercial centre of the whole world. The prosperity of the island and the friendly relations with the Romans were the main cause of its destruction. Delos was attacked and looted twice: in 88 BC by Mithridates, the King of Pontus, an enemy of the Romans, and later, in 69 BC, by the pirates of Athenodorus, an ally of Mithridates. Since then, the island fell rapidly into decline and was gradually abandoned. Captured after its abandonment successively by the Byzantines, Slavs, Saracens, the Venetians, the Knights of St. John and the Ottomans, Delos was turned into a quarry site with its temple columns burnt for lime, and its houses left in ruins.

The excavations that started in 1872 and are still in progress have unearthed the Sanctuary and a good part of the cosmopolitan Hellenistic town. The monuments that have been excavated up to now speak most eloquently for the grandeur of the sacred island and illuminate a past civilisation, which was Europe's cradle and wet nurse. The entire island is an archaeological site, which, along with the neighbouring islands of Rheneia, Greater and Lesser Rematiaris, constitutes an immense archaeological site.

**Criterion (ii):** Delos had considerable influence on the development of architecture and monumental arts during the Greco-Roman period, as seen in the immense Hellenistic sanctuary. A great part of its treasure of masterpieces was found during the excavations and is exhibited today in Delos' Museum. This influence was matched later by the important role it has played since the 15th century in furthering our knowledge of ancient Greek art from a widely renowned site, which is among the first sites in Greece that captured the attention of archaeologists and travellers.

**Criterion (iii):** The island of Delos bears unique witness to the civilizations of the Aegean world since the 3rd millennium BC. During the Palaeo-Christian era, it was the seat of the bishopric of the Cyclades. From the 7th century BC to the pillage by Athenodoros in 69 BC, the island of Delos was one of the principal Pan-Hellenic sanctuaries. The feast of the Delians, which was celebrated every four years in the month of May until 316 BC, included gymnastic, equestrian and musical competitions, Archaic Age dances, theatrical productions and banquets. Like the Olympic and the Pythic Games, it was one of the major events in the Greek world.

**Criterion (iv):** The archaeological site of Delos provides an outstanding example of an architectural ensemble that restores the image of an extremely important cosmopolitan Mediterranean port that began to prosper since 314 BC, reaching outstanding levels during the 2nd and 1st centuries BC. Warehouses and trading companies abounded, large residential areas were established, public buildings were founded by associations of bankers, traders and ship-owners. Moreover, there were an unprecedented number of sanctuaries dedicated to foreign religions: temples of Sarapis, Isis and Anubis, temples to the Syrian gods Haadad and Atargatis, and even a synagogue in the stadium district.

**Criterion (vi):** Delos is directly and tangibly associated with one of the principal myths of Hellenic civilisation. It was on this arid islet that Leto, made pregnant by Zeus and fleeing the vengeance of Hera, gave birth to Apollo and Artemis after a difficult labour. According to a Homeric hymn, the island, which until then had been floating, became anchored to the floor of the ocean. The newborn Phoebus- Apollo threw off his swaddling clothes bathed the universe in light and began walking with his cithar and his bow. Kynthos, the mountain of Zeus, and the wheel-shaped lake, close to which the pregnant Leto suffered labor pains for nine days and nights, remain essential landmarks of the island's sacred geography, which was clearly defined by the additions made to the Delian sanctuary to Apollo between the 6th and the 1st centuries BC.

### **Integrity**

Delos was preserved through the centuries due to the fact that it remained uninhabited since the 7th century AD and due to its remote location. Nowadays, the entire island is designated as an archaeological site. The Hellenic Ministry of Culture, Education and Religious Affairs monitors the condition of the monuments and constantly provides for their protection, conservation, support and presentation. Therefore, the property not only maintains its integrity but also, through continuous works catering for its preservation, it constantly enhances and highlights the values for which it was designated a World Heritage site. Among the major factors that affect the monuments of Delos are the strong north winds that dominate the central Aegean region and its proximity to the sea. The property receives over 100,000 visitors annually and any risks to the fragile landscape are mitigated.

### **Authenticity**

The authenticity of the site has not been challenged. The restoration work aims mostly to the preservation of the monuments in the state they were found during the excavations, while the methods and materials employed are compatible, discrete and reversible, in accordance to international standards. Therefore, there are no changes in the authentic character of the site during the last 130 years.

The landscape also remains unaltered; not a village or a town was ever built over the ancient ruins. The only modern constructions on the island are the Museum, the refectory and a few small houses for the personnel, which were necessary for the functioning of the property as an archaeological site.

### **Protection and management requirements**

The entire island of Delos is an archaeological site, protected under the provisions of Law 3028/2002 "*On the Protection of Antiquities and Cultural Heritage in general*". The Ministry of Culture, Education and Religious Affairs is the competent body supervising the site and overseeing all works carried out. The Ephorate of Antiquities of Cyclades, the competent Regional Service of the Ministry, is responsible for its management and protection. All the works carried out in the archaeological site are supervised by the Committee for the Conservation of the Monuments of Delos, a scientific body that plans, supervises and executes work programmes for the conservation, support and restoration of the monuments, as well as for the presentation and protection of the property.

Because of potential damage by the north wind, fragile marble sculptures, such as the Naxian Lions, were transported to the Museum and have been replaced with exact replicas. Moreover, research has been undertaken to investigate the structural materials of the ancient monuments, their origin and pathology. There are also ongoing studies for the overall conservation, support and presentation of the specific monuments.

Many projects have been implemented on the vast archaeological site of Delos in recent years, with funding from the European Union and the Greek State. The aim of the works has been the conservation and consolidation of the monuments and the creation of visitors' pathways, thus ensuring access to the entire archaeological site, especially for people with disabilities. Moreover, the works aspired to make the visit to the site truly instructive, meaningful and, of course, safe for monuments and visitors alike.

Despite the major practical difficulties stemming from its remote location, which greatly exacerbates the conditions for the implementation of any kind of works, antiquity guards, archaeologists, conservators, architects and technicians reside on the island throughout the year carrying out important conservation, restoration and site-presentation work, gradually rendering the site accessible, more "legible", comprehensible and friendly to the

numerous visitors. However, renovation and refurbishment of the museum is deemed necessary in order to enhance visitors' experience.

Any risks to the fragile landscape and the ancient monuments that might arise by the increasing number of visitors are mitigated by the designation of specific itineraries and by the employment of temporary personnel during the high tourist season.

## Sanctuary of Asklepios at Epidaurus (C 491)

### Brief synthesis

The Sanctuary of Asklepios at Epidaurus is a remarkable testament to the healing cults of the Ancient World and witness to the emergence of scientific medicine. Situated in the Peloponnese, in the Regional unit of Argolis, the site comprises a series of ancient monuments spread over two terraces and surrounded by a preserved natural landscape. Among the monuments of the Sanctuary is the striking Theatre of Epidaurus, which is renowned for its perfect architectural proportions and exemplary acoustics. The Theatre, together with the Temples of Artemis and Asklepios, the Tholos, the Enkoimeterion and the Propylaia, comprise a coherent assembly of monuments that illustrate the significance and power of the healing gods of the Hellenic and Roman worlds.

The Sanctuary is the earliest organized sanatorium and is significant for its association with the history of medicine, providing evidence of the transition from belief in divine healing to the science of medicine. Initially, in the 2nd millennium BCE it was a site of ceremonial healing practices with curative associations that were later enriched through the cults of Apollo Maleatas in the 8th century BCE and then by Asklepios in the 6th century BCE. The Sanctuary of the two gods was developed into the single most important therapeutic center of the ancient world. These practices were subsequently spread to the rest of the Greco-Roman world and the Sanctuary thus became the cradle of medicine.

Among the facilities of the classical period are buildings that represent all the functions of the Sanctuary, including healing cults and rituals, library, baths, sports, accommodation, hospital and theatre.

The site is one of the most complete ancient Greek sanctuaries of Antiquity and is significant for its architectural brilliance and influence. The Sanctuary of Epidaurus (with the Theatre, the Temples of Artemis and Asklepios, the Tholos, the Enkoimeterion, the Propylaia, the Banqueting Hall, the baths as well as the sport and hospital facilities) is an eminent example of a Hellenic architectural ensemble of the 4th century BCE. The form of its buildings has exerted great influence on the evolution of Hellenistic and Roman architecture. Tholos influenced the development of Greek and Roman architecture, particularly the Corinthian order, while the Enkoimeterion stoa and the Propylaia introduced forms that evolved further in Hellenistic architecture. In addition, the complicated hydraulic system of the Sanctuary is an excellent example of a large-scale water supply and sewerage system that illustrates the significant engineering knowledge of ancient societies. The exquisitely preserved Theatre continues to be used for ancient drama performances and familiarizes the audience with ancient Greek thought.

**Criterion (i):** The Theatre of Epidaurus is an architectural masterpiece designed by the architect from Argos, Polykleitos the Younger, and represents a unique artistic achievement through its admirable integration into the site as well as the perfection of its proportions and acoustics. The Theatre has been revived thanks to an annual festival held there since 1955.

**Criterion (ii):** The Sanctuary of Asklepios at Epidaurus exerted an influence on all the Asklepieia in the Hellenic world, and later, on all the Roman sanctuaries of Esculape.

**Criterion (iii):** The group of buildings comprising the Sanctuary of Epidaurus bears exceptional testimony to the healing cults of the Hellenic and Roman worlds. The temples and the hospital facilities dedicated to the healing gods constitute a coherent and complete ensemble. Excavations led by Cavvadias, Papadimitriou and other archaeologists have greatly contributed to our knowledge of this ensemble.

**Criterion (iv):** The Theatre, the Temples of Artemis and Asklepios, the Tholos, the Enkoimeterion and the Propylaia make the Sanctuary of Epidaurus an eminent example of a Hellenic architectural ensemble of the 4th century BCE.

**Criterion (vi):** The emergence of modern medicine in a sanctuary originally reputed for the psychically-based miraculous healing of supposedly incurable patients is directly and tangibly illustrated by the functional evolution of the Sanctuary of Epidaurus and is strikingly described by the engraved inscriptions on the remarkable *stelai* preserved in the Museum.

### Integrity

The World Heritage property contains within its boundaries all the key attributes that convey the Outstanding Universal Value of the Sanctuary. The facilities that have been discovered in the Sanctuary represent all its functions during the entire duration of its use up until Early Christian times. These include the acts of worship, the procedure of healing with a dream-like state of induced sleep known as *enkoimesis* through the preparation of the

patients, the facilitating of healing with exercise and the conduct of official games. Since 1984, the Sanctuary has been designated as a zone of absolute protection in which no building activities are permitted. This zone of 1398.8 hectares coincides with the core zone of the property and is surrounded by the property's buffer zone, which has controlled building activities and covers an area of 1992,6 hectares. These protective zones have almost entirely preserved the whole natural landscape as seen from the Sanctuary.

### **Authenticity**

The form and material of Epidaurus' Theatre characterize it as one of the most authentic among the known theatres of the ancient world. The Stadium preserves almost 90% of its ancient form and material. The other numerous monuments of the Sanctuary have preserved many elements of their design and material in such a way that construction can be ascertained according to their ancient form. The interventions in some of the most significant structures have been made in accordance with the international principles of restoration with respect to the legibility of the edifices and to the principle of reversibility. The Sanctuary's location and setting has been almost entirely preserved so that visitors are still able to experience the spiritual character of the site.

### **Protection and management requirements**

The Sanctuary of Asklepios and Apollo Maleatas is protected under the provisions of Law No 3028/2002 on the "Protection of Antiquities and Cultural Heritage in general". Since 1984 it has been incorporated in a zone of absolute protection, in which no building activity is permitted (Presidential Decree 18.11.1983). This zone is surrounded by a wider zone with obligatory controls for the issue of building or construction permits. In 2012, there was an expansion of the designated area of the archaeological site (Ministerial Decision in Government Gazette: 220/ AAP/ 15-6-2012), covering the broader area beyond the Sanctuary, thus extending the monitoring. The greater part of the area in which the Sanctuary was developed during the Antiquity belongs to the Greek state.

The property is under the jurisdiction of the Ministry of Culture, Education and Religious Affairs through the Ephorate of Antiquities of Argolis, its competent Regional Service which systematically supervises the area for any acts of illegal excavations and quarrying as well as the monitoring and intervention for cases in which antiquities are revealed during the course of digging works. In 1984 the Committee for the Conservation of Epidaurus Monuments was founded as the responsible body for conservation and restoration works as well as for the enhancement of the Sanctuary.

The financial resources for the site are derived by state budget as well as funds from European Union. The conservation and enhancement project involves interventions on important monuments of the site as well as enhancement works of the Sanctuary's surroundings and upgrading of the services provided to visitors. Future plans aim to protect and enhance monuments which are not yet included at this stage in the restoration program and also aim to construct shelters for the protection of vulnerable monuments from adverse weather conditions.

The Sanctuary, with management that is considered successful, receives more than 250.000 visitors annually. Special facilities exist for the management of the audience attending the annual performances at the ancient Theatre.

The safety of the site is ensured with an adequate and qualified security staff. An upgraded fire protection system has been developed, using both conventional and modern instruments. During the restoration works all the necessary measures for ensuring the stability of the monuments are being implemented and thus the findings in the museum and its depots are adequately protected from earthquake hazards.

The close and fruitful cooperation with the local community is further promoted by lectures, educational programs and guided tours, especially for the schools. Moreover, the Ministry of Culture, Education and Religious Affairs, in cooperation with the local municipality, concluded an agreement for the remodeling of the broader Sanctuary's access area.

The long-term goal is to offer to the public a legible and understandable monumental complex that will reveal the operation of the Sanctuary during ancient times. Through constant care and gradual enhancement of all its monuments, the site will provide a natural, cultural and archaeological park with high level visitor services.

## **ITALY / ITALIE**

### **18th-Century Royal Palace at Caserta with the Park, the Aqueduct of Vanvitelli, and the San Leucio Complex (C 549rev)**

#### **Brief synthesis**

The extraordinary monumental complex of Caserta, in the north of Naples, was planned in the second half of the 18th century by the architect Luigi Vanvitelli, according to the wishes of Charles of Bourbon to rival Versailles and

Madrid. It includes a sumptuous palace with a park, gardens and wooded area, as well as the Aqueduct Carolino and the industrial complex of San Leucio, built for the production of silk.

The Royal Palace is the centrepiece of the whole architectural composition and is located on a central axis which connects and unifies the entire complex. The portico and the stream of the fountains in the park which lead to the scenic backdrop of the waterfall, formed by the Aqueduct Carolino, are also situated along this axis.

With its four courtyards and three atriums, the Royal Palace is a great example of monumental structure built to be a magnificent palace for the royal family and its court and, at the same time, an administrative centre inspired by the model of Escorial in Spain.

The park is the latest of the great European gardens inspired by the creations of Versailles and the 16th century models of villas in Rome and Tuscany. The English Garden is one of the greatest, oldest and most important picturesque gardens created in Europe.

The main part of the San Leucio estate is the ancient hunting Lodge of the Belvedere, converted by King Ferdinando IV of Bourbon into a silk mill to create an idealistic community of workers, who were guaranteed homes, schools, medical care and all services. The huge building complex, set around the inner courtyards, became the symbol of a model society based on the value of work and equality.

The Aqueduct Carolino, with its imposing viaduct "Ponti della Valle" is a stunning work of engineering and provides an extraordinary infrastructure not only serving the palace, the gardens and the future capital of the kingdom, but also the mills, the ironworks and the manufacturing industries located along its path.

**Criterion (i):** The 18th century estate of Caserta is a unique creation of the spirit of the Enlightenment which was able to build buildings of great architectural value, well set in a natural landscape, according to a broad scale development plan.

**Criterion (ii):** The 18th century Royal Palace of Caserta with the park, the Aqueduct Carolino, and the complex of San Leucio are all important evidence of the interchange of human values, thanks to the broad scale of its original project for an ambitious new town, consisting of imposing buildings, gardens, streets and surrounding natural landscape according to an innovative concept of planning. This new configuration of the landscape has been realized through engineering works of exceptional historical interest, like the Aqueduct Carolino, which was created to connect and unify the entire complex.

**Criterion (iii):** The monumental complex of Caserta is an outstanding example of urban planning implemented by the Bourbon dynasty, according to Vitruvian principles of solidity, functionality and beauty in line with the neoclassical culture in vogue at the time.

**Criterion (iv):** The outstanding value of the industrial complex of Belvedere, planned to produce silk, derives from the idealistic principles underlying its original conception and management.

### **Integrity**

The site has good conditions of social-functional integrity because the Royal Palace and the Belvedere complex are recognized by the local community as a symbol of a historic period of development of the region; the Aqueduct Carolino retains its original utility serving not only royal properties but also surrounding areas.

The buildings have material-structural integrity because the later adjustments to interior spaces did not change the features of their architecture. The buildings and the gardens have been subject to scientific restoration and the surrounding area retains the principal features of the original landscape design.

The risks to the Royal Palace and park are the pressure of urban development in the surrounding landscape and the wear caused by the flow of visitors.

The risks to the San Leucio complex are urban development pressure in the surrounding landscape and the shortage of funds for maintenance, due to the lack of new uses for most of the building.

The risks to the Aqueduct Carolino are the transformation of the surrounding landscape due to urbanization and the shortage of funds for maintenance.

### **Authenticity**

Even though the entire property has undergone conservation, the level of authenticity of the buildings and open spaces remains high. The original appearance is still well preserved and the inappropriate intrusions are limited to an acceptable minimum.

The restoration and the maintenance of the buildings and the gardens respect the original projects by Luigi Vanvitelli, his son Carlo, and Francesco Collecini, and retain the original material and structural consistency.

Local people keep alive the tradition of regularly visiting the palace and the park and encourage the continuation of craft production of silk in San Leucio



## Protection and management requirements

The site is protected by the national legislation for preservation of cultural heritage (Code of Cultural Heritage and Landscape issued by Legislative Decree 42/2004), since all the works on the buildings and grounds are subject to prior approval by the offices of the Ministry of Cultural Heritage and Activities and Tourism.

In particular, the Royal Palace and the park, the English Garden, the Bosco di San Silvestro and the Belvedere buildings are protected as monuments.

The former Royal Estate of San Leucio, the surrounding Tifatini Hills and the medieval town of Casertavecchia are protected as landscape by the same Decree n.42/04. The surroundings of the Royal Palace, the wide elliptic square in the front of the southern facade and the huge street directed to Naples (Carlo III avenue) are also protected as landscape.

Any kind of intervention in this buffer zone needs the authorization by the competent authority (the Municipality and the Ministry of Cultural Heritage and Activities and Tourism through the local office, the *Soprintendenza* relevant for "Belle Arti e Paesaggio" in the provinces of Caserta and Benevento).

A plan for the protection of the landscape (Landscape Plan) for the surroundings of the Royal Palace and the estate of San Leucio was approved by the Ministry of Culture in October 2000. The protection of the surroundings of the Aqueduct Carolino is entrusted to the landscape protection plan for the Monte Taburno, approved by the Ministry in 1996.

Responsibility for the management of state-owned assets has recently been transferred to the Museum of the Royal Palace of Caserta, an agency of the Ministry of Cultural Heritage and Activities and Tourism created in December 2014, to guarantee the conservation and enhancement of the property.

Parts of the Royal Palace complex are currently used by the school of Military Air Force but in December 2014 the Ministries of Culture and Defence have approved a program to move the school away by December 2020 and to reserve the entire Royal Palace for cultural and educational functions.

The Bosco di San Silvestro is run by volunteers of the World Wildlife Fund for Nature (WWF), who are preserving and keeping it open to the public as an "oasis" of flora and fauna.

The Municipality of Caserta manages the Belvedere buildings, where there is a museum of the royal rooms and of silk production.

## Archaeological Area of Agrigento (C 831)

### Brief synthesis

The archaeological area of Agrigento, the Valley of the Temples, is on the southern coast of Sicily and covers the vast territory of the ancient polis, from the Rupe Atenea to the acropolis of the original ancient city, as well as to the sacred hill on which stand the main Doric temples and up to the extramural necropolis.

Founded as a Greek colony in the 6th century BCE, Agrigento became one of the leading cities in the Mediterranean region. Its supremacy and pride are demonstrated by the remains of the magnificent Doric temples that dominate the ancient town, much of which still lies intact under today's fields and orchards. Selected excavated areas reveal the late Hellenistic and Roman town and the burial practices of its early Christian inhabitants.

Agrigento has a special place among classical sites in the history of the ancient world because of the way in which its original site, typical of Greek colonial settlements, has been preserved, as well as the substantial remains of a group of buildings from an early period that were not overlain by later structures or converted to suit later tastes and cults.

**Criterion (i):** The great row of Doric temples is one of the most outstanding monuments of Greek art and culture.

**Criterion (ii):** The archaeological area of Agrigento exhibits an important interchange of human values, being undoubtedly one of the leading cities in the Mediterranean region with its outstanding evidence of Greek influence.

**Criterion (iii):** As one of the greatest cities of the ancient Mediterranean region, Agrigento is an extraordinary testament of Greek civilization in its exceptionally preserved condition.

**Criterion (iv):** The temples in the area exemplify Greek architecture and are considered to be among the most extraordinary representations of Doric architecture in the world.

## **Integrity**

The archaeological area of Agrigento includes all the essential elements that contribute to the justification of its Outstanding Universal Value. The site boundary includes the entire territory of the ancient polis, including the extramural area of the necropolis, the substantial excavated areas of the residential area of Hellenistic and Roman Agrigento, the complex network of underground aqueducts and a wide portion of land where there are still unexcavated archaeological structures. The archaeological structures have been preserved in good condition, thus ensuring an authentic representation. However, land instability remains an issue.

## **Authenticity**

The authenticity of the archaeological sites of Agrigento is outstanding. Although some restoration work carried out in the late 18th and 19th centuries CE did not follow the principles of modern conservation as set out in the 1964 Venice Charter, subsequent restoration works have resolved the problems of previous restoration methods and have compensated for past mistakes. Recent works have been conducted in full compliance with the principles of modern restoration.

## **Protection and management requirements**

The site is protected by the national law for protection of cultural heritage, *Decreto Legislativo 42/2004, Codice dei beni culturali e del paesaggio*, and is subject to a safeguarding measure which ensures any activity must be authorized by the relevant *Soprintendenza*.

The Valley of the Temples of Agrigento was declared a Zone of National Interest under the Law of 28 September 1966. Decrees issued by the Ministries of Public Works (6 May 1968) and National Education (7 October 1971) defined the boundary and constraints on use of the site. The boundary was further confirmed legally by the President of the Sicilian Region in Decree No 91 (13 June 1991). This group of statutory instruments imposes an absolute ban on any form of construction within the prescribed area.

The regional Law n.20/2000 has founded the Archaeological and Landscape Park of the Valley of the Temples of Agrigento which aims not only to protect the landscape and historical heritage of the site, but also to improve and promote it. The park enjoys financial administrative autonomy. Therefore the Council of the Park can plan and carry out any intervention of preservation and improvement of the site.

The Council has adopted the Park Plan. This will create and organize visitor itineraries with the objective to extend the length of visits and benefit the local economy. The Park Plan aims to demonstrate the ancient urban organization to tourists, with its system of streets and roads (in part still to be excavated). Some street lines and entrances to the city have stayed in use since medieval times. The Park Plan provides various types of protection of monuments and archaeological sites that are tailored as necessary and allow for greater access by tourists. Expanding such security allows for the creation of new thematic routes and points of interest, more parking, easier accessibility and movement within the park, as well as alternative means of transportation such as a railway and electric buses. Flanked by pedestrian paths and equestrian trails (green ways), green corridors and patches of natural vegetation will be constructed to improve functional relationships between the coast and recreational landscapes as well as between agricultural land and cities.

Traditional methods of production regarding agriculture and the production of artefacts of value will be preserved, in particular for cultural diversity, farming techniques, arboriculture, and Mediterranean gardening. This provides support for the return of biological farming methods. The Park Plan provides active conservation and development of the housing stock, which has dropped in value and is under-used or otherwise available. This is relevant to the Park for the creation of services and cultural facilities, exhibition and educational-informational as well as non-hotel accommodation. An Action Plan for ecotourism has been prepared that includes nature and art in a complete "sea-river-mountain" tour, which opens the Valley of the Temples to new categories of users and expands the tourist season.

## **Castel del Monte (C 398rev)**

### **Brief synthesis**

Castel del Monte, located in the municipality of Andria, rises on a rocky hill dominating the surrounding countryside of the Murgia region in southern Italy near the Adriatic Sea. A unique piece of medieval architecture, it was completed in 1240. The castle's location, its perfect octagonal shape, as well as the mathematical and astronomical precision of its layout all reflect the broad education and cultural vision of its founder, Emperor Frederick II.

As a leader of modern humanism, the Germanic Emperor brought scholars together in his court from throughout the Mediterranean, combining Eastern and Western traditions. The castle's unique design, an octagonal plan with octagonal towers at each angle, represents a search for perfection. Interior features reflect Eastern influences, such as the innovative hydraulic installation used by Frederick II for bathing in accord to the typical Arabic customs.

The site is of outstanding universal value in its formal perfection and its harmonious blending of cultural elements from northern Europe, the Muslim world and classical antiquity. Castel del Monte is a unique masterpiece of medieval architecture, reflecting the humanist ideas of its founder, Frederick II of Hohenstaufen.

**Criterion (i):** Given its formal perfection and harmonious blending of cultural elements from northern Europe, the Muslim world and classical antiquity, Castel del Monte is a unique masterpiece of medieval military architecture which reflects the humanist ideas of its founder, Frederick II of Hohenstaufen.

**Criterion (ii):** Inseparably linked to Frederick II of Hohenstaufen, the building of Castel del Monte illustrates the cosmopolitan spirit of the Emperor who brought together Greek, Arab, Italian and Jewish scholars to his court in Palermo. This designates him as one of the precursors of the modern humanists.

**Criterion (iii):** Symbolic of the Mediterranean policy of a Germanic Emperor who was born at lesî, brought up in Sicily and attracted at a very early age by the Oriental world, Castel del Monte combines intellectual and moral elements from the great Mediterranean civilizations in one creation.

### **Integrity**

The integrity of the site has been protected, in part, due to the fact that the castle has not undergone any significant structural alteration. Marble and mosaic interior decorative elements, however, have deteriorated and in many cases been removed.

The perimeter of the property includes the castle, which rises solitarily on top of its hill, and an immense protected area around the castle that is subject to landscape protection and provides an effective buffer zone. Taken together, the two areas fully represent the exceptional nature of the site, some characteristics being monumental in type and in excellent state of preservation, while others are more percipient and, considered alongside the physical setting, ensure the overall integrity.

### **Authenticity**

Castel del Monte has been subjected to almost no structural alteration, which has allowed it to maintain authenticity in a number of principle areas. The castle's setting is unchanged as it is still found on a rocky peak dominating the surrounding landscape. Its original octagonal form and interior design have been retained. In terms of construction materials, the exterior limestone block construction is intact while the interior has been degraded by the removal or decay of its marble and mosaic decoration. Additionally two original sculptures are in the Bari Picture Gallery. However, there have been few later interventions. Conservation work since 1878 has been of good quality and consistent with Italian standards. Therefore the authenticity of the monument is high.

### **Protection and management requirements**

The monument was acquired by the Italian State in 1876 and is protected under several State laws. Under the terms of Law No 1089/39 concerning the artistic, archaeological and cultural heritage of the Italian State, it was declared to be of great artistic and historical importance by the decree of the Ministry for Cultural Heritage and Activities in 1978. The landscape of a large area around the castle, which coincides with the buffer zone (10,847.3 hectares), is protected by another ministerial decree under the law 1497/1939, integrated in the national Law "*Codice dei beni culturali e del paesaggio*" which concerns the protection of cultural heritage.

Management of the monument is in the hands of the *Soprintendenza per i Beni Architettonici e Paesaggistici per le Province di Bari, Barletta-Andria-Trani e Foggia*. This peripheral office of the Ministry of Cultural Heritage and Activities and Tourism. is responsible for the maintenance and guardianship of the monument, which is open to visitors. It also carries out appropriate conservation work, the scale and nature of which depends upon available financial resources.

## **Church and Dominican Convent of Santa Maria delle Grazie with "The Last Supper" by Leonardo da Vinci (C 93)**

### **Brief synthesis**

The refectory of the Convent of Santa Maria delle Grazie in Milan forms an integral part of this architectural complex, begun in 1463 and reworked at the end of the 15th century by Bramante. On the north wall is The Last Supper, the unrivalled masterpiece painted between 1495 and 1497 by Leonardo da Vinci, whose work was to herald a new era in the history of art. The complex, including the Church and Convent, was built from 1463 onwards by Guiniforte Solari, and was afterwards considerably modified at the end of 15th century by Bramante, one of the masters of the Renaissance. Bramante structurally enlarged the church and added large semi-circular apses, a wonderful drum-shaped dome surrounded by columns, and a spectacular cloister and refectory.

The painting was commissioned in 1495 and completed in 1497. The representation by Leonardo da Vinci depicted the moment immediately after Christ said, "One of you will betray me". Leonardo rejected the classical interpretation of the composition and had Jesus in the midst of the Apostles; he also created four groups of three figures on either side of Christ. The 12 Apostles reacted in differing ways; their movements and expressions are

magnificently captured in Leonardo's work. The genius of the artist is seen especially in the use of light and strong perspective. Unfortunately, Leonardo did not work in fresco but in tempera on a two-layered surface of plaster that did not absorb paint. It was as early as 1568 when Vasari first pointed out problems with this painting technique.

The Last Supper, which Leonardo da Vinci painted in the refectory of the Dominican convent of Santa Maria delle Grazie, is undisputedly one of the world's masterpieces of painting. Its unique value, which over the centuries has had immense influence in the field of figurative art, is inseparable from the architectural complex in which it was created.

**Criterion (i):** The Last Supper is a timeless and unique artistic achievement of Outstanding Universal Value.

**Criterion (ii):** This work has highly influenced not only the development of one iconographic theme, but also the entire development of painting. Heydenreich wrote about the "superdimension" of its painted bodies in relation to space. It is one of the first classic paintings that focuses on a precise and very short moment of time, instead of a long one. After five centuries, the Last Supper is one of most reproduced and copied paintings, and its creation in 1495-1497 is considered to have heralded a new phase in the history of art.

### **Integrity**

The property contains all the elements that express its unique value, especially the Santa Maria delle Grazie complex, formed by the church, the convent and the Last Supper painted by Leonardo da Vinci. Despite the damages that occurred during the Second World War, the complex has preserved both its original architectural structure and the internal relation between its components, including the famous fresco. The presence of Dominican Fathers and the continuity of religious use have contributed to safeguard the property's functional integrity. Da Vinci's painting has considerable conservation problems due to the techniques used to paint it. The property suffers from environmental pressures and from potentially excessive visitation, although the latter is controlled by limiting access.

### **Authenticity**

The site was badly damaged by bombing in 1943, but subsequently completely restored and renovated. The Last Supper, which miraculously survived the Allied bombing, suffers from other conservation problems which are due, above all, to Leonardo's experimental technique, and which have long been evident. There are records of restoration works from the eighteenth century up to the present day, which bear witness to the continuing concern regarding the conservation of this artistic heritage. An important restoration of the Last Supper was completed at the end of the 1990. Careful treatment of the extremely delicate and considerably deteriorated paint layer restored the work's hidden colours. Both the church and convent buildings (e.g. the cloisters) have been the object of continuous restoration works from the 1990s onwards, following a unified conservation strategy. Routine restoration work on the buildings is under way at present and has led to new discoveries that further increase the value of the property.

### **Protection and management requirements**

The complex and its surrounding areas are currently under the protection of Italian law on cultural patrimony (Decreto Legislativo N. 42/2004, *Codice dei Beni Culturali e del Paesaggio*). Every intervention must obtain a specific authorisation by the local offices of the Ministry for Cultural Heritage and Activities and Tourism. More protection rules have been provided to deal with local traffic and vehicles parking on the nearby public square.

The steering group for the property is formed by the members of the Ministry's local office. They are directly involved in all aspects of the property. The steering group has the task of defining the guidelines, procedures, programming and periodic monitoring applied to the protection system, which has been established in particular for The Last Supper, and of guaranteeing efficient interaction with the conservation and maintenance programmes for the entire building complex.

One of the most important and difficult aspects of the conservation of the fresco is related to the pollution caused by the great number of visitors. Continual monitoring is performed to guarantee optimum atmospheric conditions inside the refectory and thus avoid the danger posed by air pollution and elevated visitor numbers. A sophisticated monitoring device ensures that the air composition and the light and humidity levels remain within the established limits. A limited number of visitors are admitted at any one time.

The complex is the property of the Italian State, and in 1934, it was given in concession to the Dominican Fathers of Santa Maria delle Grazie, who contribute to the day-to-day administration of the complex with regard to its residential and religious functions. The room of The Last Supper is a museum cared for by the State administration.

The Management of the property is performed by the Ministry for Cultural Heritage and Activities and Tourism through its local Offices, which are directly involved in conservation, monitoring and protection of the property. Although a management plan itself has not yet been drawn up, an effective instrument that regulates the use and external relations is in place.

## Cilento and Vallo di Diano National Park with the Archeological sites of Paestum and Velia, and the Certosa di Padula (C 842)

### Brief synthesis

Cilento is a cultural landscape of outstanding value that has evidence of human occupation dating from 250,000 years ago. It has been successively occupied over time by farmers during the Neolithic period, by Bronze and Iron Age societies, Etruscans, Greek colonists, Lucanians, and was eventually incorporated into the Roman territory in the 3rd century BC. Roman road networks replaced the earlier tracks, but after the collapse of the Western Roman Empire, these roads fell into disrepair and the ancient network was revived during the Middle Ages, as is evident in the feudal castles and religious establishments built along routes.

The site contains dramatic groups of sanctuaries and settlements extending across three different east-west mountain ridges in the province of Salerno, covering quite a vast area, 159,110ha, including part of the National Park Cilento e Vallo di Diano, the two archaeological sites of Paestum and Velia, and the monumental Certosa di Padula.

The National Park, essentially a mountainous region divided by several river valleys sloping down to the Tyrrhenian Sea, is defined by natural features: the Tyrrhenian Sea on the east, and the Sele and Tanagro rivers, with the broad sweep of the Vallo di Diano in its upper reaches.

Communication routes were established during pre-historic times along the crests of the mountain ranges, and while they fell into decline during the Roman era, they came back into use in the Middle Ages. Evidence of this use is visible in the many prehistoric and proto-historic sites discovered, and in the medieval towns and castles. The most noteworthy archaeological site is that of Paestum, the Greek city of Poseidonia, founded at the end of 7th century BC.

Another site of great importance is the archaeological area of Velia, which preserves the monumental remains of the colony of Elea, founded by the Phocaeans in the second half of the 6th century.

The Certosa di San Lorenzo at Padula in the Vallo di Diano is one of the most impressive monastic structures in the world. Its construction began in 1306, but its present Baroque form is the result of the transformations carried out in the 17th and 18th centuries. Today it is home to the Archaeological Museum of Lucanian Antiquities.

The Cilento presents an outstanding cultural landscape. The dramatic groups of sanctuaries and settlements along its three east-west mountain ridges vividly portray the area's historical evolution: it was a major route not only for trade, but also for cultural and political interaction during the prehistoric and medieval periods. The Cilento was also the boundary between the Greek colonies of Magna Graecia and the indigenous Etruscan and Lucanian peoples. The remains of two major cities from classical times, Paestum and Velia, can be found there.

**Criterion (iii):** During the prehistoric period, and again in the Middle Ages, the Cilento region served as a key route for cultural, political, and commercial communications in an exceptional manner, utilizing the crests of the mountain chains running east-west and thereby creating a cultural landscape of outstanding significance and quality.

**Criterion (iv):** In two key episodes in the development of human societies in the Mediterranean region, the Cilento area provided the only viable means of communication between the Adriatic and the Tyrrhenian seas in the central Mediterranean region, and this is vividly illustrated by the cultural landscape of today.

### Integrity

The integrity of the property is intact. Within the National Park Cilento e Vallo di Diano one finds the two archaeological sites from the Greek cities of Paestum and Velia (called the Great Attractor); the monumental complex of the ancient monastery Certosa di Padula; and many sites of great archaeological and artistic relevance, such as the Lucanian settlements of Moio della Civitella, Roccagloriosa and Caselle in Pittari. The vast site also contains seaside landscapes (Punta Licosa, Palinuro, and Punta degli Infreschi) as well as inland landscapes, such as the Bulgheria mountains.

This ample stretch of land, located within a natural protected area of national importance, ensures the integrity of the site. In fact, despite the inevitable transformations in such a vast territory, the property conserves its features as a cultural landscape, deriving from the age-old interaction between humans and nature.

Threats to the property are primarily related to natural disasters such as landslides and flooding. There is a possible threat to the integrity of the site due to illegally constructed buildings within the National Park.

## **Authenticity**

The authenticity of the cultural elements within the park is high, providing an example of a cultural landscape of outstanding significance and quality on the Tyrrhenian Sea, with traces of human occupation dating back to pre-historic times. Vestiges of ancient mountain trail networks are still visible in the landscape, as are many of the religious sanctuaries. Villages and hamlets along the route have survived with little change impacting their authenticity.

Much restoration work has been completed in the archaeological sites of Paestum and Velia and the Certosa di San Lorenzo. In Paestum, in addition to the restoration of the three Doric temples, the restoration of the house three blocks from the Roman and the eastern sector of the city walls has been completed. Furthermore, a new section dedicated to the Museum of Prehistory and Protohistory has been opened to the public. In Velia the Roman baths and the monumental Porta Rosa have been completely restored and conserved, together with the medieval tower on the acropolis. The Certosa di Padula has been superbly restored by the competent *Soprintendenza*.

## **Protection and management requirements**

The property benefits from three different levels of protection: national, regional and local.

At the national level, the site is covered by Italian Legislative Decree no 42/2004 "Code for the Cultural Heritage and Landscape", which offers protection for natural and panoramic beauty. As a result, all interventions require the approval of the relevant national heritage organizations (municipalities and *Soprintendenza* for Architectonic Heritage and Landscape, a peripheral office of the Ministry for Cultural Heritage and Activities). The archaeological sites and several individual buildings in the area are also covered by Decree 42/04 as cultural heritage. This is effectively a safeguarding measure, which ensures any activity on the site must be authorized by the relevant *Soprintendenza*.

The archaeological site of Paestum is also under the protection regime of L. 220/1957, which established a protected landscape area extending one kilometer outside the city walls.

Parco Nazionale del Cilento e Vallo di Diano is also protected by Italian Law no 394/1991, which covers the natural areas and enforces strict controls over designated areas. A Presidential Decree of June 1995 established the Park and guaranteed the protection of both the natural environment and the heritage buildings; it also encouraged the preservation of the cultural landscape within a programme of sustainable development. It is also worth noting that much of the park is a National Forest, which comes under the strict control of the Italian Forest Law. In June 2010, the programme of the Cilento and Vallo di Diano National Park took effect, classifying a good part of the areas included in the World Heritage property as zones of "integral reserve", within which the natural environment is conserved and its integrity ensured. The authorization of the "Ente Parco" (Park Authority) is required for all activities within the park.

The Italian catalogue of Natura 2000 sites highlights the World Heritage property within the Park, as well as vast Sites of Community Importance (S.I.C.) and Zones of Special Protection (Z.P.S.), whose safeguarding is subject to a further procedure to assess its effects, ending with the issue of a Regional Authorization, after approval by the Ente Parco.

Ownership of properties within the property is both private and public. The overall supervision for the landscape and monumental buildings is the responsibility of the above-mentioned *Soprintendenza* and of the Italian government's *Ministero per i Beni e le Attività Culturali*.

The archaeological sites of Paestum and Elea-Velia are managed by the *Soprintendenza* for the Archaeological Heritage of Salerno, Avellino, Benevento and Caserta, a peripheral office of the Ministry for Cultural Heritage and Activities. The Certosa di Padula is managed by the *Soprintendenza* for the Architectonic and Landscape Heritage of Salerno and Avellino, another peripheral office of the Ministry for Cultural Heritage and Activities.

For the preparation of the management system, the relevant authority appointed jointly with the peripheral offices of the Ministry for Cultural Heritage and Activities (*Soprintendenze*) is the Parco Nazionale del Cilento e Vallo di Diano.

The World Heritage property within the park is under the park's direct administration (in accordance with the law), under the responsibility of the Parco Nazionale del Cilento e Vallo di Diano. This is a public body, with a full-time President, Director General and professional staff; the work is supervised by a governing council, with representatives of national, regional, and local institutions and authorities, as well as a management group consisting of senior staff, consultants, and other specialists. The park is under the authority of the Ministry of the Environment. It works closely and harmoniously with the authorities of those communes that are entirely or partially within the park, which are very supportive of its work, as is the Provincial Administration of Salerno.

Each of the three distinct areas of this property is surrounded by a defined buffer zone. The total area of the three buffer zones is 178,101 hectares.

## City of Verona (C 797rev)

### **Brief synthesis**

The city is situated in northern Italy at the foot of the Lessini Mountains on the River Adige. It dates from prehistoric times: a small built-up area that developed between the 4th and 3rd century BCE became a Roman municipium in the 1st century BCE after which it rose rapidly in importance. During the 5th century, Verona was occupied by the Ostrogoth Theodoric I, later by the Lombards, and in 774 by Charlemagne. In the early 12th century, it became an independent commune. It prospered under the rule of the Scaliger family and particularly under Cangrande I, falling to Venice in 1405. From 1797, it became part of the Austrian Empire and joined the Kingdom of Italy in 1866.

The core of the city consists of the Roman town nestled in the loop of the river containing one of the richest collections of Roman remains in northern Italy. Surviving remains of this era include the city gate, Porta Borsari, the remains of the Porta Leoni, the Arco dei Gavi, which was dismantled in the Napoleonic period and rebuilt next to Castelvecchio in the 1930s, the Ponte Pietra, the Roman theatre, and the Amphitheatre Arena.

The Scaligers rebuilt the walls during the Middle Ages, embracing a much larger territory in the west and another vast area on the east bank of the river. This remained the size of the city until the 20th century. The heart of Verona is the ensemble consisting of the Piazza delle Erbe (with its picturesque fruit and vegetable market) and the Piazza dei Signori, with historic buildings that include the Palazzo del Comune, Palazzo del Governo, Loggia del Consiglio, Arche Scaligere, and Domus Nova. The Piazza Bra has a number of buildings dating back to different epochs.

Verona's surviving architecture and urban structure reflects the evolution of this fortified town over its 2,000 year history.

**Criterion (ii):** In its urban structure and its architecture, Verona is an outstanding example of a town that has developed progressively and uninterruptedly over 2,000 years, incorporating artistic elements of the highest quality from each succeeding period.

**Criterion (iv):** Verona represents in an exceptional way the concept of the fortified town at several seminal stages of European history.

### **Integrity**

The historic city of Verona today contains elements representing its 2,000 year history: the Roman period, Romanesque, Middle Ages and Renaissance which have survived intact until the 19th century. The walls surrounding the city prevented 19th century development such as industry and railroads within the historic city. The urban structure, as a result, shows exceptional coherence and a large degree of homogeneity. Although Verona's buildings suffered significant damage during World War II, the post-war reconstruction plan (1946) maintained its original structure and the reconstruction process was carried out with utmost care. The role of Professor Piero Gazzola, first President of ICOMOS and Supervisor of the heritage of Verona, was crucial in this process. He was also responsible for the reconstruction of the Roman bridge.

Threats to the historic city are low. Until the late 19th century, river flooding was common but measures put in place at that time have controlled this risk. The city is classified as "low risk" for seismic activity. Moreover, tourism is managed to control risk to historic resources.

### **Authenticity**

The authenticity of the City of Verona is high. The present city has been an urban settlement on the River Adige for over 2,000 years. The original Roman urban form continues to be evident in the existing street pattern and the city's historic fabric remained intact until World War II. As far as the fortified town is concerned, the defence system has been well preserved through the continuity of its military use over time. Surviving evidence of the fortified town, such as Roman gates and Renaissance bastions, reflect this long military history.

Interventions of architectural and urban restoration carried out after World War II were based on the established restoration principle, peculiar to the Italian tradition dating back to the mid 19th century, which has always brought the respect for historical and material testimonies to the foreground. Specifically, the principle is designed to preserve the urban structure and the buildings intact, and to create continuity by carefully incorporating the destroyed areas into the urban pattern while meeting the urban restoration criteria. The reconstruction of the Roman bridge, for example, was based on careful documentation and reuse of original materials.

## Protection and management requirements

The property is managed by various public institutions operating at different levels with their own distinct responsibilities. These include the Ministry of Cultural Heritage and Activities that deals with the protection and conservation of cultural heritage through its peripheral offices, and the municipality that defines and carries out the city's protection and management policies through urban planning programmes and regulations of the activities on the territory.

Listed buildings and monuments in the historic centre are protected under the Cultural Heritage and Landscape Code, the national law for the safeguard of cultural heritage. In compliance with national laws, all physical interventions concerning the cultural heritage are subject to the control of the competent Superintendence (peripheral offices of the Ministry of Cultural Heritage and Activities). Additional forms of protection operate at both the regional and local levels.

Urban and building planning tools operating at the local government level, recognize the boundary of the property and its buffer zone, and formulate a detailed and structured discipline for the historic centre of Verona, aimed at its physical and socio-economic safeguard. In particular, specific building regulations on appropriate interventions are carried out through the classification of all the buildings, whether of value or not, in order to safeguard and enhance the historical, cultural and environmental system as well as to rehabilitate the Historic Town structure.

In addition, the municipal administration has adopted numerous regulations to control conversions within the historic centre, related to different areas such as tourism, commerce, bill posting and traffic.

The municipal administration of Verona includes a UNESCO office that provides coordination and a technical secretariat. The other local institutions (regional and provincial) cooperate in the safeguarding, conservation and management activities by promoting cultural heritage enhancement. An important role is also played by the Diocese of Verona – Cultural Heritage Office, the institution in charge of the Catholic Church Heritage management on behalf of the Ecclesiastical Institution.

The different institutions involved in the management of the site worked together to develop the historic city's management plan. The Municipality of Verona is responsible for its administration. The plan emerges as a useful tool for creating a sustainable development model able to combine the requests for the safeguarding and conservation of cultural values of the site and its surroundings with tourism development's contribution to the local economy. The administration of the management plan forms a dynamic process involving several public and private institutions with different interests and competencies. Furthermore, both the tangible and intangible heritage will be enhanced in the medium and long term, by enriching and extending protection and conservation policies.

## City of Vicenza and the Palladian Villas of the Veneto (C 712bis)

### Brief synthesis

The city of Vicenza and the Palladian villas of the Veneto is a serial site including the city of Vicenza and twenty-four Palladian villas scattered in the Veneto area. Inscribed on the World Heritage List in 1994, the site initially comprised only the city of Vicenza with its twenty-three buildings attributed to Palladio, as well as three villas *extra muros*. Twenty-one villas located in several provinces were later included in the 1996 site extension.

Founded in the 2nd century BC in northern Italy, Vicenza prospered under Venetian rule from the early 15th to the end of the 18th century. The work of Andrea Palladio (1508–80), based on a detailed study of classical Roman architecture, gives the city its unique appearance. The *palazzi*, or town houses, were fitted into the urban texture of the medieval city, creating picturesque ensembles and continuous street facades in which the Veneto Gothic style combines with Palladio's articulated classicism.

The definitive Palladian country villa synthesizes, both figuratively and materially, the functional aspects of management of the land and the aristocratic self-glorification of the owner. Its core is the house-temple, embellished with a monumental staircase and crowned by a pediment supported by columns of the loggia. Porticos extend alongside the wings starting from the main building, and often end with towers. The different components are linked by a common classical language and are ordered according to a well-defined hierarchy.

Vicenza is widely, and with justification, known as *la città di Palladio*. However, he was the central figure in an urban fabric that stretches back to antiquity and forward to Neoclassicism. As such, Vicenza has acquired a world status that has long been recognized and reflected in the literature of architectural and art history. Basing his works on intimate study of classical Roman architecture, Palladio became the inspiration for a movement without parallel in architectural history.

Vicenza, birthplace of this movement, retains many of Palladio's original buildings and as such is a unique survival of a total humanist concept based on a living interpretation of antiquity. The property extends the recognition of the Outstanding Universal Value of the work of Andrea Palladio to the other manifestations of his



creative genius in the Veneto region, covering his versatility in applying his principles to rural as well as urban contexts.

**Criterion (i):** Vicenza represents a unique artistic achievement in the many architectural contributions of Andrea Palladio, integrated within its historic fabric and creating its overall character. Scattered in the Veneto, the Palladian villas are the result of this Renaissance master's architectural genius. The numerous variations of the villa pattern are evidence of Palladio's constant typological experimentation, carried out by means of the reworking of classical architecture patterns.

**Criterion (ii):** Palladio's works in the city of Vicenza and in the Veneto, inspired by classical architecture and characterized by incomparable formal purity, have exerted exceptional influence on architectural and urban design in most European countries and throughout the world, giving rise to Palladianism, a movement named after the architect and destined to last for three centuries.

### **Integrity**

The property is composed of several elements, all showing its exceptional value: the perimeter includes the city of Vicenza with its twenty-three most representative Palladian buildings erected in the urban area and twenty-four of the most representative extra-urban villas. The 21st-century industrial development resulted in a strong transformation of the areas surrounding the city, affecting the original relationships between city and countryside. The villas have kept their integrity and are well preserved, within a territorial context which underwent several changes and for this reason was excluded from the site perimeter. Various parts of the property have been exposed to development pressures and the impact of agricultural and forestry regimes. There is some risk of flooding but these issues are being addressed by the property managers.

### **Authenticity**

When applied to an urban area, authenticity includes a consideration of the urban structure, the form of the individual buildings that make up the townscape, the use of traditional building materials and techniques, and the functions of the buildings. In these terms Vicenza as a whole has preserved its authentic character, especially in relation to *la città di Palladio*.

The form of Palladio's buildings is documented in his *Quattro Libri dell'architettura* (1570) and it has changed relatively little since they were constructed in the 16th century. The function of many of the palaces in Vicenza has changed from domestic to commercial, with consequent internal changes. The urban fabric of the city has undergone remarkably little change, and still retains the historic townscape known from early engravings.

The authenticity of the villas is also high. Detailed archival, technical and scientific studies have aimed at identifying the original forms of the villas. From these, it has been possible to specify the appropriate materials and techniques for use in restoration and conservation projects.

### **Protection and management requirements**

The protection of the site is guaranteed by several legal measures of protection. The Palladian buildings in Vicenza and the Palladian Villas listed in the property are all protected under the Decreto Legislativo 42/2004, Codice dei Beni Culturali e del Paesaggio: a safeguarding measure which ensures any activity on the site must be authorized by the relevant *Soprintendenza* (local office of the Ministry for Cultural Heritage and Activities).

Special protection plans applied to all the buildings ensure careful preservation, according to the theoretical principles of restoration works. The urban planning tool for the city of Vicenza has defined some special measures for the preservation of the twenty-three Palladian buildings located in the historic centre.

The site Management Plan was developed by several public and private institutions. The UNESCO office, set up inside the Municipality of Vicenza, takes care of technical and administrative aspects and is charged with the monitoring of the site Management Plan. Given the site's complexity, the general coordination is shared between the Ministry of Culture and the Veneto Region, while the Province of Vicenza coordinates provinces and municipalities. The coordination system aims to overcome the fragmentation of initiatives, fostering synergetic relationships between institutions.

The principal aims of the Management Plan are to recover and revitalize the urban image, characterized by a strong Palladian mark, through the definition of intervention priorities inside the historical centre and the buffer zone, to restore and preserve the villas and the surrounding open spaces, and to define a study for identifications of buffer zones around the villas. It encourages the growth of awareness of heritage value in the local population by means of spreading knowledge and allowing participation in the choices and the management of the heritage. As well, the management plan defines further actions for the UNESCO site, aimed to support its successful management, such as improvement of accommodation and leisure facilities and initiatives, and also of infrastructure and transport systems.

## Crespi d'Adda (C 730)

### **Brief synthesis**

The workers' village of Crespi d'Adda is situated in the Italian region of Lombardy, at the extreme southern point of the "Isola Bergamasca", nestled between the Adda and Brembo rivers and the foothills of the Alps. The village was founded by Cristoforo Benigno Crespi, to house the workers in his textile factory and its final form was developed by Cristoforo's son, Silvio Benigno Crespi, who had studied the functioning of German and English cotton mills. He developed the town to provide comfortable housing and services in order to maintain a stable workforce and prevent industrial strife. The town remained under the ownership of a single company until the 1970s after which many buildings, particularly houses, were sold to private individuals. Industrial activity has significantly declined with corresponding depopulation.

Completed in the late 1920s, the town offered employees a high standard of living with housing in multi-family residences (each with its own garden) and community services that were well ahead of the times. The entire town was laid out in a geometrically regular form, bisected by the main road from Capriate. The factory buildings and the offices were situated on one side of this road, on the left bank of the River Adda, and the village itself on the opposite side of the road following a rectangular grid of roads in three lines. The houses differ from each other in style offering a nice variety to the townscape, a variety that corresponds to the role its occupants originally played inside the factory.

Workers benefited from other amenities in addition to housing including public lavatories and wash-houses, a clinic, a consumer cooperative, a school, a small theatre, a sports centre, a house for the local priest and one for the doctor, a hydroelectric power station which supplied free electricity and other common services. There were also buildings with a more symbolic value such as the church, the castle (residence of the Crespi family), a new office complex, and houses for the factory managers located south of the workers' residences.

Crespi d'Adda is an outstanding example of the 19th and early 20th century phenomenon of the 'company town' found in Europe and North America, which was an expression of the prevailing philosophy of enlightened industrialists towards their employees.

**Criterion (iv):** Crespi d'Adda is an exceptional example of a working village of Europe and North America, dating back to the 19th and 20th centuries, and reflecting the predominant philosophy of enlightened industrialists with respect to their employees.

**Criterion (v):** Crespi d'Adda is a rare example of a 'company town' because its urban and architectural structure is unaltered, having survived the inevitable threat posed by the evolution of economic and social conditions.

### **Integrity**

Crespi d'Adda has conserved much of its integrity as all aspects of the industrial town remain well preserved including factories, housing and services. This is due primarily to the fact that factory production continued until 2004. As a result, public, private, and industrial buildings have remained intact, and have not been demolished or substantially modified. Moreover, this situation has permitted the retention of the relationships between these constituent elements.

Although the village remains intact, changing economic and social conditions, particularly a declining population, pose a potential threat to its continued survival. This threat might be contained and mitigated by recent positive changes with a demographic and socio-economic plan.

### **Authenticity**

Crespi d'Adda's isolated setting in the river valley is responsible, in part, for its remarkable authenticity, in comparison with other Italian and European company towns where changes and modifications were made by their owners due to their close proximity to big cities and in response to changing economic conditions and social structures.

The village has retained all the original elements of a company town. Authenticity in form and design are evident in the street pattern layout and the survival of its buildings. Public, private, and industrial buildings remain intact and have not been demolished or substantially modified. However, some change has occurred such as modification to the colours of the residences from their original white exterior with red bricks surrounding window frames. In addition, the alteration in industrial practice has resulted in a change of use for many buildings.

### **Protection and management requirements**

The property is administered by the Municipality of Capriate San Gervasio with some responsibility falling to the Consorzio Parco Regionale Adda Nord benefiting from various levels of protection: national, regional

and local. At the national level, the town is under the protection of Legislative Decree 42/2004, Code of cultural heritage and landscape which designated it as an “*urban centre of historical character and environmental importance*”. This legislation imposes a number of restrictions on owners. In both the historic centre and the surrounding landscape, authorization for each intervention is granted or denied by the relevant authority (e.g. a region can delegate to a municipality) in order to ensure the compatibility of the project with the conservation criteria. At the municipal level, protection is provided through prohibitions to inappropriate urban development or modifications.

Additional measures apply to the complex's most important buildings such as the Crespi family mausoleum, all the public properties, and the Roman Catholic Church's property. Crespi d'Adda is also subjected to an instrument of urban planning (Urban Master Plan). This plan regulates decisions concerning methods of intervention relating to environmental and architectural heritage, on the basis of historical studies and analysis.

The entire property had remained in company ownership until it was sold in the 1970s. Today, the ownership of the various properties is divided among public (municipal), religious (Roman Catholic Church - Curia of Bergamo) and individual or private. The private owner has indicated his intention to reallocate work in the factory, probably related to the services sector and, at the same time, to improve cultural and touristic activities in the village.

## Early Christian Monuments of Ravenna (C 788)

### Brief synthesis

The serial property Early Christian Monuments of Ravenna in north-east Italy consists of eight monuments, namely the Mausoleum of Galla Placidia, the Neonian Baptistery, the Basilica of Sant'Apollinare Nuovo, the Arian Baptistery, the Archiepiscopal Chapel, the Mausoleum of Theodoric, the Church of San Vitale and the Basilica of Sant'Apollinare in Classe, built between the 5th and 6th centuries AD. These religious monuments, decorated with precious marble, stuccos and mosaics, reflect the major historical, political and religious events that took place in Ravenna, which became the capital of the Western Roman Empire in 402 AD, and remained prominent first Ostrogothic and then Byzantine capital in Italy through the fifth and sixth centuries.

The Mausoleum of Galla Placidia, small but lavishly decorated in the inside with inspiring mosaics against a dark blue background, reflects the Western Roman architectural tradition. The Neonian Baptistery, ornate with its inlaid marble, stuccos and multi-coloured mosaics in the cupola, is the finest and most complete surviving example of an Early Christian baptistery. From the peak of the Goths' reign, the Arian Baptistery preserves mosaics showing the baptism of Christ and iconographic details that reflect principles of the Arian faith. The Basilica of Sant'Apollinare Nuovo was also built during the reign of Theodoric as a Palatine chapel, with mosaics in traditional Roman style that also show a strong Byzantine influence. The Mausoleum of Theodoric is a unique and singular architectural work, constructed out of large blocks of Istrian stone around a central space, and is the only surviving example of a tomb of a barbarian king of this period. The Archbishop's Chapel, on the other hand, is the only orthodox monument built during Theodoric's reign. The Basilica of San Vitale, from the time of Justinian, is one of the highest creations of Byzantine architecture in Italy, and combines elements from both the Western and Eastern traditions. Lastly, five kilometres from Ravenna we find the Basilica of Sant'Apollinare in Classe, an imposing building with its impressive forms, cylindrical bell tower, spacious interiors and rich marbles and mosaics.

The Early Christian buildings of Ravenna are unique testimonies of the artistic contacts and developments in a highly significant period of the cultural development in Europe. They constitute an epitome of religious and funerary art and architecture during the 5th and 6th centuries AD. The mosaics are among the best surviving examples of this form of art in Europe and have added significance due to the blending of western and eastern motifs and techniques.

**Criterion (i):** The Early Christian Monuments of Ravenna are of outstanding significance by virtue of the supreme artistry of the mosaic art they contain.

**Criterion (ii):** The Early Christian Monuments of Ravenna are without parallel because of the crucial evidence they provide of artistic and religious relationships and contacts at an important period of European cultural history. The mosaics are among the best surviving examples of this form of art in Europe and have an increased significance due to the blending of western and eastern motifs and techniques

**Criterion (iii):** The Early Christian Monuments of Ravenna show great artistic skill, including a wonderful blend of Greco-Roman tradition, Christian iconography and oriental and western styles typifying the culture of the later Roman Empire.

**Criterion (iv):** The property constitutes an epitome of religious and funerary art and architecture during the 6th century AD.

## **Integrity**

This serial property includes all the essential elements necessary to demonstrate its Outstanding Universal Value. The group of eight monuments that form the site include the most representative examples of architectural and artistic development between the fifth and sixth centuries AD, in particular regarding mosaic art. These monuments are testimonies of the role that Ravenna played, first as capital of the Western Roman Empire, later as residence of the Ostrogoths of Theodoric and his successors, and lastly as the capital of the Byzantium Exarchate in Italy.

The major pressures on the property are subsidence, condensation damp caused mainly by tourist flow, and pollution, which are being addressed by the site managers.

## **Authenticity**

The authenticity of the eight monuments that make up this site is high. All have undergone various modifications in the centuries since they were originally built, but these modifications have their own intrinsic historical value and as such do not adversely affect the overall authenticity of the property.

More recently, the monuments have undergone several restoration projects. The works, performed by the *Soprintendenza per i Beni Architettonici e Paesaggistici di Ravenna*, in compliance with the principles of the 1964 Venice Charter, have permitted the monuments' conservation until today.

The cultural tradition and technique of mosaics, which play an active role in the city's cultural identity, are kept alive through a range of activities aiming to promote knowledge, training, conservation and valorisation of mosaic art.

## **Protection and management requirements**

This property is subject to the Italian cultural heritage protection and conservation legislation (Legislative Decree 42/2004) which establishes specific legal protection tools for the eight monuments, and require prior authorisation from the local offices of the Ministry for Cultural Heritage and Activities for all interventions. Town planning regulations reiterate the national legislation, thereby only permitting scientific restoration projects.

The property is managed by a group of institutions, operating on different levels and with different skills. These include, in particular, the Ministry for Cultural Heritage and Activities, which is responsible through its local offices for the protection and conservation of cultural heritage, while the Municipal Authority – *Comune di Ravenna* - is responsible for drafting and implementing the City's conservation and management strategies using town planning tools and regulations for territorial activities. The other local authorities (Regional and Provincial councils) collaborate with protection, conservation and management activities, as well as cultural heritage promotion. The Municipality of Ravenna carries out particularly important coordination activities for the management of the property. The management is entrusted to a Management Committee in which all the main institutional stakeholders formally responsible are represented, including the Regional Cultural Heritage Department, the Local Office of the Ministry for Cultural Heritage and Activities – *Soprintendenza* - the Municipality of Ravenna and *Opera di Religione* of the Ravenna Diocese, the local reference body for the Catholic Church, owner of some of the monuments included in the property. The Coordination Committee is responsible for implementing the Management Plan, paying particular attention to conservation, valorisation and promotion activities for monuments.

Priority actions in the Management Plan include a specific action plan for mosaic conservation, including studies and monitoring of the state of the mosaics in the property conducted by the School of Restoration; an action plan dedicated to the transfer of knowledge and training on mosaic art in schools, from primary schools through to the Fine Art Academy; and a communication action plan implemented using innovative technological tools.

## **Genoa: Le Strade Nuove and the system of the Palazzi dei Rolli (C 1211)**

### **Brief synthesis**

The *Strade Nuove* and the system of the *Palazzi dei Rolli* in Genoa's historic centre date from the late 16th and early 17th centuries when the Republic of Genoa was at the height of its financial and seafaring power. The property represents the first example in Europe of an urban development project parcelled out by a public authority within a unitary framework and associated to a particular system of 'public lodging' in private residences, as decreed by the Senate in 1576.

The property includes an ensemble of Renaissance and Baroque palaces along the so-called 'new streets' (*Strade Nuove*). As the city's wealth increased during the 16th century, the wealthy aristocrats built a new district in the upper part of the city to the north of the narrow streets of tightly packed medieval buildings with streets and palaces laid out in a formal manner. The design of the streets is attributed to architect Galeazzo Alessi who designed several of the palaces as well.

The residences, known as *Palazzi dei Rolli*, offer an extraordinary variety of different solutions, achieving universal value in adapting to the particular characteristics of the site and to the requirements of a specific social and economic organization. They also offer an original example of a public network of private residences designated to host state visits.

Although the different palaces had distinct designs solutions, particularly in response to the local topography, they shared common characteristics. The palaces were three or four storeys in height with an entrance hall featuring spectacular open staircases, courtyards and loggias overlooking gardens. Interior decorations featured stucco and frescoes.

Together, the *Palazzi dei Rolli* cover 15.77 hectares. The buffer zone of 98.73 hectares around the *Strade Nuove* covers the entire historic centre.

**Criterion (ii):** The ensemble of the *Strade Nuove* and the related palaces exhibit an important interchange of values on the development of architecture and town planning in the 16th and 17th centuries. Through the architectural treatises of the time, these examples were publicized making the *Strade Nuove* and the late-Renaissance palaces of Genoa a significant landmark in the development of Mannerist and Baroque architecture in Europe.

**Criterion (iv):** The *Strade Nuove* in Genoa are an outstanding example of an urban ensemble consisting of aristocratic palaces of high architectural value, which illustrate the economy and politics of the mercantile city of Genoa at the height of its power in the 16th and 17th centuries. The project proposed a new and innovative spirit that characterized the *Siglo de los Genoveses* (1563 to 1640). In 1576, the Republic of Genoa established a legally based list of *Rolli* recognizing the most outstanding palaces for official lodging of distinguished guests.

### **Integrity**

The boundary encompasses the main ensembles of Renaissance and Baroque palaces along the two main streets of the *Strade Nuove*. Individual palaces retain their integrity.

This area of Renaissance urban renovation was integrated with the medieval part of the city and has retained its relationship with this context intact. In addition to the *Rolli* palaces, the property also includes other historic buildings, such as medieval houses as well as more recently constructed buildings. Modern interventions (e.g. the addition to the city's theatre) are relatively limited and do not disturb the overall character.

As a sea power, the city of Genoa has always been closely associated with its port, which nonetheless was separated from the city for centuries by partitions of different nature such as the walls from the 17th century, the "marble terraces" in the 19th century and other service facilities. In the post-war period, a motorway was built and elevated on pillars above ground. The connection between the port and the centre has now been partly re-established by removing the railway and storage structures and repaving the area for pedestrian use. The Committee at the time of inscription encouraged consideration of the motorway being put in a tunnel in order to strengthen the connection between the palaces and the sea.

### **Authenticity**

The nominated area encloses the ensemble of the *Strade Nuove* and part of the medieval fabric. The street pattern of this planned Renaissance urban ensemble above the medieval city has been retained. The area contains the 42 palaces that were on the list of *Rolli*. These palaces include those that were the most representative and have best preserved their authenticity.

Only one of the palaces was partly damaged during the war and the damaged upper story has since been rebuilt. This palace and other two palaces on *Via Garibaldi* are used as museums. Many of the *Rolli* palaces are privately owned and therefore retain their original function as lodging for Genoese families. Others provide office or commercial use. However, the owners have made the necessary adaptations with due respect to the original structures and the historical authenticity of the buildings.

As a result of the initiatives undertaken, particularly from the 1990s, the palaces have been surveyed and their state of conservation has been verified. The façades and the interiors of many have been carefully restored. The palaces are in good state of conservation and their condition is monitored by the state authority.

### **Protection and management requirements**

The property is entirely surrounded by the city's historic centre, which forms the buffer zone. This historic centre is defined as a conservation area with appropriate regulations in its Urban Master Plan. Also, the city has adopted a Conservation Management Plan for this area. The *Rolli* Palaces and other monumental buildings included in the property are all protected by the Legislative Decree 42/2004, Code of Cultural Assets and Landscape. Interventions on the property must be authorized by the relevant *Soprintendenza* (peripheral office of the Ministry for Cultural Heritage and Activities and Tourism), which may either deny the interventions for conservation reasons or authorise them only partially.

The palaces fall under several different types of ownership. Some are privately owned, some are in public ownership (Municipality of Genoa, State – Ministry of Cultural Heritage and Activities and Tourism), some host the offices of public institutions as well as museums, and others are in mixed ownership. Since 2002, the palaces

have been part of the Association of Palazzi dei Rolli, an organization that promotes their enhancement and management.

The management structure of the property is coordinated by the *Palazzo Ducale Fondazione per la Cultura*, which cooperates with the representatives of all other involved institutions. The management structure is directed by a Steering Committee made up of representatives of the bodies which have signed the Protocol itself (the City Council, the Directorate of Cultural Heritage and Activities of the Liguria Region, the *Soprintendenza* for Architectural Heritage and the Ligurian Countryside, the Liguria Region, the Genoa Province, the University of Genoa, the Chamber of Commerce of Genoa and the *Palazzo Ducale Fondazione per la Cultura*), with political functions defining strategies, approaches and priorities.

The implementation of the Management Plan is entrusted to a technical structure divided into 3 working parties, which relate to the three sectorial plans: Plan A. Knowledge, protection and conservation; Plan B. Cultural promotion; Plan C. Social and economic enhancement. In terms of development, the historic area that forms the buffer zone is being improved and the medieval building stock is receiving assistance. Alterations to properties are regulated with strict controls and demolition is forbidden under the terms of the Management Plan. Moreover, the *Strade Nuove* are the focus for tourist development.

Because of its management agility and flexibility, the *Palazzo Ducale Fondazione per la Cultura* has been identified as the organization most suitable for performing the work of coordination between the parties involved in the management of the property. The Coordinating body is supported by a Scientific Committee which checks the consistency of the sectorial policies with the objective of safeguarding the integrity of the heritage as required by the World Heritage Convention.

The unitary nature of the plan's structure will give rise to integrated programmes, developing synergies and optimizing the economic investments of the various parties.

## Historic Centre of San Gimignano (C 550)

### Brief synthesis

The Historic Centre of San Gimignano sits on a height of land, dominating the surrounding landscape. During the Middle Ages, its location in Val d'Elsa, 56 km south of Florence, provided an important relay point for pilgrims travelling to or from Rome on the Via Francigena. The town became independent in 1199 and between the 11th and the 13th century the noble families and upper middle-class merchants who controlled the free town built many fortified tower houses (probably 72) as symbols of their wealth and power. The town grew around two principal squares: the triangular Piazza della Cisterna, ornamented with a lovely central well, and the Piazza Duomo, dating from the late 13th century with its more intricate layout containing the majority of public and private monuments. After 1353, the town went into a period of decline due to waves of famine and plague that caused a drastic decrease in population. Within a hundred years, the town was downgraded to the level of the other lands under the Florentine control. This status, however, prevented the town from the urban renewal that transformed many Italian historical towns after the Middle Ages.

While only 14 of the original tower houses have survived, San Gimignano has retained its feudal atmosphere and appearance, embellished with several notable palaces during the 12th and 14th century. The town also has several masterpieces of Italian art dating to the 14th and 15th centuries. These are found in the cathedral as well as in other prominent religious and public buildings.

The Historic Centre of San Gimignano is a cultural site of exceptional value, since it has treasured its architectural homogeneity and its original urban layout. The buildings within the town's double wall provide a shining example of medieval architecture with influences of Florentine, Sienese, and Pisan styles from the 12th to the 14th century.

**Criterion (i):** The Historic Centre of San Gimignano contains a series of masterpieces of 14th and 15th century Italian art in their original architectural settings, including: in the Cathedral, the fresco of The Last Judgment, Heaven and Hell by Taddeo di Bartolo (1393), The Martyrdom of St. Sebastian by Benozzo Gozzoli (1465) and above all the magnificent frescoes by Domenico Ghirlandaio such as the cycle of Santa Fina (1475) and the Annunciation in the Baptistery (1482). Other works of the same outstanding beauty include the huge frescoes by Benozzo Gozzoli depicting St. Sebastian (1464) and St. Augustine (1465).

**Criterion (iii):** San Gimignano bears exceptional testimony to medieval civilization since it groups together within a small area all the structures typical of urban life: squares and streets, houses and palaces, as well as wells and fountains. The frescoes by Memmo di Filippuccio commissioned by the township in 1303 to decorate the chambers of the Podestà in the Palazzo del Popolo are among the most frequently reproduced documents used to illustrate daily life of the early 14th century, down to its most domestic details,.

**Criterion (iv):** The urban landscape of Florence, dominated by the towers of its public palazzos (Palazzo del Podestà and Palazzo della Signoria), shows that its public institutions prevailed over personal power. After 1250, the height of family tower houses was periodically reduced in the city. Whereas in San Gimignano, whose *incastellamento* goes back to 998, the 14 towers proudly rising above its palaces, preserve the look of a feudal

Tuscan town controlled by rival factions ever ready for conflict. It illustrates a significant moment in history which cannot be found to the same extent in Florence, Sienna or Bologna despite the quality of their monuments.

### **Integrity**

The perimeter of the property is defined by two concentric rings of defensive walls. The inner ring was constructed in the late 10th century and in the 13th century it was reinforced with the construction of the outer wall. Inside, the medieval town contains all the elements that contribute to its Outstanding Universal Value: towers and tower houses, noble palaces rich in stone and terracotta decorations, late Roman churches, as well as the urban pattern of streets. Moreover, the urban fabric perfectly combines with a precious system of orchards set along secondary streets and building-free zones, which complement the late medieval urban layout. The unique skyline of the town, loftily perched in a dominant position, can be enjoyed from the main visual cones. Despite social transformation due to development over the last 60 years, the historical centre still retains the same ancient traditions, based on lively social dynamics.

The property is vulnerable to the effects of increasing tourism and the related pressure on modifications to the traditional use of buildings. Opportunities exist for the adaptive reuse of current vacant sites of the former prison and convent of San Domenico. In addition, the historic town is under risk of seismic activity in the region and landslides on the hill.

### **Authenticity**

San Gimignano's setting on a height of land continues to dominate the surrounding countryside. It has preserved its authenticity thanks to the strict enforcement of the restoration principles. The interventions on monuments and buildings respect the main features of cultural heritage, architecture, history and art. Specifically, the historic centre has maintained intact spaces, volumes and decorations within the medieval layout, due to current regulations which strictly forbid replacements of and alterations to historic buildings. Moreover, only traditional materials and techniques are used.

Over time, modifications have been made to the use of many of the historic buildings, some of which now support the tourist industry.

### **Protection and management requirements**

There are various legal protection instruments on different levels. At the national scale, the historic buildings and landscape of the property is subjected to national rules on protection and preservation of cultural heritage ("*Codice dei beni culturali e del paesaggio*" – Code of cultural heritage and landscape). Under these regulations, any interventions are subjected to the approval of Ministero per i Beni e le Attività culturali (Ministry of Cultural Heritage and Activities), whose peripheral offices verify if the works are compatible with the preservation criteria.

At the municipal level, the town plan (Piano Strutturale 2007) and its enforcement instruments set detailed regulations for public and private interventions regarding the historical centre and the landscape of San Gimignano. These rules are designed to protect and enhance the historic urban fabric and the original town settlement. Specifically, this means that inside the historic centre the only interventions allowed are the ones focused on the preservation and rescue of the typical, morphological and formal features of the existing buildings and their setting as well as of all the elements that contribute to the definition of the town's identity. Moreover, the municipal administration has added several rules to regulate and control any transformations in the historical centre, notably concerning tourism, trade, posting of advertisements, traffic, noise and electromagnetic pollution, use of public ground, etc.). In particular, in order to fight against the impact of massive tourism and in terms of change to urban functions and decorations, the municipal administration has promoted strict rules to prevent modifications of intended use and transformations in the appearance of business premises.

San Gimignano is managed by a multidisciplinary team representing different levels of government coordinated by the municipal administration. This group includes the Ministry of Cultural Heritage and Activities (Ministero per i Beni e le Attività Culturali), responsible for the protection and preservation of cultural heritage, and the municipal administration that defines and carries out strategies for preservation and management using town planning instruments and regulations. The other local bodies (Region and Province) contribute to the protection, preservation and management of the cultural heritage, and promote enhancement activities.

## **Historic Centre of Siena (C 717bis)**

### **Brief synthesis**

The Historic Centre of Siena is the embodiment of a medieval city. Historically, its inhabitants pursued their competition with the neighbouring cities of Florence and Pisa right into the area of urban planning. Throughout the centuries, the city has preserved its Gothic appearance acquired between the 12th and 15th centuries. During this period, the work of Duccio, the Lorenzetti brothers and Simone Martini influenced the course of Italian and, more broadly, European art. The whole city of Siena was devised as a work of art that blends into the surrounding landscape.

This Tuscan city developed on three hills connected by three major streets forming a Y-shape and intersecting in a valley that became the Piazza del Campo. The seven-kilometre long fortified wall still surrounds the 170-hectare site. Protected gates were doubled at strategic points, such as the Porta Camollia on the road to Florence. To the west, the walls embrace the Fort of Santa Barbara that was rebuilt by the Medici in 1560 and finished in 1580. Inside the walls towerhouses, palaces, churches and other religious structures survive. Also of note are the city's fountains that continue to be fed by an extensive system of original tunnels.

Siena's distinctive Gothic style is illustrated by the quintessential Siennese arch, introduced to the city from the East during the Crusades. The arch dominated later building styles including the Renaissance era. Even when buildings underwent major renovations in the 17th, 18th and 19th centuries (such as the Town Hall, the Chigi-Saracini Palace, and the Marsili Palace respectively), Gothic elements had preference.

Siena is an outstanding medieval city that has preserved its character and quality to a remarkable degree. The city had substantial influence on art, architecture and town planning during the Middle Ages, both in Italy and elsewhere in Europe. The city is a masterwork of dedication and inventiveness in which the buildings have been designed to fit into the overall planned urban fabric and also to form a whole with the surrounding cultural landscape.

**Criterion (i):** Through its urban and architectural characteristics, the historic centre of Siena is a testimony to human creativity and expresses human artistic and aesthetic capacity in material form.

**Criterion (ii):** The strong, personal example of artistic civilization, its architecture, painting, sculpture and town planning in particular had a very strong cultural influence not merely on the whole territory of the Republic of Siena but also in Italy and Europe, especially between the 13th and 17th centuries.

**Criterion (iv):** The structure of the town and its evolution, uninterrupted over the centuries, along with a unity of design that has been preserved, has made Siena one of the most precious examples of the medieval and Renaissance Italian town.

### **Integrity**

The Historic Centre of Siena is delimited by its ancient ramparts constructed between the 14th and 16th centuries. These walls follow the contours of the three hills on which the city is built and continue to include their bastions, towers and gates. In addition to the walls, the property includes many other important original elements such as the fountains with their tunnels, the road network and green spaces related to the urban plan, the public buildings and the residences including palaces and towerhouses.

The Historic Centre of Siena is vulnerable to environmental pollution and intense tourist pressure, which strain city services during a few months of the year. There is also concern relating to the progressive abandonment of the historic core by local residents. Although the region was identified as earthquake-prone with a medium to low risk in 1983, current protection efforts are considered adequate.

### **Authenticity**

Taking into account its present-day state of conservation and its historical authenticity, it has to be said that Siena is a rare example of a medieval historic town of this size. This can be explained in part by the fact that the city did not suffer serious war damage and has been spared from modern industrial development in part because it remains outside the country's large development areas. The number of inhabitants has remained relatively low and corresponds with that of the medieval period. As a result, no large-scale urban extensions have been undertaken. The environs of the city have been subjected to only small-scale interventions, such as projects undertaken during the 19th century, which have become integral parts of its present historical authenticity. In contrast, similar activities have altered the historic fabric of other towns.

As a result of these factors, the original urban form of the city, with its 15th-century street plan, has been retained along with the Gothic design of its public buildings, palaces and towerhouses. Moreover, the function of medieval elements remains unchanged including the original vegetable gardens within the walls. Traditional activities continue in specific areas of the city as they did in the Middle Ages, as seen along Banchi di Sopra and Banchi di Sotto. These early streets were occupied by money changers and now are lined by banks.

Concern for authenticity of buildings and monuments has been identified in the removal of architectural elements that are threatened by pollution and their replacement with replicas.

### **Protection and management requirements**

The Historic Centre of Siena contains a variety of buildings under public, private and Church ownership. The property covers 107 hectares and is defined by the ancient city walls, which provide a clear boundary. The site is surrounded by a buffer zone of 9,907 hectares extending into the territory of the municipality.

Since 1931, Siena has adopted "modern" urban planning tools. Today, State and Municipal authorities are carrying out an active and continuous conservation and restoration policy. Recently, implementation tools for the municipal planning and relevant regulations, which introduce the definition of the old city "UNESCO Site", have been approved. These tools recognize the need to maintain the city's role as a representative place in terms of local identity. The historical centre is the focus of local identity, representing the economic activities and social



expression of the community. The urban planning tools followed over time have maintained these functions while continuing to ensure the historical relationship of the walled city with the surrounding agricultural context.

The entire historic centre is subject to “Decreto Legislativo 42/2004, Codice dei beni culturali e del paesaggio”, the national Law for protection of cultural heritage. Individual monuments are subject to a safeguarding measure which ensures any activity on the site must be authorized by the relevant *Soprintendenze* (peripheral offices of the Ministry for Cultural Heritage and Activities). While the specific intervention authorizations are granted by the local authority, the role of the *Soprintendenze* is to ensure overall control. Under this regulation, the *Soprintendenze* can deny proposed modifications for conservation reasons and restrict interventions.

Another legislative limitation defined by the national law further protects the entire historic centre through the safeguarding of landscape. In addition, a series of more specific regulations and preservation plans regulate areas of building activity and commerce, and provide for a limited traffic zone with electronic control of access.

The Municipality of Siena approved its first management plan in May 2011 defining the management system. In particular, the plan defines how the goals are to be promoted and executed. Due to the articulation of the activities to be undertaken and the variety of critical issues to be resolved, a specific operational interdisciplinary structure (UNESCO office) will be created as a permanent unit devoted to coordination of all public and private bodies concerned with the actions of protection, conservation and enhancement of the Historic Centre of Siena. Strategic objectives, identified to meet the critical issues raised in the management plan, were transformed into five specific actions. A review has been undertaken of the type of communication relating to the values of the World Heritage property using an approach that integrates traditional techniques with contemporary approaches and tools. City parks are enhanced through a re-evaluation of public gardens to maintain the ancient relationship between the walled city and its surrounding green valleys. Studies and research have focused on both public and private heritage in order to optimize conservation practice. Additionally, the process of implementing further traffic regulation has included a parking system inside and outside the walls (already a limited traffic zone), with a policy to reduce and control vehicular access and provide a pedestrian and cycling plan for of the Historic Centre of Siena.

Activities that will increase tourist visitation to the World Heritage site have been optimized in accordance with the principles of sustainable development by implementing a management system to regulate the number of tourists.

Finally, with the unique support from “contrade”, the current urban planning safeguards the social and cultural aspects of the city through the promotion of a policy to recover the traditional residential use of buildings within the old town.

## Historic Centre of the City of Pienza (C 789)

### Brief synthesis

Pienza, located on the crest of a hill overlooking the Val d'Orcia, 53 km south-east of Siena, was established in the medieval period as Corsignano. The town was renamed and redesigned in the late 15th century by Pope Pius II. Born in this Tuscan town, Enea Silvio Piccolomini became a leading humanist before being elected as Pope in 1458.

Renaissance town-planning concepts were first put into practice when Pope Pius II enlisted the architect Bernardo Rossellino to transform his birthplace. Rossellino applied the principles of his mentor, Leon Battista Alberti, a humanist thinker and architect,

author of the first architectural treatise of the Renaissance. The Pope was further influenced by German philosopher Cardinal Nicolò Cusano and the German Gothic tradition. This is evidenced in the interior of the Pienza Cathedral, typical of the late Gothic style of southern German churches while the exterior is pure Renaissance. The bell tower blends Gothic and Renaissance forms.

The new vision of urban space was realized in the superb trapezoidal square known as Piazza Pio II. The construction of new major buildings around the square began in 1459 and included the cathedral as well as Piccolomini Palace, the Borgia Palace (or Episcopal Palace), the Presbytery, the Town Hall, and the Ammannati Palace. While the medieval urban plan was largely respected, a new main axis road, Corso Rossellino, was built to connect the two main gates in the medieval wall, which was also reconstructed during this period. Pius II's plan, to develop the town as his summer court, involved the construction or reconstruction of approximately 40 buildings, public and private, which further transformed the medieval town into a creation of the Italian Renaissance. These included new buildings for the cardinals in the papal retinue as well as 12 new houses constructed for the general populous near the walls and Porta al Giglio.

As the first application of the Renaissance Humanist concept of urban design, the town occupies a seminal position in the development of the concept of the planned "ideal town" and plays a significant role in subsequent urban development in Italy and beyond.

**Criterion (i):** The application of the principle of the Renaissance "ideal city" in Pienza, and in particular in the group of buildings around the central square, resulted in a masterpiece of human creative genius.

**Criterion (ii):** The Historic Centre of Pienza, as the first application of the Renaissance humanist concept of urban design, was to play a significant role in subsequent urban development in Italy and beyond.

**Criterion (iv):** The buildings surrounding Pienza's central square are an outstanding example of Humanist Renaissance design.

### **Integrity**

The boundary of the site, defined by its original wall, includes all the essential elements that contribute to the justification of its Outstanding Universal Value. The ensemble created by Pius II has maintained its structural and visual integrity remaining essentially intact in all its components.

Threats to the historic centre are primarily due to the influx of tourists, which requires an improved tourist management system. Moreover, rising property values create a risk of depopulation that would impact the town's social cohesion. The general maintenance of the historic buildings in the core is, in part, focused on geological problems. The instability of the soil, particularly in the piazza, has caused ongoing structural problems to the cathedral since its construction.

### **Authenticity**

The Historic Centre of Pienza has retained authenticity in terms of design, materials, workmanship, and setting. It is still possible to easily read the medieval urban structure as well as the Renaissance intervention of Rossellino, as they have been preserved in the street plan, architecture and details, such as the central square's herringbone paving edged with travertine. All works, performed in accordance with the Charters of Restoration, have favoured the maintenance of materials of historic structures. Like other historic towns in the region, Pienza has retained its setting as it remains within its historic boundaries and, along with the surrounding agricultural landscape; it has not been subject to adverse industrial or infrastructure developments.

### **Protection and management requirements**

Property owners within the historic town include a variety of public, private, local organizations and ecclesiastical bodies. Restoration and conservation programmes have been carried out on historic buildings since the early 20th century. Properties with a historic, archaeological and ethnographic value are subject to the ex Legge 1939/1089, now merged in the Decree n.42/04 "Code on cultural heritage and landscape", which sets specific regulations and procedures for intervention on the property. The local authority is responsible for approvals relating to interventions but these are subject to specific safeguarding measures authorized by the relevant *Soprintendenza* (peripheral office of the Ministry for Cultural Heritage and Activities). The *Soprintendenza* can deny interventions for conservation reasons or require the interventions to be limited or restricted in order to protect the historic resource.

Conservation measures in the historic centre of Pienza are fully identified in the Municipal General Plan. In addition, several properties are subjected to further legislative measures contained in the "Census of operating municipal heritage building" in which specific categories of assistance are identified.

Finally, a new Management Plan has outlined five strategic projects: protection of the site; research and development of the humanistic character of the city; enhancement of the social dimension and use of the centre; recovery of unique architectural features and landscaping of the site; and proposal for compatible tourist and socio-economic activities. Implementation is divided into three phases: the first is dedicated to knowledge, to build public awareness of the particular characteristics of the site; the second establishes strategies aimed to enhance awareness and promotion of the site; and the third concerns control, management and development of potential sites. The management plan addresses guidelines for the conservation of architectural and urban character, without forgetting the cultural relations and social dimension of the city and the connections with the surrounding landscape, according to a strategy for exploiting the particularities and dynamics of strengthening the image of the city.

A steering committee has been established by the local offices of the Ministry for Cultural Heritage and Activities, the Province of Siena and the town of Pienza, with the objective of updating and implementing the property's Management Plan.

## **Late Baroque Towns of the Val di Noto (South-Eastern Sicily) (C 1024rev)**

### **Brief synthesis**

The Late Baroque Towns of the Val di Noto is comprised of components of eight towns located in south-eastern Sicily (Caltagirone, Militello Val di Catania, Catania, Modica, Noto, Palazzolo Acreide, Ragusa and Scicli). These historic centres and urban environments reflect the great, post-seismic rebuilding achievement of the decades following the catastrophic earthquake of 1693, which ravaged towns across south-eastern Sicily. The rebuilding,

restoration and reconstruction of these communities resulted in the creation of an exceptional group of towns, all reflecting the late Baroque architecture of the 17th century in all its forms and applications.

The eight components of the property differ in size and represent a range of responses to the rebuilding needs. They include the entire old town of Caltagirone, Noto and Ragusa; specific urban areas of Catania and Scicli; and isolated monuments in the historic town centres of Modica, Palazzolo Acreide and Militello Val di Catania. Catania was rebuilt on the site of the original town while others, such as Noto, were rebuilt on new sites. At Ragusa and Palazzolo Acreide, new urban centres were created next to the ancient ones. The centres of Scicli and Modica were moved and rebuilt in adjoining areas already partially urbanized, and Caltagirone was simply repaired.

The towns exhibit a plethora of late Baroque art and architecture of high quality and of a remarkable homogeneity as a result of the circumstances of time, place, and social context in which they were created. However, they also display distinctive innovations in the town planning and urban rebuilding. The property also represents a considerable collective undertaking in response to a catastrophic seismic event.

**Criterion (i):** The Late Baroque Towns of the Val di Noto in south-eastern Sicily provide outstanding testimony to the exuberant genius of late Baroque art and architecture.

**Criterion (ii):** The Late Baroque towns of the Val di Noto represent the culmination and final flowering of Baroque art in Europe.

**Criterion (iv):** The exceptional quality of the late Baroque art and architecture in the Val di Noto lies in its geographical and chronological homogeneity, and is the result of the 1693 earthquake in this region.

**Criterion (v):** The eight Late Baroque Towns of the Val di Noto in south-eastern Sicily are characteristic of the settlement pattern and urban form of this region, are permanently at risk from earthquakes and eruptions of Mount Etna.

### **Integrity**

The property includes all the attributes required to express its Outstanding Universal Value, as it encompasses the most representative centres of the late Baroque period in the Val di Noto. The eight components of the property reflect the range of architectural and town-planning developments resulting from the post-seismic reconstruction in the Val di Noto after the 1693 earthquake. This earthquake created an opportunity for an enormous artistic, architectural, and anti-seismic renewal of the cities. The centres retain their residential function, along with a lively society of inhabitants.

### **Authenticity**

The eight components of the property continue to demonstrate with remarkable homogeneity the late Baroque art and architectural style of south-eastern Sicily in individual buildings and town planning. In particular, the almost completely preserved town plans, which have seen only few alterations, express a variety of reactions to the destruction caused by the earthquake.

Although the property meets the requirements for authenticity, it has been affected by further seismic activity as well as long-term degradation, and a great many buildings and monumental complexes require major restoration, consolidation, and maintenance interventions.

### **Protection and management requirements**

The majority of the properties in all eight components are in private ownership. Other properties are owned by the church, the Italian State and local Government authorities. The Regional Provinces of Catania, Ragusa, and Syracuse, as well as the Municipalities of the eight towns have the responsibility for looking after the urban and architectural heritage in their respective territories. The eight towns are identified in the respective town plans as Homogeneous Territorial Zones or Historic Centres, where the existing urban and architectural heritage can be submitted only to rehabilitation and maintenance works that fully respect the historic and cultural vocation of each town.

The main legal protection and conservation measures are provided by the national and regional legislation for the protection of the artistic, monumental, landscape, naturalistic, seismic, hydro-geological and forestry heritage, in particular by Acts 1089/39, 1497/39, 64/74, 431/85, and Regional Acts 61/81 and 15/91. Numerous buildings (109) falling within the core-zones are bound according to the DL 42/2004 (pursuant to Law 1089/39) because of historical monuments. The historical towns of Ragusa Iblea and Noto and Modica, Scicli, Palazzolo Acreide are subject to landscape protection (under Law 1497/39). All goods falling within urban areas classified as Zone A (historic centre) from the general zoning and applicable planning legislation, are regulated by national and regional laws. The old town of Ragusa Ibla also benefits from a detailed plan and a special law (L.R. 61/81) that promote recovery for restoration of public and private buildings. All work on the property must be approved in advance by local Superintendents and Municipal Administration. The norms that protect the site are dictated by state laws (legislative decree 22 January 2004, Code for cultural heritage and landscape), as well as regional and municipal laws.

At the time of inscription a Management Plan was developed to coordinate the management of the eight components of the property. The Management Structure is regularly revised.

## Rock Drawings in Valcamonica (C 94)

### Brief Synthesis

Valcamonica, situated in the mountainous area of the Lombardy region, has one of the world's greatest collections of prehistoric petroglyphs – more than 140,000 symbols and figures carved in the rock over a period of more than 8,000 years. Found on both sides of an entire valley, the petroglyphs depict themes connected to agriculture, deer hunting, duels, as well as geometric-symbolic figures.

The number and variety of the engravings, representing for example navigation, warfare, duels, dance and ploughing and their relationship with contemporary archaeological sites, contribute to the exceptional value of this assemblage. Furthermore, the apparent continuation of the practice of engraving for a period of more than 8,000 years, from the Upper Palaeolithic until the Roman and Mediaeval periods, and in some cases until modern times, links this extraordinary expression of human creativity to present day communities, and represents an important aspect of the valley's identity.

**Criterion (iii):** The Rock Drawings of Valcamonica stretch over a period of eight thousand years leading up to our present era, making these human renderings absolutely invaluable.

**Criterion (vi):** The Rock Drawings of Valcamonica constitute an extraordinary figurative documentation of prehistoric customs and mentality. The systematic interpretation, typological classification, and the chronological study of these configurations in stone represent a considerable contribution to the fields of prehistory, sociology and ethnology.

### Integrity

The property contains the necessary elements to express its Outstanding Universal Value. The inscribed property includes the most extraordinary engravings, which document and provide the most complete evidence of prehistoric customs and mentality. The general state of conservation of the rock surfaces and the visibility of the rock art images is good.

Inherent aspects of the property are responsible for its vulnerability, for instance due to the exposure of the engravings to atmospheric and climatic factors, the presence of woods and the possible damages caused by pollution or direct human intervention.

### Authenticity

The Rock Drawings of Valcamonica, as archaeological remains, have maintained high levels of authenticity in their form, iconography and material. The physical authenticity of the property is preserved thanks to continuous monitoring, restoration and control, ensured by the *Soprintendenza per i Beni Archeologici della Lombardia* (a local office of the Ministry for Cultural Heritage and Activities) and by a specific network of Parks with rock engravings. All the restoration works are performed under the direction of the Ministry, in accordance with the principles of the Venice Charter.

### Protection and management requirements

The property is subject to different legal protections that operate at different levels: national, regional and local.

The national law for the protection and preservation of cultural heritage (Legislative Decree 42/2004) subordinates all the actions on cultural heritage to the preventive approval by the peripheral offices of the Ministry for Cultural Heritage and Activities.

Parks are governed by regional regulations on Parks and Natural Reserves that contain indications concerning the management of areas with archaeological, environmental, botanical and ethnographic importance. These rules are transposed into the municipal planning instruments.

The *Soprintendenza per i Beni Archeologici della Lombardia* coordinates the actions for the property, the first Italian property inscribed in 1979, and the preparation of the Management Plan. These activities are carried out with the collaboration of the Local Authorities that, because of the vastness of the territory and variety of heritage (more than 180 localities with rock art) have been primarily identified as the Province of Brescia, Comunità Montana di Valle Camonica, Consorzio dei Comuni del Bacino Imbrifero Montano di Valle Camonica (BIM) and the 7 municipalities with Rock Art Parks.

All the relevant public authorities and research institutions present on the territory have been involved in the preparation of the Management Plan. Together, they provided guidance and knowledge, ensured the preservation and enhancement of the property, and started programming and planning the Operation Plan for the sustainable development of the Valley.

To achieve some priority actions of the Management Plan, the Institutional Coordination Group was established in 2006; it is still operative as a controlling instance. Positive developments include the widespread adoption of the

Management Plan through resolutions taken by the municipalities, the establishment of new parks (with different institutional profiles: national, regional or municipal) and their involvement the network of the Rock Art Parks.

Since 2007, the Institutional Coordination Group has interacted with the Cultural District of Valle Camonica (promoted by the Bank Cariplo Foundation). This also included improvements to the facilities and enhanced access for visitors.

A monitoring program for the actions was prepared and has been implemented since 2006. In 2011, the different stakeholders involved in the management of the property have signed an agreement towards the integrated management of the cultural services of the property.

## Sacri Monti of Piedmont and Lombardy (C 1068rev)

### Brief synthesis

The property “*Sacri Monti*” or “Sacred Mountains of Piedmont and Lombardy” consist of a series of nine separate complexes located in the mountains of Northern Italy (Varallo, Crea, Orta, Varese, Oropa, Ossuccio, Ghiffa, Domodossola, and Valperga). Each complex includes a number of chapels and other architectural features, created in the late 16th and 17th centuries and dedicated to different aspects of Christian belief.

The phenomenon of *Sacri Monti* began at the turn of the 15th and 16th centuries with the aim of creating places of prayer in Europe as an alternative to the Holy Land (Jerusalem and Palestine). At that time, access to the Holy Land was becoming more and more difficult for pilgrims owing to the rapid expansion of Muslim culture. Initially, three different locations were proposed for the “New Jerusalem”: Vareallo in Valsesia, Montaione in Tuscany, and Braga in Northern Portugal. Locations were selected based on similarity of topography to the Holy Land. This phenomenon took root especially after the Council of Trent when the Church adopted the additional role of combating the influence of the Protestant Reformation.

The first example of this phenomenon in Italy was the Sacred Mountain of Varallo, in 1480. Supported by the Bishop of Milan and following ideas that developed from the Council of Trent, it became a model for other *Sacri Monti* that followed and was dedicated not only to Christ but also to cults devoted to the Virgin Mary, saints, the Trinity, and the Mysteries of the Rosary. Each “*sacro monte*” began with certain fundamental rules and standards for typology and architectural style but evolved with their own unique art and architecture. Each has a distinct theme or role. At Orta, for example, the complex is dedicated to St. Francis of Assisi with 21 chapels and a garden in a layout essentially unchanged since the 16th century. The *Sacro Monte* of the Blessed Virgin of Succour at Ossuccio contains 14 Baroque-style chapels on the slope of a mountain leading to a sanctuary at the summit. In the early 18th century, Michelangelo da Montiglio a monk, developed *Sacro Monte* of Belmonte, Valperga Canavese to recreate Biblical sites from the Holy Land with a circuit of 13 chapels symbolizing the principal incidents in the Passion.

In all of the Sacred Mountains, the greatest Piedmontese and Lombard artists of the period created paintings and sculptures representing the most edifying episodes of the life of Jesus, Mary, or the Saints, constituting a remarkable artistic heritage.

**Criterion (ii):** The implementation of architecture and sacred art into a natural landscape for didactic and spiritual purposes achieved its most exceptional expression in the *Sacri Monti* (“Sacred Mountains”) of Northern Italy and had a profound influence on subsequent developments elsewhere in Europe.

**Criterion (iv):** The *Sacri Monti* (“Sacred Mountains”) of Northern Italy represent the successful integration of architecture and fine art into a landscape of great beauty for spiritual reasons at a critical period in the history of the Roman Catholic Church.

### Integrity

The site includes all the necessary elements to express its exceptional value and, in particular, both devotional architecture, characterizing the site and context in which they are inserted. An essential feature of the *Sacri Monti* is that they preserve intimate links with not only the natural landscape but also the neighbouring human communities. No threats to the sites have been identified.

### Authenticity

The original symbolic layouts of the chapels, within the natural landscape, are still unchanged, retaining authenticity of form, design and setting. Moreover, traditions and authenticity of function have been retained as all the nine complexes are preserved as places of Christian pilgrimage, prayer and reflection, the purposes for which they were originally built.

Whilst modifications were carried out to certain ensembles and individual buildings during the 17th and 18th centuries, the chapels have largely retained their integrity in terms of materials and craft. Systematic conservation works of these groups of monuments started from 1980. All the restorations conform fully to modern principles of

conservation and restoration theory. Attention was focused on the interiors and on the restoration of the paintings and sculptures.

### **Protection and management requirements**

The nine complexes that form the *Sacri Monti* are found in several provinces across the two regions of Piedmont and Lombardy. Together these complexes cover a total of 90.5 hectares and each is protected by a buffer zone encompassing a total area of 721.90 hectares.

The property is subject to a series of Protection Acts which operate on several levels: national, regional and local. The national Law for the protection and preservation of the cultural heritage (D.lgs 42/2004) oversees every intervention relating to cultural heritage through the peripheral offices of the Ministry of the Cultural Heritage and Activities. The intervention on urban and country planning is regulated by the regional government of the territory.

The seven *Sacri Monti* located in Piedmont are regulated by the regional Law on Parks and Natural Reserves integrated with the urban plans of the surrounding municipalities.

On a local level, the work of religious orders (Friars Minor and Rosminian Fathers) and the Diocesan Curiae is very important in terms of the religious activities and traditions related to the Catholic Church that continue at the *Sacri Monti*.

A process for coordination has been put in place to manage the various groups involved in the site. The management system is formed by two bodies, organized on two levels. The first, the Permanent Conference, includes the various organizations with responsibilities relating to the management of the site (State, Regions, Municipalities and representatives of the Church). It provides coordination of technical and scientific activities and has a role of political guidance. The second, the Permanent Operative Working Group has an executive role and is composed of a fewer number of subjects. Moreover, this group is in charge of the definition of the technical and operating guidelines and the general management programs, together with the budgeting, auditing, monitoring and reporting activities on management and preservation.

Besides these two structures there is a Permanent Secretary which is in charge of the programming and execution of different management tasks, and of the Public Relations activities of the Permanent Conference. The management system is completed by the standing Permanent Centre for Studies and Documentation, dealing with research and information retrieval for the property.

## **Syracuse and the Rocky Necropolis of Pantalica (C 1200)**

### **Brief synthesis**

The site of Syracuse and the Rocky Necropolis of Pantalica on the Mediterranean coast of south-eastern Sicily consists of two separate elements, the historic town of ancient Syracuse and the Necropolis of Pantalica. Together these two components form a unique cultural record that bears a remarkable testimony to Mediterranean cultures from the time of the ancient Greek.

The historic town of ancient Syracuse consists of Ortygia, the historic centre of the city, and today an island that has been inhabited for around 3000 years, and the archaeological area of the Neapolis. Syracuse, the second Greek colony in Sicily was founded by the Corinthians in 743 A.D and described by Cicero as 'the greatest Greek city and the most beautiful of all'. Syracuse or 'Pentapolis' was constructed in five parts, still visible today of which Ortygia is the base of all urbanistic and architectonic developments of successive eras. This area of the property contains traces of the temple of Apollo made in Doric style and the most ancient in Western Greece (6th century B.C.E.), and the temple of Athena, erected for the victory of Gelone over the Carthaginians in 480 A.D., re-used as a church from 6th century C.E. and rebuilt as a Baroque cathedral, in the late 17th century. The Neapolis contains the archaeological remains of sanctuaries and impressive complexes, a theatre, the Latomies, the so-called Tomb of Archimedes and the amphitheatre. Many structures attest to the continuing development of the city through Roman times, from the Byzantines to the Bourbons, interspersed with the Arabo-Muslims, the Normans, Frederick II of the Hohenstaufen dynasty (1197–1250), the Aragons and the Kingdom of the Two Sicilies.

The Necropolis of Pantalica is a rocky outcrop located 40 km. away from Syracuse that contains over 5,000 tombs cut into the rock near open stone quarries. The tombs are spread along a spur over 1200m northeast to southwest and 500m northwest to southeast and most date from the 13th to 7th centuries BC. Associated with the tombs are the remains of dwellings dating from the period of Greek colonisation and other vestiges of the Byzantine notably the foundations of the Anaktoron (Prince's Palace).

The cultural, architectural and artistic stratification evident in the Syracuse/Pantalica ensemble bears exceptional testimony to the history and cultural diversity of the Syracuse region over three millennia from the ancient Greek period to the Baroque.

**Criterion (ii):** The ensemble of sites and monuments in Syracuse/Pantalica constitutes a remarkable testimony of the Mediterranean cultures over the centuries.

**Criterion (iii):** The Syracuse/Pantalica ensemble offers, through its remarkable cultural diversity, an exceptional testimony to the development of civilizations over three millennia.

**Criterion (iv):** The group of monuments and archaeological sites situated in Syracuse (between the nucleus of Ortygia and the vestiges located throughout the urban area) is the finest example of outstanding architectural creation encompassing several cultural influences (Greek, Roman and Baroque).

**Criterion (vi):** Ancient Syracuse was directly linked to events, ideas and literary works of outstanding universal significance.

### **Integrity**

The property of Syracuse and the Rocky Necropolis of Pantalica includes all the essential elements that show the Outstanding Universal Value of the property. Each of the three core areas of the property has a substantial buffer zone. Although Syracuse was affected by urbanization and expansion in the second half of the 19th century and even more so in modern times, most of the architectural and monumental developments and structures that date back to its greatest period of splendour are still intact today. All the new developments have taken place outside the recognized areas of historical and archaeological interest.

The most important buildings and structures of the historical centre and the archaeological area (Theatre, Amphitheatre, Monumental Altar of Ieron II, cave of "Orecchio di Dionisio") are well preserved and the general state of conservation of the majority of the urban and building network has considerably improved due to the protection policies that have been implemented particularly in the last thirty years.

The core area of the Necropolis of Pantalica corresponds to the parts of the site that contain the most important and significant archaeological evidence. Today this area is complete and each element of the rocky villages in the necropolis and in the landscape is perfectly intact and is in an excellent state of conservation.

### **Authenticity**

The authenticity of Syracuse is evident in many of the city's structures, which retain the same characteristics as during the late Hellenistic period, while other buildings clearly reflect the history of successive cultures over three millennia. The original Hellenistic system and the changes that occurred during the various historical periods have made it possible to clearly distinguish the evidence left in each age and how each culture operated and interacted with the pre-existing ones.

All restoration works are preceded by meticulous and in-depth research, as well as historical and other subject analyses. They were carried out, as far as possible, maintaining the original characteristics, typologies, building systems and original material according to the most advanced and shared international knowledge in the field of restoration of monuments, under the direct control of technicians and specialist personnel of the Superintendence of Environmental and Cultural Assets.

Despite the fact that the tombs were plundered in different periods, the Rocky Necropolis of Pantalica has a high level of authenticity due to its integrity, good level of conservation and absence of modern developments. It represents an extraordinary landscape as it was in a precise historical period without any significant variations in subsequent times.

### **Protection and management requirements**

The property is protected under the national provisions of the Legislative Decree 42/2004, Code of Cultural Heritage and Landscape, a safeguarding measure that ensures any activity on the site must be authorized by the relevant Superintendence of Environmental and Cultural Assets of Syracuse (peripheral office of the Cultural Heritage and Sicilian Identity).

The areas of the property declared by the State in the past and since 1975 by the Sicilian Region of 'archaeological interest' and therefore largely expropriated and registered to the State, are subject to stricter rules for the protection and conservation. The areas registered to the State are managed by the Superintendence Service of Environmental and Cultural Assets of Syracuse. The Region has defined the surface and borders of the Archaeological Park of Syracuse, but this is not instituted as an independent body yet. The Superintendence Service applies the Cultural Heritage Code (Legislative Decree 42 / 2004) and assigns state-owned sites, and operates the tools of government land, protecting and enhancing areas. In addition, the Region proposed a Landscape Territorial Plan that is pending approval. Locally, the General Urban Plan of each municipality, in accordance with the requirements of higher-level tools, identifies the uses of non-state-owned areas and the manner and extent of urban transformation. The activities of the Superintendent are controlled by the Regional Directorate of the Department of Cultural Heritage.

The Department of Cultural Heritage of the *Assessorato* for Cultural Heritage and Sicilian Identity coordinates the actions within the vast territory, which includes the areas of the city of Syracuse and the Necropolis of Pantalica, through the Superintendence Service of Environmental and Cultural Assets of Syracuse. This Superintendence is responsible for all activities involving the protection for emergency treatment, implementing archaeological research, restoration, enhancement as well as to ensure the use, protection and preservation of cultural heritage. Activities aimed to enhance, promote and protect the landscape are under the responsibility of the

Superintendence Service. The Municipalities of Syracuse, Sortino, Ferla and Cassaro have expertise in tourism promotion of the territory and on its roads, at a provincial level.

A Management Plan for the property has been prepared by the Superintendence Service with the involvement of the municipalities. The vision of the Management Plan is to safeguard the cultural heritage and to conserve the stratified urban fabric; to support traditional socio-economic interrelations and cultural production; to improve the quality of life, maintaining mixed uses, increasing security and hygiene, as well as to raise awareness and understanding of heritage resources. Management of the property requires combining conservation processes with the needs of a living and evolving urban landscape.

The necropolis of Pantalica is located in a zone that is distant from all urban areas and industrial facilities, and there are few risks to the site. Syracuse on the other hand is located near a zone of large-scale industries and in a modern urban fabric. This means it is potentially subject to various kinds of risks such as air and noise pollution and illegal development. These risks are currently reduced by environmental protection mechanisms and surveillance.

## The Sassi and the Park of the Rupestrian Churches of Matera (C 670)

### Brief synthesis

Located in the southern Italian region of Basilicata, The Sassi and the Park of the Rupestrian Churches of Matera comprises a complex of houses, churches, monasteries and hermitages built into the natural caves of the Murgia. Covering an area of 1,016 ha this remarkable and intact troglodyte settlement contains more than a thousand dwellings and a large number of shops and workshops. The property was first occupied during the Palaeolithic period and shows evidence of continuous human occupation through several millennia until the present day, and is harmoniously integrated into the natural terrain and ecosystem.

The site is composed of the ancient districts of the city of Matera and of the Park of the Rupestrian Churches which stretch over the Murgia, a calcareous highland plateau characterized by deep fault fissures, ravines, rocks and caves. The morphology of the territory, characterized by deep ravines (*gravine*) and bare highland plateaus, integrated with ancient cave churches, shepherd tracks marked by wells, and fortified farmhouses, form one of the most evocative landscapes of the Mediterranean.

The site was first occupied from the Paleolithic to the Neolithic era with occupation of the natural caves intensifying from the 8th century, when the city started to overshoot the boundaries of the defensive walls dated to the Roman Age and constructed all around the part of the city called *Civita*, which was the first inhabited nucleus. The earliest houses in the settlement were simple caves enclosed by a wall of excavated blocks on the two *grabiglioni*, Sasso Caveoso and Sasso Barisano. A Romanesque cathedral was built on the *Civita* between the two Sassi in the 13th century.

The historic centre retains the distinction of these the two districts, the Barisano and Caveoso, and also includes the 15th century Casalnuovo district and the 17th-18th century backbone of the city called "Piano".

**Criterion (iii):** The Sassi and the Park of the Rupestrian Churches of Matera represent an outstanding example of a rock-cut settlement, adapted perfectly to its geomorphological setting and ecosystem and exhibiting continuity over more than two millennia.

**Criterion (iv):** The town and park constitute an outstanding example of an architectural ensemble and landscape illustrating a number of significant stages in human history.

**Criterion (v):** The town and park represent an outstanding example of a traditional human settlement and land-use showing the evolution of a culture which has maintained a harmonious relationship with its natural environment over time.

### Integrity

The World Heritage property includes the Sassi of Matera and the Park of the Rupestrian Churches, which together encompass the characteristic cultural features, sites and monuments that underpin the Outstanding Universal Value of the property. This includes the ancient urban centre and the highland plateau on the opposite side of the ravine which show evidence of human settlement for over 2000 years.

There is a designated buffer zone around the World Heritage property to protect the immediate surroundings of Sassi from insensitive development.

### Authenticity

The Sassi and the Park of the Rupestrian Churches of Matera hold a high degree of authenticity. The rock-cut settlement exhibits evidence of continuous occupation from prehistoric times until the mid-twentieth century. There was some interruption when the entire population of the Sassi was relocated in the 1950s. The evacuation was undertaken in order to improve sanitation and renovate the ancient districts. While the abandonment of the area



led to some degradation, the return of people from the 1980s has restored the traditional use and function of the property, and rejuvenated the spirit and feeling of the place.

### **Protection and management requirements**

The Sassi and the Park of the Rupestrian Churches property is bound by the national regulation for the protection and conservation of the cultural heritage (D.lgs 42/2004, code of the cultural heritage and the landscape). This national regulation requires the prior approval of the relevant *Soprintendenze* of the local Offices of the Ministry for Cultural Heritage and Activities, for any intervention or activity impacting the property.

Most of the historical area is owned by the State and leased to the Municipality of Matera under Law 771/1986. The law delegates direct responsibility for the management of the historical area to the Municipality. Law 771/1986 established two urban plans for the appropriate use of the area. These define the rules and methods for interventions and for authorized leasing, to safeguard the architectural, urban, environmental and economic recovery of the Sassi districts and the highland plateau. The second plan has a particular emphasis on residential development as a means to rehabilitate the Sassi and reestablish a local residential population.

The Municipality established a special department, "Ufficio Sassi," in collaboration with several local offices of the Ministry for Cultural Heritage and Activities, to manage the planning of the World Heritage property. The Sassi Office undertakes a range of activities including ensuring adherence with building trade regulation for both public and private buildings within the World Heritage property; administration of Italian state-owned buildings; allocation of taxes for the restoration of private and public buildings and monuments; as well as the identification of historic documentation to enhance knowledge of the site.

The Municipality of Matera has other offices that deal with tourism and culture which, in collaboration with the Sassi Office, identify and put into practice strategies for the tourist access and cultural celebration of the site.

The special Law 771, led to the establishment of a management plan between private and public parties to ensure the architectural, urban, environmental and economical conservation of the ancient Sassi districts and to safeguard the Murgia highland plateau.

The property has further regional protection through Law 11/1990 of the Region Basilicata. The law created the Institution of the Archaeological Historic Natural Park of the Rupestrian Churches of Matera. This institution provides protection for some 6,500 ha to effectively protect the natural open space and archaeological sites of the Murgia, including the recovery and valorization of areas of prehistoric and historic archaeology. This law further provides for the protection, conservation, safeguarding, valorization and management of the rupestrian habitat, of the natural ecosystems, biotic communities and their habitat, biotypes and the relevant geological, geomorphologic and speleological formations, watercourses and related hydrological systems. Furthermore, the law makes provision for education and promotion of conservation activities that promote and facilitate the organization of tourism other economic and productive sustainable development of the Park. It makes further provision for the conservation of the anthropological aboriginal values, with particular reference to the rural settlements. These provisions are integrated into the plan for the Park regulated by the same regional law.

The Park of the Rupestrian Churches has additional protection under Regional Law 2/1998 which makes provision for collaboration with the management body of the Park, which plans and carries out the necessary activities and interventions to implement the plans for the Park.

There is a need for vigilance in respect to development in the buffer zone between I Sassi and the modern town of Matera to ensure that there is no negative impact on the ancient quarters. Increasing tourism to the site may also have negative impacts on the presentation and ambience of the property and should be governed through the visitor management.

## **MONTENEGRO / MONTÉNÉGRO**

### **Durmitor National Park (N 100bis)**

#### **Brief synthesis**

Durmitor is a stunning limestone massif located in Northern Montenegro and belonging to the Dinaric Alps or Dinarides. It is also the name of Montenegro's largest protected area, the Durmitor National Park, which constitutes the heart of a landscape shaped by glaciers, numerous rivers and underground streams of which are embedded in the much larger Tara River Basin Biosphere Reserve. Some fifty peaks higher than 2,000 metres above sea level rise above plateaus, alpine meadows and forests, including Bobotov Peak (2,525 metres above sea level). Numerous glacial lakes, locally known as "mountain eyes", cover the landscape. Despite its many attractions, Durmitor is best known for the spectacular canyons of the Draga, Sušica, Komarnica and Tara Rivers, the latter stands out as Europe's deepest gorge. Durmitor is a popular tourism destination, known for superb hiking, climbing, mountaineering and canoeing opportunities. The nearby town of Zabljak is Montenegro's primary ski resort.

Besides the extraordinary landscape beauty and the fascinating geological heritage, Durmitor National Park is also home to an impressive biological diversity. At the habitat level, a rare old-growth stand of European Black Pine deserves to be mentioned. Favored by the altitudinal gradient of more than 2,000 metres and both alpine and Mediterranean climatic influences, there are more than 1,600 vascular plants in the wider Durmitor Massif. A great percentage is found in the park and many are rare and endemic species. Large mammals include Brown Bear, Grey Wolf, and European Wild Cat. Among the 130 recorded birds are Golden Eagle, Peregrine Falcon and Capercaillie. Likewise noteworthy is the rich fish fauna, which includes the endangered Danube Salmon. The park is inhabited by farmers and shepherds, traditionally using the high-altitude meadows as summer pastures. The property is well protected and its status and international recognition have helped to prevent irreparable damage from threats, such as upstream pollution and proposed dam construction.

**Criterion (vii):** Durmitor National Park's exceptional scenic beauty has been shaped by glaciers and rivers. The alpine meadows on plateaus and smooth hills are set against the stark backdrop of the numerous high and rugged peaks. The dense forests and the glacial lakes add to the scenic diversity and appeal. The most dramatic elements of the spectacular mountain landscape are the deep river canyons, most notably the famous Tara River Gorge, Europe's deepest gorge and one of very few unaffected by dams and roads. Even the underground offers stunning natural beauty in the form of numerous caves, most notably the "Ice Cave", with its impressive ice stalactites and stalagmites.

**Criterion (viii):** Durmitor National Park harbours a wealth of geological and geomorphological features of major scientific interest which have been shaping the landscape, such as the many remarkable Karst phenomena. The dominant geological features are very thick, often savagely contorted limestone formations of the Middle and Upper Triassic, Upper Jurassic and Upper Cretaceous though more recent rocks are also present. One particularity is the so-called Durmitor Flysch, a term used for tectonic layers inclined at an angle of 90 degrees in the Durmitor Massif. The sheer walls of the many canyons, and in particular, those of the spectacular Tara River Gorge of more than sixty kilometres, are not only fundamental landscape features of the Park but also expose magnificent rock formations. Less known but no less fascinating is the underground world of the property. It includes Montenegro's deepest cave and subterranean rivers draining some of the glacial lakes. In particular, the "Ice Cave" is a visually stunning and a rare relict of past glaciation.

**Criterion (x):** The diverse mountain landscape encompasses altitudinal zones ranging from only 450 to more than 2,500 metres above sea level and a broad array of ecosystems and habitats. Among these are rocky peaks, forests, alpine meadows, lakes, rivers, canyons and caves which include underground freshwater systems. Of particular importance is an old-growth forest of European Black Pine, where 400 year-old specimens can reach heights above 50 metres. Many of the roughly 700 vascular plant species are floristically of alpine and Sub-Mediterranean origin, including a rich karstic and calcareous grassland flora with many rare and endemic species. Overall, 37 plant species are reported to be endemic to the wider area and six specifically to Durmitor. Among the large mammals are predators like Brown Bear, Grey Wolf, European Wild Cat and River Otter. Some 130 bird species include birds of prey, such as Golden and Short-toed Eagle, Honey Buzzard and Peregrine Falcon but also Capercaillie and Black Grouse. The endangered Danube Salmon, under heavy pressure from overuse and dam construction elsewhere in its natural habitat, continues to live in the rivers of the park.

### **Integrity**

Durmitor National Park provides shelter for a significant altitudinal gradient, and the many different natural features and values of the corresponding zones. The protected part of the Massif contains major elements of the rugged peaks, meadows, lakes and forests. Geologically speaking and in terms of landscape values, the World Heritage property displays a wide array of extraordinary phenomena. Among these, the Tara River Gorge is notable, as the park provides rare protection for a long and mostly undisturbed canyon in a region that has seen ever-more dam development over the last decades. In terms of biodiversity, the park covers major vegetation types and areas of particular conservation importance for the rich and diverse flora and fauna. A good indicator of Durmitor's ecological integrity is the ongoing presence of large predators both on land and in the freshwater systems. While the park provides a safe environment for many species, it is clear that populations of predators and many other species require much larger areas for their natural habitat, confirming the importance of the integrated biosphere reserve approach with its buffer and transition zones. Scientific observers have suggested opportunities to improve additional areas belonging to the same hydrological, morphological and ecological systems. Such areas would add complementary natural values while simultaneously increasing the long-term integrity of the World Heritage property. Past concerns about water contamination and expected effects of planned dam construction serve as a reminder that effective long-term river conservation requires planning at the level of entire watersheds.

### **Protection and management requirements**

Founded in 1952 with a smaller surface area, the state-owned "Durmitor" National Park has a long formal conservation history going back to 1907 when the Black Lake, today within the property, received protected status. International recognition dates back to 1976 when the Tara River Basin became a biosphere reserve under UNESCO's Man and the Biosphere (MAB) Programme. The Tara River Gorge received formal protection status as a Nature Reserve and Nature Monument only in 1977, paving the way to becoming an integral part of the enlarged Durmitor National Park one year later. Inscribed in 1980, the Durmitor World Heritage property was extended in 2005 to fully coincide with the borders of the National Park. In addition to the Law on Nature

Protection and the Law on National Parks, a broad spectrum of environmental legislation on forests, water, soils, hunting and fishing is applicable. The Public Enterprise “*Nacionalni Parkovi Crne Gore*” is in charge of management, which is implemented through a specialized team headed by the Park Director. For management purposes, Durmitor has been divided into three zones, including a strictly protected zone covering some 10% of the park, a zone of protection covering some 75% of the park and a zone of sustainable use covering some 15% of the total area of the Park. Management planning is guided by medium-term plans for a 5 year period and implemented through annual plans.

Although landscape integrity and ecological functions are intact, an overarching management need is to ensure control of development that might threaten the ecological, socio-economic and cultural values of Durmitor. While this is fully reflected in the management vision, the documentation of past concerns serves as a reminder that management has to be aware of multiple threats. The Park and its surroundings have traditionally been inhabited and ongoing uses of natural resources include timber and firewood, livestock grazing and harvesting of the many species of edible mushrooms and medicinal plants. A balance between the needs of legitimate local livelihood and conservation is indispensable. Other concerns requiring adequate control and management responses include the rapid expansion of the nearby resort town of Zabljak. Past hydro power plans that would have led to the flooding of parts of the spectacular Tara River Canyon illustrate that developments outside the property could affect key values of Durmitor. The same holds true for the Mojkovac metal mining and processing complex, upstream on the banks of the Tara River. Huge tailings at some point threatened major heavy metal contamination. The past prevention of such harm is part of the great success story of Durmitor but future contamination risks remain.

## **RUSSIAN FEDERATION / FÉDÉRATION DE RUSSIE**

### **Architectural Ensemble of the Trinity Sergius Lavra in Sergiev Posad (C 657)**

#### **Brief Synthesis**

The Trinity Lavra of St. Sergius is a world famous spiritual centre of the Russian Orthodox Church and a popular site of pilgrimage and tourism. Being situated in the town of Sergiev Posad about 70 km to the north-east from Moscow, it is the most important working Russian monastery and a residence of the Patriarch. This religious and military complex represents an epitome of the growth of Russian architecture and contains some of that architecture's finest expressions. It exerted a profound influence on architecture in Russia and other parts of Eastern Europe.

The property is a serial one, including buildings outside the main monastic compound.

The Trinity Lavra of St. Sergius, “the pearl” of the Russian church architecture, was founded in the first half of the 14th century (1337) by the monk Sergius of Radonezh, a great abbot of Russia and one of the most venerated orthodox saints. Sergius achieved great prestige as the spiritual adviser of Dmitri Donskoi, Great Prince of Moscow, who received his blessing to the battle of Kulikov of 1380. The monastery started as a little wooden church on Makovets Hill, and then developed and grew stronger through the ages.

Over the centuries a unique ensemble of more than 50 buildings and constructions of different dates were established. The whole complex was erected according to the architectural concept of the main church, the Trinity Cathedral (1422), where the relics of St. Sergius may be seen.

In 1476 Pskovian masters built a brick belfry east of the cathedral dedicated to the Descent of the Holy Spirit on the Apostles. The church combines unique features of early Muscovite and Pskovian architecture. A remarkable feature of this church is a bell tower under its dome without internal interconnection between the belfry and the cathedral itself.

The Cathedral of the Assumption, echoing the Cathedral of the Assumption in the Moscow Kremlin, was erected between 1559 and 1585. The frescoes of the Assumption Cathedral were painted in 1684. At the north-western corner of the Cathedral, on the site of the western porch, in 1780 a vault containing burials of Tsar Boris Godunov and his family was built.

In the 16th century the monastery was surrounded by 6 meters high and 3,5 meters thick defensive walls, which proved their worth during the 16-month siege by Polish-Lithuanian invaders during the Time of Trouble. They were later strengthened and expanded.

After the Upheaval of the 17th century a large-scale building programme was launched. At this time new buildings were erected in the north-western part of the monastery, including infirmaries topped with a tented church dedicated to Saints Zosima and Sawatiy of Solovki (1635-1637). Few such churches are still preserved, so this tented church with a unique tiled roof is an important contribution to the Lavra.

In the late 17th century a number of new buildings in Naryshkin (Moscow) Baroque style were added to the monastery.

Following a devastating fire in 1746, when most of the wooden buildings and structures were destroyed, a major reconstruction campaign was launched, during which the appearance of many of the buildings was changed to a more monumental style. At this time one of the tallest Russian belfries (88 meters high) was built.

In the late 18th century, when many church lands were secularized, the chaotic planning of the settlements and suburbs around the monastery was replaced by a regular layout of the streets and quarters. The town of Sergiev Posad was surrounded by traditional ramparts and walls. In the vicinity of the monastery a number of buildings belonging to it were erected: a stable yard, hotels, a hospice, a poorhouse, as well as guest and merchant houses. Major highways leading to the monastery were straightened and marked by establishing entry squares, the overall urban development being oriented towards the centrepiece - the Ensemble of the Trinity Sergius Lavra.

The Parish churches situated within the territory of Sergiev Posad, which were originally wooden and later rebuilt in stone, formed a ring of domes echoing those of Lavra. Being smaller and located apart from other buildings, they only emphasize more the supremacy of the Lavra.

Thus, the Architectural Ensemble of the Trinity Sergius Lavra includes both buildings and constructions inside the wall and a complex of buildings near the monastery. It represents the key element of town-planning of Sergiev Posad.

**Criterion (ii):** The Trinity Sergius Lavra Monastery complex represents the fusion of traditional Russian architecture with that of Western Europe, creating an Eastern European tradition with a strong influence on architectural developments in a large area of Eastern Europe.

**Criterion (iv):** The Lavra is an outstanding and remarkably complete example of an active Orthodox monastery complex with a military function that is characteristic of the period of its growth and expansion from the 15th to the 18th century.

### **Integrity**

The Architectural Ensemble of the Trinity Sergius Lavra possesses all the components representing its Outstanding Universal Value. Particularly, the historical boundaries of the property have been well preserved, as well as the architecture of the historic buildings. The conservation of the ensemble has been maintained through the creation of a State museum reserve from the beginning of the 20th century.

Along with the approval of the boundaries of the buffer zone, the integrity of the ensemble is provided by legally warranted and registered boundaries of the land occupied by the buildings and architectural structures of the ensemble.

Among the factors that have a negative impact on the property are the construction of monuments and other forms of development pressure within the buffer zone, which impacts adversely on the Lavra's historic appearance, and the increasing number of tourist and pilgrim groups.

### **Authenticity**

Since its foundation, the complex history of the Trinity-Sergius Lavra Monastery has resulted in many changes and rebuildings over the centuries, resulting from war, fire and imperial support and sponsorship. No single building can therefore be considered to be in its original state. However, the importance of the monastery as a symbol of Russian spiritual cultural identity has ensured that much time and resources have been spent in its conservation and restoration. As an ensemble that has evolved over time, therefore, it has an authenticity of its own.

The restoration work of the 1920s was aimed to achieve a certain "unity of style", returning buildings to their appearance in the 18th century and earlier. This is a different approach from contemporary conservation practices. However, it must be seen in the historical context of alterations and additions made in the 19th century and in the cultural context of efforts to strengthen the site's symbolic importance for the Russian people.

Restoration work from the 1960s onwards, led by the architect Baldin, has conformed in general to the Venice Charter. This included the revealing and restoring of hidden and underlying elements (particularly original vaulted forms), which strengthened the coherence of the buildings' architectural expression. Also, later additions that retain a particular significance were preserved. The restoration and conservation activities, together with the monitoring performed by specialists, ensure the continued preservation of the authenticity of the ensemble.

### **Protection and management requirements**

The Architectural Ensemble of the Trinity Sergius Lavra is a Cultural Heritage Site of federal importance and it is regulated according to Federal Law of 25.06.2002 № 73-FZ "On cultural heritage sites (historical and cultural monuments) of nations of the Russian Federation". Its state protection and management is implemented by the federal executive body - the Department for Control, Supervision and Licensing in the Cultural Heritage Sphere of the Ministry of Culture of the Russian Federation, which has in its charge all methodological and control functions concerning restoration, usage and support of cultural heritage sites and the territories connected with them. The status of Cultural Heritage Site of federal importance allows a high level of legal protection.

At a regional level the conservation and management of the property is performed by the Moscow Region Government, the Culture Ministry of Moscow region. The municipal regulatory body is represented by the Sergiev Posad City Government. The above authorities, in cooperation with the Russian Orthodox Church and all the stakeholders, carry out activities of conservation and development of the Architectural Ensemble of the Trinity Sergius Lavra in conformity with norms and regulations.

Based on the foregoing and in order to ensure the integrity of the ensemble, a management system in a broad context needs to be applied taking into consideration the interaction between physical forms, spatial organization and communication, sociocultural values and other characteristics of the area.

## Ensemble of the Ferrapontov Monastery (C 982)

### Brief synthesis

The Ensemble of Ferrapontov Monastery is situated in the Vologda region, in the north-western part of the Russian Federation on a small hill, between Borodaevskoe and Paskoe lakes, 120 km northwest of the city of Vologda.

The Moscow monk Ferrapont founded the monastery in 1398. The Ensemble of the Monastery was formed in the 15th-17th centuries. The core of the Ensemble is the Cathedral of the Nativity of the Virgin (1490), which is especially remarkable among the six surviving buildings of the Monastery. The others are the Church of the Annunciation, with a refectory chamber, the Treasury Chamber, the St. Martinian Church, the Churches of Epiphany and St. Pherapont above the Holy Gate, and the Bell Tower. In the 19th century the monastery territory was enclosed with a stone fence.

The history of Ferrapontov Monastery was linked with important events at some crucial points during the conformation of the centralized Russian state, such as the approval authority of the first "Emperor of All Russia" Ivan III, the reign of the first Russian tsar Ivan IV and the exile of Patriarch Nikon. In the 15th-16th centuries, Ferrapontov Monastery became a major cultural and ideological centre of the region, and was one of the main monasteries that considerably influenced the policy of Muscovy.

The architecture of the monastery, a remarkable example of the Rostov architectural style, is outstanding in its inventiveness and purity. The buildings of the monastery retained all the characteristic features and interior decoration. The Ensemble of the Ferrapontov Monastery is also a vivid example of the harmonious unity with the natural surrounding landscape that has changed little from the 17th century, emphasizing the unique spiritual system of northern monks, while at the same time revealing features of economic structure of northern peasantry.

The murals of the Cathedral of the Nativity of the Virgin have a special significance for Russian culture and other cultures worldwide. The murals of the Cathedral are the only paintings of the greatest Russian master Dionisy the Wise, which have been entirely preserved to this day in their original form. The Ensemble of the Ferrapontov Monastery, with the most valuable and completely preserved frescos of Dionisy, is a unique example of the integrity and unity of the Russian style of the northern monastery ensemble of the 15th-17th centuries.

**Criterion (i):** The wall paintings of Dionisy in the Cathedral of the Nativity of the Virgin at Ferrapontov Monastery are the highest expression of Russian mural art in the 15th-16th centuries.

**Criterion (iv):** The complex of Ferrapontov Monastery is the purest and most complete example of an Orthodox monastic community from the 15th-17th centuries, a crucial period in the cultural and spiritual development of Russia.

### Integrity

The inscribed property encompasses 2.10 ha, with a buffer zone of 20 ha and contains all the attributes that convey its Outstanding Universal Value. The integrity of the Ensemble of Ferrapontov Monastery and the good conservation of all its attributes are ensured by the boundaries of the property, which have remained unchanged and are clearly delineated by a the stone wall that surrounds all the architectural monuments and constructions of the Monastery. None of the attributes are threatened by contemporary development, deterioration or neglect.

The landscape around the monastery has remained almost unchanged for centuries, and has preserved its harmonious unity. Thanks to its location and compactness, the expressive silhouette of the monastery can easily be viewed from different directions, and all natural and anthropogenic impacts on the property have been avoided.

### Authenticity

The Ensemble, erected in the 15th-17th centuries, has preserved a high level of authenticity in terms of its original layout, form, materials and techniques, its design, as well as its old architectural appearance, notably with regard to the interiors. Given its good preservation, the Monastery has not required large-scale reconstruction. Certain original architectural forms and structures were reconstructed on the basis of scientific studies and using traditional materials: large size brick stones for walls, wood for joints, fillings and for roof constructions. There are no modern buildings or constructions on the territory of the monastery.

Conservation works on the wall paintings have been especially commendable, being restricted to consolidation and cleaning. The authenticity of the frescos by Dionisy is determined on the basis of the absence of any interference in structure. Unique methods of conservation of the layers of the cathedral's paintings ensured that there would be only negligible interferences with the artist's paintings and no violation of their structure or aesthetic perception.

Today, the monastery houses the state museum. However, changes in the authenticity of function are part of the history of the property, and the addition of the museum plays an indispensable role in the protection of the authenticity of the ensemble. The Russian Orthodox Church uses the Churches of St. Pherapont and St. Epiphany as parish churches, and services are also foreseen at the Church of St. Martinian.

#### **Protection and management requirements**

According to the Decree of the President of the Russian Federation of 02.04.1997, No. 275, the Ensemble of the Ferrapontov Monastery is declared as a monument of history and culture of federal significance. The Museum of the Frescoes of Dionisy in the Ferrapontov Monastery is a branch of the Kirillo-Belozersky historical architectural and art museum reserve. Since 1998, the Ministry of Culture of the Russian Federation is responsible for financing and running the museum. At present, the Museum is under control of the Department of Cultural Heritage of the Ministry and the Department of Control, Supervision and Licensing in the Sphere of Cultural Heritage. In 2011, the Conciliatory Commission, consisting of representatives of Vologda Eparchy of the Russian Orthodox Church and the Museum, was created to address the management and conservation of the cultural heritage monuments of the Monastery. The state of conservation of the property is also under monitoring by the National Commission of the Russian Federation for UNESCO.

Conservation challenges to be addressed include the continued preservation of the unique frescoes by Dionisy, the preservation of the ensemble of the monastery, as well as the sustainable monitoring of the state of conservation of the property and the monitoring and enforcement of buffer zone regulations.

### **Ensemble of the Novodevichy Convent (C 1097)**

#### **Brief synthesis**

The Novodevichy Convent, situated in the south-western part of the historic town of Moscow at the crossing of the Moscow River, was founded by Grand Duke Vasily III in the 1520s and was a part of a chain of monastic ensembles that were integrated into the defence system of the city. It is an outstanding example of Orthodox architecture. The ensemble consists of 14 buildings, including 8 cathedrals (a shrine, 4 churches, a belfry with the Barlaam and Josaphat church and two chapels) and a number of residential and service buildings. The monastery is sometimes called "the Moscow Kremlin in miniature". Its oldest building is a stone cathedral dedicated to the Icon of the Mother God of Smolensk built in 1524–1525 after the fashion of the Assumption Cathedral in the Moscow Kremlin.

The Convent is the only ancient nunnery which served as a fortress at the same time. In the 16th-18th centuries the nunnery was the chosen convent for women from the tsarist dynasty as well as the wealthy boyar and nobility families to take the veil. The Novodevichy Convent had close links to the Kremlin and is closely linked to the political, cultural and religious history of Russia, to major historic events and to important historic figures of the Russian state. These include Ivan the Terrible, Boris Godunov and the Time of Trouble of early 17th century, the father of Peter the Great, Alexey Michailovich as well as his daughter Princess Sofia Alekseevna and her struggle for power with the incoming Emperor Peter I, and the Patriotic War against Napoleon in 1812.

The elite nature of the convent means that it contains examples of the highest class of architecture with rich interiors. Built in the late 17th century, the monastery is one of the most outstanding and representative examples of the so-called "Moscow Baroque", having retained its integrity better than any of the other rebuilt monasteries in Moscow.

The Convent is a major centrepiece of the south-western part of the historic town of Moscow and the Moscow River, and has a high town-planning value. Even though the character of the city's urban surroundings has greatly changed, the Convent still remains an integral part of the landscape, unlike other monastic complexes.

The Convent is enclosed by a high masonry wall with twelve towers and with entrance gates to the north and south. It has two major planning axes and its main focal point, the Smolensky Cathedral, is located at their crossing. It is dedicated to the highest shrine of Russian Orthodoxy, the Icon of the Mother God of Smolensk "Hodigitria" and is the Convent's oldest stone building. The interior of the Cathedral is unique in respect of its performance, riot of colour and well-preserved wall paintings of the late 16th century which were created during the reign of Boris Godunov. Completely persevered is the wooden-framed five-tier iconostasis, typical of Moscow Baroque and created in 1683-1685, with its decorated gold-coated carvings.

Among other major buildings of the Convent is the Bell Tower built in 1683-1690. It has no analogues among ancient Russian convents or among other buildings of Moscow Baroque style. Due to its great height (72m), unusual disposition, elegant proportions and beautiful decorations, the belfry has always been the main vertical

element of the whole western part of the historic town of Moscow thus contributing to the Convent's town-planning value.

The Necropolis of the Novodevichy Convent was initiated in the 16th century and developed in the following centuries as a burial place for the nobility and honourable citizens. From 1898 a new cemetery outside the south wall of the Convent was used as a burial place for the most outstanding Russian intellectuals as well as political and military figures. It is one of the most eminent historic necropolises preserved in Russia.

**Criterion (i):** The Novodevichy Convent is the most outstanding example of the so-called "Moscow Baroque", which became a fashionable style in the region of Moscow. Apart from its fine architecture and decorative details, the site is characterised by its town-planning values.

**Criterion (iv):** The Novodevichy Convent is an outstanding example of an exceptionally well preserved monastic complex, representing particularly the "Moscow baroque" style in the architecture of the late 17th century.

**Criterion (vi):** The Novodevichy Convent ensemble integrates the political and cultural nature of the existing World Heritage property of Moscow Kremlin. It is itself closely related to Russian Orthodoxy, as well as with Russian history especially in the 16th and 17th centuries.

### **Integrity**

The Novodevichy Convent ensemble possesses all the necessary details and attributes to express its Outstanding Universal Value. It has preserved its original size which differentiates it from other ancient Russian convents.

The Convent has remained untouched mainly due to its use as a museum in the 20th century, while other ensembles were misused or just ruined. The ensemble's composition, its buildings and historic graves have been conserved.

The integrity of the ensemble is provided by approved boundaries of the property and its buffer zone. Among adverse factors there is intensive road traffic close by, resulting in air pollution, as well as possible building activity within the buffer zone that may have a bad impact on the ensemble's historic layout in the city space.

### **Authenticity**

The Novodevichy Convent is authentic in that it has not undergone destruction or rebuilding. Moreover, the complex has integrally preserved its general layout as well as its individual buildings. It has also been returned to a function close to its original one. The sacral buildings today fulfil a liturgical function, the monastic structures are inhabited by monks and the ostentatious residential buildings now fulfil cultural functions as a museum.

Throughout its existence the ensemble's buildings have been restored several times. In 1890–1900 the architect S.K. Rodionov performed restoration works for the Convent. In cooperation with I.P. Mashkov, a famous architect and a researcher of Old Russian architecture, S.K. Rodionov restored Smolensky Cathedral and cleaned oil paints off the mural paintings.

The ensemble has been subject to restoration in the late 20th century, but this has not involved replication. The restoration was preceded by thorough examination of the monuments. The restoration process by the architect N.C. Romanov was characterized by a high standard of scientific excellence and reliability. Regular restoration and conservation, work together with monitoring performed by authorized bodies, provide for preservation of authenticity.

### **Protection and management requirements**

The Novodevichy Convent ensemble is a historical and cultural monument of federal importance that is protected by the government (Federal Law of 25.06.2002 No 73-FZ "On cultural heritage sites (historical and cultural monuments) of nations of the Russian Federation"). In conformity with the Russian Federation Presidential Decree it is included among especially protected cultural properties of nations of the Russian Federation. Its status as an outstanding cultural property of the Russian Federation assigned to it in 2013, allows provision of the highest level of legal protection of related monuments.

Approval of the protected buffer zone of the Novodevichy Convent ensemble plays a decisive role in the preservation of landscape visual integrity and contributes to the preservation of unity of the property and the environment under conditions of constant development. Great attention should be paid to the establishment of effective coordination between the authorities and local cultural community, to agreeing an appropriate development strategy planning for the property, to the issues of historical landscape protection, and to the development of cultural and historical destinations of the Novodevichy Convent ensemble. It is urgent to identify specific features of the important sites of the property and to establish legal forms of their use.

The Management Plan for the World Heritage property "Ensemble of the Novodevichy Convent" will be an important tool for the conservation of Outstanding Universal Value and coordination of all stakeholders. Currently the monuments of the ensemble are in the free use of the Moscow Eparchy of the Russian Orthodox Church which assists the Ministry of Culture of the Russian Federation in the monitoring, reservation and restoration of the property. The buildings of the ensemble are equipped with video surveillance as well as fire and security

signal systems. Before receiving state financing, the protection and maintenance expenses for the property are born by the Moscow Eparchy of the Russian Orthodox Church.

A long-term strategy defines the means of protection and management focused on preventing serious threats to the property, reducing its vulnerability and the possibility of negative changes to the authenticity and integrity of the ensemble. These include the following: an effective joint legal management system and cooperation of key stakeholders which include municipal, regional, federal, non-governmental and religious organizations, funds, academic and educational institutions as well as local population; resources management; an innovative combination of conservation, restoration, museumification and sustainable development of the property's territory; the activity of the Moscow Eparchy of the Russian Orthodox Church Museum; the creation of educational programs; a rapid introduction of cultural, scientific and pilgrimage tourism; as well as combining traditional and innovative methods of conservation and the presentation of the Outstanding Universal Value of the Ensemble of the Novodevichy Convent.

## Historic Centre of Saint Petersburg and Related Groups of Monuments (C 540bis)

### Brief synthesis

The unique urban landscape of the port and capital city of Saint Petersburg, rising out of the Neva estuary where it meets the Gulf of Finland, was the greatest urban creation of the 18th century.

Saint Petersburg was built at the beginning of the 18th century in an astonishingly short period of time, according to an orderly plan based on many of Peter the Great's own ideas. The city was constructed under difficult conditions on lowlands unprotected from floodwaters, and in the face of severe shortages of materials and workers.

Within the first decades of its history, Saint Petersburg became a grandiose agglomeration consisting of the historical city core surrounded by ceremonial country residences, an advanced fortification system, estates and dachas, settlements and small towns linked by radial routes. It occupied the shore on both sides of the Gulf of Finland as well as the Kronstadt fortress-town on Kotlin Island, while moving up the Neva towards its source in Schlisselburg. This Russian-European city, surrounded by suburban ensembles, became a socio-cultural phenomenon with an incomparable historic urban landscape, characterized by an absolute hierarchy of structures.

A network of canals, streets and quays was built gradually, beginning in the reign of Peter the Great (1682-1725). The Nevski perspective did not become the city's major east-west axis until 1738. Similarly, under the Empresses Anna Ioannovna (1730-1740), Elisabeth Petrovna (1741-1762) and Catherine II the Great (1762- 1796), the urban landscape of Saint Petersburg took on the monumental splendour that assured the world-renowned of the "Venice of the North". An array of foreign architects (Rastrelli, Rinaldi, Quarenghi, Cameron and Vallin de la Mothe) rivaled one another with audaciousness and splendour in the capital's huge palaces and convents and in imperial and princely suburban residences, amongst which one numbers Peterhof (Petrodvorets), Lomonosov, Tsarskoye Selo (Pushkin), Pavlovsk and Gatchina.

The greatness of Russia's northern capital, with its horizontal silhouette coupled with vertical landmarks and its ensembles of embankments and squares, lies in the heart of the city's "imperial" spirit, its *genius loci*. The main feature and attraction of Saint Petersburg's historical centre is characterized by a perfect harmony of architecture and waterscapes.

The full-flowing Neva bequeathed the city an exceptional spatial scale and wealth of spectacle. It became its main square and chief thoroughfare.

The Neva water spaces were natural extensions of the system of city squares. The regularly-spaced network of streets superimposed on this natural background endowed the city with an artistic contrast and perceptual richness. With its "view of stern and grace", Saint Petersburg required a unified construction as an ensemble with Teutonic unity, qualities which emerged simultaneously with its birth.

The city fabric is richly woven through with ensembles. These assemblages, linking one to another, create a complex multi-layered system where not one element exists alone or is isolated from its environment. The overarching value of all of the components in this system stems from their incorporation into a harmonious whole.

It is precisely because of this that Saint Petersburg undoubtedly remains the only grand project in the history of urban planning to preserve its logical integrity despite rapid changes in architectural styles.

In modern times, the city bore witness to and participated in the majestic and tragic events of the 1917 February and October Revolutions and the heroic blockade of 1941-1944, in which some million human lives were lost. Having survived the unprecedented trials of the 20th century, the city continues to be a symbol and base of Russian culture for new times and one of its centres of science, culture and education tied eternally to the personalities and creative works of Outstanding Universal Value.



**Criterion (i):** In the field of urban design, Saint Petersburg represents a unique artistic achievement in the ambition of the program, the coherency of the plan and the speed of execution. From 1703 to 1725, Peter the Great lifted from a landscape of marshes, peat bogs and rocks, architectural styles in stone and marble for a capital, Saint Petersburg, which he wished to be the most beautiful city in all of Europe.

**Criterion (ii):** The ensembles designed in Saint Petersburg and the surrounding area by Rastrelli, Vallin de la Mothe, Cameron, Rinaldi, Zakharov, Voronikhine, Rossi, Montferrand and others, exerted great influence on the development of architecture and monumental arts in Russia and Finland in the 18th and 19th centuries. The normative value of the capital was increased from the beginning by the establishment of the Academy of Sciences, followed by that of the Academy of Fine Arts. The urban model of Saint Petersburg, which was completed under Catherine II, Alexander I and Nicholas I, was used during the reconstruction of Moscow following the fire of 1812, and for new cities, such as Odessa or Sebastopol, in the southern part of the Empire.

**Criterion (iv):** The nominated cultural property links outstanding examples of baroque imperial residences with the architectural ensemble of Saint Petersburg, which is the baroque and neoclassical capital par excellence. The palaces of Peterhof (Petrodvorets) and Tsarskoye Selo (Pushkin), which were restored following destruction during the Second World War, are some of the most significant constructions.

**Criterion (vi):** Saint Petersburg was twice directly and tangibly associated with events of universal significance. From 1703 to 1725, the construction of Saint Petersburg (recalled by the equestrian statue of Peter the Great by Falconet, located in Senatskaya Square) symbolizes the opening of Russia to the western world and the emergence of the empire of the Tsars on the international scene. The Bolshevik Revolution triumphed in Petrograd in 1917 (the city had been renamed in 1914). The Aurora cruiser and the town house of Mathilde Kchesinskaya, later the museum of the Great Socialist Revolution of October, are, in the heart of Leningrad, symbols of the formation of the U.S.S.R.

### **Integrity**

The Saint Petersburg metropolitan area as a whole, and its historic centre in particular, have preserved their integrity. This has to do with the fact that the development of the historical centre practically ceased in 1913, and in 1918 the capital was moved to Moscow. As a result, new construction projects and the growth of industrial zones occurred outside the limits of the historic centre.

Its integrity is ensured through the preservation of its planned layout, silhouette and opportunities for an unobstructed view, but high buildings and inappropriate development around the property have been an issue. The property also suffers from the impacts of traffic, air pollution and relative humidity.

### **Authenticity**

The site has preserved the authenticity of its chief components. The initial city layout and a large portion of the original structures in Saint Petersburg's historic centre are testament to its Outstanding Universal Value.

The high quality of restoration and reconstruction efforts, accomplished on the basis of historical documents and using authentic techniques and materials, along with the work being done to restore the monuments and palace-parks of Saint Petersburg and its suburbs, are part of a strategy to preserve the integrity of the cultural landscape of the entire metropolitan area.

### **Protection and management requirements**

Since the moment of its inscription on the World Heritage List, the site was protected in accordance with USSR and RSFSR law: 19 October 1976 No. 4962-IX "*On the preservation and use of historical and cultural monuments*" (USSR), and 15 December 1978 "*On the preservation and use of historical and cultural monuments*" (RSFSR). Protected zones and their regimes were approved by the Leningrad City Council Executive Committee decision No.1045, dated 30 December 1988, "*On the approval of borders unifying the historical and cultural monuments of the protected zone in Leningrad's central rayon*". In 1987, a master plan for the development of Leningrad and the Leningrad oblast for the period extending through 2005 was worked out by the main architectural-planning directorate of the Leningrad City Council and approved by the leadership of the USSR.

In recent years, legislation has been expanded in the sphere of protection of cultural heritage and urban development. The following laws were passed and amended between 2002 and 2014: "*On the cultural heritage (historical and cultural) of the Russian Federation*" (2002, 2014), The town planning code of the Russian Federation (2004, 2014), "*On the master plan of Saint Petersburg*" (2005, 2013), Leningrad oblast and Saint Petersburg regional laws protecting cultural heritage (2006, 2012; 2007, 2014), the law passed by the city of Saint Petersburg "*On the boundaries of zones of protection of cultural heritage in the territory of Saint Petersburg and the modes of land use within the boundaries of such zones and on amendments into the law of Saint Petersburg*", and "*On the master plan of Saint Petersburg and the boundaries of zones of protection of cultural heritage within the territory of Saint Petersburg*" (2008, 2014), the law "*On the rules of land use and development of Saint Petersburg*" (2009, 2010). All of the above documents regulate urban development and land use within the boundaries of the World Heritage property. For the purposes of ensuring the appropriate protection both of property components and their integrated value as the Historic Urban Landscape, the legal protection status, the system of protection zones and land-use regimes are being improved. A buffer zone will protect the low skyline

and ensure the inviolability of panoramas and compositionally complete views in the historic centre while taking into consideration the sensitivity of this zone to the imposition of high rise buildings.

Each year, funding is appropriated for major repair and restoration work on historical and cultural monuments.

Management and monitoring of the condition of monuments of cultural heritage in the historic centre of Saint Petersburg, and those located within the administrative boundaries of the Leningrad oblast, is the joint responsibility of the federal and regional authorities. Measures are being taken to improve coordination between them.

The preparation and development of a site management plan and the establishment of a uniform system of management for the site is underway. In October 2014 an agreement on cooperation was signed between the Ministry of Culture, the Government of Saint Petersburg and Leningrad Oblast Government. The Coordination Council for the conservation, management and promotion of the World Heritage property was established, one of its tasks being to contribute to the development and implementation of a management plan.

## Historic Monuments of Novgorod and Surroundings (C 604)

### Brief synthesis

The town of Novgorod, the earliest documentary reference to which dates from the 9th century, lay on the trade routes linking the Baltic and Scandinavian countries of northern Europe with Central Asia and Byzantium.

A serial property, the Historic Monuments of Novgorod and its Surroundings have a direct relation to the process of establishment of the Old Russian state in 9th-10th centuries. The urban aristocracy that governed the city-republic through a People's Assembly (*Vece*) invited a prince from the Swedish (Varangian) dynasty of the Rurikids to reign over the Russian lands throughout 700 years.

Due to the care of its Orthodox archbishops, Novgorod was one of the oldest and most important centres of Russian art and, more generally, of Russian culture. The most ancient Russian Old Church Slavonic manuscripts (11th century) were written at Novgorod, including an autonomous historiography (as early as the 12th century) and, in particular, the first complete translation into Slavonic of the Old and New Testaments (late 15th century). Novgorod was a birthplace of the national style of stone architecture, and one of the oldest national schools of painting.

The majority of historical monuments are associated with Novgorod Republic (12th-15th centuries) which itself was a unique phenomenon of Medieval Russia. It was only after the conquest of the two republics (1478, in the case of Novgorod) by the Muscovite rulers that the present Russian capital acquired cultural supremacy.

Novgorod's historic monuments are situated not only in the city centre but also in some outlying areas. In Novgorod itself, there is the district of Saint Sophia, including the Kremlin with its 15th-century fortifications, reinforced in the 17th century; the church of St. Sophia from the mid-11th century; and other monuments from the 12th to 19th centuries. There are monuments in the commercial district, including many of the oldest churches in the town, such as the Church of the Transfiguration, decorated with frescoes at the end of the 14th century by Theophanes the Greek, who was the teacher of Andrei Rublev. There are also four religious monuments from the 12th and 13th centuries outside the old town, including the famous Saviour Church on Nereditsa.

The outstanding archaeological and cultural layers of Novgorod of 10th-17th centuries occupy an area of about 347 ha, with a depth of 7-8 metres and are waterlogged and anaerobic, thus preserving organic materials.

**Criterion (ii):** An outstanding cultural centre, the birthplace of the national style of stone architecture, and one of the oldest national schools of painting, the town of Novgorod influenced the development of Russian art throughout the Middle Ages.

**Criterion (iv):** With the broad range of monuments conserved in Novgorod, the town is a veritable conservatory of Russian architecture of the Middle Ages and later periods (11th-19th centuries). These monuments alone suffice to illustrate the development of Russian architecture.

**Criterion (vi):** Novgorod was one of the major centres of Russian culture and spirituality; its monuments and the treasures they house bear living witness to this.

### Integrity

The property Historic Monuments of Novgorod and Surroundings is a serial property, and the integrity of each of its components is provided by the buffer and protection zones. The attributes that express the Outstanding Universal Value can be found within the boundaries and prove the significant importance of the property as an integral architectural ensemble that evolved harmoniously over the centuries. A significant proportion of the archaeological remains are within the boundaries of the property.

The components' attributes as well as the dynamic and functional links between them remain undamaged and completely meet the criteria of Outstanding Universal Value. The property suffers from a number of pressures relating to development, infrastructure and environmental change.

### **Authenticity**

The Historic Monuments of Novgorod and Surroundings meet the criteria of authenticity, as their foundation dates and authorship are documented and confirmed by field studies.

The archaeological and cultural layer of the city has high authenticity and is dated by highly developed means of dendrochronology, which have received a worldwide recognition.

All the components of this World Heritage Property possess the characteristics of original artefacts. This serves as a basis for their use in international tourism. The monuments of the property have been conserved since the end of the 19th century and restoration activities were always preceded by overall research to ensure that materials identical to the originals would be used. This also had a positive impact on the understanding and conservation of the property's Outstanding Universal Value.

As a result, this World Heritage Property possesses attributes that fully express its Outstanding Universal Value.

### **Protection and management requirements**

All the components of the property Historic Monuments of Novgorod and Surroundings are within the boundaries of the historical, architectural and archaeological nature reserve established by the Resolution of the Council of People's Deputies of Novgorod Region No. 366, dated 25 September 1985. The archaeological and cultural layer is under protection of the Regulation of the Council of Ministers of the Russian Federation No. 624, dated 4 December 1974.

Consequently, scheduled controls of the buildings within the nature reserve are constantly being performed, and ensure that archaeological excavations are undertaken before construction activities are carried out. Security zones of architectural monuments have been developed and approved. Since 2014, the Committee of State Protection of Cultural Heritage Sites of the Novgorod Region has been acting as a management group on the protection and management of the World Heritage property. In 1997, the Novgorod City Administration approved a cadastral plan of Cultural and Historical Heritage Sites of Novgorod, which improved the monitoring system.

Federal funds are used for the conservation of components of the World Heritage property administered by the Novgorod nature reserve as museum pieces, as well as the monuments managed by religious institutions. The monuments overseen by the City Administration are conserved by means of the municipal budget. From the last decade of the 20th century, activities have been carried out aiming at conservation of the property and have enabled the removal of ascertained threats of either development or neglect. The existing protection and management systems are considered effective.

Further improvements to the property could include: promotion of the property by local communities, enterprises, regional government and visitors; provision of adequate human resources for the management and monitoring of the property; research-based management; improvements to the monitoring of monuments; enhancement of the mechanisms to finance restorations; improvement of the visitor management system; development of scientific research projects with the participation of research studies institutes as a source of expert knowledge; continuation of archaeological studies; examination of the pressures exerted on the property; and study of the flow of tourists.

## **Kremlin and Red Square, Moscow (C 545)**

### **Brief synthesis**

At the geographic and historic centre of Moscow, the Moscow Kremlin is the oldest part of the city. First mentioned in the Hypatian Chronicle in 1147 as a fortification erected on the left bank of the Moskva river by Yuri Dolgoruki, Prince of Suzdal, the Kremlin developed and grew with settlements and suburbs which were further surrounded by new fortifications - Kitaigorodsky Wall, Bely Gorod, Zemlyanoy Gorod and others. This determined a radial and circular plan of the centre of Moscow typical of many other Old Russian cities.

In 13th century the Kremlin was the official residence of supreme power - the center of temporal and spiritual life of the state. The Kremlin of the late 15th – early 16th century is one of the major fortifications of Europe (the stone walls and towers of present day were erected in 1485–1516). It contains an ensemble of monuments of outstanding quality.

The most significant churches of the Moscow Kremlin are situated on the Cathedral Square; they are the Cathedral of the Dormition, Church of the Archangel, Church of the Annunciation and the bell tower of Ivan Veliki. Almost all of them were designed by invited Italian architects which is clearly seen in their architectural style. The five-domed Assumption Cathedral (1475–1479) was built by an Italian architect Aristotele Fioravanti. Its interior is decorated with frescos and a five-tier iconostasis (15th–17th century). The cathedral became the major Russian

Orthodox church; a wedding and coronation place for great princes, tsars and emperors as well as the shrine for metropolitans and patriarchs.

In the same square another Italian architect, Alevisio Novi, erected the five-domed Church of the Archangel in 1505-1508. From the 17th to 19th century, its interior was decorated by wonderful frescos and an iconostasis. In this church many great princes and tsars of Moscow are buried. Among them are Ivan I Kalita, Dmitri Donskoi, Ivan III, Ivan IV the Terrible, Mikhail Fedorovich and Alexei Mikhailovich Romanovs.

The Cathedral of the Dormition was built by Pskov architects in 1484–1489. Inside the cathedral some mural paintings of 16th–19th century have been preserved and the icons of Andrei Rublev and Theophanes the Greek are part of the iconostasis.

In 1505-1508 the bell tower of Ivan Veliki was built. Being 82 metres high it was the highest building in Russia which became the focal point of the Kremlin ensemble.

Among the oldest civil buildings of the Moscow Kremlin, the Palace of the Facets (1487–1491) is the most remarkable. Italian architects Marco Fryazin and Pietro Antonio Solario built it as a great hall for holding state ceremonies, celebrations and for receiving foreign ambassadors. The most noteworthy civil construction of the 17th century built by Russian masters is the Teremnoi Palace.

From the early 18th century, when the capital of Russia moved to St. Petersburg, the Kremlin mainly played a ceremonial role with religious functions. By the end of the century the architectural complex of the Kremlin expanded with the Arsenal reconstructed after the Fire of 1797 by Matvei Kazakov. The Senate was built in 1776–1787 according to the plans of the same architect as the home of the highest agency of State power of the Russian Empire - the Ruling Senate. Today it is the residence of the President of Russia.

From 1839 to 1849 a Russian architect K.A. Thon erected the Great Kremlin Palace as a residence of the imperial family which combined ancient Kremlin buildings such as the Palace of the Facets, the Tsarina's Golden Chamber, Master Chambers, the Teremnoi Palace and the Teremnoi churches. In the Armory Chamber built by K.A. Thon within the complex of the Great Kremlin Palace, there is a 16th century museum officially established by the order of Alexander I in 1806.

Red Square, closely associated with the Kremlin, lies beneath its east wall. At its south end is the famous Pokrovski Cathedral (Cathedral of St Basil the Blessed), one of the most beautiful monuments of Old Russian church architecture, erected in 1555–1560 to commemorate the victory of Ivan the Terrible over the Kazan Khanate. In the 17th century the cathedral gained its up-to-date appearance thanks to the decorative finishing of the domes and painting both inside and outside the cathedral. The construction of Red Square was finished by the late 19th century together with the erection of the Imperial Historic Museum (today the State Historical Museum), the Upper Trading Rows (GUM) and the Middle Trading Rows. In 1929, Lenin's Mausoleum, designed by A.V. Shchusev and an outstanding example of the Soviet monumental architecture, was finished.

**Criterion (i):** The Kremlin contains within its walls a unique series of masterpieces of architecture and the plastic arts. There are religious monuments of exceptional beauty such as the Church of the Annunciation, the Cathedral of the Dormition, the Church of the Archangel and the bell tower of Ivan Veliki; there are palaces such as the Great Palace of the Kremlin, which comprises within its walls the Church of the Nativity of the Virgin and the Teremnoi Palace. On Red Square is Saint Basil the Blessed, still a major edifice of Russian Orthodox art.

**Criterion (ii):** Throughout its history, Russian architecture has clearly been affected many times by influences emanating from the Kremlin. A particular example was the Italian Renaissance. The influence of the style was clearly felt when Rudolfo Aristotele Fioravanti built the Cathedral of the Dormition (1475-79) and grew stronger with the construction of the Granovitaya Palace (Hall of the Facets, 1487-91) by Marco Fryazin and Pietro Antonio Solario. Italian Renaissance also influenced the towers of the fortified enceinte, built during the same period by Solario, using principles established by Milanese engineers (the Nikolskaya and the Spasskaya Towers both date from 1491). The Renaissance expression was even more present in the classic capitals and shells of the Church of the Archangel, reconstructed from 1505 to 1509 by Alevisio Novi.

**Criterion (iv):** With its triangular enceinte pierced by four gates and reinforced with 20 towers, the Moscow Kremlin preserves the memory of the wooden fortifications erected by Yuri Dolgoruki around 1156 on the hill at the confluence of the Moskova and Neglinnaya rivers (the Alexander Garden now covers the latter). By its layout and its history of transformations (in the 14th century Dimitri Donskoi had an enceinte of logs built, then the first stone wall), the Moscow Kremlin is the prototype of a Kremlin - the citadel at the centre of Old Russian towns such as Pskov, Tula, Kazan or Smolensk.

**Criterion (vi):** From the 13th century to the founding of St Petersburg, the Moscow Kremlin was directly and tangibly associated with every major event in Russian history. A 200-year period of obscurity ended in 1918 when it became the seat of government again. The Mausoleum of Lenin on Red Square is the Soviet Union's prime example of symbolic monumental architecture. To proclaim the universal significance of the Russian revolution, the funerary urns of heroes of the revolution were incorporated into the Kremlin's walls between the Nikolskaya and Spasskaya towers. The site thus combines in an exceptional manner the preserved vestiges of bygone days with present-day signs of one of the greatest events in modern history.

## **Integrity**

From the date of including the Moscow Kremlin and Red Square on the World Heritage List all the components representing the Outstanding Universal Value of the property are within its boundaries. The territory and the integrity of the World Heritage property have also remained unchanged. Within its boundaries the property still comprises all the elements that it contained at the date of nomination. The biggest threat, however, is unregulated commercial development of the adjacent areas.

## **Authenticity**

The history of the Moscow Kremlin and Red Square is reflected in the archival documents of 12th–19th century, for example in medieval chronicles, cadastral surveys, estimated construction books, painted lists, inventories, foreign notes and in graphic matters such as manuscripts, chronicles, plans, drafts, engravings, lithographs, sketches of foreign travelers, paintings and photographs. These documents are exceptionally valuable information sources. Comparison of the data received from archival documents and those obtained in the process of field study gives the idea of authenticity of the property and its different elements. This comparison also serves as the basis for project development and for the choice of the appropriate methods of restoration that may preserve the monuments' authenticity.

On the border of the ensemble a number of monuments destroyed in the 1930s were reconstructed according to measured plans.

## **Protection and management requirements**

The statutory and institutional framework of an effective protection, management and improvement of the World Heritage property "Kremlin and Red Square, Moscow" has been established by laws and regulations of the Russian Federation and the city of Moscow.

According to the decree of the President of RSFSR of 18 December 1991 № 294, the Moscow Kremlin was included among especially protected cultural properties of nations of Russia - the highest conservation status for cultural and historical monuments in Russian legislation.

"Kremlin and Red Square, Moscow" is a Cultural Heritage Site of federal importance. State protection and management of federal sites is provided by Federal Law of 25.06.2002 № 73-FZ "On cultural heritage sites (historical and cultural monuments) of nations of the Russian Federation". The federal executive body responsible for protection of the cultural property is the Department for Control, Supervision and Licensing in the Cultural Heritage Sphere of the Ministry of Culture of the Russian Federation. It is in charge of all methodological and control functions concerning restoration, usage and support of cultural heritage sites and the territories connected.

The World Heritage property is situated in the urban environment of Moscow. The city policy regarding cultural heritage protection and town-planning regulation is the responsibility of Moscow City Government, represented by the Department of Cultural Heritage, the Department of Urban Development and the Committee for Urban Development and Architecture of Moscow. In 1997 the boundaries of the protective (buffer) zone were approved in order to preserve the property, and to maintain and restore the historical architectural environment as well as the integral visual perception of the property.. There is a need to ensure the creation of an appropriate buffer zone and to develop close liaison between all stakeholders, including the Moscow City authorities, to ensure that constructions around the property do not impact adversely on its Outstanding Universal Value.

The World Heritage property is used by the following organizations: FGBUK (Federal Government Budgetary Institution of Culture), the State Historical and Cultural Museum-preserve "The Moscow Kremlin", the Administrative Department of the President of the Russian Federation, the Federal Guard Service of the Russian Federation and OJSC "GUM Department Store".

## **SERBIA / SERBIE**

### **Stari Ras and Sopoćani (C 96)**

#### **Brief synthesis**

Stari Ras and Sopoćani is a serial property consisting of four separate components located in the Raška region of southern Serbia: Sopoćani Monastery, Djurdjevi Stupovi Monastery, Holy Apostles St Peter and St Paul Church (St Peter's Church), and the archaeological site of the Medieval Town of Ras. The impressive collection of three ecclesiastical monuments dating from the 10th to the 13th centuries eminently illustrates the birth of artistic activity in medieval Serbia, which attained the highest standards in the art and culture of the Byzantine Empire and the regions of Central and Southeastern Europe. The unique architectural complex formed by numerous structures in Stari Ras (Old Ras), situated at a crossroads of eastern and western influences, testifies to the period from 12th to the early 14th centuries when the ancient town was the first capital of the Serbian state.

The frescoes in the Sopoćani Monastery church, dating from about 1270-1276, are among the finest in Byzantine and Serbian medieval art. These exceptional paintings represent the work of the best artists of that period who were unable to work in the territory of the Byzantine Empire and found refuge at the court of the Serbian king. At Sopoćani these artists introduced a refined spirit of antiquity to the prevailing medieval conventions. St George's Church in the Djurdjevi Stupovi Monastery, founded in 1170-1171, is the earliest example of a distinctive new regional architecture that blended Romanesque and Byzantine styles. Known as the Raška School, this style came to dominate architecture in this area for almost a century and a half. The church also features two layers of preserved frescoes dating from 1175 and 1282-1283 that are among the finest from that period in the Balkans. The preserved frescoes in St Peter's Church, built in the 10th century on the foundations of a 6th century baptistery and now the oldest surviving Christian church in the Balkans, also present evidence of the developments that took place in pictorial art between the 10th and 14th centuries.

Stari Ras is located along the mountainous setting near the confluence of the Raška and Sebečevo rivers, and it became the first capital of the Serbian independent state on the accession of the Nemanjić dynasty in 1159. It was the focal point of all the decisive events underlying the state's birth, development and consolidation. Now an archaeological site, it contains the remains of structures built from about the 9th century onwards, including the hilltop fortress of Gradina and the lower town of Trgovište. The combination of historical, cultural, artistic and natural values gives this group of monuments its significance. Together, they represent a unique contribution of the Serbian nation to the culture of Slavonic and other nations during the Middle Ages.

**Criterion (i):** Sopoćani Monastery is renowned for the exceptional quality of its decorative frescoes. The frescoes in the narthex, which opens to two projecting chapels, provide a valuable historical record of the family of the founder of this monastery. The plastic quality of these compositions, mostly carried out in the 13th century, testifies to the vitality of Byzantine art at a time when Constantinople was in the hands of the Crusaders. The composition of the frescoes that adorn St George's Church in the Djurdjevi Stupovi Monastery is original in the treatment of the figures in the manner of icons and draws its inspiration from ancient art. St Peter's Church, the seat of the Bishop of Raška, was also decorated with frescoes mainly in the 13th century.

**Criterion (iii):** The ancient town of Ras drew its strength from its location at a crossroads and was enriched through its contact with both eastern and western influences. Its numerous monuments form a unique architectural complex that testifies to the period when the capital of the Serbian state was located in Stari Ras. These buildings, erected for the most part between the 9th and 11th centuries, express in their plan and pictorial decoration an architectural interest that is characteristic of the Raška School.

### **Integrity**

All the elements that sustain the Outstanding Universal Value of Stari Ras and Sopoćani are located within the boundaries of the 199-ha serial property. There is also a very large 9,936-ha buffer zone. The property is therefore of adequate size to ensure the complete representation of the features and processes that convey its significance. The state of conservation of all the components, including the remains of the fortress of Gradina and the lower town of Trgovište, and especially the very delicate wall paintings, is good, and their condition is constantly monitored by the relevant experts. Conservation and restoration works in the exonarthex of the Sopoćani Monastery church and St George's Church in Djurdjevi Stupovi Monastery were in the service of restoring their original appearance and were preceded by serious archaeological and architectural investigations. The property does not suffer unduly from adverse effects of development and/or neglect.

### **Authenticity**

A complete and intact set of attributes conveys the Outstanding Universal Value of Stari Ras and Sopoćani, including their forms and designs, materials and substance, and uses and functions. All conservation and restoration works have been carried out in the original materials and traditional techniques and do not threaten the authenticity of the monuments. They are accompanied by detailed architectural, artistic, archaeological and historical documentation that justifies their selection and assures their authenticity.

Known threats and risks to the property include development pressures related to the nearby city of Novi Pazar, environmental pressure and the number of inhabitants. Rehabilitation of the original function of Djurdjevi Stupovi Monastery, while a positive action in terms of sustainable use, is also considered to be a potential threat to its authenticity.

### **Protection and management requirements**

The owner of the three ecclesiastical monuments in the serial property is the Serbian Orthodox Church, and the owner of the Stari Ras archaeological site (including the fortress of Gradina and lower town of Trgovište) is the state. The owner of most of the area included in the buffer zone is the Republic of Serbia. Stari Ras and Sopoćani benefit from the highest level of legal protection in the Republic of Serbia, established by the 1994 Law of Cultural Heritage. The area around Stari Ras and Sopoćani is additionally protected by the Ras-Sopoćani Landscape of Outstanding Interest (1995) and the Spatial Plan of the Republic of Serbia (Official Gazette of the Republic of Serbia, June 1996). Management of the property is the responsibility of the Serbian Orthodox Church and the Government of the Republic of Serbia. Maintenance of the monuments is funded by the Serbian Orthodox Church, the Republic of Serbia, and the Municipality of the nearby town of Novi Pazar. Jurisdiction is divided among several governmental institutions, including the Institute for the Protection of Cultural Monuments of Serbia

for preventive protection, conservation, restoration and presentation; the Institute for the Protection of Cultural Monuments of Serbia, the Archaeological Institute, and the Ras Museum in Novi Pazar for archaeological research; and the Ras Museum in Novi Pazar for maintenance of the archaeological sites and safekeeping of the archaeological material. All monastery and protected area conservation and restoration work projects are subject to approval, clearance and monitoring by the expert committee responsible for Stari Ras and Sopoćani, an agency of the Serbian Ministry of Culture. The Institute for the Protection of Cultural Monuments of Serbia is responsible for preparing a management plan, which has been in progress since 2010. Key indicators for monitoring the property have been identified, though there is no formal monitoring programme.

Sustaining the Outstanding Universal Value of Stari Ras and Sopoćani over time will require completing, approving and implementing the management plan for the serial property; implementing a formal monitoring programme; and addressing the known and potential threats and risks to the property, including development pressures, environmental pressure, the number of inhabitants and the rehabilitation of the original function of Djurdjevi Stupovi Monastery.

## Studenica Monastery (C 389)

### Brief synthesis

Studenica Monastery, located in the Raška district of central Serbia, is the largest and richest of Serbia's Orthodox monasteries. It was founded near Studenica river in the late 12th century by Stefan Nemanja, also known as Saint Simeon, who established the medieval Serbian state. His remains, as well as those of his wife Anastasia and of the first Serbian king, Stephen the First-Crowned, rest in this monastery. It is there that Stefan Nemanja's youngest son, Saint Sava Nemanjić, initiated the independent Serbian Orthodox Church in 1219 and wrote the first literary work in the Serbian language. The complex's two principal monuments, the Church of the Virgin and the King's Church, enshrine priceless collections of 13th- and 14th-century Byzantine paintings. Studenica became the most important monastery in Serbia, and has remained so to the present day.

Studenica is an outstanding and well-preserved example of a Serbian Orthodox Church monastery. Enclosed by an almost circular wall strengthened with two fortified gates, it features an array of exceptional monuments, including the main church at the centre and monastic facilities along the encircling wall. Churches and hermitages are located in the area surrounding the monastery, as well as the quarries and vestiges of a settlement for the workers who mined and shaped the marble used to build the Church of the Virgin.

The Church of the Virgin, which served as a model for other monastic churches in the region, was built in the distinctive Raška School of eastern medieval church architecture that blended the Romanesque and Byzantine styles. The exterior of the domed single-nave church is reminiscent of Italian Romanesque cathedrals, while interior wall paintings in the naos and the sanctuary reflect trends of monumental paintings that emerged after the fall of the Byzantine capital of Constantinople to the Crusaders. Characterized by a new concept of space and a new expressiveness, these paintings represent a milestone in the histories of both Byzantine and Western art.

The modestly scaled King's Church was founded in 1314 by King Milutin, who commissioned the renowned Salonican painters Michael and Eutychius to decorate the church's interior with frescoes. At the King's Church these court painters created the most perfect expression of their style. Their remarkable Cycle of the Life of the Virgin Mary is among the leading works of Byzantine art, its density of forms, volumetric rendering of faces as well as bright colors, shadows, and light being perfectly executed *a secco*.

**Criterion (i):** The King's Church houses the most beautiful frescoes painted by Michael and Eutychios, the famous painters from Salonica. Not long after the church was built, they painted the Cycle of the Life of the Virgin Mary, which is among the leading works of Byzantine art. After having worked at the Church of Peribleptos in Ohrid and having painted a series of Serbian churches for King Milutin (those of the Virgin of Ljevisa, Zica, Staro Nagoricino, Gracanica, etc.), these painters found the most perfect expression of their style in the Studenica King's Church. With highlighting in bright colors, shadows and light executed *a secco*, the density of forms and volumetric rendering of faces are combined with an astounding execution, the perfection of which is very close to that of icons.

**Criterion (ii):** The Church of the Virgin served as a model for other churches built in a distinctive style called the Raška School, which constitutes a special branch in eastern medieval church architecture. This royal mausoleum was imitated at Banjska, Dečani and the Holy Archangels of Prizren. The wall paintings of the naos and the sanctuary, executed in 1208-1209, are among the first examples of the "monumental style" which emerged in various regions after the fall of Constantinople in 1204 to the Crusaders. These paintings, which are characterized by a new concept of space and a new expressiveness, are an essential milestone in the history not only of Byzantine art, but also of Western art. Cimabue, Duccio and Giotto were also a part of this trend in the second half of the 13th century.

**Criterion (iv):** Studenica is an outstanding example of a monastery in the Serbian Orthodox Church. It has had the good fortune of preserving not only an array of exceptional monuments (churches, refectories, monks' quarters from the 13th to the 18th centuries) inside its circular wall, which has two fortified gates, but also

extremely significant surroundings. In the protected zone there is a host of churches and hermitages, the marble quarries from which the blocks for the Church of the Virgin Mary were drawn and the remains of a medieval settlement for the quarry workers and stonecutters.

**Criterion (vi):** Studenica represents the high point of Serbian history. The monastery contains the remains of the first Serbian ruler and the Studenica founder, Saint Simeon, the remains of his wife Anastasia, and also the remains, shroud and coffin of the first Serbian king, Stephen the First-Crowned (Stefan Prvovenčani). This is where Saint Sava Nemanjić, the founder's youngest son, wrote the first literary work in the Serbian language. From here he also founded the Serbian Orthodox Church, which gained independence from the Ecumenical Patriarchate. Up until the 19th century, Studenica remained the symbol of this culture, in somewhat the same way that Rila Monastery (included on the World Heritage List in 1983) was that of Bulgarian culture.

### **Integrity**

All the elements that sustain the Outstanding Universal Value of Studenica Monastery are located within the boundaries of the 1.16-ha property. There is also a large 269-ha buffer zone. The property is therefore of adequate size to ensure the complete representation of the features and processes that convey its significance. The state of conservation of all the monuments, especially the very delicate wall paintings, is good, and their condition is constantly monitored by relevant experts. Conservation and restoration works in the exonarthex of the Church of the Virgin were in the service of restoring its original appearance and were preceded by serious archaeological and architectural investigations. The property does not suffer unduly from adverse effects of development and/or neglect.

### **Authenticity**

A complete and intact set of attributes conveys the Outstanding Universal Value of the Studenica Monastery, including its forms and designs, materials and substance as well as uses and functions. All conservation and restoration works have been carried out in the original materials and traditional techniques and in no way threaten the authenticity of the monuments. They are accompanied by detailed architectural, artistic, archaeological, and historical documentation that justifies their selection and assures their authenticity.

Known threats and risks to the property include environmental pressure and the number of inhabitants. Water accumulation near the monastery is also considered to be a potential threat.

### **Protection and management requirements**

The owner of the property is the Serbian Orthodox Church, and the owner of most of the area included in the buffer zone is the Republic of Serbia. Studenica Monastery benefits from the highest level of legal protection in the Republic of Serbia, established by the 1994 Law of Cultural Heritage. The monastery area is additionally protected by the Special Purpose Spatial Plan of the Golija Natural Park and the Golija – Studenica Biosphere Reserve (MAB); the Official Gazette of the Republic of Serbia, No. 16/2009; the Kraljevo Municipality Spatial Plan (in preparation); and the Construction and Zoning Master Plan for the Studenica Monastery protected surrounding area (in preparation). Management of the property is the responsibility of the Serbian Orthodox Church and the Government of the Republic of Serbia. Maintenance of the property is funded by the Serbian Orthodox Church, the Republic of Serbia, and the Municipality of the nearby town of Kraljevo. Jurisdiction is divided among several governmental institutions, including the Institute for the Protection of Cultural Monuments of Serbia and the Regional Institute for the Protection of Cultural Monuments in Kraljevo for preventive protection, conservation, restoration, and presentation; the Institute for the Protection of Cultural Monuments of Serbia for archaeological research; and the local museum in Kraljevo for the safekeeping of archaeological material.

All monastery and protected area conservation and restoration work projects are subject to approval, clearance, and monitoring by the expert committee responsible for the Studenica Monastery, which is an agency of the Serbian Ministry of Culture. The Institute for the Protection of Cultural Monuments of Serbia is responsible for preparing a management plan, which has been in progress since 2011. Key indicators for monitoring the property have been identified, though there is no formal monitoring programme.

Sustaining the Outstanding Universal Value of Studenica Monastery over time will require completing, approving, and implementing the management plan for the property, the Kraljevo Municipality Spatial Plan, and the Construction and Zoning Master Plan for the Studenica Monastery protected surrounding area; implementing a formal monitoring programme; and addressing the known threats and risks to the property, including environmental pressure, the number of inhabitants, and water accumulation near the monastery.



## SLOVAKIA / SLOVAQUIE

### Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity (C 618rev)

#### Brief synthesis

The Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity is an outstanding example of an important mining settlement that has developed since the Middle Ages. The property's distinct form was created by the symbiosis of the industrial landscape and the urban environment resulting from its mineral wealth and consequent prosperity.

Located in the mountains of Štiavnické Vrchy, this extensive property covers a total area of 20,632 ha and includes the urban centre of Banská Štiavnica as well as the surrounding landscape featuring vital relics of the mining and metallurgical activities of the past, especially gold and silver. Most of the mining resources are located outside the urban area but within the Štiavnické Vrchy Protected Landscape Area.

The town of Banská Štiavnica, the oldest mining town in Slovakia, was established in the 13th century, although evidence of mining dates back to the late Bronze Age. While it served as an important town during the Middle Ages, the surviving urban centre was formed during the 16th century. It is characterized by the grand Late Gothic and Renaissance burgher houses, the town hall, and the Late Gothic Church of Saint Catherine. In the same era, a fortification system was built which has visible remains in the fortress of the Old Castle, the Renaissance watchtower of the New Castle, and the only surviving of the town gates – the Baroque-style Piarg Gate.

The establishment of the first Mining and Forestry Academy in Europe in 1762 demonstrates the importance of this town as a centre for the education of mining experts. Moreover, an extensive complex of technical works, connected with mining and processing of polymetallic ores, can be found in the town and in its vicinity. Surviving components include shafts, tunnels, mining towers, a knocking tower, and a sophisticated water management system. The system of artificially built water reservoirs – ponds and collecting ditches – built in the 16th century and developed in the 18th century, served the needs of the mining industry and provided fresh drinking water for the town. It was the most modern work of its type until the 19th century. After this time, the exhaustion of mineral resources has led to decline in the historic urban structure, the water management system, and much of the mining infrastructure.

**Criterion (iv):** The urban and industrial complex of Banská Štiavnica and the Technical Monuments in its Vicinity is an outstanding example of a medieval mining centre of great economic importance that continued into the modern period and assumed a characteristic and distinctive form.

**Criterion (v):** Banská Štiavnica and its surrounding area are an outstanding example of mining area which has become vulnerable to the potential erosion of its character and urban fabric, following the cessation of mining activities as well as the removal of the Mining Academy;

#### Integrity

All important elements necessary to convey the Outstanding Universal Value are contained within the boundaries of the property. The property covers the urban centre of Banská Štiavnica and the surrounding landscape representing the evolution of the town and its industrial past from the Middle Ages featuring vital relics of mining and metallurgical activities. Its delimitation and size are appropriate. There is a risk to the property due to development pressure arising from a change in living standards as well as from an increase in tourism.

#### Authenticity

The property's high authenticity is reflected in the original urban structure and landscape that developed as a result of exploitation of the polymetallic ores, especially gold and silver. Individual buildings survive with authenticity of design and material. The systematic restoration and reconstruction, undertaken after 1970, has been based on documentation focused on artistic, historical, architectural and archaeological studies, and further supported by other existing documents. Although new uses are being sought for some of the technical monuments, in response to a cessation of mining, the authenticity of the industrial resources is indisputable.

#### Protection and management requirements

The components of the property within the Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity, fall within a variety of state, church and private ownership. The property's management group, the Ministry of Culture, the Monuments Board, and the Ministry of Environment of the Slovak Republic have the overall responsibility for the protection of the property.

The renovation of the Old Castle, begun in 1932, was the first large scale reconstruction project at the property. This was expanded after 1970 into systematic restoration and reconstruction work, as well as archaeological studies. Restoration of the mining and technical aspects of the property began in 1963.

The property's protection is legislatively secured by the provisions of the Act No. 49/2002 Coll. on the protection of monuments and historic sites that refers to the protection of all cultural monuments and protected areas in the World Heritage property (Town Conservation Reserve of Banská Štiavnica, Town Conservation Reserve of

Štiavnické Bane and Protected Historic Zone of Hodruša – Hámre). Technical monuments in the surrounding area are protected as national cultural monuments. The Slovak Republic has adopted the special Act No. 100/2001 Coll. on the protection and development of the town of Banská Štiavnica that refers to the whole World Heritage property. The Protected Landscape Area Štiavnické Vrchy provides protection to the property's natural surroundings and forms a buffer zone of 62,128 ha under the provisions of the Act No. 543/2002 Coll. on the protection of nature and landscape. Some parts of the area are included in the Natura 2000 network. Additional protection tools include the urban planning documentation containing specific provisions to be respected in conducting all activities in the property. On a regular basis, the Outstanding Universal Value of the property is assessed and monitored, and measures for avoiding identified threats are taken.

The property's management is conducted by the Town of Banská Štiavnica in cooperation with the self-administration of the communities situated within the property, the Regional Monuments Board Banská Bystrica, the office in Banská Štiavnica and the Direction of the Protected Landscape Area Štiavnické Vrchy. There is a relatively complicated management system reflecting the property's complexity. The management plan aims to create an efficient and coherent system of property management involving all relevant stakeholders and enhancing the public awareness of the property's values and protection.

## SPAIN / ESPAGNE

- Aranjuez Cultural Landscape (C 1044)

### Brief synthesis

The Aranjuez Cultural Landscape is a singular entity of complex and historic relationships between nature and human activity, the sinuous watercourses of the rivers and the geometrical design of the landscape, urban and rural life, and between the forest wildlife and the refined architecture. The Tagus and Jarama rivers are the two main arteries of the Aranjuez Cultural Landscape, an extensive area (2,047.56 ha) in the south of the Autonomous Community of Madrid. The surrounding buffer zone is located within the municipal boundaries of Aranjuez (16,604.56 ha).

Aranjuez bears witness to various cultural exchanges over a span of time that had a significant influence in the development of its landmarks and the creation of its landscape, thereby becoming a model for its culture's use of its territory. The process of transformation dates back to the reign of Philip II when, with the influence of the Crown and the wealth of nature as the determining elements, Aranjuez was established as a Real Sitio (Royal Site) in the sixteenth century. The Royal Commands of Ferdinand VI, Charles II, and Isabella II marked its evolution in the 18th and 19th centuries. This landscape survived during the 20th century when it was opened for the enjoyment of the public.

The property comprises diverse elements that make up the different zones: historic vegetable gardens, tree-lined avenues and groves (Legamarejo, Picotajo, El Rebollo), the Palace and ornamental gardens (the Prince's, the Island, the Parterre, the King's and Isabella II's gardens) and the 18th century historic town centre. The conceptual combination of these zones creates a series of landscapes that, together, comprise the Aranjuez Cultural Landscape. These include the water landscape (rivers, ponds, dams and ditches), the agricultural landscape (orchards and nurseries, stock-breeding farms, and meadows), the delectable landscape for leisure (ornamental gardens), the ordered landscape (the geometry of the streets and squares that shape the natural terrain), and the constructed landscape (the palace, the planned town, the roads, and agricultural buildings).

**Criterion (ii):** Aranjuez represents the coming together of diverse cultural influences to create a cultural landscape that had a formative influence on further developments in this field.

**Criterion (iv):** The complex designed cultural landscape of Aranjuez, derived from a variety of sources, marks a seminal stage in the development of landscape design.

### Integrity

The Aranjuez Cultural Landscape contains all its elements and attributes: the irrigation and hydraulic systems, the vegetable and ornamental gardens, the tree-lined streets and squares, the Royal Palace, and the historic centre.

Both the natural and geometric components of the property as a whole have survived remarkably well, with relatively little loss and effectively no inappropriate intrusion other than modern communication routes. Major buildings as well as the city's layout, its gardens, and tree-lined avenues have been preserved as characteristics of an urban community among orchards and groves, living on a ground plan that mirrors those of ornamental gardens across the river. The 19th-century historic railway, which was the second to be built in Spain, is still maintained.

The measures in place for the conservation of its elements and attributes guarantee the integrity of the property, which is favoured by the fact that most elements are still used for their original purpose. The hydraulic and irrigation systems are still in use. The historic vegetable gardens are still cultivated and the tree-lined streets and

squares are conserved and renewed. The ornamental gardens are still visited for leisure and for cultural events. The Royal Palace is used for cultural and institutional acts. The

18th-century town combines its function as a residential centre with the aesthetics and cultural aspects of its urban layout, its architectural features and outstanding buildings.

The conservation of the site is not a contemporary phenomenon but goes back to the patronage of the Spanish Crown. The property confiscations that were carried out in the 19th century and the aggressive development during some years of the 20th century have not had any significant negative effect.

The property is not under any significant threat. There are no natural risks, and the measures taken to address the threats posed by industrial development or demographic growth, including those that might impact its wider setting, guarantee a good state of conservation for all attributes of the property.

### **Authenticity**

The Aranjuez Cultural Landscape is remarkable from a historical, chronological, and spatial viewpoint. From its origins in the 16th century, Aranjuez has been a reflection of the patronage and splendour of the Spanish Crown, personified by two of the most important monarchs in universal history, Charles V and Philip II. Aranjuez has been a convergence of ideas, aesthetics, and science at different times throughout history. It has also been a melting pot of ideas, a reference point and place of influence since its formation.

Although it has lost its role as a royal residence, the property has retained its authenticity to a considerable degree in terms of place and design, architecture, hydrology and to a remarkable extent in function.. Though some of the garden areas require restoration, the overall state of conservation is such that the site is able to demonstrate clearly the stages of its development from the mid-16th to the mid-19th century.

### **Protection and management requirements**

The Aranjuez Cultural Landscape has an adequate system of protection and management with a solid legal base that guarantees and safeguards its singular elements. Aranjuez was declared to be of Historic Value in 1983, a legal measure that guarantees the conservation of the historic centre. The 1996 Town Planning Act provides guidelines for future developments that need to be harmonious and respectful of the conservation of the values of Aranjuez.

The State, regional, and local public administrations oversee its conservation. Notwithstanding the loss of the Crown's influence on the current development of Aranjuez, some of the elements of the property are administered by Patrimonio Nacional (Spanish National Heritage Board).

The management plan prescribes different management levels for the implementation of the technical part of the plan: regulations, ownership and the responsibilities of each of the institutions that manage the conservation of the site (Aranjuez town council, Autonomous Community of Madrid, and central government).

The property has additional planning tools that are comprehensive and responsive to specific issues such as town planning, traffic, infrastructure development, tourist facilities and the renovation and recovery of buildings and natural landscapes. These plans are supported by corresponding sources of funding and revenue allocation. Monitoring of the property is statistically based on issues such as the impact of traffic or tourism.

Furthermore, the management plan identifies the attributes that comprise the Cultural Landscape and defines provisions on which uses and activities are compatible so as to maintain the integrity and authenticity of the property. In addition, it defines the tools deemed necessary to manage the site efficiently and coherently. It is essential that a management structure, which includes all the entities involved in the supervision and conservation of the Aranjuez Cultural Landscape, is fully operational and that the management systems promote the implementation of the Plan with the participation and agreement of the different stakeholders.

## **Archaeological Ensemble of Tàrraco (C875rev)**

### **Brief synthesis**

The Archaeological Ensemble of Tàrraco is located in Tarragona, in the Autonomous Region of Catalonia, in the northeast of the Iberian Peninsula. The city of Tàrraco was the first and oldest Roman settlement on the Iberian Peninsula and capital of most of the peninsular territory, the province of Hispania Citerior. It was a major administrative and mercantile city in Roman Spain and the major centre of the Imperial cult for all the Iberian provinces. Tàrraco was endowed with many fine buildings, and archaeological excavations have revealed parts of the Roman settlement from the foundation of the city in the Republican period (3rd century BCE) to the Early Christian Era.

The serial property encompasses a total area of 32.83 ha and is comprised of the Roman city of Tàrraco, the present day city of Tarragona, and a number of elements within the surrounding territory: Roman walls, the Imperial cult enclosure, the Square with representation of the provincial forum, the Circus, the Colony forum, the

Roman theatre, the Amphitheatre, the Visigoth basilica and Romanesque church, the Early Christian necropolis, the Hydraulic conduits from Tàrraco to Les Ferreres aqueduct, the Tower of the Scipios, the Mèdol quarry, the Centcelles villa and mausoleum, the Els Munts villa and Berà Arch.

Tàrraco is remarkable for its singular conception within Roman planning: the town plan was adapted to the configuration of the land by means of a series of artificial terraces, which can be seen around the provincial forum as well as in the residential area of the Roman city. The distribution reveals an upper part, which dominates the whole city and is devoted to representation, part provincial officialdom and part recreational. Meanwhile, following the natural contours of the ground, the residential city with its colony forum stretches out to the sea and the port. The defensive system of walls of Tàrraco is one of the earliest examples of Roman military engineering on the Iberian Peninsula and the most important symbols of the town, defining its form from antiquity until the 19th century. This large group of buildings determined the layout of the existing old town, where most of the architectural elements survive. It was a large complex spread over three terraces used for high-level political purposes and to bring the communities of Hispania Citerior into the Roman Empire, as shown by the iconography of sculptural and decorative finds. The architectural details and the use of imported materials are taken as evidence of its architects and craftsmen having been brought in from Rome. The quality of the materials and marbles used is remarkable, as is the richness of the architectural and sculptural decoration, which gives an idea of the grandeur of Imperial Tàrraco. The different elements built in the dependent territory of the city are also noteworthy.

**Criterion (ii):** The Roman remains of Tàrraco are of exceptional importance in the development of Roman urban planning and design and served as the model for provincial capitals elsewhere in the Roman world.

**Criterion (iii):** Tàrraco provides eloquent and unparalleled testimony to a significant stage in the history of the Mediterranean lands in antiquity.

### **Integrity**

Owing to the importance of the buildings that made up this complex and the limited technical resources available to the builders of the mediaeval city, the Roman architectural and town planning elements have endured impressively in the modern topography of the historical centre of Tarragona, along with the monumental elements that are still present in the territory of Tàrraco.

The urban fabric is preserved and has been recovered with the main buildings of public life of the capital of the Roman province of Hispania Citerior and the military centre having been identified.

Although many of the remains are fragmentary, many continue to be preserved beneath more recent buildings and can present a vivid picture of the grandeur of this Roman provincial city. Archaeological excavations have uncovered the structures of the port zone, the area with the colony forum, the baths, the Roman theatre, the amphitheatre and the circus, and the upper part of the city or cult area with the provincial forum. These elements portray the foundation, phases of construction and splendour and decline of the city and together illustrate the significance of the urban fabric of the whole.

Additional attributes, such as the Ferreres aqueduct, the Centcelles mausoleum, Els Munts Roman villa, the Berà Arch, the Tower of the Scipios and the Mèdol quarry, one of the sources of supply of blocks for building, also contribute to the understanding of the property.

The overall state of conservation of the archaeological remains is good and buildings and monuments retain their ability to reveal their importance and their roles and functions in relation to the Roman city.

### **Authenticity**

The authenticity of the excavated sites is complete. The authenticity of the upstanding monuments such as the Amphitheatre, the Arc de Berà, and the Tower of the Scipios is equally high, since they have not been subject to any form of reconstruction (although the amphitheatre has undergone modifications of its form over the centuries since it ceased to be used for its original function). The remains of ancient structures incorporated in later buildings are also authentic, even though they are fragmentary and the current use of the buildings of which they form part is different from the original function.

Ancient sources, texts, epigraphs, numismatics and fundamentally archaeology itself also confirm the authenticity of the complex and its outstanding importance.

### **Protection and management requirements**

Legal protection for the property is granted by Law 16/1985 of the Spanish Historical Heritage, and in Catalonia by Law 9/1993 of the Catalan Historical Heritage. Decree 652/1966 established Tarragona and the archaeological subsoil as a historical complex and appears as such on the register of National Items of Cultural Interest. The monumental buildings of Tàrraco and their surroundings have also been declared National Items of Cultural Interest in categories that include historical complex, historical monument and archaeological zone.

Administrative responsibility falls to the Cultural Heritage Directorate of the Catalan Government Department of Culture. The interventions to be carried out must have the approval of the Tarragona Territorial Committee for Cultural Heritage. The property rights vary from one monument to another: monuments may belong to the Catalan

Government, Tarragona Council or even private individuals, as is the case with some of the larger sites (wall or circus). Each site is managed by the administration that owns it: Catalan Government or Tarragona Council.

A series of regulations, legislative protection measures and management plans have been established to ensure the proper protection of a city that is constantly changing and growing. To that end, a large number of excavations, conservation and presentation measures have been and continue to be carried out with a series of plans and projects for conserving the different attributes of the property and to maintain the conditions of authenticity and integrity. Planning tools include the Plan for the Municipal Urban Organisation of Tarragona, the General Urban Organisation of Roda de Barà and the agreements of the Catalan Government Territorial Committee for Cultural Heritage.

The Roman city of Tàrraco, like all archaeological sites partly located in a modern city, may seem vulnerable to constant threats from urban pressures, which at times hinder maintenance of the attributes of the property.

At present, the new Municipal Urban Organisation Plan, the agreements of the Territorial Committee for Cultural Heritage, which depends on the Catalan Government and the projects for the monuments guarantee adequate treatment of the sites.

Management arrangements could include a consortium that would be governed by a Royal Patronage so as to better articulate the actions and actors that manage the ensemble of monuments and museums, with their surroundings and contents, in the city of Tarragona. The Ministry of Education, Culture and Sport, the Catalan Government and Tarragona Town Council would be part of the Roman Tàrraco Consortium.

## Archaeological Site of Atapuerca (C 989)

### Brief Synthesis

The Archaeological Site of Atapuerca is located near the city of Burgos, in the Autonomous Community of Castilla y León, in the North of the Iberian Peninsula.

The property encompasses 284.119 ha and contains a rich fossil record of the earliest human beings in Europe, from nearly one million years ago and extending into the Common Era. It constitutes an exceptional scientific reserve that provides priceless information about the appearance and way of life of these remote human ancestors.

The Sierra de Atapuerca sites provide unique testimony of the origin and evolution both of the existing human civilization and of other cultures that have disappeared. The evolutionary line or lines from the African ancestors of modern humankind are documented in these sites. The earliest and most abundant evidence of humankind in Europe is found in the Sierra de Atapuerca. The sites constitute an exceptional example of continuous human occupation, due to their special ecosystems and their geographical location. The fossil remains in the Sierra de Atapuerca are an invaluable reserve of information about the physical nature and the way of life of the earliest human communities in Europe. In addition, painted and engraved panels have been recorded, with geometrical motifs, hunting scenes, and anthropomorphic and zoomorphic figures.

The deposits of the property are dated from the Pleistocene with the deposits of the Trinchera del Ferrocarril, (Gran Dolina, Galería-Tres Simas, Sima del Elefante) and the Cueva Mayor (Sima de los Huesos), and from the Holocene period (El Portalón de Cueva Mayor, Galería del Sílex, Cueva del Silo, Cueva del Mirador). There are also archaeological sites of other periods from Prehistoric Times (Paleolithic, Neolithic, Bronze Age, Iron Age) to the Middle Ages and later.

**Criterion (iii):** The earliest and most abundant evidence of humankind in Europe is to be found in the caves of the Sierra de Atapuerca.

**Criterion (v):** The fossil remains in the Sierra de Atapuerca constitute an exceptional reserve of information about the physical nature and the way of life of the earliest human communities in Europe.

### Integrity

The Archaeological site of Atapuerca has all the necessary elements, represented by the Pleistocene and Holocene deposits, and the adequate dimension to express its Outstanding Universal Value. The property also includes other archaeological and historic sites that provide information about other periods of occupation. The sequence of archaeo-paleontological deposits in the Sierra de Atapuerca consists of a series of sites with a rich and abundant fossil and archaeological record. All are all cave sites, and it is a railway cutting that initially exposed some of them. Nevertheless, the activities recorded in these deposits accurately reflect past ways of life that occurred over a very long period of time in a relatively undisturbed environment, and were preserved in pristine condition until the time of their discovery.

The property shows no negative effects of development pressure, since it is a natural area sparsely populated and legally protected at the highest level. The regional government has the legal framework to control possible negative impacts on the site, particularly in relation to potential impacts to the visual qualities that are still

retained. The Junta de Castilla y León, through specialised staff, ensures that material integrity is retained through adequate conservation and monitoring actions.

### **Authenticity**

The natural caves of the property contain deep strata comprising archaeological and paleontological material of great scientific importance, which have remained untouched since Prehistoric Times until the present day, when they are being excavated scientifically. Their authenticity may therefore be deemed to be total.

### **Protection and Management Requirements**

The Archaeological Zone of Atapuerca was registered as *Bien de Interés Cultural* (Property of Cultural Interest) in 1991, the highest legal protection at a national level. This area is set under the responsibility of the Junta de Castilla y León, through the General Directorate of Cultural Heritage. The municipalities of Atapuerca and Ibeas de Juarros have a supervisory function of the private properties located in this area.

The Sierra of Atapuerca has also been registered as “Cultural Area” (*Espacio Cultural*) in 2010. This protection is based on the Law of Cultural Heritage of Castilla y León and is applied to those properties that have been already declared *Bien de Interés Cultural* which, due to their special natural and cultural values, request a preferential attention in their management and promotion.

In 2002, the Junta de Castilla y León approved the Guidelines for Using and Managing the property that included specific measures for safeguarding, conservation, research, and promotion of the sites. Although there has been a permanent archaeo-paleontological research program since 1978, any intervention or project at the property, including the archaeological investigation, requires previous administrative authorization from the Commission for Cultural Heritage of Castilla y León, according to the current Cultural Heritage Laws.

For the adequate management of the *Espacio Cultural*, a Plan has been developed with the participation of local communities, the archaeo-paleontological research team, and the assessment of experts. The Management Plan is a roadmap that sets all the principles and features that the public administrations – at national, regional and local level – must take into account in order to adapt their policies to the conservation of the Outstanding Universal Value of the property, which must prevail over other considerations.

In line with the protection as “Cultural Area”, in 2009 the Junta de Castilla y León also set up the “Atapuerca System, Culture of Evolution” and the Human Evolution Museum, as an integrated system of management and cooperation among the centres related to the archaeological sites. The Museum is the key institution of the system where the materials and results of the archaeological research are kept and studied. It is also meant to be the platform to control the visits to the site. In order to organize these visits, the regional government built two reception centres for the visitors in the municipalities of Ibeas de Juarros and Atapuerca.

## **Garajonay National Park (N 380)**

### **Brief synthesis**

Not far off the north-west coast of Africa lies the island of La Gomera, one of the seven islands that make up the Canary Islands archipelago in the Atlantic. These high, volcanic islands are the first to receive the rains arriving from the west, and have thus retained the remnants of a rich and luxuriant forest — the *laurisilva* or Laurel forest — on their windward peaks. Next to the Laurisilva of Madeira (Portugal), Garajonay National Park preserves an outstanding example of this unique vegetation, which remains almost permanently shrouded in clouds and mist. These forests are relict ecosystems, living remnants of the old rainforests and warm temperate forests that occupied much of Europe and North Africa during the Tertiary. Today, they are a refuge for an exceptional number of endemic species, which in many cases are also threatened.

The park covers some 11% of the island and is an important source of water for Gomera, with its network of permanently flowing streams, the best preserved in the Canary Islands. The forest hosts a great diversity of plant species, which are often surrounded by a sea of fog that gives the forest a magical aspect. These fogs are vital for the forest, producing the necessary moisture essential for the survival of this lavish green environment located within an otherwise arid island. The forest only survives thanks to the high humidity and mild temperatures, which fluctuate little during the year.

The forest is geographically unique, as remnants of this type of vegetation are only found in the Macaronesian Islands (the Canaries, Madeira and the Azores). This insular *laurisilva* is characterised by the evolution of a large number of endemic species of fauna and flora, which in some cases are threatened. Two relict and endemic species of birds, the White-tailed Laurel Pigeon and the Dark-tailed Laurel Pigeon, are endemic to the Canaries. On La Gomera, they are largely restricted to the national park where, as their names suggest, they live in the Laurel forest. It is thought that between 40-60% of the invertebrate fauna is endemic.

**Criterion (vii):** Garajonay National Park contains an outstanding and well-preserved example of *laurisilva* (Laurel forest), an exceptional ecosystem typified by luxuriant evergreen trees with laurel-like leaves, which today is only found in the Macaronesian Islands. This relict ecosystem, a living remnant of the old rainforests and warm temperate forests that occupied much of Europe and North Africa during the Tertiary, is characterised by lush vegetation, fed by numerous springs and streams, and contains a rich and endemic flora and fauna. It is extraordinary that such a forest still exists at this latitude and proximity to the coasts of the Sahara.

**Criterion (ix):** The Canary Islands are renowned for their relict and endemic species of plants and animals, and present outstanding examples of island evolution. Garajonay National Park contains the best-preserved examples of this evolution in the region, with a recorded flora of 450 vascular plant species, of which 34 are endemic to the island and eight found only in the national park. Two relict and endemic species of pigeons are found almost exclusively in the Laurel forest, and an estimated 40-60% of the invertebrate fauna is endemic.

### **Integrity**

Following the European colonization of La Gomera in the 15th century, major changes occurred to the forest cover, which was reduced by some 65% in just over 100 years. In the south and west of the national park, there are areas of deforestation, fires and grazing and, in some parts, the natural vegetation cover has been replaced by commercial species for plantations of Canary Pine and Monterey Pine. These activities are slowly being eliminated, although some problems derive from the existence of private property on the boundary of the park. The rat, feral cat and dog population is high. The property is also at risk from wildfires.

Garajonay National Park consists of over 3,900 ha of the best-preserved Laurel forests in the Canary Islands, with a high number of large, old trees, as well as the best-preserved network of streams, which is the most threatened habitat in all of the Macaronesian Islands. All forest types belonging to the Canary *laurisilva* are represented in the park, and some of these forest types are either only present in Garajonay or very rare elsewhere, such as the cloud forest rich in epiphytes. The establishment of large Integral Reserves that are free of visitor use and extractive activities is almost unique in the Laurel forests of the Canary Islands.

### **Protection and management requirements**

Garajonay National Park was created by Spanish Law 3/81 and forms part of the Spanish National Park Network. Previously managed by the *Organismo Autónomo Parques Nacionales* under the Ministry of the Environment. Following a decentralization process in 2010, the responsibility has been transferred to the Regional Government of the Canary Islands. Management is based on a Master Plan that is being revised regularly. The Laurel forest is also included in the Habitat Directive 2000 92/43/CE of the European Union.

Management is mainly based on a non-interventionist approach, to allow ecosystem processes to continue, and the monitoring programme is showing important changes in the composition and structure of the forest. It is planned to increase research and monitoring of issues that are at present insufficiently studied, and for which available information is poor. Research will focus on issues that will contribute to better understanding and dealing with conservation problems.

About 15% of the Park had been degraded in the 1960s by the plantation of exotic, fast-growing commercial tree species. An important ecological restoration program aimed at restoring the native forest has been implemented, with 80% of its objectives achieved to date. It is planned to complete the restoration of degraded areas in the Park, and the control of alien invasive plant species is also planned.

The conservation of endangered flora is one of the main challenges for Park management, given the high number of taxa included in the Red List. Currently the Park is working with about 20 endangered species, and has produced 11 recovery plans. The goal is to maintain, improve and increase the number of conservation programmes for endangered plant species. These programmes have served to improve the situation of many populations and are considered a pioneer experience in Spain since they were first started in the 1980s.

There is a special plan to cooperate as much as possible in the conservation of natural areas surrounding the Park, particularly where there are well-preserved Laurel forests. An increase of the size of the National Park would be best, but a wide political and social consensus would be required for this project to come to fruition.

It is also planned to improve the public use system, meaning improvement and expansion of infrastructure, services and communication, both with the public and the tourism sector, by taking advantage of new communication technologies. Increased cooperation with the tourism sector in order to create better tourist products related to Park values is expected to improve the visitor experience as well as provide local benefits.

## Rock Art of the Mediterranean Basin on the Iberian Peninsula (C 874)

### Brief synthesis

The Rock Art of the Mediterranean Basin on the Iberian Peninsula is the largest group of rock-art sites anywhere in Europe, and provides an exceptional picture of human life in a critical phase of human development, which is vividly and graphically depicted in paintings that are unique in style and subject matter.

Prehistoric Levantine rock art sites are found in the coastal and inland mountain ranges of the Mediterranean Basin of the Iberian Peninsula over 1,000 kilometres of coast, from Catalonia to Andalusia. The property includes 758 sites distributed across six Autonomous Communities - Andalusia, Aragón, Castilla-La Mancha, Catalonia, Murcia, and Valencia - located in scarcely populated areas with high ecological and landscape values.

The paintings are found in shallow open-air shelters, on front walls and sometimes on the ceilings of the shelters. They have a number of regional variations, which are not always easy to distinguish. The northern zone has mainly single, naturalistic zoomorphic figures and rare stylized human figures. The Maestrazgo and Lower Ebro zones include representations of dynamic hunting and combat scenes containing human figures. The mountain areas of Cuenca and Albarracín have paintings in shelters and siliceous rocks, while the Júcar river cave and neighbouring mountain area have depictions of action-filled hunting scenes. The paintings in the Safor and La Marina regions (Valencia and Alicante) depict hunting and social scenes but no combat, while in the Segura River basin and neighbouring mountain areas zoomorphism predominates. Finally, in Eastern Andalusia, the Los Vélez region and the foothills of the Sierra Morena, paintings include mostly zoomorphic figures.

The figures are simple silhouettes or roughly filled in with a pigment and outlined. The predominant colours are red, black and to a lesser extent, white and yellow. Their fine lines of between 1 and 3 mm thick were done with quills and/or elements from plants. The figures were sometimes filled in with spot colours.

The scenes depicted are the first narrations of European Prehistory, and they provide us with very relevant information about the following aspects: Individual or group hunting activities; trapping and tracking of wounded animals; harvesting, such as honey, an outstanding historical reference of beekeeping; the first evidence of organized military confrontations; combats and executions; scenes from daily life, which provide us with information about their clothes and personal adornments marking social differences during Prehistory; funeral rites and scenes of rituals; witch doctors, feminine divinity, and figures that combine human and animal characteristics (amongst the human figures, archers are the most common as well as women and children); zoomorphic figures, single objects, or abstract motifs.

Likewise, the survival of the indigenous fauna gives the exceptional quality of a timeless landscape to these areas, as these places constitute the last reserves of certain threatened species of animals in Europe, such as the Golden Eagle, Bonelli's Eagle or the Peregrine Falcon. Also, the rarest of European mammals are still present, such as the Iberian lynx or the Spanish ibex.

The Rock Art of the Mediterranean Basin on the Iberian Peninsula constitutes an exceptional historical document due to its broad range and provides rare artistic and documentary evidence of the socio-economic realities of prehistory. It is exclusive to the Mediterranean basin of the Iberian Peninsula due to the complexity of the cultural processes in this region in later prehistory and factors related to conservation processes, such as the nature of the rock and specific environmental conditions as well as the range of subjects depicted and techniques employed.

**Criterion (iii):** The corpus of late prehistoric mural paintings in the Mediterranean basin of eastern Spain is the largest group of rock-art sites anywhere in Europe and provides an exceptional picture of human life in a seminal period of human cultural evolution.

### Integrity

The property contains all the necessary elements to convey its Outstanding Universal Value. Most of the shelters and of the actual paintings themselves, as well as the natural environment, are in adequate state of conservation. The material integrity of these paintings is largely due to the quality of the rock that supports them and to the specific atmospheric conditions that contribute to their conservation in the open air. The natural conditions and the isolation of a great number of rock art sites are essential factors in maintaining the good state of conservation.

However, some of the sites have deteriorated for several reasons including specific environmental conditions, the nature of the rock itself, and damage caused by acts of violence and vandalism. The vulnerability and fragility of the sites need to be addressed through systematic management and conservation measures.

### Authenticity

The Rock Art of the Mediterranean Basin on the Iberian Peninsula has maintained a high degree of authenticity as they undeniably represent prehistoric art created at the end of the last glaciation. A study of the history of its discovery and conservation reveals that there has been no attempt to restore the diverse paintings, and so their individual authenticity is equally irrefutable.



## Protection and management requirements

As a preliminary measure to protect and preserve the rock art sites within the property, the Autonomous Communities involved have specifically documented them in an inventory.

There are several legal frameworks for protection of the property. The State Law of Spanish Historical Heritage has directly declared the “caves, shelters and places containing expressions of rock art” as Property of Cultural Interest (*Bien de Interés Cultural*), and the legislation covering these sectors of the Autonomous Communities has established similar provisions.

The protection of rock art sites by means of specific legal documents (e.g. the Ground Law, environmental legislation) is undertaken by the jurisdiction of each Autonomous Community.

Territorial and urban planning includes these areas in their catalogues of protection thereby actively integrating them into their territorial resource planning. Even if not all town councils have adequate planning, especially small towns, the authorities encourage the drafting of the aforementioned plans.

Likewise, most of the sites are located on public land (70%), which ensures public access. Concerning privately-owned land, the already mentioned State Law of Spanish Historical Heritage makes it compulsory to allow public visits. From a legal point of view this regulation assures public access to see rock art. Exceptionally, the public authorities in charge have acquired some rock art sites in order to adequately protect them.

The Autonomous Communities have set up management plans to conserve and enhance the value of their ensembles of rock art. The ensembles with both natural and cultural heritage, which are inseparable from their surroundings, are mainly managed by public entities (For example, Plans for Natural Spaces, Archaeological Parks or Cultural Parks).

Of the 758 inventoried sites, 28% are restricted to public access and 23% have a security system. Many shelters are located in areas with difficult access and benefit from natural protection. However, plans to close them have been drafted, that would include the creation of barriers and access restrictions to ensure appropriate protection. Fire protection plans have also been created.

In order to monitor and coordinate the management of the sites, the Council for Rock Art of the Mediterranean Basin was created in 1998.

## SWEDEN / SUÈDE

### Engelsberg Ironworks (C 556rev)

#### Brief synthesis

Engelsberg Ironworks, situated in the mining area of Norberg in central Sweden, is an outstanding example of an influential European industrial complex of the 17th to 19th centuries. It is the best preserved and most complete example of a Swedish iron-working estate (*jämbruk*) of the type which produced superior grades of iron. This made Sweden an economic leader in this field for two centuries and significantly contributed to the country's prosperity during that period. Important examples of the technological equipment of this era as well as associated administrative and residential buildings are preserved within the property.

Local inhabitants began mining ore and smelting in the 12th century as a supplement to agricultural activities. The introduction of the waterwheel for powering the blast furnace, bellows, and forge to refine iron ore led to the rapid development of the Swedish iron industry. The first iron forge at Engelsberg was in operation during the last years of the 16th century; substantial operations were in place by the mid-17th century. In 1681, a nobleman built a blast furnace at Engelsberg in order to produce pig iron. The present blast furnace, built in 1778-1779 along with an ore crusher and a large charcoal store, incorporated a number of then-contemporary technological innovations. The introduction of a new blowing engine in 1836 resulted in a significant increase in production. A gas-fired ore-roasting kiln was added in 1848. The forge, which was rebuilt in the later 18th century, was re-equipped with French hearths in the 1850s. Axel Ax:son Johnson bought the Engelsberg ironworks in 1916, but found the older works increasingly uneconomical, and closed it down in 1919.

Most of the technological, administrative, and residential buildings at Engelsberg Ironworks have been conserved in their original condition. The 18th-century smelting house, together with its associated installations from later periods, still remains intact. Collectively, they provide a very complete picture of the technological equipment of a traditional Swedish *jämbruk*. The complex also contains a range of administrative and residential buildings for managers and workers, as well as for those who worked on the associated farm. These include the main building (erected about 1750), office building, inspector's house, smiths' cottages, coach-house, stables, brewery, master gardener's house (1790), and a monumental barn of slag stone (1872). Over 50 buildings of various ages and functions have been preserved here, making Engelsberg one of the most important iron-making complexes from this era in the world.

**Criterion (iv):** Engelsberg is an outstanding example of an influential European industrial complex of the 17th-19th centuries, with important technological remains and the associated administrative and residential buildings intact.

### **Integrity**

Within the boundaries of the 9.596ha property are located all the elements necessary to express the Outstanding Universal Value of Engelsberg Ironworks, including technological, administrative, and residential buildings. Its boundaries adequately ensure the complete representation of the features and processes that convey the property's significance. There is no buffer zone for the property. The property does not suffer unduly from adverse effects of development and/or neglect.

According to the detailed comprehensive plan for Ängelsberg Municipality, developmental pressure constitutes a constant potential risk to the integrity of this property. Due to structural changes affecting traditional industries and the closing of factories, the population of Ängelsberg Municipality decreased significantly during the 20th century, from 700 to 150 inhabitants. The Swedish authorities believe that this trend may also affect the management of the property: if not addressed, there may be a negative impact on the level of service facilities, especially for tourists. The authorities likewise believe a low increase in visitors to be of vital importance for maintaining the Outstanding Universal Value of the property. They also consider it vitally important that private ownership of the property not be restricted.

### **Authenticity**

Engelsberg Ironworks is authentic in its location and setting, forms and designs, and materials and substances. Despite having ceased operations in 1919, most of the technological, administrative, and residential buildings have been conserved in their original condition, and the restoration works have been of the highest quality in terms of techniques and materials.

### **Protection and management requirements**

The attributes that sustain the Outstanding Universal Value of Engelsberg Ironworks are protected under the comprehensive, interlocking Swedish legislation for cultural and environmental protection. The property enjoys strong legal protection under the *Cultural Heritage Act* (1988) as a national monument (1974). Swedish law effectively forbids developers from compromising the environmental values of Engelsberg. The entire area of Engelsberg Ironworks is explicitly included in the Area of National Interest for Strömsholm Canal established under the federal *Environmental Code*.

The relevant regional authority for Engelsberg Ironworks is the Västmanland County Administrative Board. Overall national supervision of all cultural properties is exercised by the Swedish National Heritage Board. Building permits are granted by Fagersta Municipality. Engelsberg Ironworks is owned and maintained by a private company, Nordstjernan AB. A Management Council is responsible for the inspection of the buildings, ensuring that maintenance measures are undertaken by experts and, when necessary, by external specialists. The goal of the Management Council is the continued protection and development of this World Heritage property. It maintains contact with relevant authorities, and ensures that Engelsberg Ironworks is protected and accessible. The management plan, prepared in 2005, is continuously updated, and the houses are kept and restored accordingly. Engelsberg Ironworks is open and accessible to the public at specific times.

Sustaining the Outstanding Universal Value of the property over time will require managing, to the degree possible, the ongoing developmental pressure and the population decline related to structural changes affecting traditional industries and the closing of factories.

## **THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA / EX-RÉPUBLIQUE YOUGOSLAVE DE MACÉDOINE**

### **Natural and Cultural Heritage of the Ohrid Region (C/N 99ter)**

#### **Brief synthesis**

The Lake Ohrid region, a mixed World Heritage property covering 83,350 ha, was inscribed for its natural values in 1979 and for its cultural values a year later. Lake Ohrid is a superlative natural phenomenon, providing refuge for numerous endemic and relict freshwater species of flora and fauna dating from the tertiary period. As a deep and ancient lake of tectonic origin, Lake Ohrid has existed continuously for approximately two to three million years. Its oligotrophic waters conserve over 200 species of plants and animals unique to the lake, including algae, turbellarian flatworms, snails, crustaceans and 17 endemic species of fish including two species of trout, as well as a rich birdlife.

Situated on the shores of Lake Ohrid, the town of Ohrid is one of the oldest human settlements in Europe. Built mostly between the 7th and 19th centuries, Ohrid is home to the oldest Slav monastery (dedicated to St.

Pantelejmon) and more than 800 Byzantine-style icons of worldwide fame dating from the 11th century to the end of the 14th century. Ohrid's architecture represents the best preserved and most complete ensemble of ancient urban architecture of this part of Europe. Slav culture spread from Ohrid to other parts of Europe. Seven basilicas have thus far been discovered in archaeological excavations in the old part of Ohrid. These basilicas were built during the 4th, 5th and beginning of the 6th centuries and contain architectural and decorative characteristics that indisputably point to a strong ascent and glory of Lychnidos, the former name of the town. The structure of the city nucleus is also enriched by a large number of archaeological sites, with an emphasis on early Christian basilicas, which are also known for their mosaic floors. Special emphasis regarding Ohrid's old urban architecture must be given to the town's masonry heritage. In particular, Ohrid's traditional local influence can be seen among its well-preserved late-Ottoman urban residential architecture dating from the 18th and 19th centuries. The limited space for construction activities has led to the formation of a very narrow network of streets.

Although the town of Struga is located along the shores of Lake Ohrid, town life is concentrated along the banks of the Crn Drim River, which flows out of the lake. The existence of Struga is connected with several fishermen settlements on wooden piles situated along the lake shore. A great number of archaeological sites testify to origins from the Neolithic period, the Bronze Age, the Macedonian Hellenistic period, the Roman and the early Middle Age period.

The convergence of well-conserved natural values with the quality and diversity of its cultural, material and spiritual heritage makes this region truly unique.

**Criterion (i):** The town of Ohrid is one of the oldest human settlements in Europe. As one of the best preserved complete ensembles encompassing archaeological remains from the Bronze Age up to the Middle Ages, Ohrid boasts exemplary religious architecture dating from the 7th to 19th centuries as well as an urban structure showcasing vernacular architecture from the 18th and 19th centuries. All of them possess real historic, architectural, cultural and artistic values. The concentration of the archaeological remains and urban structures within the old urban centre of Ohrid, along the coast of Lake Ohrid as well as the surrounding area creates an exceptional harmonious ensemble, which is one of the key features that make this region truly unique.

**Criterion (iii):** The property is a testimony of Byzantine arts, displayed by more than 2,500 square metres of frescoes and more than 800 icons of worldwide fame. The churches of St. Sophia (11th century), Holy Mother of God Perivleptos and St. John Kaneo notably display a high level of artistic achievements in their frescoes and theological representations, executed by local as well as foreign artists. Ancient architects erected immense basilicas, which were to serve as models for other basilicas for centuries. The development of ecclesiastical life along the shores of the lake, along with its own religious architecture, frescoes and icons, testifies to the significance of this region as a religious and cultural centre over the centuries.

**Criterion (iv):** The Lake Ohrid region boasts the most ancient Slavonic monastery and the first Slavonic University in the Balkans – the Ohrid literary school that spread writing, education and culture throughout the old Slavonic world. The old centre of Ohrid is a uniquely preserved, authentic ancient urban entity, adjusted to its coastal lake position and terrain, which is characterised by exceptional sacred and profane architecture. The architectural remains comprising a forum, public buildings, housing and sacred buildings with their infrastructure date back to the ancient town of Lychnidos (the former name of the town). The presence of early Christian architecture with the lofty basilicas from 4th to 6th centuries, together with the Byzantine architecture with a great number of preserved sacred buildings of different types from 9th to 14th centuries, is of paramount importance and contributes to the unity of the urban architecture of the city.

**Criterion (vii):** The preservation of Lake Ohrid dating from pre-glacial times is a superlative natural phenomenon. As a result of its geographic isolation and uninterrupted biological activity, Lake Ohrid provides a unique refuge for numerous endemic and relict freshwater species of flora and fauna. Its oligotrophic waters contain over 200 endemic species with high levels of endemism for benthic species in particular, including algae, diatoms, turbellarian flatworms, snails, crustaceans and 17 endemic species of fish. The Lake Ohrid region also harbours a rich birdlife.

### **Integrity**

Despite a minor modification in 2009, the current boundary of the property still does not fully encompass all of the features that convey the property's Outstanding Universal Value. Most notably in relation to its natural values, the integrity of the property is limited since only two-thirds of Lake Ohrid located in the former Yugoslav Republic of Macedonia as well as a small part of the lake's basin have been inscribed. The integrity of the property could be strengthened by extending it to the remaining one-third of Lake Ohrid located in Albania and including other areas essential to the protection of the lake's watershed, in order to adequately protect the lake's exceptional biodiversity. Main threats to the integrity of the property include uncoordinated urban development, increasing population, inadequate treatment of wastewater and solid waste, and tourism pressure. In addition, pollution from increased traffic influences the quality of the water, which leads to the depletion of natural resources.

The integrity of the property suffered to some extent, as several houses built at the end of 19th century were demolished in order to exhibit the excavated remains of the Roman Theatre. The overall coherence of the property, and particularly the relationship between urban buildings and the landscape, is vulnerable to the lack of adequate control of new development.

## **Authenticity**

The town of Ohrid is reasonably well preserved, although uncontrolled incremental interventions have impacted the overall form of the monumental urban ensemble as well as the lakeshore and wider landscape. These are also vulnerable to major infrastructure projects and other developments.

Concerning the religious buildings, important conservation and restoration works have been carried out since the 1990s. Conservation works on the monuments in the region have been thoroughly researched and documented, but some have impacted the property's authenticity. The icons and frescoes are in good condition and kept in the churches.

The originally residential function of some buildings has changed over time, as have some of the interior outfitting of residential buildings, which were altered to improve living conditions. While reconstructions often used materials identical to those used at the time of construction, new materials have also been used on occasion, which presents a threat for the authenticity of the property.

## **Protection and management requirements**

The Natural and Cultural Heritage of the Ohrid region has several layers of legal protection. The protection of cultural heritage is regulated by the Law on Cultural Heritage Protection (Official Gazette of RM No. 20/04, 115/07), by-laws and a law declaring the old city core of Ohrid as a cultural heritage of particular importance (Official Gazette of RM No. 47/11). The protection of natural heritage is regulated by the Law on Nature Protection (Official Gazette of RM No. 67/2004, 14/2006 and 84/2007), including within and outside of protected areas. There is also the Law on Managing the World Cultural and Natural Heritage of the Ohrid Region (Official Gazette of RM No. 75/10). Legal instruments need to be kept updated and implemented to protect the property.

The property is managed and protected through a range of relevant management documents, and an effective overall management plan is a clear long-term requirement. The "Physical Plan of the Republic of Macedonia" of 2004 provides the most successful long-term and integrated document for land management, providing a vision for the purpose, protection, organization and landscape of the country and how to manage it. This plan needs to be maintained and updated regularly, although some deficiencies have been noted in the general implementation of urban planning regulations and plans.

The property is managed by two ministries (the Ministry of Culture and the Ministry of Environment), via three municipalities (Ohrid, Struga and Debrca), although the municipalities legally do not have the authority to protect cultural and natural heritage. The Institute for Protection of Monuments of Culture and Museums in Ohrid has the authority to protect cultural heritage, and the Natural History Museum Dr Nikola Nezlobinski in Struga is responsible for protecting movable heritage. The Galichica National Park is authorized to manage natural heritage within the park as a whole, and part of the cultural heritage located within the territory of the Park. The Institute for Hydrobiology in Ohrid is responsible for the continuous monitoring of the Lake Ohrid ecosystem, the research and care for Lake Ohrid's flora and fauna, as well as the management of the fish hatchery, also to enrich the Lake's fish stocks.

Integrated management of natural and cultural heritage through a joint coordinating body and joint management planning are urgently needed to ensure that the values of the property are conserved. Given the vulnerabilities of the property related to the development and impacts of tourism, the management requirements for the property need strengthening and new cooperation mechanisms and management practices must be put into place. This may include re-evaluating the existing protected areas, and ensuring adequate financial and human resources for management as well as effective management planning and proper law enforcement.

The complexity of Lake Ohrid's shared natural and cultural heritage requires innovative governance models able to deal with a multitude of management objectives in the broader transboundary Lake Ohrid region. Cooperation between the cultural and natural sectors is essential, and the capacities of site management must be strengthened in order to effectively protect both the cultural and natural values of the property. Effective integration and implementation of planning processes at various levels, cross-sectorial cooperation, community participation and transboundary conservation are all preconditions for the successful long-term management of Lake Ohrid.

## **UKRAINE**

### **L'viv, the Ensemble of the Historic Centre (C 865bis)**

#### **Brief synthesis**

The city of L'viv was founded in the late Middle Ages where a settlement had existed since the 5th and 6th centuries. It flourished as an administrative, religious and commercial centre due to its favourable geographical position for trade and political development. Today, the surviving architectural and artistic heritage reflects a synthesis of Eastern European traditions influenced by those from Italy and Germany. The property, "L'viv – the

Ensemble of the Historic Centre”, consists of two components: the primary area, encompassing the castle, its surrounding area and the city centre, and to the southwest, a smaller area on St. Yuri’s Hill for the ensemble of St. Yuri’s Cathedral.

L’viv’s historic centre includes many distinct parts representing different stages in its development. The Vysokyi Zamok (High Castle) and Pidzamche (area around the castle) are the main and oldest part of the town, dating to the 5th century. It retains its original topography with a hill, on which the castle sits, and lowlands on which a system of streets and squares developed between the 13th and 17th centuries. Evidence of occupation by separate ethnic communities is seen in the surviving buildings, including a mosque, a synagogue and a variety of religious buildings from the Orthodox, Armenian and Catholic churches.

The Seredmistia, or city centre, developed in the 14th century and features well-preserved Eastern European urban buildings, including many monasteries and residences of the Renaissance and Baroque traditions, as well as parks built on the original site of the medieval fortifications and more recent buildings dating from the last two centuries.

Located on a mountain plateau to the southwest of the medieval city is the Ensemble of St. Yuri. This complex was the heart of Halychyna Church Metropolis and features buildings primarily in Baroque-style with a high artistic value.

**Criterion ii:** In its urban fabric and its architecture, L’viv is an outstanding example of the fusion of the architectural and artistic traditions of Eastern Europe with those of Italy and Germany.

**Criterion v:** The political and commercial role of L’viv attracted to it a number of ethnic groups with different cultural and religious traditions, who established separate yet interdependent communities within the city, evidence of which is still visible in the modern townscape.

### **Integrity**

The two component parts that form the ensemble of the historic centre of L’viv contain all the elements necessary to reflect its Outstanding Universal Value. The surviving buildings and ancient street pattern are able to illustrate the history of L’viv with its diverse ethnic and religious influences.

Threats to the property’s integrity have been identified, including excessive heavy vehicular traffic, the exodus of residents to the suburbs and inappropriate development. The latter is caused by a number of factors including inadequate funding, lack of education for owners and users of the architectural monuments, as well as deficiencies in the implementation of existing regulations.

### **Authenticity**

The authenticity of the property is high. Its setting retains its characteristic topography with hills, plateaus and river valleys. This landscape continues to illustrate the traditional relationship between the defensive castle constructed on a hill and the town below. Moreover, the urban layout survives in the medieval street pattern, squares, major churches and ethnic communities. The parcel system of the historical city centre has been preserved despite numerous fires (in 1527 and 1571).

Authenticity of design is also found in the preservation of many early residences. This is visible in their interior layout, original materials in interior decoration, wall paintings, stained glass windows and exterior ornamentation. This is also seen in the exterior bricks and large-sized stone blocks used in construction.

Some loss of urban structure has occurred over time, mainly during the Second World War. However, the individual addition of later buildings (Ukrainian secession and modernism) has blended organically into the pre-existing ensemble.

### **Protection and management requirements**

The area covered by the territory of L’viv – the Ensemble of the Historic Centre is included within the larger 3,000 hectare region that was designated as a National Historical and Architectural Preserve on 12 June 1975 by Resolution NQ 297 of the UkrSSR Council of Ministers under the provisions of the Law on Monuments of History and Culture (1970). The Law of Ukraine “On Protection of Cultural Heritage” (2000) is the main legislative document at the national level on which the property protection is based. The Council of Ministers has designated 209 historic monuments as National Landmarks within the inscribed territory and a number of others are declared as being of local importance by resolution of the Regional Administration. This legislation imposes strict control on any activities proposed within the protected area that may have an adverse impact on the Outstanding Universal Value.

Building ownership belongs to a variety of state, municipal and private parties. Overall supervision is the responsibility of the Department of Cultural Heritage and Cultural Monuments of the Ministry of Culture of Ukraine. At the local level, management is delegated to the Directorate of the L’viv City Council for the Protection of the Historic Environment. Advice relating to construction and restoration projects is provided by the Scientific Advisory Board, which is associated with the department and is composed of professionals in cultural heritage restoration as well as representatives of relevant community organizations (the charitable foundation Preservation

of Historical and Architectural Heritage of L'viv and the Union of Architects). Recent construction activities within the property and its buffer zone that may affect the Outstanding Universal Value have been halted.

Management and property protection are carried out according to the Strategic Development Plan for the City of L'viv (2011-2025), part of an Integrated Concept of the Development of the Central Part of L'viv (2011-2020). This document identifies protective zoning for the historic area. A management plan for the World Heritage property is under development.

On the local level, each year a plan of restoration of monuments is approved, with particular attention to the public welfare of the territories and the reconstruction of engineering networks for the structures. Various programmes are offered at the municipal level. For instance, funding is provided for restoration of historic doors and windows. Additionally the joint Ukrainian-German project assists with training seminars to improve the skills of local craftsmen. Concern about heavy traffic within the historic centre is being addressed by restricting vehicles in certain areas and rerouting buses. Cycling infrastructure is also under development.

## UNITED STATES OF AMERICA / ETATS-UNIS D'AMÉRIQUE

### Taos Pueblo (C 492rev)

#### Brief synthesis

This Pueblo Indian settlement in northern New Mexico, consisting of ceremonial buildings and facilities, and multi-storey adobe dwellings built in terraced tiers, exemplifies the living culture of a group of present-day Pueblo Indian people at Taos Pueblo. As one of a series of settlements established in the late 13th and early 14th centuries in the valleys of the Rio Grande and its tributaries that have survived to the present day, Taos Pueblo represents a significant stage in the history of urban, community and cultural life and development in this region. Taos Pueblo has been continuously inhabited and is the largest of these Pueblos that still exist, with its North and South Houses rising to heights of five storeys. Taos Pueblo and the people of the Pueblo itself claim an aboriginal presence in the Taos Valley since time immemorial.

Taos Pueblo, whose culture and community are active and thriving, shows many similarities to settlement sites of the ancestral Pueblo people that are preserved in nearby places such Chaco Canyon and Mesa Verde. It is nevertheless unique to this region and not derived from Mesoamerican precedents. The property includes the walled village with two multi-storey adobe structures, seven kivas (underground ceremonial chambers), the ruins of a previous pueblo, four middens, a track for traditional foot-races, the ruins of the first church built in the 1600s and the present-day San Geronimo Catholic Church. The Taos mountains (Sangre de Cristo range of the Rocky Mountains) provide the setting for the Pueblo. Within these mountains is the 19,425-ha Taos Pueblo Blue Lake Wilderness Area, a resource of critical importance to the Pueblo's living culture and agricultural sustainability. The Sacred Blue Lake, intrinsically linked to the Pueblo's culture, is the source of a stream that flows through the settlement.

**Criterion (iv):** Taos Pueblo is a remarkable example of a traditional type of architectural ensemble from the pre-Hispanic period of the Americas unique to this region and one which, because of the living culture of its community, has successfully retained most of its traditional forms up to the present day.

#### Integrity

Within the boundaries of Taos Pueblo are located all the elements necessary to understand and express the Outstanding Universal Value of the property, including the adobe-walled village with its important historic and prehistoric features inside and outside the walled area. The two main adobe complexes retain their traditional three-dimensional layout. Additions and some limited use of non-native materials have not fundamentally altered the visual impression of the Pueblo or its striking evidence of ancient building traditions. Traditional building customs, techniques and materials have resulted in harmonious construction throughout the walled precinct. The 19.01-ha property is of sufficient size to adequately ensure the complete representation of the features and processes that convey the property's significance, and does not suffer from adverse effects of development and/or neglect. There is currently no buffer zone for the property.

#### Authenticity

Taos Pueblo is authentic in terms of its location and setting, forms and designs, materials and substance, uses and functions as well as spirit and feeling. The Pueblo has been continuously occupied and cared for by the traditional and culturally-based community. Adobe requires regular maintenance through periodic replastering, which is undertaken as needed by tribal members using traditional materials and methods. Some European-style framed doors and windows were introduced in the 20th century, but these remain limited in scale. The community maintains controls to protect its traditions, including the prohibition within the walled area of electrical power lines and piped water supply. An increasing number of Pueblo residents have homes outside the walled area; however, the old village still serves as the most important focus for intra-village interaction and cultural activities.

The known and potential threats to the authenticity of the property include the following: the growth of the nearby municipality of Taos, which places pressure on the Pueblo to modernize; economic conditions that cause tourism impacts; planned expansion of the existing Taos Regional Airport; and environmental stresses such as forest fires, droughts and floods.

#### **Protection and management requirements**

Taos Pueblo is governed by the independent and autonomous Tribal Council, Governor and War Chief. Individual rooms are owned by tribal families but the structures are owned by the community as a whole and are managed as such by the Pueblo's governing body. The Governor's Office is responsible for the day-to-day management and protection of the property. The Pueblo holds the status of a limited-sovereign nation within the boundaries of the United States of America. The site is part of the original Spanish Land Grant (within the Pueblo's aboriginal lands), which is held in trust by the federal government for the benefit of the Pueblo. The federal government has a trust responsibility for the protection and preservation of the Pueblo as a World Heritage Site. This responsibility is fulfilled with respect for its status as a self-governed community. The Pueblo's designation as a National Historic Landmark (1960) requires that any federal government undertakings that may affect or impact the property must be carefully considered, and the federal agencies must consult with the Pueblo before initiating any action.

The Pueblo has always had a comprehensive unwritten preservation strategy that is carried out by tribal members, with scrupulous respect for traditional materials and techniques. These traditions and practices have protected Taos Pueblo's structures for centuries through an active monitoring program by the Pueblo's traditional government and decision-making process. This ensures that the living culture and associated historic structures and landscapes are maintained and functional. The National Park Service is providing assistance to the Pueblo to develop a written management and preservation plan as well. The Pueblo attracts large numbers of visitors and has a formal tourism program which plans to establish a visitor centre. The Pueblo is closed to visitors on certain ceremonial occasions, and some areas are not accessible to visitors.

Sustaining the Outstanding Universal Value of the property over time will require protecting it from the continuing challenges of adverse effects, which include environmental stresses such as erosion from rain and snow, forest fires, droughts and floods. It will also require ensuring that any developments within or near Taos Pueblo do not have negative impacts on the property's values, authenticity and integrity.

## LATIN AMERICA AND THE CARIBBEAN / AMERIQUE LATINE ET CARAIBES

### **BRAZIL / BRESIL**

#### Aire de conservation du Pantanal (N 999)

##### **Brève synthèse**

L'Aire de conservation du Pantanal se compose d'un groupe de quatre aires protégées contiguës: le Parc national du Pantanal Matogrossense et les Réserves particulières d'Acurizal, de Penha et de Dorochê, couvrant une superficie totale de 187,818 ha. Ce complexe d'aires protégées est situé dans le centre-ouest du Brésil, à l'extrémité sud-ouest de l'état du Mato Grosso e Mato Grosso do Sul et à la frontière internationale avec la Bolivie et le Paraguay.

Le bien englobe la majeure partie de la chaîne de montagnes Amolar dont l'altitude maximale est de 900 mètres. La transition est abrupte entre des milieux saisonnièrement inondés et les montagnes. Ce gradient écologique est unique dans toute la région du Pantanal et lui confère un paysage spectaculaire. Localisé entre les bassins des fleuves Cuiabá et Paraguay, le site joue un rôle clé dans la dispersion des matières nutritives au gré des crues ainsi que dans le maintien des stocks de poissons dans le Pantanal. Bien que le site ne couvre qu'une petite partie du Pantanal (une des plus grandes zones humides du monde couvrant environ 14,000,000 ha), il est représentatif et de taille suffisante pour assurer la continuité des processus écologiques. Il protège aussi de nombreuses espèces menacées telles que le tatou géant, le grand fourmilier, la loutre géante, le cerf des marais et l'ara hyacinthe, le plus grand des perroquets. La population de jaguars du bien est probablement la plus importante de toute la région du Pantanal. Le nombre d'espèces de plantes aquatiques qui s'y trouvent est également remarquable.

**Critère (vii) :** Le spectaculaire paysage des zones humides de ce bien délimité par la chaîne de montagnes d'Amolar a son origine dans la combinaison de falaises abruptes avec un régime hydrologique annuel extrême. Pendant la saison des pluies, entre les mois d'octobre et d'avril, les fleuves sortent de leur lit et inondent de vastes régions, ne laissant que des petites zones exondées. A la fin de cette période, les eaux régressent lentement pour former d'innombrables petites lagunes temporaires. Ce paysage exceptionnel confère au Pantanal une esthétique unique, enrichie par l'abondance et la diversité de la flore et de la faune sauvages. Il est par exemple extraordinaire de voir un groupe de nénuphars géants, plantes aquatiques impressionnantes, poussant à proximité d'immenses cactus de milieux semi-arides.

**Critère (ix) :** A échelle réduite, ce site est un modèle des processus écologiques et biologiques en cours dans l'ensemble du Pantanal. Considéré comme une région phytogéographique, le Pantanal est fortement influencé par les écosystèmes avoisinants (principalement ceux du Cerrado et de l'Amazonie, mais aussi ceux de Chaquenha et de l'Atlantique). Ce complexe associant la chaîne de montagnes d'Amolar avec des écosystèmes de zones humides jouit d'un gradient écologique important et unique dans la région, ce qui contribue au maintien de processus biologiques. Le réseau hydrographique permet la migration d'espèces entre les bassins des fleuves formateurs du Pantanal, où transite une énorme diversité de poissons lors de leur phase initiale de croissance. Ces cours d'eau jouent également un rôle central dans la dispersion des matières nutritives dans l'ensemble du bassin. Pendant les inondations, une partie de la faune (notamment les plus grands mammifères) migre de la plaine vers les régions plus sèches des hautes terres, et pendant les sécheresses les plus sévères, la plaine peut être le seul endroit de la région à rester humide, jouant ainsi un rôle précieux pour le maintien de la faune.

**Critère (x) :** Le Pantanal est extrêmement important pour la conservation de la diversité biologique et le bien contient des habitats représentatifs comprenant environ 80 espèces de mammifères, 650 d'oiseaux, 50 de reptiles et 300 de poissons (dont la réserve est vitale pour le maintien des stocks halieutiques). Plusieurs espèces menacées au plan mondial s'y trouvent, y compris le tatou géant (*Priodontes maximus*), le grand fourmilier (*Myrmecophaga tridactyla*), la loutre géante (*Pteronura brasiliensis*), le cerf des marais (*Blastocerus dichotomus*) et l'ara hyacinthe (*Anodorhynchus hyacinthinus*), le plus grand des perroquets. Une population saine de jaguars (*Panthera onca*), espèce aujourd'hui quasi menacée, y existe aussi. De plus, la région abrite une diversité remarquable de plantes aquatiques.

##### **Intégrité**

Les dimensions de l'Aire de conservation du Pantanal sont clairement définies et suffisantes pour permettre le maintien d'importants processus écologiques et biologiques pour la conservation de la diversité biologique à long terme. Le degré de fragilité du Pantanal est élevé et les effets des pratiques anthropiques (dragages, pêche excessive, déboisement, forte érosion, eaux usées, déchets, barrages générant des changements hydrodynamiques, canalisation de cours d'eau) représentent des menaces graves pour toute la région. Le Parc National du Pantanal et la Réserve Dorochê sont directement soumis aux effets des actions anthropiques négatives. Les Réserves Acurizal et Penha sont moins sujettes à ces effets mais leurs régions inondables sont toutefois aussi soumises à ces impacts.



Il faut noter qu'aux environs du site proposé, plusieurs propriétés privées abandonnées pourraient assurer une protection supplémentaire au bien. L'intégrité du site serait meilleure si une plus grande superficie du bien pouvait être obtenue avec leur inclusion.

### **Éléments requis en matière de protection et de gestion**

Le Parc national et les Réserves particulières sont protégés par des décrets et des arrêtés du gouvernement fédéral. Le Parc National du Pantanal Matogrossense jouit de la protection intégrale la plus stricte. Les Réserves particulières sont inscrites par décret fédéral reconnaissant qu'elles doivent être gérées à perpétuité dans un but de conservation. La gestion du Parc National est à la charge de l'institut Chico Mendes de conservation de la biodiversité (ICMbio), organisme fédéral autonome rattaché au Ministère de l'environnement. Le Parc a fait l'objet d'un plan d'action d'urgence élaboré en 1994 et d'un plan de recherche en 1997; son plan de gestion date de 2004. Les Réserves particulières sont gérées par la Fondation Ecotrópica qui applique un plan de gestion depuis 1998. Un plan de gestion intégré pour tous les composants du bien est souhaitable.

Ce bien, intitulé "Aire de conservation du Pantanal", est en effet une toute petite partie d'un énorme écosystème. Par exemple, le nord du Pantanal est très différent, de manière que ce bien n'est pas tout à fait représentatif de l'ensemble du Pantanal. Maintenant que l'outil des « mosaïques » est entré en vigueur dans la législation brésilienne pour améliorer la conservation de ses ressources naturelles, il serait souhaitable de ré-étudier ce bien pour voir dans quelle mesure "l'Aire de conservation du Pantanal" pourrait être agrandie. Il existe également la possibilité d'extension d'un bien transfrontalier avec les parties du même écosystème situées sur le territoire des pays avoisinants.

L'intégrité à long terme du bien dépend du maintien du régime hydrologique du complexe du Pantanal. Des projets de construction de voies d'eau navigables dans la région ou d'autres projets du même genre représentent de réelles menaces pour le Pantanal dans son ensemble. Ce genre de grands projets changerait la dynamique naturelle et la structure des flux d'eau dans le bassin, et principalement la capacité d'absorption massive d'eau de crue dans le Pantanal suivie de sa lente libération.

Il y a besoin d'élaborer des activités économiques écologiquement durables, et de veiller à ce que des programmes attirant les touristes dans le Pantanal fassent l'objet d'une planification préalable. Des problèmes comme ceux de la pêche sportive illicite, des perturbations dans les zones de nidification et de la demande d'articles de luxe (source de pollution), ont impérativement besoin d'être contrôlés. Bien que le braconnage de la faune sauvage et son commerce illicite aient été contrôlés dans les limites du bien, les pressions sur des espèces comme les caïmans, les jaguars et les perroquets continuent en dehors du bien.

Diverses recherches scientifiques et activités d'éducation environnementale sont encouragées et développées dans le complexe des aires protégées. Toutes les composantes du bien font partie de la Réserve de Biosphère et le Parc National est par ailleurs reconnu en tant que Site Ramsar. La politique environnementale brésilienne stimule la participation de la société civile organisée et les partenariats public-privées, à travers des comités aidant à la gestion des aires protégées.

## **Aires protégées du Cerrado: Parcs nationaux Chapada dos Veadeiros et Emas (N 1035)**

### **Brève synthèse**

Le site des Aires protégées du Cerrado englobe les Parcs nationaux Chapada dos Veadeiros et Emas, situés sur le plateau central brésilien dans l'État de Goiás. Ces deux parcs contribuent à protéger le biome du Cerrado, l'un des écosystèmes les plus anciens et les plus diversifiés du monde. Pendant des millénaires, ces sites ont servi de refuges à un grand nombre d'espèces rares et endémiques de faune et de flore, y compris pendant les périodes de fluctuations climatiques. Ces deux sites demeurent indispensables à la conservation de la biodiversité du Cerrado, spécialement dans le scénario d'éventuelles futures modifications climatiques.

La flore du Cerrado est riche. Elle comprend entre 350 et 400 espèces de plantes vasculaires par hectare, dont de nombreuses plantes endémiques. Le bien contient également des populations de grands mammifères, notamment le fourmilier géant, le tatou géant, le loup à crinière, le jaguar et le cerf des pampas, mais aussi le nandou, l'oiseau le plus grand d'Amérique du Sud. Le site est aussi extrêmement important pour le maintien du régime hydrologique, car en raison de ses caractéristiques géologiques et de ses sols, il se révèle être une zone-clé pour la recharge des aquifères et l'alimentation de plusieurs cours d'eau qui irriguent le bassin de l'Amazone et le Pantanal, dans le bassin de La Plata.

**Critère (ix) :** Les aires actuellement protégées du site ont joué un rôle fondamental pendant des millénaires pour le maintien de la diversité biologique de l'écorégion du Cerrado. En raison de leur position centrale et de leur variation altitudinale, elles ont servi de refuges relativement stables pour les espèces lors des changements climatiques qui ont entraîné le déplacement du Cerrado selon un axe nord-sud ou est-ouest. Ce rôle de refuge pour les espèces se poursuit. Le climat marqué par les deux saisons bien définies de l'année (sèche et humide), la récurrence des incendies et les hautes teneurs en aluminium, ainsi que la carence en nutriments en sols

extrêmement acides, ont donné lieu à la survenue d'adaptations évolutives uniques au sein de la flore et de la faune.

**Critère (x) :** Ce site contient des échantillons de tous les habitats essentiels qui caractérisent l'écorégion du Cerrado - l'un des écosystèmes tropicaux les plus anciens de la Terre. Il héberge plus de 60% de l'ensemble des espèces de flore et près de 80% de l'ensemble des espèces de vertébrés décrites dans le Cerrado. Tous les grands mammifères du Cerrado menacés d'extinction y sont présents, à l'exception de la loutre géante. En outre, le site abrite de nombreux petits mammifères rares et des oiseaux endémiques du Cerrado. De nouvelles espèces continuent d'être découvertes par la science dans ce site.

### **Intégrité**

Toutes les zones importantes indispensables à la survie à long terme d'espèces clés, en particulier les grands prédateurs, se trouvent dans le Parc national Chapada dos Veadeiros (également protégées par la zone-tampon de « Aire de protection de l'environnement de Pouso Alto ») et dans le Parc national Emas. Même si le Parc Emas est presque entièrement entouré par des zones agricoles, sa gestion vise à surmonter les impacts venus de l'extérieur, en particulier les incendies (même si l'empiètement agricole demeure un problème). La recherche menée dans ce site a révélé que les grands prédateurs l'utilisent pour se nourrir et se reproduire, ce qui indique que ses dimensions sont suffisantes pour répondre aux besoins biologiques de ces espèces. Des projets de création de couloirs biologiques sont en cours de développement afin d'éviter que ces parcs, et particulièrement celui d'Emas, ne deviennent des îlots cernés par des surfaces agricoles.

### **Éléments requis en matière de protection et de gestion**

Les deux parcs sont légalement inscrits dans le « Groupe de Protection Intégrale » au sein du « Système National des Unités de Conservation » du Brésil, équivalant à une aire protégée de catégorie II de l'UICN. Ceci ne permet que l'utilisation indirecte de leurs ressources naturelles. La gestion de ces zones est faite par l'Institut Chico Mendes de Conservation de la Biodiversité (ICMbio), agence fédérale autonome rattachée au Ministère de l'Environnement et responsable de la protection du patrimoine naturel brésilien.

Dans les années 1990, la gestion des Parcs nationaux Chapada dos Veadeiros et Emas, comprenait des plans d'urgence. Parallèlement, certaines actions ont été développées dans le but de promouvoir des alternatives économiques pour la population environnante par le biais de partenariats avec des organisations non-gouvernementales. En 2004 et en 2009, des plans de gestion ont été respectivement élaborés pour les Parcs nationaux Emas et Chapada dos Veadeiros. Ces plans ont été développés avec la collaboration de toutes les parties prenantes, y compris les préfectures, les propriétaires, les habitants locaux et les associations touristiques. Leur but était d'intégrer économiquement la société dans les activités du Parc, par le tourisme durable, tout en décourageant les activités illégales à l'intérieur et aux alentours de son périmètre.

Plusieurs projets, dont le « Couloir Écologique Cerrado-Pantanal » qui vise à améliorer la connectivité et l'éducation environnementale dans le Parc national Emas, ainsi que le « Couloir Écologique Paranã-Pirineus », dans le cadre de la réserve de biosphère du Cerrado, cherchent à accroître la connectivité environnementale et à soutenir les politiques d'économie durable, comme l'écotourisme.

Quelques défis clés pour la gestion du bien sont la lutte contre les incendies, l'expansion de l'agriculture, l'exploitation minière, l'extraction végétale, la chasse et le tourisme non contrôlé. Toutes ces menaces ont été atténuées de manière significative depuis quelque temps. L'une des menaces émergentes pour le Parc national Emas, est la présence croissante d'espèces herbacées exotiques. Lors de l'inscription, seul le périmètre du parc avait été affecté, néanmoins un système de suivi et de prévention contre toute nouvelle invasion est devenu nécessaire.

## **Complexe de Conservation de l'Amazonie Centrale (N 998bis)**

### **Brève synthèse**

Ce site de plus de 6 millions d'hectares constitue la plus grande zone protégée du bassin amazonien et l'une des régions les plus riches de la planète en termes de biodiversité. À l'origine, le Parc National de Jaú a été inscrit en 2000. Le bien a ensuite été élargi en 2003 avec l'addition de trois autres aires protégées (le Parc National d'Anavilhanas, la Réserve de développement durable Amanã et la Réserve de développement durable Mamirauá). Comme résultat, le classement de ces quatre sites a matérialisé le bien actuel, nommé Complexe de conservation de l'Amazonie centrale.

Situé principalement au confluent des fleuves Solimões et Negro, le bien abrite la majeure partie des écosystèmes répertoriés en Amazonie, y compris des forêts de terre ferme et des forêts de plaine périodiquement inondées (várzea et d'igapó) ainsi que des cours d'eau à eau noire ou à eau blanche, des cascades, des marécages, des lacs et des plages. L'archipel d'Anavilhanas, l'un des plus grands archipels fluviaux du monde, est en évolution constante et abrite la plus grande diversité de poissons électriques du monde. Le site protège une grande diversité de faune et de flore, y compris des espèces rares ou menacées d'extinction comme

l'arapaima géant (le plus gros poisson d'eau douce d'Amérique du Sud), la loutre géante, le lamantin de l'Amazone, le caïman noir et deux espèces de dauphins d'eau douce.

**Critère (ix):** Les forêts inondées de várzea et d'igapó, les lacs, les cours d'eau et les îles du site illustrent des processus écologiques en cours du point de vue de l'évolution des écosystèmes terrestres et d'eau douce. On y trouve une mosaïque de bras de cours d'eau, de lacs et de formes de relief qui changent constamment. En mouvement permanent, les tapis de végétation flottants typique des cours d'eau à várzea comprennent un nombre important d'espèces endémiques, y compris la plus grande diversité de poissons électriques du monde. Anavilhanas contient le deuxième archipel fluvial du monde par la taille, beaucoup mieux préservé que l'archipel plus grand de Mariuá, qui se trouve au même rivièrre en amont Anavilhanas. Il illustre bien des processus de colonisation et d'évolution de la végétation sur des formes de relief changeantes.

**Critère (x):** Le bien protège un échantillon vaste et représentatif de la flore et de la faune des forêts de la plaine centrale amazonienne, avec un nombre important d'écosystèmes terrestres et aquatiques liés avec la forêt périodiquement inondée par les crues et comprenant aussi des marécages. Connu comme une des plus importantes Zones d'oiseaux endémiques et aussi comme un Centre de diversité des plantes, le bien protège une variété impressionnante d'espèces de flore et de faune dont environ 60% des espèces de poissons vivant dans le bassin versant du rio Negro et 60% des oiseaux répertoriés en Amazonie centrale. Caractérisée par un haut degré d'endémisme, une grande partie de la faune est nocturne. Le bien représente une des régions les plus diverses pour les primates avec des espèces menacées comme l'ouakari chauve (*Cacajao calvus*) et le saïmiri noir (*Saimiri vanzolinii*) ainsi que certaines espèces menacées liées à l'eau comme la loutre géante (*Pteronura brasiliensis*), le lamantin d'Amazonie (*Trichechus inunguis*) et le caïman noir (*Melanosuchus niger*). D'autres espèces remarquables sont l'ouakari à tête noire (*Cacajao melanocephalus*), le caïman jaune (*Caiman crocodilus*), le jaguar (*Panthera onca*) et la harpie féroce (*Harpie harpyja*), les deux derniers étant « quasi menacés », selon la liste rouge de l'IUCN. Le « pirarucu » (*Arapaima gigas*), plus gros poisson d'eau douce d'Amérique du Sud, et deux espèces de dauphins de l'Amazone (*Inia geoffrensis* et *Sotalia fluviatilis*), tout trois avec un statut de « données insuffisantes », se trouvent aussi dans le bien. En outre 64 espèces de poissons électriques, soit la plus forte diversité connue pour ce groupe unique au monde et qui présente un niveau de rayonnement et un taux d'adaptation comparables à ceux des cichlidés dans la Vallée du Rift africain, ont été identifiées dans le bien.

### **Intégrité**

Les dimensions du bien sont suffisantes pour permettre le maintien d'importants processus écologiques et biologiques, tels que les chablis, les fluctuations dans la dynamique des crues et les incendies naturels, ce qui offre des occasions uniques d'étudier leurs effets sur la diversité biologique dans des écosystèmes naturels. Les forêts de terre ferme qui constituent une grande partie de Jaú et d'Amanã sont des zones sauvages pratiquement vierges couvrant des millions d'hectares.

Le site présente un excellent degré de conservation en termes de biodiversité, résultant de l'ampleur territoriale du bien et de l'effet protecteur engendré par le couloir écologique formé par les aires protégées. Les limites du bien sont pour la plupart naturellement définies par les cours d'eau de la région et enserrant de grandes zones dans lesquelles les niveaux d'impact anthropique sont faibles. Toutefois, certaines d'entre elles ne disposent pas de protection ou de gestion active et comptent quelques milliers d'habitants dont la survie dépend de l'exploitation des ressources. Il est important que toutes les mesures nécessaires pour garantir la conservation des écosystèmes exceptionnels de la région ainsi que l'utilisation durable de leurs ressources soient prises en coopération avec les parties prenantes. Il n'existe aucun projet de développement futur susceptible de compromettre l'intégrité du site.

### **Éléments requis en matière de protection et de gestion**

Les aires protégées qui font partie du Complexe de conservation de l'Amazonie centrale ont été créées à des périodes distinctes : le Parc national de Jaú en 1980, la Station écologique d'Anavilhanas en 1981 (recatégorisée comme Parc national en 2008), la Réserve de développement durable Mamirauá en 1990 et la Réserve de développement durable d'Amanã en 1998. Les Parcs nationaux sont gérés par l'Institut Chico Mendes de Conservation de la Biodiversité (ICMBio), organisme fédéral autonome rattaché au Ministère de l'environnement. Les Réserves de développement durables sont liées à l'Etat, gérées par le Centre des unités de conservation de l'Etat d'Amazonas (CEUC). A l'exception de la Réserve Amanã, les trois autres aires protégées possèdent un plan de gestion. La disponibilité de ressources techniques, humaines et financières est indispensable pour consolider la gestion du bien.

Dans le but d'assurer une gestion participative, comme stipulé dans la législation brésilienne, les parcs nationaux possèdent des Conseils consultatifs pour leur fonctionnement, et les réserves de développement durable disposent de Conseils délibérants. Il est important de continuer d'engager les populations indigènes dans la gestion du bien, tout en reconnaissant qu'il s'agit d'une activité de longue haleine. Les besoins liés au tourisme international et à ceux de la recherche font que Jaú et Mamirauá disposent de plans d'utilisation publique bien définis.

Afin de garantir la conservation des aires protégées, des plans de protection sont mis en œuvre par les différentes agences responsables. Des recherches scientifiques et des activités d'éducation environnementale

sont encouragées et développées dans le Complexe. Toutes les aires protégées du bien font aussi partie de la Réserve de Biosphère qui compose, avec d'autres zones, la « Mosaïque des aires protégées du bas Rio Negro ». L'ensemble s'intègre dans un programme de grand couloir écologique régional, au sein des programmes et des politiques environnementales destinés à garantir l'intégration de la gestion et la conservation de cette vaste partie du biome amazonien.

## Côte de la Découverte – Réserves de la Forêt Atlantique (N 892rev)

### Brève synthèse

Les réserves de la forêt atlantique de la Côte de la découverte, situées entre le littoral sud de l'Etat de Bahia et le littoral nord de l'Etat d'Espirito Santo, comprennent huit aires protégées séparées qui contiennent des vestiges représentatifs de la forêt atlantique (la forêt humide ombrophile dense) et d'un type de végétation arbustive côtière associé (« restingas ») à la forêt atlantique. Trois parcs nationaux (Descobrimento, Monte Pascoal et Pau Brasil), deux réserves biologiques fédérales (Sooretama et Una), ainsi que trois réserves particulières (Veracruz, Pau Brasil/Ceplac et Linhares) s'étendent sur une superficie totale de presque 112,000 hectares. Ce bien contient une grande richesse biologique et illustre l'évolution des rares régions restantes de forêt atlantique dans le nord-est du Brésil. Avec un haut taux d'endémisme et un stade évolutif de grand intérêt pour la science et la conservation, sa biodiversité témoigne d'anciens liens avec les grands écosystèmes forestiers du continent, aujourd'hui interrompus.

**Critère (ix):** Il est reconnu que les processus en cours dans l'évolution de cette région exceptionnellement diverse sont le résultat du mélange de l'endémisme régional de la forêt atlantique avec des éléments de l'écosystème amazonien, observés particulièrement parmi les espèces de plantes et d'oiseaux. Dans le passé, des couloirs existaient entre ces deux grands écosystèmes, aujourd'hui interrompus, qui ont probablement contribué à la très grande richesse de la flore qui s'y trouve avec beaucoup d'espèces endémiques et rares, parfois limitées à des fragments. Les huit aires protégées qui constituent le site conservent des environnements anciens peu modifiés et des processus écologiques naturels originaux; un archipel forestier qui révèle une structure de l'évolution de très grand intérêt pour la science et pour la conservation.

**Critère (x) :** Les réserves de la forêt atlantique de la Côte de la découverte représentent l'une des régions de la forêt tropicale les plus riches de la planète en termes de biodiversité. Environ 20% de la flore mondiale s'y trouve, parmi lesquels 627 espèces de plantes menacées d'extinction. Dans certaines zones plus de 450 espèces d'arbres sur une superficie équivalant à un terrain de football ont été recensés. La faune de la région est représentée par 261 espèces de mammifères y compris 21 de marsupiaux (parmi lesquels 15% sont endémiques et 15% menacés), 620 d'oiseaux (19% menacés), 280 d'amphibiens et 200 de reptiles. Au total 185 espèces (dont 100 sont endémiques) sont menacées d'extinction, y compris 73 espèces de mammifères dont 21 sont des primates. Parmi les 118 espèces d'oiseaux menacés, 49 sont endémiques. L'ensemble des 16 espèces d'amphibiens qui sont menacés sont endémiques. Sur les 13 espèces de reptiles qui sont menacés, 10 sont endémiques.

### Intégrité

La Côte de la découverte – Réserves de la forêt atlantique est composé de huit aires protégées qui représentent les derniers vestiges de la forêt atlantique conservés dans la région. Ces fragments de dimension réduite ont besoin d'une gestion intensive. Les six aires protégées qui composent ce site sont contiguës, avec deux autres situées dans une proximité raisonnable et reliés par des corridors d'habitats et de zones tampons semi-naturelles. Le bien est entouré d'une zone tampon formée essentiellement de propriétés privées dédiées avant tout à des activités pastorales et à des plantations forestières. La zone tampon est la Réserve de Biosphère de la Mata Atlântica de près d'un million d'hectares qui assure un cadre de gestion global aux zones centrales du site. L'ensemble des aires protégées est entièrement géré pour la conservation et la recherche, et assurent une protection intégrale à la forêt.

### Éléments requis en matière de protection et de gestion

L'organisme responsable de la gestion de la plus grande partie des aires naturelles qui composent le bien est l'Institut Chico Mendes de Conservation de la Biodiversité (ICMBio), organisme fédéral autonome rattaché au Ministère de l'environnement (trois parcs nationaux - Descobrimento, Monte Pascoal et Pau Brasil, deux réserves biologiques fédérales - Sooretama et Una et trois réserves particulières (Veracruz, Pau Brasil/Ceplac et Linhares). Plusieurs autorités de gestion sont concernées par l'utilisation de divers instruments de gestion et de protection au sein des unités de conservation qui composent le bien, y compris l'élaboration et l'exécution des plans de gestion; la formation et le renouvellement des conseils consultatifs; la création de couloirs écologiques et l'établissement d'une mosaïque pour la gestion intégrée des zones protégées. Les principaux défis en matière de protection semblent être l'obligation de contrôler les pratiques de déboisement et de brûlis dans la zone tampon, d'améliorer la coopération avec les Indiens Pataxó de la région, de mettre au point une campagne d'éducation à l'environnement, de considérer la création de nouvelles aires protégées dans la région, et d'obtenir plus de ressources pour la mise en œuvre des recommandations et des plans de gestion. Dans ce contexte, le

gouvernement fédéral et ceux des Etats, en collaboration avec les initiatives privées, cherchent à mettre en œuvre la protection de ces aires par la consolidation de l'infrastructure de base, l'accroissement des ressources humaines et des actions de surveillance.

## Forêt atlantique – Réserves du sud-est (N 893rev)

### Brève synthèse

Les réserves de la forêt atlantique du sud-est sont situées dans les états brésiliens de Paraná et de São Paulo et s'étendent sur près de 470,000 hectares, représentant l'un des domaines de la forêt atlantique brésilienne les plus grands et les mieux conservés, ainsi qu'un des biomes les plus menacés du monde. Les aires protégées qui constituent le site contiennent une grande richesse biologique et représentent une bonne illustration de l'évolution des rares vestiges de forêt atlantique du sud-est du Brésil. La région, qui possède un grand nombre d'espèces rares et endémiques, est exceptionnellement variée. Avec son gradient altitudinal qui va des montagnes à la mer, son estuaire, ses rivières sauvages, ses îles côtières, ses nombreuses cascades et ses phénomènes karstiques, le site présente également un intérêt esthétique exceptionnel.

Le site fait partie du domaine de la Serra do Mar et s'étend à travers la plaine côtière adjacente, qui comprend le complexe estuarien d'Iguape-Cananéia-Paranaguá. Ce mélange d'habitats, depuis les sommets des chaînes de montagnes jusqu'aux vastes étendues de plages encore désertes, garantit sa grande diversité. Cependant, c'est l'ensemble de ces écosystèmes et de ces paysages qui exprime le caractère unique de la région.

**Critère (vii):** Le site présente l'une des plus grandes zones continues de l'exubérante forêt atlantique du Brésil reliée avec des écosystèmes côtiers. Depuis les montagnes couvertes de forêts denses garnies d'abondantes orchidées et de broméliacées jusqu'aux îles côtières et aux estuaires riches en vastes mangroves, le bien présente un milieu naturel de grande beauté avec une grande diversité biologique terrestre et marine. Plus de 300 grottes (y compris la Grotte Casa de Pedra qui a le plus grand portique du monde avec ses 215 mètres de hauteur, et la Grotte de Santana qui est une des plus ornées), les montagnes accidentées et les paysages côtiers époustouflants contribuent à l'intérêt esthétique exceptionnel de la région.

**Critère (ix):** Historiquement partiellement isolée, la forêt atlantique a évolué vers un biome complexe avec énormément d'espèces endémiques, comprenant environ 70% des espèces d'arbres, 85% des primates et 39% des mammifères. En tant que corridor écologique le plus important de la forêt atlantique, le site représente la meilleure garantie pour la pérennité de l'évolution continue du biome et de ses écosystèmes côtiers et marins associés.

**Critère (x):** La flore et la faune sont extrêmement diverses et très riches. La flore est parmi la plus diverse du monde, et dans certaines régions on peut rencontrer plus de 450 espèces d'arbres par hectare. Quant aux mammifères, on en dénombre 120 espèces, probablement le plus grand nombre au Brésil. Parmi les espèces phares, on compte notamment le jaguar, l'ocelot et le chien des buissons (*Speothos venaticus*). Le bien est riche en primates, dont certains sont très menacés, comme le singe-araignée laineux (*Brachyteles arachnoides*), le plus grand primate des Amériques, et le petit singe-lion à face noire (*Leontopithecus caissara*), décrit seulement en 1990 et endémique de la région. L'avifaune est très diversifiée avec 350 espèces recensées, y compris l'amazone à joues bleues (*Amazona brasiliensis*), classé vulnérable. L'ibis rouge (*Eudocimus ruber*), un grand oiseau au plumage rouge brillant, est un symbole local.

### Intégrité

La zone comprend l'un des vestiges continus de la forêt atlantique les plus importants et les mieux conservés, encore peu affecté par le processus de fragmentation—une des plus grandes menaces pour le biome. Heureusement, les difficultés d'accès, en raison de sa particularité géographique qui combine le relief accidenté de montagnes et de vallées profondes avec des vastes zones humides, aident à sa conservation. Ceci compense le fait que le bien est composé de 25 aires protégées, dont 12 couvrent moins de 5,000 hectares chacune. Cependant, il est important de poursuivre une gestion intensive pour que des corridors et des zones tampons efficaces soient maintenus. Les composants de ce bien se trouvent aussi à l'intérieur d'une région beaucoup plus vaste formant la Réserve de Biosphère de la Mata Atlântica. Cette zone tampon est protégée par la législation fédérale et fonctionne comme un couloir important. Un programme fédéral pour la protection de la forêt atlantique est en place pour réunir les différentes autorités de gestion.

Cette région possède les traces de colonisation les plus anciennes du Brésil et elle est située à proximité de deux des principales métropoles du pays, São Paulo et Curitiba. Bien qu'il y ait une forte pression de spéculation immobilière dans cette région côtière, l'environnement est peu anthropisé. La présence de peuples autochtones et d'autres groupes traditionnels comme les « quilombolas » (communautés formées de descendants d'anciens d'esclaves) et les « caçaras » (communautés des zones côtières) et leurs systèmes de production ont un faible impact.

## Éléments requis en matière de protection et de gestion

Les structures de conservation qui gèrent le site sont rattachées aux organes de l'Etat chargés de l'environnement : l'Institut environnemental du Paraná (IAP) et la Fondation pour la conservation et la production forestière de l'Etat de São Paulo (la Fondation forestière). L'Institut Chico Mendes de Conservation de la Biodiversité (ICMbio), organisme fédéral autonome rattaché au Ministère de l'environnement, est responsable pour les régions sous gestion fédérale. Ces institutions mènent des politiques publiques relatives à la protection du patrimoine naturel, l'utilisation durable des ressources naturelles, la recherche et la gestion de la connaissance, l'éducation environnementale et la promotion de la gestion écologique. Vu l'éventail des responsables de la gestion du bien, il est important qu'un bon système de coordination entre les différents organes et les états concernés soit assuré.

Les menaces principales sont la fragmentation de l'habitat par les routes, les lignes électriques et l'urbanisation. Il n'y avait pas de routes dans les années 1960 et même 70, et les petites routes qui furent ultérieurement construites ne sont plus adaptées pour les besoins d'aujourd'hui, notamment ceux du transport de marchandises. Les projets de construction ou d'élargissement des routes génèrent les problèmes d'une fragmentation accrue, de dérangements, de couloirs de pénétration pour certaines espèces envahissantes et d'une connectivité naturelle réduite. Vu que le bien est déjà composé de vestiges de zones de forêt atlantique, il devient toujours plus urgent d'intégrer le développement de la zone tampon avec la conservation du bien lui-même.

La politique environnementale brésilienne stimule la participation communautaire de la société civile organisée, des entités publiques et privées, à travers des conseils qui aident dans la gestion des aires protégées. La gestion intégrée des aires protégées de la région est également assurée à travers une mosaïque d'aires protégées de la côte sud de São Paulo et de la côte du Paraná (mosaïque de Lagamar). Depuis l'inscription du bien en 1999, plusieurs nouvelles aires protégées ont été créées et d'autres, pré-existantes, ont été agrandies. Le système de "mosaïque d'aires protégées" qui est entré dans la législation depuis 2002 est très positif. Compte tenu du développement dans cette zone, il serait possible de revisiter ce bien pour intégrer toutes les améliorations récentes dans la politique de sa conservation, et également pour envisager des possibilités d'extensions de la surface du bien.

Dans les deux Etats, Paraná et São Paulo, il existe des mécanismes d'incitation financière pour les municipalités qui ont des aires protégées sur leur territoire, ce qui renforce les intérêts locaux pour les zones de conservation.

## Îles atlantiques brésiliennes : les Réserves de Fernando de Noronha et de l'Atol das Rocas (N 1000rev)

### Brève synthèse

D'une beauté indescriptible, le parc marin national Fernando de Noronha, situé à une distance d'environ 340 km au large de la côte brésilienne, est formé par des pics volcaniques d'une chaîne de montagnes submergée. Près de 70% de l'île principale de Fernando de Noronha, 21 îles et îlots de taille inférieure de l'archipel ainsi que la plupart des eaux adjacentes jusqu'à une profondeur de 50 mètres font partie du bien. La Réserve biologique de l'atol das Rocas, seul atoll de l'Atlantique sud, se trouve à environ 150 km à l'ouest de Fernando de Noronha. Il s'agit d'un récif elliptique comprenant deux petites îles entourées par une réserve marine. Avec ces deux aires protégées, le bien couvre une superficie de 42,270 ha et une zone tampon de 140,713 ha.

Au cœur d'une vaste surface océanique, les îles atlantiques brésiliennes forment une véritable oasis d'eaux fécondes qui sont des lieux de reproduction et de subsistance extrêmement importants pour des thons, requins, tortues et mammifères marins et qui jouent un rôle crucial dans le repeuplement piscicole naturel dans la région. Deux espèces de tortues marines s'y reproduisent: la tortue à écailles et la tortue verte, pour laquelle l'Atol das Rocas est considéré comme le deuxième site de reproduction le plus important du Brésil. Ces îles abritent la plus grande concentration d'oiseaux marins tropicaux de l'Atlantique occidental, et comprennent les seuls exemples de forêt atlantique insulaire et de mangrove uniquement océanique dans l'Atlantique Sud. La Baie des Dauphins (Baía dos Golfinhos) héberge une population exceptionnelle de dauphins résidents et, à marée basse, l'atol das Rocas offre un paysage spectaculaire de lagons et de bassins de marée qui grouillent de poissons et d'une grande diversité de crustacés, d'éponges, de mollusques, de coraux, etc.

**Critère (vii) :** La Baie des Dauphins est le seul lieu connu au monde où l'on trouve une si forte population de dauphins résidents. De plus, deux de ses plages, Praia do Sancho et Praia do Leão, ont été élues comme les plus belles du Brésil. L'atol das Rocas présente un paysage marin spectaculaire, surtout à marée basse lorsque le récif exposé qui entoure les lagons et les bassins de marée peu profonds se transforme en aquarium naturel. Les deux sites recèlent aussi de paysages sous-marins exceptionnels reconnus mondialement dans la littérature de plongée spécialisée.

**Critère (ix) :** Les Réserves de Fernando de Noronha et de l'atol das Rocas représentent plus de la moitié des eaux côtières insulaires de l'Atlantique Sud. Ces eaux très productives servent de lieu de nourrissage à des espèces telles que le thon, le marlin, des cétacés, des requins et des tortues marines sur leur voie de migration vers la côte africaine. Oasis de vie marine dans un océan par ailleurs relativement stérile, les îles jouent un rôle

central dans le processus de reproduction, de dispersion et de colonisation des organismes marins à l'échelle de tout l'Atlantique tropical austral.

**Critère (x):** Les Réserves de Fernando de Noronha et de l'atol das Rocas sont des sites clés pour la protection de la diversité biologique et des espèces menacées dans l'Atlantique sud. Constituant une grande proportion de l'habitat insulaire de l'Atlantique sud, le site est essentiel pour le maintien de la diversité biologique marine. Il est important pour la conservation d'espèces menacées de tortues marines, en particulier la tortue à écailles. On y trouve la plus grande concentration d'oiseaux marins tropicaux de l'Atlantique occidental et c'est une Zone d'oiseaux endémiques. Le site présente, en outre, le seul et unique vestige de la forêt atlantique insulaire et la seule mangrove océanique de la région de l'Atlantique sud.

### **Intégrité**

Les éléments terrestres et marins du site sont bien protégés. Les limites du site sont adéquates pour la conservation de la diversité biologique marine, même si le bien est divisé en deux composantes séparées. Sur l'île principale de Fernando de Noronha, tous les habitats terrestres clés font partie du parc et toutes les zones terrestres de l'atol das Rocas se trouvent dans la zone centrale de l'aire protégée.

A Fernando de Noronha, l'écosystème conserve une grande intégrité, malgré le nombre croissant de visiteurs sur l'île et des impacts générés par la présence d'espèces exotiques envahissantes. L'infrastructure et la gestion ont été améliorées pour assurer une meilleure conservation des valeurs de ce site.

Bien que le niveau de préservation des écosystèmes de l'atol das Rocas reste élevé, la surpêche et la présence illégale de bateaux de tourisme constituent les principales menaces pour l'intégrité du site.

### **Éléments requis en matière de protection et de gestion**

Le bien dispose d'une protection juridique adéquate, conférée par plusieurs lois et règlements fédéraux et d'État. L'Institut Chico Mendes de Conservation de la Biodiversité (ICMBio), organisme fédéral autonome rattaché au Ministère de l'environnement est chargée de la gestion et de la conservation du site. Le site bénéficie de deux plans de gestion séparés, un pour Fernando de Noronha et l'autre pour l'Atol das Rocas. Ces plans de gestion traitent de questions telles que le tourisme, la recherche, l'éducation environnementale, la protection et le monitoring de la biodiversité. Pour le Parc national marin de Fernando de Noronha, un Plan de développement durable et de gestion de l'écotourisme a été mis en œuvre avec l'appui de la population locale. Il contrôle rigoureusement le développement de l'infrastructure touristique et les visites, et porte aussi sur les secteurs urbanisés situés à l'extérieur du bien. Ce plan tient compte de la capacité de charge de différentes zones au sein du parc et réglemente la navigation et la plongée.

Quelques unes des menaces principales restent liées à la pêche, à ses implications sur les populations de poissons et sur leur composition en termes d'espèces dans la réserve, ainsi qu'à son effet sur les tortues marines et d'autres espèces. Il est possible qu'une vision et une réglementation de la pêche dans la zone entourant le bien soit nécessaire. Etant donné que Fernando de Noronha a été complètement déboisée (pendant que l'île était utilisée comme prison, puis comme base militaire), la végétation est aujourd'hui soit secondaire soit composé d'espèces envahissantes. L'introduction des rats, souris, chiens, et même des tégus (une espèce de lézard) a eu des effets dramatiques sur l'avifaune. La restauration de la végétation d'origine et l'éradication des espèces envahissantes devrait être un but urgent et prioritaire pour ce site d'importance mondiale. Une bonne gestion du tourisme croissant dans cet environnement fragile est aussi très importante.

Créée en 1979, la réserve biologique de l'atol das Rocas est interdite d'accès au public et gérée pour la protection d'espèces et pour la recherche. Les liens sous-marins entre les deux composantes du bien méritent d'être étudiés. La réserve bénéficie d'une surveillance par la Marine et les Forces aériennes brésiliennes, notamment des activités de pêche et de tourisme.

Pour apporter un soutien financier et renforcer ses activités de gestion de la faune locale, ICMBio a développé deux projets: le Projet Tamar, pour les tortues marines et le projet Spinner Dolphin.

## **COLOMBIA / COLOMBIE**

### **Malpelo Fauna and Flora Sanctuary (N 1216)**

#### **Brief synthesis**

Malpelo Fauna and Flora Sanctuary is a large marine protected area some 500 km off Colombia's Pacific Coast. The terrestrial area of 35 hectares, the barren Malpelo Island and its rocky outcroppings, represents the highest elevation of the enormous underwater Malpelo Ridge. Despite its small size the island is believed to play an important role as an aggregation point for the reproduction of numerous marine species. The vast majority of the property, 857,465 hectares, is a "marine wilderness" constituting the largest no-fishing zone in the Eastern Tropical Pacific. The rugged underwater topography includes steep walls, caves and tunnels, reaching a depth of around 3,400 metres. Jointly with the local confluence of several oceanic currents, this complex terrain is the

basis for highly diverse marine ecosystems and habitats. Due to the remoteness and protection efforts the conservation status of the property is excellent, making Malpelo one of the top diving destinations in the World. Malpelo Fauna and Flora Sanctuary belongs to the Eastern Tropical Pacific Marine Corridor, a marine conservation network, which also includes World Heritage properties in Costa Rica, Ecuador and Panama.

The property hosts impressive populations of marine species, including large top predators and pelagic species, such as Giant Grouper, Billfish and numerous shark species. Major aggregations of Hammerhead Shark, Silky Shark, Whale Shark and Tuna have been recorded. Other biodiversity highlights include 17 marine mammal species, seven marine reptile species, 394 fish species and 340 species of mollusks. Known marine endemics include five fish species and two sea star species. Malpelo Island and its satellite rocks boast a limited but highly specialized terrestrial biodiversity characterized by a high degree of endemism, including five plant species, three reptiles and two arthropods. The rocky outcroppings support large colonies of Nazca Boobies, as well as important populations of Swallow-tailed Gull, Masked Booby and the critically endangered Galapagos Petrel.

**Criterion (vii):** The pristine underwater environment of Malpelo Fauna and Flora Sanctuary featuring dramatic cliffs, rock formations, caves and tunnels, as well as abundant and diverse marine life is of striking natural beauty. The major aggregations of the full range of large top predators are an increasingly rare sight in the World's overfished seas. The geographically extraordinary position at the meeting point of several marine currents, the varied underwater mountain seascape and the excellent state of conservation combine to make the property a World Class "ocean oasis" – and an exhilarating experience for divers.

**Criterion (ix):** Due to its remote location and as the largest no-fishing zone in the Eastern Tropical Pacific, Malpelo Fauna and Flora Sanctuary supports unaltered ecosystems free of major acute threats. The confluence of several marine currents turns the property into an unusual geographical spot with a complex and diverse array of habitats and species. The three major marine communities surrounding Malpelo Island can be distinguished as belonging to the vertical habitats, the coral reefs and the pelagic. Large top predators continue to fulfil their ecological roles and behaviour patterns continue undisturbed, providing unique opportunities for research. The evolutionary processes associated with the extreme isolation, the convergence of several ocean currents and related nutrient regimes and the geological formations are of great ecological importance and scientific interest. Free of alien invasive species, Malpelo Island and the surrounding waters are not only a conservation gem on its own but contribute to the maintenance, dispersal and replenishment of benthic larvae of corals, fish and mollusks and other marine life in the broader Eastern Tropical Pacific. As the wider region is under increasing pressure from overfishing and other threats, the property is thus of enormous conservation and indeed economic importance well beyond its boundaries.

### **Integrity**

In spite of the small surface area Malpelo Island, and the rocks surrounding it, have significant ecological functions - not only as regards the limited but highly interesting and specialized terrestrial fauna and flora but also in terms of the interaction with the marine area. One example through the massive nutrient inputs from the huge bird colonies. The island and its satellite rocks are protected in their entirety, surrounded by a large marine protected area and located in a remote area of the Pacific, all of which contributes to the integrity of the terrestrial property. While there have never been permanent inhabitants, today there is a small rotating unit of the Colombian Navy and a limited and controlled number of visiting divers and scientists. Provided adequate behaviour and strict compliance with precautionary protocols as regards alien invasive species, the prospects of maintaining the integrity of the terrestrial are promising. For the foreseeable future, the prospects for the marine areas are likewise positive due to the large size and remoteness of the property. However, this will depend on enforcement of the adequate legal framework which declares the entire property a no-take area. In the long term, the integrity of Malpelo Fauna and Flora Sanctuary will also be influenced by the management and conservation of the wider Eastern Tropical Pacific, in particular as regards fisheries.

### **Protection and management requirements**

The conservation history of the property started in 1995, when Malpelo Island was designated a Flora and Fauna Sanctuary by Ministerial Resolution, thereby joining Colombia's national protected areas system. One year later, the marine surface area was extended to six nautical miles (roughly eleven kilometres) around the island by another resolution. In 2003, the International Maritime Organisation declared the sanctuary a "Particularly Sensitive Sea Area", making it off-limits to commercial shipping. A major milestone was achieved in 2005, when a new resolution extended the sanctuary from 65,450 to 857,500 hectares, a 13-fold increase. The property is an impressive example of an outstanding place developing from a small terrestrial protected area into a large-scale marine World Heritage property and part of an international site network within only a decade. The sanctuary is managed by the Colombian Protected Areas Agency, which belongs to the Ministry of Environment. Several non-governmental organisations support research, management and funding. The Colombian Navy, the only permanent human presence on Malpelo Island, cooperates in the patrolling of the island and the surrounding waters.

The remoteness of the property means a high degree of natural protection. Yet, management and corresponding funding are required to address current and potential threats emanating from illegal fishing, marine traffic, tourism and alien invasive species. Legally, the entire property is a no-take area but monitoring of illegal commercial and artisanal fishing is needed and depends on costly patrolling and law enforcement both in and around the



sanctuary. Increasing marine traffic resulting in disturbance and posing pollution risks is addressed internationally through the declaration of Malpelo as a Particularly Sensitive Sea Area but likewise requires systematic monitoring. By its very nature, Malpelo Island cannot develop into a major tourist destination and will remain a niche destination for specialized, boat-based diving tourism. Overall visitor numbers and group sizes are controlled in accordance with established limits. While the tourists contribute to conservation financing, the potential remains to be fully realised. Tourists along with scientists and the rotating Navy personnel are the only regular visitors to Malpelo Island so the control of their behaviour will decide whether the small but ecologically highly interesting terrestrial area can be maintained free of alien invasive species. It is undisputed that many, if not most, of the property's marine secrets remain to be discovered suggesting a major potential for research in an almost pristine natural environment.

## HAÏTI / HAÏTI

### Parc National Historique - Citadelle, Sans-Souci, Ramiers (C 180)

#### Brève synthèse

Situé dans la partie septentrionale de la République d'Haïti, le Parc National Historique - Citadelle, Sans-Souci, Ramiers (PNH-CSSR) s'inscrit dans la zone centrale des massifs du Nord qui se prolongent en République Dominicaine. Le PNH-CSSR se trouve à la charnière de l'espace-plaine côtier et l'espace-montagne de l'intérieur. Le choix de construire la Citadelle sur des sommets répondait à une logique stratégique de protection intérieure qui se différenciait de la défense côtière héritée de la colonisation française.

Créé par un décret présidentiel en 1978, afin de préserver le splendide cadre naturel de pics montagneux couverts d'une végétation luxuriante, le PNH-CSSR couvre une superficie de 25 km<sup>2</sup>. Il englobe l'ensemble monumental du Palais Sans-Souci et ses dépendances, la citadelle Henry et le Site des Ramiers, symboles universels de liberté car ils sont les premiers ouvrages construits par des esclaves noirs ayant conquis leur liberté. Pour les Haïtiens, ils représentent les premiers monuments de leur indépendance.

Le 1er janvier 1804, après quatorze ans de luttes menées par les esclaves noirs de l'île contre les colons, Jean-Jacques Dessalines, le principal dirigeant de la révolution, proclamait la République indépendante d'Haïti. "L'empereur" Dessalines confia immédiatement à l'un de ses généraux, Henri Christophe, le soin de construire sur le pic Laferrière, une gigantesque forteresse destinée à protéger la jeune république.

À la fois ouvrage militaire et manifeste politique, la citadelle Henry qui se dresse à 970 m d'altitude est un des meilleurs témoins de l'art des ingénieurs militaires au début du XIXe siècle. Ses plans seraient dus au Haïtien Henry Barré, mais il est probable que la part prise par le général Christophe à leur élaboration fut prépondérante. La Citadelle Henry couvrant une superficie d'environ un hectare est un vaste quadrilatère constitué de quatre corps de bâtiments protégés par quatre tours de flanquement qui s'ordonnent autour d'une cour centrale et forment sur plusieurs étages un front bastionné de batterie et de casernes. Les corps avancés, remarquablement articulés pour permettre un emploi intégral des possibilités de l'artillerie, un système très élaboré de canalisations et de citernes, et des murailles colossales devaient rendre cette citadelle inexpugnable. Elle pouvait abriter une garnison de 2000 hommes, 5000 en cas de nécessité.

À la mort de Dessalines, en 1806, la république d'Haïti fut divisée en deux états : l'état du Sud, gouverné par Pétion, et l'état du Nord, où Christophe se proclama roi en 1811. La citadelle Henry, initialement conçue comme un monument à la défense de la liberté, continua d'être fortifiée par le despote et fut inaugurée en 1813.

Simultanément, le roi Christophe (Henri 1er) entreprenait de se faire bâtir au pied du chemin d'accès à la Citadelle et près du village de Milot, un étonnant palais entouré de jardins : le palais Sans-Souci. Ce grand ensemble architectural répondait à la nécessité de concentrer autour de la résidence royale l'essentiel des fonctions administratives de la nouvelle monarchie. Entourés de massifs montagneux couverts d'une végétation luxuriante, le Palais et ses dépendances étaient groupés en amphithéâtre sur une superficie d'environ huit hectares. L'ensemble architectural comprenait la Résidence royale, c'est-à-dire le Palais proprement dit qu'Henry 1er utilisa comme résidence principale jusqu'à sa mort en 1820 ; les édifices administratifs (le Grand Conseil d'État, le Palais des Ministères, l'Hôtel de la Monnaie, la Bibliothèque) ; la résidence du Prince héritier située à l'Ouest de l'esplanade des réunions officielles; et les écuries, les casernes, les prisons, l'arsenal, les divers ateliers d'entretien, l'hôpital, l'orfèvrerie, etc. L'ensemble était agrémenté de jardins, de bassins et de fontaines. Inauguré en 1813, le Palais Sans-Souci fut pillé à la mort du Roi en 1820. Depuis, abandonné, il fut sévèrement endommagé par le tremblement de terre en 1842. Il demeure néanmoins, par ses dimensions, une ruine imposante et cohérente qui tient sa bizarre beauté d'un accord exceptionnel avec le site montagneux mais aussi du recours à des modèles architecturaux divers et réputés inconciliables. Les escaliers baroques et les terrasses classiques, les jardins étagés où passent les souvenirs de Potsdam et de Vienne, les canaux et les bassins librement inspirés de Versailles donnent à la création du roi mégalomane une indéfinissable valeur onirique.

Le site des Ramiers est un petit plateau où l'on trouve des soubassements et quelques pans de murs d'un ensemble résidentiel protégé par deux paires de redoutes fortifiées. Le site commande un superbe panorama et révèle un aspect inattendu de la Citadelle, détachant sa silhouette massive contre le vide du ciel.

Le Parc National Historique rassemble des témoins uniques en relation directe avec l'Indépendance d'Haïti, issue d'un soulèvement général d'esclaves déportés d'Afrique. La Révolution française de 1789 entraîna de graves bouleversements sociaux dans les petites Antilles comme à Saint-Domingue. Le plus important fut la révolte des esclaves qui aboutit en 1793 à l'abolition de l'esclavage, décision avalisée et généralisée à l'ensemble des colonies françaises par la Convention Nationale six mois plus tard (Première abolition de l'esclavage, le 16 pluviôse an II, [4 février 1794]). Au terme d'une violente guerre, la Déclaration d'Indépendance du pays fut proclamée le 1er janvier 1804. Le nom de "Haïti" (ancien nom taïno de l'île avant l'arrivée des Européens en 1492) fut alors donné au pays. Depuis, Haïti demeure le premier état au monde issu d'une révolte d'esclaves.

**Critère (iv) :** Le Parc National Historique – Citadelle, Sans-Souci, Ramiers est l'exemple éminent d'un type de structures illustrant la situation historique d'Haïti au lendemain de son indépendance.

**Critère (vi) :** L'éphémère République de Jean-Jacques Dessalines revêt une signification historique universelle : c'est le premier état fondé à l'époque contemporaine par des esclaves noirs ayant conquis leur liberté.

### **Authenticité**

L'authenticité du Parc National Historique - Citadelle, Sans-Souci, Ramiers, est indéniable en termes de situation et cadre, d'organisation spatiale, de forme et conception, de matériaux et de substance.

La citadelle Henry a bénéficié d'une intervention majeure consistant à la mise hors d'eau des ruines. Ces travaux réalisés avec l'assistance technique de l'UNESCO, de 1979 à 1990, ont pris le soin de préserver l'intégrité du monument historique en appliquant l'article 9 de la Charte de Venise. Depuis 2013, l'Institut de Sauvegarde du Patrimoine National (ISPAN) a entrepris des chantiers importants concernant le confortement des parties fragiles de l'ouvrage et des travaux d'aménagement destinés à améliorer les conditions d'accueil des visiteurs.

### **Intégrité**

Le contexte environnemental du Parc National Historique - Citadelle, Sans-Souci, Ramiers, maintient encore ses caractéristiques d'origine. L'unité de paysage conféré par la vallée de Dondon et les mornes environnants, qui offre une sélection représentative des différents milieux de la région, constitue un système humain cohérent. La perception topographique de charnière entre l'espace côtier et l'intérieur des terres, qui justifia l'occupation de ce territoire par l'édification de ces constructions, fortifications et palais, est très forte.

Bien qu'endommagés par le séisme de 1842, la citadelle Henry et les fortifications de Ramiers conservent toute leur cohérence d'origine tant du point de vue du bâti que du point de vue de leur fonction militaire.

Quoique pillées à la mort d'Henry 1er et sévèrement endommagées par le séisme de 1842, les ruines du Palais Sans-Souci conservent leurs caractéristiques architecturales essentielles qui renvoient à l'état original: proportions générales, rythme des ouvertures, éléments et détails architecturaux significatifs, matériaux de ses composantes, etc.

Toutefois, d'importantes infiltrations d'eau de pluie constituent une menace pour la stabilité précaire des ruines, en particulier au niveau des fondations.

Le site inscrit est par ailleurs menacé, principalement par la déforestation, l'agriculture de subsistance, l'absence de gestion centrale et l'urbanisation sauvage des villes de Milot et de Dondon, jouxtant ses limites. Une exploitation touristique non organisée pourrait également affecter l'intégrité des ruines du Palais Sans-Souci.

### **Éléments requis en matière de protection et de gestion**

Le Parc National Historique - Citadelle, Sans-Souci, Ramiers est propriété de la République d'Haïti. La protection du site relève de la Loi de 1941 sur la Protection des Monuments et Sites. Le Parc National Historique qui protège la zone monumentale de la Citadelle, du Palais Sans Souci et du Site des Ramiers a été créé par le Décret Présidentiel de 1978. L'ISPAN, agence spécialisée de l'État Haïti créée en 1979, est l'organisme responsable de son administration.

Le Parc National Historique est dirigé depuis 2013 par un Conseil Interministériel de Gestion composé des représentants de six ministères, sous la présidence du Premier Ministre du Gouvernement de la République. Le Secrétariat permanent de ce conseil est assuré par la Direction Générale de l'ISPAN, point focal de l'État.

Au début de 2014, l'ISPAN a mis en place une structure de gestion intérimaire ayant pour mission principale d'élaborer le Plan de Gestion du PNH-CSSR et la structure définitive de sa gestion. Les résultats escomptés, à long terme, sont que le plan de Gestion soit mis en application ; que le PNH-CSSR soit aménagé selon un plan concerté et participatif ; que les monuments historiques soient stabilisés et mis hors d'eau, et qu'ils soient aménagés pour utilisation à des fins culturelles et touristiques.

La clarification des limites du Parc historique par bornage constitue une avancée significative pour la compréhension du site et la préservation de sa valeur universelle exceptionnelle ; toutefois, des travaux supplémentaires sont requis pour définir la zone tampon et pour mettre en place des mesures réglementaires adéquates.

## HONDURAS

### Río Plátano Biosphere Reserve (N 196)

#### Brief Synthesis

Located in the Mosquitia region of Northeastern Honduras, Río Plátano Biosphere Reserve is the largest protected area in the country with 350,000 hectares. The property protects the entire watershed of the Río Plátano all the way from the headwaters in the mountains to the river mouth on the Caribbean Coast. Adding to its importance, the property is an integral part of a significantly larger conservation complex encompassing Tawahka Asangni Biosphere Reserve and Patuca National Park, among other protected areas. Taken as a whole, the conservation complex in Northeastern Honduras is contiguous with Bosawas Biosphere Reserve in neighbouring Nicaragua, jointly constituting the largest contiguous forest area in Latin America north of the Amazon. Besides the remarkable dense rainforests in the mountains, there is a highly diverse array of distinct ecosystems in the coastal lowlands, including wetlands, savannah and coastal lagoons. Recognised as a nature conservation gem, the property also harbours notable archaeological and cultural values, with numerous Pre-Columbian sites and petroglyphs, as well as the living cultures of the various local and indigenous communities. Indigenous peoples and peoples of African descent in and around Río Plátano include the Pech, Tawahka, Miskito and Garífuna, living alongside the Mestizo (Ladino) population.

The property boasts an extraordinary diversity of ecosystems and species. For example, 586 species of vascular plants have been reported in the low lands of the reserve. The over 721 species of vertebrates comprise more than half of all mammals known to occur in Honduras and include the critically endangered Mexican Spider Monkey, the endangered Central American Tapir, the vulnerable Giant Anteater and West Indian Manatee, as well as the near-threatened Jaguar and White-lipped Peccary. The endangered Great Green Macaw, the vulnerable Great Curassow and the near-threatened Guiana Crested Eagle and harpy eagle stand out among the impressive 411 documented species of birds. Taken together, reptiles and amphibians total about 108 species, with several species of poisonous snakes and 4 species marine turtles (Loggerhead, Leatherback, green turtle and hawksbill turtle) . Freshwater fish include the economically important migratory Bobo Mullet or Cuyamel.

**Criterion (vii):** The natural beauty of Río Plátano Biosphere Reserve is a function of the variety of the terrain and landscape types and features. Within its boundaries, the property harbours densely forested mountains reaching 1,418 m.a.s.l. at Punta Piedra, transitioning into savannahs, patches of pine forest and vast wetlands towards the coastal plains of the Caribbean Sea. Along the coast, there are spectacular lagoons, namely Laguna Brus and Laguna Ibans, both full of wildlife, boasting major bird colonies and serving as nurseries for fish and many other forms of aquatic life. Another characteristic element of the landscape are the many rivers and creeks, namely the eponymous Río Plátano and the Sico, Sikre Kipahni, Uhra and Tilasunta Rivers.

**Criterion (viii):** The property comprises two main geomorphological areas. These are the steep mountain range harbouring the headwaters of Río Plátano and the flat to undulating coastal plains. The latter is composed of terraces of recent marine sediments and partly underlain by a belt of infertile deeply weathered Pleistocene quartz sandy gravels. The Río Plátano meanders for some 45 kilometres through the lowlands forming ox-bow lakes, backwater swamps and natural levees. At about 100 m.a.s.l inland the foothills begin abruptly. The rugged granite mountains, which rise to Punta Piedra at 1,418 m.a.s.l. have many steep ridges, remarkable rock formations such as Pico Dama, a 150 metre pinnacle, and many waterfalls, one reaching 150 metres in height. Two thirds of the Plátano River run through a rugged part of the mountains with long stretches of white water. In one cataract in a deep forested gorge the river disappears under massive boulders. The mountains are part of the Cordillera Central, which corresponds to what was the Honduras Intercontinental Depression, during the Cretaceous period.

**Criterion (ix):** As one of a quickly decreasing number of major river basins the Plátano River, the heart of the property, continues to flow freely from its mountainous headwaters to the Sea. Along the altitudinal range the property connects a huge variety of very different ecosystems and habitats. The ecological linkages between these ecosystems and corresponding processes continue to be largely intact at the landscape level. Starting from the Caribbean Sea, there are estuarine and marine systems, sandy beaches, coastal lagoons of varying salinity, mangrove swamps, and pine savannah. Along the many rivers and creeks, there are broadleaf gallery forest traversing the savannahs and serving as natural corridors. The bulk of the property, however, are dense tropical rainforests covering the mountain ranges inland with smaller areas of rare elfin forest on the highest ridges.

**Criterion (x):** As a globally important stronghold of biodiversity Río Plátano harbours at least 586 species of vascular plants in its diverse habitats and there may still be species new to science in remote parts of the property. Across virtually all taxonomic groups, Río Plátano Biosphere Reserve is home to impressive proportions of the fauna of the entire country, in many cases well over half of the number of species occurring. The over 721 species of vertebrates include more than half of all mammals known in Honduras, such as the critically

endangered Mexican Spider Monkey, the endangered Central American Tapir, the vulnerable Giant Anteater and the West Indian Manatee, as well as the near-threatened Jaguar and White-lipped Peccary. Other charismatic species are Puma, Ocelot, Jaguarundi and Margay, Neotropical Otter, White-throated Capuchin Monkey and Mantled Howler Monkey. The endangered Great Green Macaw, the vulnerable Great Curassow and Scarlet Macaw and the near-threatened Guiana Crested Eagle and harpy eagle stand out among the impressive 411 documented species of birds, along with Jabiru, King Vulture and the majestic Harpy Eagle. The 108 species of reptiles and amphibians comprise several rare poisonous snakes and 4 species marine turtles (Loggerhead, Leatherback, green turtle and hawksbill turtle)

### **Integrity**

The Reserve contains a rich variety of ecosystems (28 terrestrial ecosystems and 5 coastal marine), habitats and species of global conservation importance. The Plátano River is a major landscape feature and corridor connecting all the landscape elements from the rugged mountains to the coastal plains. Granting a conservation status to the entire watershed from the headwaters to the river mouth is an ideal set-up from a conservation perspective.

### **Protection and management requirements**

Due to its archaeological importance parts of the Río Plátano basin became subject to protection efforts long before the nature conservation values were formally recognised. In 1960, Ciudad Blanca Archaeological Reserve was created, later re-classified as an Archaeological National Park in 1969, which Río Plátano formally remains to this day. In terms of nature conservation, Río Plátano Biosphere Reserve was originally designated in 1980 by Decree and substantially extended in 1997 by a further Decree. Likewise in 1980, the area was internationally recognized as a biosphere reserve, prior to the inscription on the World Heritage List in 1982. The legal umbrella for all formally protected areas in Honduras is the national General Environmental Law, which establishes the national protected areas system. Further regulations are specified in a corresponding by-law. More recently, the Forest, Protected Areas and Wildlife Law came into force, jointly with the establishment of a new governmental authority for the management and conservation of forests, nature and wildlife. The legal framework supports co-management agreements and involvement of civil society at all levels.

A major management instrument is zonation to distinguish areas requiring strict protection and areas of controlled use of natural resources.

Despite the strong legal protection, Río Plátano Biosphere Reserve has long been suffering from human pressure threatening its integrity. Forests continue to be logged and converted to pasture, agricultural encroachment and illegal resource extraction are widespread. While systematic law enforcement is needed, there is a consensus that addressing the complex environmental challenges requires integrated development strategies, policies and measures for the entire region across sectors and disciplines and involving local communities. The property is located in a remote region of rural poverty, where a balance between conservation and development is needed. Regulation of land tenure and access to resources and effective co-management and sharing of power in decision-making are seen as promising instruments to this effect.

Indigenous peoples in the Mosquitia continue to have a close relationship with their natural environment, as expressed in myths and beliefs but also knowledge and practices. While not a guarantee for sustainable resource use, this can make a valuable contribution to conservation. Ambitious plans for hydroelectric development on nearby rivers may also entail risks for the conservation values and local livelihoods, therefore requiring careful analysis. Future management of Río Plátano Biosphere Reserve should also promote an enhanced understanding and protection of the many archaeological sites hidden in the dense forests.

## **PERU / PÉROU**

### **Historical Centre of the City of Arequipa (C 1016)**

#### **Brief Synthesis**

The historical centre of Arequipa, located in the Province of Arequipa at the foot of three snow-covered volcanoes, represents the integrated response of native hands and building techniques and characteristics with European designs, expressed in the admirable work of colonial masters and native masons. This combination of influences, and the response to an unstable ground due to earthquakes, is illustrated by robust walls, archways, porticos, vaults, courtyards and open spaces, and a strong indigenous influence in the intricate Baroque decoration of its facades.

With its buildings built mostly in white or pink volcanic rock (*sillar*), the historical centre of Arequipa has a distinct character resulting from natural causes and historical context. The pre-existent indigenous populations, the Spanish conquest and the evangelization, the spectacular natural setting and the frequent earthquakes, are all main factors in the definition of Arequipa's identity. The city is the result of its people's endurance against natural processes and the capacity of cultures to overcome crises. Arequipa was founded in 1540 in a valley that had been intensively farmed by pre-Hispanic communities. The layout of an indigenous hamlet has survived close to

the Historical Centre in the district of San Lázaro. The World Heritage site consists of 49 original blocks of the Spanish layout. In addition there are 24 blocks from the colonial period and the 19th century.

Major earthquakes have marked the key moments of change in the development of Arequipa architecture. It is thus possible to identify five periods of development: foundation as a village (1540-82), Baroque splendour (1582-1784), introduction of Rococo and neoclassicism (1784-1868), modern empiricism and neoclassical fashion (1868-1960), and contemporary design. The core of the historic town is the Plaza de Armas (Plaza Mayor) with its archways, the municipality, and the cathedral. At one corner of the plaza there are the church and cloisters of La Compañía, the most representative ensemble of the Baroque mestizo period at the end of the 18th century.

The Monasterio de Santa Catalina is a spectacular religious citadel, integrating architectural styles from the 16th to 19th centuries. The complex of San Francisco includes a small square, the main church, the convent, and the cloisters of the third order. The chapels and convents of Santo Domingo date from the 16th to 18th centuries: San Agustín, La Merced and the church of Santa María; Santa Teresa and Santa Rosa; Puente Real (now Puente Bolognesi) and Puente Grau are also built from sillar.

The merit of Arequipa architecture is not limited to the grandeur of its religious monuments. It is also in the profusion of dignified casonas, characteristic well-proportioned vernacular houses; the centre contains some 500 *casonas*. The urban space penetrates the interior of the city blocks through large doorways and hallways into the courtyards, where the carvings of the facades are reproduced, thus accentuating spatial continuity. Doorways and windows are flanked with pillars and crowned with protruding pediments that blend with the large walls. The ornamental economy of the porches harmonizes with the shape of the vaults, the projecting cornices and the carved corbels. Narrow window openings allow light to enter the semi-circular arches or vaulted roof spaces. Together with the monumental ensembles, streets, and squares the casonas ensure the harmony and integrity of the townscape and give the city exceptional urban value.

The historical centre of Arequipa is therefore characterized by its originality and presence, respect for tradition, influence in the settlement region, privileged geography, foundational layout, its urban scheme and its creation, its materials, construction and decoration systems, and the rich social and cultural mixture.

**Criterion (i):** The ornamented architecture in the historical centre of Arequipa represents a masterpiece of the creative integration of European and native characteristics, crucial for the cultural expression of the entire region.

**Criterion (iv):** The historical centre of Arequipa is an outstanding example of a colonial settlement, challenged by the natural conditions, the indigenous influences, the process of conquest and evangelization, as well as the spectacular nature of its setting.

### **Integrity**

The protection area of the historical centre of Arequipa comprises 166.52 ha, includes all the representative elements and physical characteristics of the urban and architectural compound and its historical evolution, which express the Outstanding Universal Value of the site. The foundational urban layout of the city, its monumental urban environments and religious and civil buildings built between the 17th and the 20th century A.D., make up its historic urban compound character. Likewise, the construction techniques -using volcanic stone and the facade engraving works and others- help preserve original and untouched examples that have survived since the 17th century. The historical centre of Arequipa integrates to the natural and cultural environment of the Chili River valley, crowned by three snow-covered volcanoes and the Pre-Hispanic agricultural terraces in the countryside.

These attributes are still preserved today and maintain a harmonious close relationship without significant alteration. The historical centre of Arequipa is vulnerable to natural phenomena, such as: seismic activity, low intensity volcanic activity and El Niño-Southern Oscillation (ENSO). Also, as a result of the many socio-economic pressures, such as: trade, traffic, and lack of an efficient maintenance, urbanism and control policy, the city centre suffers from overpopulation, slumming of its monuments and traffic jams, high pollution due to emission of toxic gases stemming from the poor condition of its motor vehicle fleet, formal and informal trade, demolition of real estate properties to be used as parking lots and loss of the city's agricultural area. All of these factors, as well as others' negligence and mismanagement, cause severe risks in the fabric of history, which has already resulted in the loss of many buildings with historic value and need to be addressed to sustain the conditions of integrity.

**Authenticity** The planning of the foundational urban layout in the historical centre of Arequipa maintains its originality and much of the urban fabric that expresses the city's mixed character and historical identity, and adds an outstanding urban value to the compound. The construction techniques using volcanic stone and the fine sculptural work of porticos and other structures engraved in *sillar* also witness of the technological development and local mixed Baroque art preserving authentic and unaltered examples that have survived since the 17th century. Churches maintain their religious use; however, many manor houses have lost their original use as residences and have been restored and adapted for administrative and cultural activities.

Despite the uncountable natural catastrophes that the historical centre of Arequipa has suffered, most buildings have been repaired many times and rebuilt to endure the geographic environment without losing their typology or their ornamental characteristics, keeping exceptionally coherent and homogeneous characteristics as a result of the integration of such factors. This was accomplished due to the integration of many makings, to the continuation

of construction traditions (know-how), to the use of local experienced workforce and to the knowledge of local construction materials, like *sillar*, as well as the several documentary sources and graphic records.

The natural and cultural environment of the historical centre of Arequipa –made up by snow-capped volcanoes and the Chili River valley's countryside with Pre-Hispanic agricultural terraces- give the city a spectacular landscape of remarkable beauty closely and harmoniously linked to it.

### **Protection and management requirements**

The historical centre of Arequipa is protected by the National Constitution and by Law N° 28296, General Law for National Cultural Heritage, dated 2004. Supreme Resolution N° 2900, dated 1972, declares of the historical centre of Arequipa as a Monumental Area and the most important buildings with a heritage value as Monuments, and defines its boundaries. Supreme Decree N° 012-77-IT/DS dated 1977 defines the boundaries of the monumental area declares it as intangible as "White, Monumental and Tourism Area". Municipal Ordinance N° 13-99 determines the protection of the historical centre of Arequipa and creates the Municipal Management and Control Superintendence of the historical centre of Arequipa.

The site boundaries (166.52 ha) are clearly established and protected by national regulation. The buffer zone has not been defined yet in spite of the fact that it appears in maps.

Currently, the main religious buildings are generally well preserved. Twenty percent of declared manor houses are completely restored and nearly 30% are in bad condition.

The public areas of the historical centre of Arequipa are the property of the Peruvian Government and are managed by the Provincial Municipality of Arequipa. The Convents and Churches within the historical centre are the property of the Catholic Church and are managed by the Archdiocese of Arequipa and the Religious Orders. The main manor houses classed as Historic Monuments are mainly the property of Public and Private Institutions, a small number are the property of private people.

Managing the entire historical centre of Arequipa is the responsibility of the recently incepted Municipal Management and Control Superintendence, in coordination with the Ministry of Culture. One of its main actions will be to develop and implement a management Master Plan in coordination. However, precise maintenance, management and control policies by agencies involved in preserving and managing the historical centre of Arequipa will need to be developed and enforced to ensure the protection of the World Heritage property.

## **Huascarán National Park (N 333)**

### **Brief Synthesis**

Situated in the aptly named Cordillera Blanca ("White Mountains"), Huascarán National Park protects the heart of the World's highest tropical mountain range in the central Peruvian Andes. The property of 340,000 hectares covers a diverse mountain landscape from around 2,500 m.a.s.l. and culminating in 27 snow-capped peaks above 6,000 m.a.s.l. It includes the spectacular Nevado Huascarán (Mount Huascarán), Peru's highest peak at 6,768 m.a.s.l., as the property named after the 16<sup>th</sup> Century Inca leader Huascar. The snow-covered peaks, the numerous tropical glaciers and glacial lakes, the high plateaus intersected by deep ravines with torrential creeks and the variety of vegetation types form a spectacular landscape of rare beauty.

Appreciating the geomorphology and striking landscape beauty it is easy to overlook that the property also boasts noteworthy ecosystem and biodiversity values. The wide range of ecosystems and vegetation types includes small pockets of montane tropical forests in some of the lower elevations and valleys. Diverse types of Paramo and Puna grasslands and scrublands are the dominant vegetation types in the property, at higher elevations transitioning into tropical tundra. Huascarán National Park is home to the emblematic Vicuña, which was close to extinction in the 1960s but has since recovered, one of the most spectacular conservation successes in South America. Other charismatic mammals include the North Andean Deer, Puma or Mountain Lion, the vulnerable Spectacled Bear and the endangered Andean Mountain Cat. The avifauna boasts more than 100 recorded species, among them the Andean Condor and the Giant Hummingbird. Around 800 plant species have been documented, the most famous being the endangered Queen of the Andes, known for its giant flower-spike. The entire region has been settled for millennia, as evidenced by the many pre-Columbian manifestations in and around the property. Early inhabitants left remnants of agricultural terraces and corrals, as well as roads, dams and water canals. Moreover, there are noteworthy cave paintings, stone tombs and countless artefacts.

**Criterion (vii) :** Huascarán National Park covers a considerable part of the Cordillera Blanca, the highest tropical mountain range in the World. The most overwhelming visual feature is the aggregation of 27 snow-capped peaks above 6,000 m.a.s.l., in particular the Nevado Huascarán or Mount Huascarán, Peru's highest elevation at 6,768 m.a.s.l. From the property's lowest elevations at around 2500 m.a.s.l. to the summits, there is a stunning altitudinal difference of more than 4 kilometres spanning varied and rugged terrain and vegetation. The snow-covered peaks, the tropical glaciers and glacial lakes, the high plateaus intersected by torrential creeks running in deep ravines and the variety of vegetation types form a spectacular landscape of rare beauty. Among the rich flora, the famous Queen of the Andes, known for its colossal inflorescence, stands out. The diverse fauna

includes charismatic mammals and birds, such as Vicuna, Spectacled Bear and Puma, as well as the Andean Condor and the Giant Hummingbird.

**Criterion (viii)** : Huascarán is located in the High Andes and includes high plateaus of Puna grasslands, where 6,000 m peaks and glaciers form a globally notable mountainous region, including over 600 glaciers, almost 300 lakes and 41 tributaries of three important rivers: the Santa, Pativilca and Marañón. Underlying the exceptional landscape of Huascarán National Park is a broad spectrum of remarkable ongoing geological features and processes shaping the impressive geomorphology. The area's geological history and structures are very complex, with serrated peaks and the rugged topography originate from the uplifting of Mesozoic sediments, which were severely folded and faulted by complex tectonic activity at the end of the Cretaceous period and subject to volcanism in the Pliocene and Pleistocene epochs. To this day there is strong seismic activity in the area, major earthquakes, such as in 1945, 1962 and 1970 serving as cruel reminders. Glaciation is a major element in the geomorphology and hydrology of the property. It is estimated that as much a quarter of the volume of glacial ice in the Cordillera may have disappeared since the late 1960s, a process which is likely to further change the visual face of Huascarán National Park.

### **Integrity**

Huascarán National Park covers a large area of rugged mountain terrain featuring a broad array of the natural values of this part and elevation of the Tropical Andes. The even larger biosphere reserve, of which the property constitutes the core zone, covers the Cordillera Blanca almost in its entirety, thereby offering a chance to manage the property at the landscape level. Natural factors contributing to the integrity of Huascarán National Park include the high altitude, severe weather conditions and rough topography. The contemporary impacts from activities and threats within the park are relatively modest and appear to be manageable. More complex threats to the long term integrity of Huascarán National Park stem from the intensively used surrounding valleys outside of the boundaries of the property and interest in mineral extraction. While inscribed on the World Heritage List for its nature conservation values, Huascarán is also renowned for its archaeological values. A significant part of the remains of bygone cultures appears to have escaped looting, benefitting from remote locations and harsh environmental conditions in vast areas of the property. The future integrity of Huascarán National Park will depend on responses to threats to both the natural and cultural values of this extraordinary part of the High Andes.

### **Protection and management requirements**

In the 1960s, the imminent extinction of the overhunted Vicuna, a native Andean camelid, and concerns about the emblematic Queen of the Andes, triggered the creation of a monitoring zone in what is today part of the property. Subsequently, Huascarán National Park was established in 1975 by Supreme Decree under the overall framework of the national legislation on forest and wildlife. The national park also constitutes the core zone of Huascarán Biosphere Reserve since recognition of the latter by UNESCO in 1977. Originally under the authority of the Ministry of Agriculture, Huascarán National Park and the much larger biosphere reserve are today managed by the National Service of Protected Areas, SERNANP, under the Ministry of the Environment. Provided adequate management this allows for a comprehensive conservation and management approach that includes the populated and intensively used valleys adjacent to the property. The management of the property is to be guided by a Master Plan and a local Committee to ensure participation of local communities.

Since the establishment of the national park, a major bottleneck has been inadequate budgets and staffing, restricting the effectiveness of the national park. This renders it difficult to respond to the many challenges Huascarán faces. Within the property there is a small but growing number of residents. Their presence goes back to customary rights predating the national park and requires negotiation of agreements as regards their use of natural resources, in particular livestock grazing. The many communities near the property are growing, most importantly in the Callejón de Huaylas, an intensively used valley just West of Huascarán National Park. Despite seemingly clear legislation banning all mineral resource extraction in national parks, there is not only interest in the resources but there are concessions within the property and plans for dam construction in the property. A potentially less damaging activity could be tourism, as the spectacular landscape and important archaeological values already draws important numbers of domestic and international tourists, including highly specialized mountaineers. While bearing the risk of undesired environmental and cultural impacts, there are opportunities for the local economy, conservation financing and visitor education. An overarching challenge requiring monitoring and preparedness are the quickly receding glaciers, the primary source of life in the property and livelihoods in the intensively used adjacent valleys.

## **Lines and Geoglyphs of Nasca and Pampas de Jumana (C 700)**

### **Brief Synthesis**

Located in the arid Peruvian coastal plain, some 400 km south of Lima, the Lines and Geoglyphs of Nasca and Pampas de Jumana are one of the most impressive-looking archaeological areas in the world and an extraordinary example of the traditional and millenary magical-religious world of the ancient Pre-Hispanic societies which flourished on the Peruvian south coast between the 8th century BC and the 8th century AD. They are located in the desert plains of the basin river of Río Grande de Nasca, the archaeological site covers an area

of approximately 75,358.47 Ha where for nearly 2,000 uninterrupted years, the region's ancient inhabitants drew on the arid ground a great variety of thousands of large scale zoomorphic and anthropomorphic figures and lines or sweeps with outstanding geometric precision, transforming the vast land into a highly symbolic, ritual and social cultural landscape that remains until today. They represent a remarkable manifestation of a common religion and social homogeneity that lasted a considerable period of time.

They are the most outstanding group of geoglyphs anywhere in the world and are unmatched in its extent, magnitude, quantity, size, diversity and ancient tradition to any similar work in the world. The concentration and juxtaposition of the lines, as well as their cultural continuity, demonstrate that this was an important and long-lasting activity, lasting approximately one thousand years. Intensive study of the geoglyphs and comparison with other manifestations of contemporary art forms suggests that they can be divided chronologically from the Middle and Late Formative (500 BC – 200 AD) to the Regional Development Period (200 – 500 AD), highlighting the Paracas phase (400 - 200 BC) and the Nasca phase (200 BC - 500 AD). There are two categories of glyphs: the first group is representational, depicting in schematic form a variety of natural forms including animals, birds, insects, and other living creatures and flowers, plants, and trees, deformed or fantastic figures and objects of everyday life. There are very few anthropomorphic figures. The second group comprises the lines, which are generally straight lines that criss-cross certain parts of the pampas in all directions. Some are several kilometres in length and form designs of many different geometrical figures - triangles, spirals, rectangles, wavy lines, etc. Others radiate from a central promontory or encircle it. Yet another group consists of so-called 'tracks', which appear to have been laid out to accommodate large numbers of people.

**Criterion (i):** The Nasca Lines and Geoglyphs form a unique and magnificent artistic achievement of the Andean culture that is unrivalled in its extension, dimensions and diversity and long existence anywhere in the prehistoric world.

**Criterion (iii):** The Nasca and Pampas de Jumana Lines and Geoglyphs, through its unique form of land use, are an exceptional testimony of the culture and magical-religious tradition and beliefs of the societies that developed in Pre-Columbian South America between the 8th BC and 8th AD centuries.

**Criterion (iv):** The system of lines and geoglyphs, which has survived intact for more than two millennia, evidences an unusual way of using the land and the natural environment that represent a highly symbolic cultural landscape, using a construction technology that allowed them to design large-scale figures with outstanding geometric precision.

### **Integrity**

The Lines and Geoglyphs of Nasca and Pampas de Jumana, with their protection area that extends over 75,358.47 Ha, are well defined and include all physical aspects that convey the Outstanding Universal Value of the property, including its surrounding landscape with which they make up an indivisible unit in a harmonious relationship that has survived virtually unaltered over the centuries.

The Pleistocene alluvial terrace, currently with occasional water activity (only during the El Niño Southern Oscillation - ENSO) and the low rainfall rates (the lowest in the world), determine desert climate characteristics and extreme aridity that have favoured the preservation of the Lines and Geoglyphs of Nasca and Pampas de Jumana. Likewise, harmful human activity has caused no severe impact on the property, so the geoglyphs and cultural landscape have remained intact for nearly two millennia, from their design in the 8th century BC to nowadays. The cleaning and preservation works performed have not affected the property's integrity and have promoted their conservation.

The construction of the South Pan-American Highway, which directly crosses the property, has caused damages in some lines and figures sectors. However, most of the lines and figures are in fair condition.

### **Authenticity**

The authenticity of the Lines and Geoglyphs of Nasca and Pampas de Jumana is indisputable. The method of their formation, by removing the overlying weathered gravels to reveal the lighter bedrock, is such that their authenticity is assured. The creation, design, morphology, size and variety of the geoglyphs and lines correspond to the original designs produced during the historic evolution of the region's and have remained unchanged. The ideology, symbolism and sacred and ritual character of the geoglyphs and the landscape are clearly represented, and their significance remains intact even today.

The concentration and overlapping of lines and figures provide a clear evidence of long and intense activity in the territory, reflecting the millenary magical-religious tradition of this activity by pre-Hispanic societies and the historic continuity in Nasca's Rio Grande river basin. The property also shows different social process stages. Several historic sources and researches confirm the property's originality and its original landscape surroundings still preserved in pristine condition and unaltered.

Even though there have been some impacts caused by natural and human factors, these have been minimal and the geoglyphs maintain their authenticity and express their high symbolic and historic value even today.



## Protection and management requirements

The National Constitution (Art 36) and Law N° 28296, General Law for National Cultural Heritage are the main legal protection tools for the Lines and Geoglyphs of Nasca and Pampas de Jumana,

The protection area boundaries are established by Resolution No. 421/INC as an Archaeological Reserve. However, it has been recommended to redefine those boundaries according to the lines and geoglyphs' real distribution in the field and submit a new proposal to the World Heritage Committee.

Since 1941 foreign scientists (notably Dr. Maria Reiche) and the Ministry of Culture have carried out archaeological investigation, conservation, permanent protection and maintenance measures.

The management and protection of the Lines and Geoglyphs of Nasca and Pampas de Jumana is the responsibility of the Peruvian Government represented by the Ministry of Culture. Documentation, research, protection and dissemination activities are being performed through the implementation of national and international research projects and civil associations, in the territory of Nasca and Palpa provinces.

A management plan "Sistema de Gestión para el Patrimonio Cultural y Natural del territorio de Nasca y Palpa" for the entire area, which is fundamental in the protection of the Lines and Geoglyphs, has been formulated and is being implemented.

## Manú National Park (N 402bis)

### Brief Synthesis

Manu National Park is a globally renowned haven of terrestrial biodiversity at the meeting point of the Tropical Andes and the Amazon Basin in Southwestern Peru. As a vast, geographically and economically isolated watershed, the still roadless property has been spared from most human impacts and is difficult to access to this day. The originally inscribed area was extended to 1,716,295 hectares in 2009, spanning the complete altitudinal gradient of the Eastern slope of the Andes from around 350 to above 4,000 m.a.s.l. The in some places precipitous transition includes high Andean Puna grasslands, mountain cloud forests, Yunga forests and lowland rainforest. Fed from numerous whitewater creeks in the mountains, the Manu River meanders through the lowland forests, before it joins the mighty Madre de Dios River at the Southern edge of the property. As evidenced by Incan and Pre-Incan ruins and petroglyphs, there is a long history of indigenous occupation. The local legend of Paititi, according to which the "Lost City of the Incas" is located within what is today the property, has lured researchers and adventurers alike. Today, various indigenous peoples are the only permanent inhabitants. Some of them are sedentary and in regular contact with the "modern world", while others maintain a semi-nomadic lifestyle as hunter-gatherers in so-called "voluntary isolation" or "initial contact", respectively.

The immense variety of Manu National Park in terms of altitude, microclimate, soils and other ecological conditions results in a complex mosaic of habitats and niches. There is a broad spectrum of plant communities, ranging from the seemingly homogenous but highly diverse Andean grasslands to a range of mostly pristine forest types. Estimates of plant diversity range between 2,000 and 5,000, with some scientists even assuming considerably higher numbers. Records of fauna are similarly impressive with well over 1000 vertebrate species, including at least 200 species of mammals and more than 800 species of birds. Among the mammals are the Giant Otter, 13 different species of primates and eight felids, including Jaguar, Puma and the elusive and endangered Andean Mountain Cat. The wide range of estimates in various taxonomic groups of fauna and flora illustrates how little is known, let alone understood about the diversity of life in the property. In the medium and longer term developments in the surroundings of Manu National Park such as gas extraction and road construction may affect the still mostly pristine property in various ways. Careful planning and management is needed to balance development needs with the integrity of a global conservation gem.

**Criterion (ix):** Manu National Park has a remarkable location at the meeting point of the Tropical Andes and the Amazonian lowland forests. The massive altitudinal gradient has favoured an extremely broad range of ecological conditions and the evolution of highly diverse species and ecological communities. The landscape diversity ranges from high Andean grasslands to various forests types, including pristine montane cloud forests and lush lowland rainforest. The combination of topography, ecological conditions and isolation have permitted the almost undisturbed and ongoing evolution of an extraordinary diversity of life at all levels and a high degree of endemism. In addition to the diversity of life, Manu National Park is also known for an unusually high abundance of fauna across many taxonomic groups.

**Criterion (x):** The extraordinary biodiversity combined with the large size and excellent conservation state makes Manu National Park a protected area of major and global biodiversity conservation importance. More than 200 species of mammals, 800 species of birds, 68 species of reptiles, 77 species of amphibians and impressive numbers of freshwater fish imply a diversity of vertebrates matched only in very few places of the World. Numbers in other taxonomic groups are at least as impressive, for example the more than 1,300 recorded species of butterflies out of probably several hundreds of thousands of arthropods. Thousands of higher plant species are distributed across the diverse ecosystems, habitats and niches. Hundreds of tree species have been identified, often jointly growing within very small areas. For decades, the property has been among the foremost references

for scientific research in tropical ecology. As such the property has significantly helped our understanding of tropical forest ecosystems. Even seasoned researchers are overwhelmed not only by the diversity of life but also by the impressive abundance of vertebrates, including mammals. Despite the major record of research, even today taxonomic studies invariably reveal species unknown to science, including vertebrates, clear evidence that Manu continues to hold many of its biodiversity secrets.

### **Integrity**

The property benefits from a natural protection at a relatively large scale due to its remote location and is considered to be one of the most pristine areas of the Peruvian Amazon. The presence of large top predators in natural population densities, such as Jaguar, Puma, Giant Otter and Harpy Eagle, provides evidence of the near-pristine overall state of Manu National Park. Unlike other parts of the Amazon Manu National Park is believed to be still largely free of alien invasive species. The property is today embedded in a much broader conservation complex comprised of different categories of protected areas and indigenous communal areas, including the contiguous including Alto Purus National Park, Megantoni National Sanctuary, adding another layer of protection. There are functional corridors extending all the way to the Brazilian and Bolivian Amazon. Since the extension of the property, the watershed of the Manu River, a major tributary to the Madre de Dios, is protected in its entirety. Direct human use and interference is minimal and mostly restricted to small numbers of indigenous residents. Provided that they maintain a lifestyle compatible with conservation objectives, their presence is not believed to negatively affect the conservation values of Manu National Park. The integrity of the property could be compromised by inappropriate developments in its vicinity, implying a need to strongly consider the surrounding buffer zone in protection and management efforts.

### **Protection and management requirements**

The geographic isolation and longstanding protection have saved Manu National Park from changes that have been occurring elsewhere in the Peruvian Amazon. The formal conservation history started in 1968, when Manu Nature Reserve was declared. Owing to the dedication of a group of Peruvian conservationists and international supporters the national park was formalized by Supreme Decree in 1973. In 1977, Manu National Park was recognized by UNESCO as the core zone of an even larger biosphere reserve. Both the national park and the biosphere reserve are today under the authority of Peru's national protected areas agency SERNANP under the Ministry of the Environment. The zonation of the government-owned park distinguishes various zones. The by far largest is the Restricted Zone, consisting mostly of undisturbed forests and dedicated exclusively to conservation with controlled access for researchers and de facto accepted indigenous subsistence resource use. Other, smaller zones are a Special Use Zone, two distinct Recreational Zones, a Cultural Zone and a Recuperation Zone covering relatively small Andean areas impacted by livestock and related use of fire. The smallest zone is a so-called Service Zone around Cocha Cashu Biological Station and the various control posts manned by rangers. The management of the property is guided by a Master Plan with a committee comprised of various stakeholders set up to ensure local participation in and contributions to management.

Needs identified in Master Plans in terms of staff numbers, resources and programme activities reveal implementation and funding gaps. The population near the property is scattered into small communities engaged in subsistence and small-scale agriculture and animal husbandry. Both the farming communities and the indigenous residents have a localized but manageable impact on the property. Despite the lack of acute pressures a number of concerns stemming from broader developments in the region are well-documented. New roads across the Andes and smaller roads in the vicinity of the property are likely to induce change by opening access. Indirect impacts from the Camisea Gas Field and exploration near the property require careful monitoring. The development in the buffer zone, while formally not part of the inscribed property, may well be decisive for the future of the property. One particularity of the property is that it protects indigenous residents from external pressures and undesired attempts to contact them. There is a need to define a clear policy for their future.

## **Río Abiseo National Park (C/N 548)**

### **Brief Synthesis**

Río Abiseo National Park is situated on the Eastern slope of the tropical Andes in North-Central Peru as one of the few World Heritage properties inscribed for both cultural and natural values. Across its 274,520 hectares the property not only harbors several forest types and high Andean grasslands known as Paramo but also extraordinary archaeological values spanning at least eight millennia of human history. Scientists consider the forest part of Pleistocene refuge, meaning that flora and fauna are believed to have survived and evolved here during periods of past glaciation. This is a plausible explanation for the astonishing diversity of flora and fauna and the high degree of endemism found in the forests and grasslands. The numerous archaeological sites blend in harmoniously with the forests, canyons, and highlands – against the stunning backdrop of an unspoiled and remote part of the Andes

The number and variety of archaeological sites found indicate a significant level of human occupation, which dates back to the pre-ceramic era around 6,000 years B.C. and continued steadily until before European colonization. The known ruins and other archaeological remains extend over more than 150,000 hectares in and

around the property. Since 1985, 36 archaeological sites have been recorded, 29 in the high elevation grasslands and seven within the continuous montane forests inside the park. Types of features include rock shelters, roads, domestic and ceremonial structures, storage buildings, fences, platforms, agricultural terraces and burial sites. Trade relationships existed with places as far away as the Pacific Coast and what are today the Ecuadorian Andes. Among these archaeological sites, La Playa, Las Papayas, Los Pinchudos, Gran Pajatén, Cerro Central and Manachaqui Cave are worth highlighting.

The property protects the headwaters of three major rivers of the Huallaga River system, a major Peruvian tributary to the Amazon. Both the Andean grasslands and the lowland, montane and cloud forests harbour impressive numbers of rare species, many of which are restricted to the property in their range. Among the particularly noteworthy species is the critically endangered Yellow-tailed Woolly Monkey, one of the largest monkey species in South America, which was long believed to be extinct before its scientific rediscovery in what is today the property. In terms of research, the property's pollen records deserve to be mentioned which contain valuable information on climate dynamics of this part of the Amazon Basin. There is little doubt that future research will reveal new discoveries, both in terms of natural and cultural heritage in an area that benefit from its formal protection status and the natural protection through the remoteness and the rugged terrain.

**Criterion (iii):** The Pre-Hispanic monuments in the valley of Monte Cristo inside the Abiseo River National Park are outstanding examples of prehispanic adaptation, evolution and human settlement in the high altitude cloud forests of the Peruvian Andes Amazon basin, as early as 6,000 BC, evidenced by the Manachaqui cave, until mid-sixteenth century. The extensive and remarkably complete remains are of great importance for the understanding early human occupation in the Andean region.

**Criterion (vii):** Situated in a remote part of the tropical Andes, Río Abiseo National Park harbours entire unspoiled river basin covered by dense and lush forests. Towards the higher elevations, the terrain becomes increasingly rugged and deeply dissected. Eventually cloud forests give room to Andean Paramo grasslands. The dramatic scenic beauty of the varied mountain landscape is complemented by numerous small mountain lakes, pools, rivers, creeks and precipitous canyons. Embedded into the landscape are numerous remarkable archaeological sites, serving as a reminder of the still poorly-understood life of bygone societies in a stunning natural environment.

**Criterion (ix):** The entire tropical Andes, extending across several countries, are known for their global conservation importance, tragically coinciding with increasingly strong human pressure. Within the region, Río Abiseo National Park stands out as a mostly intact protected area benefitting from a high degree of isolation and natural protection by the harsh terrain. Along the huge altitudinal gradient from around 350 to 4,349 m.a.s.l. and influenced by highly variable soils, expositions, rainfall patterns and microclimates the property is home to extremely varied ecosystems and habitats. Broadly speaking, dry forests can be distinguished from four types of moist forests and the high altitude grasslands. Río Abiseo's pristine cloud forests reaching up to 3,600 m.a.s.l. stand out as a rare intact example of a particularly valuable forest type. The property is believed to belong to the Huallaga Pleistocene refugium according to the Pleistocene refuge hypothesis, a prevailing explanation for biodiversity patterns and endemism. Isolated refuges, such as the area today constituting the property, are thought to have enabled not only the survival but also the birth of new species during glacial periods. Still very incomplete records show impressive endemism in plants, invertebrates, amphibians, evidence for ongoing speciation processes. Beyond the scientifically fascinating degree of endemism, Río Abiseo National Park is also an important reference for the study of pollen and climate change in the Amazon Basin.

**Criterion (x):** The numerous intact ecosystems and habitats harbour an impressive species diversity of global significance for conservation and science. Even though only limited research has been conducted in these forests and grasslands, more than 5,000 plant species have been recorded, almost 1,000 in the grasslands alone. The inventory of the fauna is likewise incomplete, taxonomic studies routinely yield species previously unknown to science, including vertebrates, such as reptiles, amphibians and even small mammals. The more conspicuous mammal fauna includes Spectacled Bear, Giant Armadillo, North Andean Deer, Jaguar and several other cat species. Out of the at least five primate species, the critically endangered Yellow-tailed Woolly Monkey stands out, as its future seems intricately linked to the future of Río Abiseo National Park. Hundreds of bird species and countless arthropods are distributed across the many habitats and ecological niches. Endemism is high across many taxonomic groups and many species of flora and fauna are rare, some threatened or even in danger of extinction.

#### Integrity

Much of Río Abiseo National Park cannot easily be accessed; most was practically inaccessible after the original inhabitants abandoned it and until the first modern dirt roads reached the area starting in the 1960s. To this day, very few people enter the more rugged parts of the protected area. The boundaries of Río Abiseo National Park are plausible, as they include a wealth of natural and cultural features of major conservation and research importance. By covering the entire Abiseo River basin, a natural ecological unit enjoys full formal protection; an ideal set-up provided the ambitious laws can be fully enforced. From a natural heritage perspective it is also notable that the full altitudinal gradient from the lowlands to the high Andean grasslands enjoys full protection. While the national park is surrounded by a large buffer zone, none has been formally recognized for the World Heritage property. Given the limited scientific information available about the exact distribution of biodiversity, endemism and archaeological sites, there may be opportunities to further refine the boundaries on the future, as

new information about the distribution of diversity, endemism and archaeological sites becomes available. In addition, archaeological research undertaken to date suggests that the ancient settlement area extends beyond the boundaries of the National Park, into the upper valleys of the Las Palmas and Pajatén rivers. Any eventual application to extend the boundaries of the cultural site to these areas will require careful evaluation, to ensure that adequate protection and management measures are in force.

The property contains all the physical cultural features as well, from rock shelters to housing, ceremonial, production (platforms and warehouses) structure, cemeteries and roads that remain intact despite non-substantial changes primarily due to natural causes, which have caused the erosion of its material integrity. Careful attention must be paid by the responsible authorities to the conservation of excavated sites to address decay factors owing to the climatic and environmental conditions, including the risk of seismic disturbance, as well as those derived from human actions.

### **Authenticity**

The authenticity of the archaeological remains at the Rio Abiseo National Park remains unquestionable. No significant human interventions have occurred since its abandonment in the 16th century until its rediscovery in the 19th century. The geographical configuration, isolation and the inaccessibility of the area have contributed to keeping intact the authenticity of the pre-Columbian sites. These conditions show that the diversity of archaeological sites within the various altitudes and areas of the Rio Abiseo National Park still bear witness to the process and the historical continuity of adaptation, evolution and human development in the cloud forest and the paramo of the high Andes territory, occupied extensive and rationally during a millenary historical period that extends from the pre-ceramic earlier ages until the formation of complex societies in the 15th century.

### **Protection and management requirements**

The lack of infrastructure and the difficult access to most of the property in this remote part of the Andes have been ensuring a substantial degree of protection from disturbance and illegal activities, since the historic settlements were abandoned in the late 16<sup>th</sup> century. In 1983, twenty years after its scientific discovery, the Citadel of Gran Pajatén archaeological site was gazetted as National Cultural Heritage. The same year, Rio Abiseo National Park was established with the primary objectives to protect the exceptional cloud forest, the Abiseo watershed and explicitly the area's cultural values. From the very beginning the Ministry of Agriculture (and subsequently the Ministry of the Environment), and the National Institute of Culture, now the Ministry of Culture, have been sharing the formal management responsibility for the property in an effort to embark on an integrated management approach. While appropriate for the conservation of the extraordinary natural and cultural values of the area, this implies a need for comprehensive coordination, which can sometimes be challenging across different institutions and fields of expertise. Since, and even before, the establishment of the national park management planning documents have been elaborated, at times specified in operational plans. Management planning requires consolidation building upon this experience. Since its creation, Rio Abiseo National Park has received scientific, technical and financial support from national and international research and conservation institutions. This diversified support structure likewise deserves consolidation and, if possible, expansion in the face of funding shortages.

Despite the evident tourism potential of the landscape and the fascinating archaeological sites, public visits are highly restricted and controlled due to the property's fragility. These are some pressures from adjacent settlements, particularly on the western side of the property, mainly agricultural encroachment, firewood extraction, poaching, grazing and associated burning, of grasslands. As settlements and roads are moving closer to the property, the need to actively respond to these pressures on natural resources is likely to intensify. The same holds true for the cultural sites, as the risk of looting augments. Pressures from illegal coca cultivation were noted at the time of inscription and require continued attention. While the national park enjoys a good overall state of conservation, its aquatic systems are telling example of the damaging effects of alien invasive species, even in seemingly intact ecosystems. Introduced only in the 1970s, Rainbow Trout, is now established as the aquatic top predator, altering the diversity and trophic structure of most rivers and creeks, quite possibly an irreversible loss of conservation values.

## **SAINT KITTS AND NEVIS / SAINT KITTS-ET-NEVIS**

### **Brimstone Hill Fortress National Park (C 910)**

#### **Brief synthesis**

Brimstone Hill Fortress National Park is a remarkable example of European military engineering dating from the 17th and 18th centuries in a Caribbean context. Located on the Island of St. Christopher (St. Kitts) the country's largest island, the fortress was built to African slave labour to the exacting standards of the British military to protect the coastline from a sea attack and to provide a safe refuge for the island's citizens. The engineers, who designed the fort, made use of the natural topography of this double-peaked, steep volcanic hill rising 230 metres.

St. Christopher (St. Kitts) as the first West Indian Island to be colonized by Europeans, specifically the French and English, was the scene of many battles in the struggle for dominance in this region. The earliest use of Brimstone Hill for European military purposes was in 1690 when the British installed a canon to drive out the French. The fortress evolved over the next century and served until 1853 when the British military abandoned it and dismantled many of the buildings.

The principal structures of the fortress are situated on different levels of the upper third of the hill and were constructed in dressed stone (basalt) blocks with a rubble core. Local limestone was used as a decorative element for quoins and for facing round doorways and embrasures. Quarries on the middle and lower slopes of the hill provided much of the stone. The heart of the fortress, Fort George also known as the Citadel, dominates one of the twin peaks. Completed towards the end of the 1700s, this is the earliest surviving example of the "Polygonal System" of fortress design. The entire site covers approximately 15 hectares surrounded by a 1.6 km (1 mile) buffer zone.

**Criterion (iii):** Brimstone Hill is an outstanding British fortress, built by slave labour to exact standards during a peak period of European colonial expansion in the Caribbean.

**Criterion (iv):** Because of its strategic layout and construction, Brimstone Hill Fortress is an exceptional and well preserved example of 17<sup>th</sup> and 18<sup>th</sup> century British military architecture.

### **Integrity**

The property is defined by a boundary at base of the hill and as such includes all the various parts of the fortress. Although some buildings were demolished when the site was abandoned by the British in 1853, most of the significant structures dating from the close of the 18<sup>th</sup> century are intact and visible. Many others are in ruins and are stabilized. The various structures and infrastructure including bastions, barracks, cisterns, retaining walls, roadways and pathways occupying different levels, form part of an integrated complex which illustrate various periods of fortress design and construction and speak to the historical forces which led to its erection. No threats to integrity have been identified.

### **Authenticity**

As a historic military defensive ensemble, the fortress possesses a high level of authenticity. Its strategic siting on a hill to protect the coastline is still evident. Stabilization, restoration and reconstruction projects, carried out since 1965, have involved the discreet use of modern materials, usually in combination with traditional materials. Portland cement has been used for the preparation of mortars, but mixed with lime in recommended proportions. New stone used in reconstructions has been worked according to traditional techniques. Where wood has been used for reconstructions and original timbers are unavailable, care has been taken to apply authentic dimensions and wood-working techniques.

In recent years some concessions have been made to contemporary technologies, in the interest of strength and durability and the overarching imperative of maintaining structural integrity. Interventions are however not apparent, and great attention is paid to authenticity of form and design.

Support for authentic restoration is provided by various 18th and 19th century plans of the Brimstone Hill Fortress, architectural drawings of the various buildings, as well as five detailed paintings (c. 1790s). Archaeological investigations (1996-99) documented the role of African slaves in the fortress's construction and maintenance.

Some original buildings have been reconstructed for tourist use such as the visitor's centre housed in the reconstructed Commissariat Building (opened in 1992). Other facilities such as the Prince of Wales Bastion Conference and Banquet Centre (1997) have been added to the site.

### **Protection and management requirements**

The National Conservation and Environment Protection Act (1987) of St. Christopher and Nevis declared Brimstone Hill a National Park (hence protected) and gave the Brimstone Hill Fortress National Park Society (BHFNPS) administrative responsibility. The non-governmental BHFNPS is registered as a not-for-profit company with a Council of Management that includes elected representatives of its members and two Government appointees.

The General Manager for the site, appointed by the Council of the BHFNPS, is supported by an Operations Manager, a Park Manager and sixteen other members of staff. A local security firm provides two personnel every day. Experts in conservation and museum development are engaged as needs arise. The BHFNPS enjoys excellent relationships with the Tourism Authority and Ministry, the Hotel and Tourism Association, local tour operators and the St. Christopher National Trust. It also engages with the National Planning Authority, the Public Works Department and the Police.

Protection of the site is further assured by the National Physical Development Act (2000) which also defines a buffer zone of 1.6 km around the base of the hill. Monitoring of the site is an ongoing process. The Management Team, comprising the three managers and administrative supervisor, meets every three months.

A programme of stabilization and restoration is continuous. In fulfilling the responsibility of providing access to the site and information of its value to all, some structures and spaces have been deployed to facilitate interpretation and provide visitor amenities. Others are used to present or illustrate their original functions. The gradual restoration of various buildings and development have been based on studies and plans such as a 1983

feasibility study supported by the US National Parks Service and two 1989 studies of the restoration of the site and its potential for tourist development.

An overall development plan is augmented from time to time by specific projects as presented by the General Manager and approved by Council, as well as by Recommendations of contracted experts. There are guidelines in place for disaster preparedness and mitigation. A more comprehensive Disaster Plan is contemplated.

There are two significant threats: one social, the other physical. In recent years crime has become a major social problem and Brimstone Hill, like other properties, is vulnerable to attack. Assault upon or injury to visitors could impact disastrously upon the viability of the BHFNPS which depends heavily upon visitation to the site. A strategic plan is being discussed with the local security forces.

Potentially, the most damaging impacts, not only in financial viability, but also on the National Park itself, can result from rock falls and land slippage. Much of the hillside is steep and rocky – including that section from the edge of the citadel overlooking the entrance/exit road below. Sustained heavy rainfall and severe earthquake could send earth or rocks tumbling below. Fortunately, that area is well sheltered and the thick vegetation affords some protection. The long term strategy would be to relocate the road. This would itself affect the integrity of the site. Meanwhile, the area is monitored periodically, especially after sustained heavy rains when, on occasion, the Park is closed to the public.