
Deer Stone Monuments and Related Sites of Bronze Age (Mongolia)

No 1621rev

1 Basic information

Official name as proposed by the State Party

Deer Stone Monuments and Related Sites of Bronze Age

Location

Ikhtamir, Battengel and Öndör-Ulaan counties Arkhangai province
Bürentogtokh county
Khövsgöl province
Mongolia

Brief description

The serial property of four component parts comprises Bronze Age and Early Iron Age deer stone monuments and related sites located within the eastern and northern slopes of the Khangai Ridge in central Mongolia. Dating from about 1200 to 600 BCE, Mongolian deer stones relate to ceremonial and funerary practices. They stand up to four metres tall and are set directly in the ground as single standing stones or in groups. Covered with either highly stylised or representational engravings of stags, deer stones and associated structures are the most important surviving structures belonging to the Bronze Age culture of Eurasian nomadic peoples. Deer stones are almost always located in the context of complexes that include large burial mounds called *khirgisüürs* and sacrificial altars. The serial property's four component parts – Khoid Tamir, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör – are testimony to the culture of Eurasian Bronze Age nomads that evolved and then slowly disappeared between the 2nd and 1st millennia BCE.

Category of property

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

Included in the Tentative List

19 December 2014

Background

The World Heritage Committee examined the nomination of the Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture (Mongolia) at its extended 44th session (Fuzhou, China /Online, 2021):

Decision: 44 COM 8B.14

The World Heritage Committee,

1. Having examined Documents WHC/21/44.COM/8B and WHC/21/44.COM/INF.8B1,

2. Refers the nomination of **Deer Stone Monuments and Related Sites, the Heart of Bronze Age Culture**, Mongolia, back to the State Party to allow it to:

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

3. Recommends that the State Party give consideration to the following:

- Completing the planned survey and documentation work as soon as possible, and extending documentation to include the important elements in the landscape setting,
- Adopting a landscape management approach for the setting of the nominated property,
- Preparing and implementing a risk management plan and a tourism plan,
- Implementing additional conservation measures as part of the national programme,
- Avoiding further re-erection of deer stones without a robust methodology consistent with best conservation practice, and consideration of remedial measures as needed,
- Giving emphasis in the monitoring arrangements to the actual state of conservation of the identified attributes,
- Defining the carrying capacity of the land for grazing, and reviving traditional methods of pasture rotation,
- Establishing a timetable for the removal of the remnant machinery of the disused coal mine in the southwestern part of the buffer zone of the Khoid Tamir component part,
- Improving the interpretive materials for the nominated property,
- Updating the figures of the surfaces of areas and buffer zones according to the revised boundaries for the nominated property;

4. Also recommends that the name of the nominated property be amended according to the revised narrative and that the "Heart of Bronze Age Culture" be removed from the title.

Consultations and technical evaluation mission

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

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

Additional information received by ICOMOS

The State Party provided additional information, responding to the decision of the World Heritage Committee on 28 January 2022.

Date of ICOMOS approval of this report

9 March 2022

2 Description of the nominated property

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

Description and history

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

Mongolia has important monuments and sites associated with the Bronze Age culture of Eurasian nomadic peoples. These include deer stone monuments dating from about 1200 to 600 BCE. These are almost always located in the context of large complexes that include *khirgisüürs* (burial mounds), sacrificial altars and other elements. The Mongolian deer stone monuments and their associated complexes relate to ceremonial and funerary practices.

Deer stones range in height up to four metres, with engravings of stylised stag images or representational images. These elaborately decorated stones are set directly in the ground as single stones or in groups. A deer stone is generally divided into three ornamented anthropomorphic sections: an upper section that includes the head, a middle section that includes the torso, and a lower section that includes the lower body.

Within Eurasia there are three relatively distinct forms of deer stones. The nominated serial property displays two of these: the Mongol-Transbaikal type (Mongolian type), which is characterised by stylised stag images; and the Eurasian type, which does not have images. A third type, called Sayan-Altai, features realistically depicted animals.

Most examples of the latter are today found in the Russian Federation, with only a few in Mongolia.

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

Deer stones are often accompanied by *khirgisüürs*. These are composite sites with round stone mounds at their centres, and square or round stone enclosures (sometimes referred to as fences), with many small stone heaps (or satellites) outside the eastern and southern stone enclosure rows, and sometimes with small stone circles outside the stone enclosures. The largest *khirgisüürs* in Mongolia's Khanui River valley, in the Urtyn Bulag component part, have more than 1,700 small satellite mounds, each potentially containing a horse skull. Such large *khirgisüürs* may reflect the existence of powerful leaders from the period.

There are both human burials and remains of horses (assumed to be sacrificial offerings) at the *khirgisüürs*. The burials and the deer stones are from the same period and are considered to honour departed leaders, with ceremonial sacrifices and feasting occurring at each location. Deer stones with *khirgisüürs* are interpreted as relating to individuals of the highest social position, whereas *khirgisüürs* without deer stones relate to individuals of lesser social status.

The area of the four component parts totals 9,768.03 ha, with buffer zones totalling 32,482.07 ha. The range of petroglyphs found within each component part are described in detail by the State Party.

The large Khoid Tamir component part offers the richest assemblage of surface monuments with *khirgisüürs*, mounds, circles and deer stones. This component part has a spectacular natural setting and includes burials, sacrificial stone structures and a stone quarry.

The Jargalantyn Am component part (the northern most of the two component parts in this area) is a large complex consisting of twenty-six deer stones and related features. This component part has been described as the largest Bronze Age offering complex in Mongolia, including numerous 'horse mounds'.

The Urtyn Bulag component part (the southern Jargalantyn Am component part) is dominated by very large *khirgisüürs* (north and south), possibly the largest in Mongolia.

The Uushigiin Övör component part is the most elaborate and best preserved of the four components. The deer stones are of two types, the Mongol-Transbaikal type and the Eurasian type. Despite some fallen or broken deer stones, the site was not modified by later nomadic

populations as it occurred in the other component parts. Of special note is the presence of a deer stone with its depiction of a human face in a most elaborate form, which has played a key role in understanding the meaning of deer stones.

From the Late to Middle Holocene, the central Mongolian landscape assumed its present mountain steppe character. The herding of domesticated animals began to dominate the way of life, and the low valleys became important for their pastures. With the transition to horse-riding nomadism in the mid-2nd millennium BCE, these valleys were important for pasturing domesticated animals, and there is evidence of significant populations.

In the cultures of northern Eurasia, stone monuments played a key role as representations of power and remembrance. In the Late Bronze Age in Mongolia (1200-600 BCE), deer stone monuments and *khirgisüürs* burials and ceremonial mounds dominated the steppe landscape. Deer stones are widely distributed throughout Eurasia. The State Party estimates that approximately 1,500 have been discovered from Mongolia to Ukraine, and from the Ural Mountains to northern Tianshan. However, more than eighty percent of all known deer stones are in Mongolia.

The steppe and river valleys provided ideal environments for pastoral communities to develop complex societies. There is a uniformity of construction and erection techniques for deer stones and related funeral/ritual monuments throughout the steppe region. The meanings of deer stones are not known, but they are believed to refer to heroic ancestors and relate to the world view and rituals of Late Bronze Age communities of the region.

Radiocarbon analysis, mostly from Mongolian deer stone complexes, has provided dates in the range of the 13th to 7th centuries BCE (Late Bronze Age), correlated to the *khirgisüürs* that are spatially associated with them.

Nomads who lived more than 3,200 years ago erected scores of deer stones and *khirgisüürs* as well as thousands of sacrificial monuments in many places in the Khoid Tamir valley. Five sacrificial structures have been dated to 1200-760 BCE. Subsequently, these sites were used or changed by later peoples. Around the 8th to 7th centuries BCE, later peoples made slab tombs using the deer stones and the sacrificial structures, altering the original form and appearance of these complexes. Following this, in the 6th to 8th centuries CE, ancient Turks used deer stones as parapets and tethers, and as Kurgan steles. Nonetheless, there are fully intact deer stones found within the nominated component parts. These later phases are important manifestations of the cultural sequence of the ancient nomads of the later period of the Bronze Age in Mongolia.

State of conservation

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

dossier documents the state of conservation of all documented deer stones, *khirgisüürs* and other features in the four component parts, noting in particular broken stones and robbed or destroyed elements.

At the Khoid Tamir component part, twenty-four deer stones out of 113 are in their original locations, and sixty-three were re-used in ancient times for slab graves or parapets, and as steles, reflecting the complex cultural history of these sites. Many of the deer stones have been restored or re-erected and are reasonably well-preserved. The State Party has recorded the deer stones that have been broken (44) and where the engravings have become indistinct (52). The central mounds of the *khirgisüürs* have been looted, although the enclosures and stone mounds are well preserved, and the rock art appears to be well preserved. The stone quarry associated with this component part is also well preserved.

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

At the Urtyn Bulag component part, the central mound of the south *khirgisüürs* has been badly damaged by looting, but the surrounding stone fence and the small stone mounds or circles are very well preserved.

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

Based on the information provided by the State Party and the observations of the previous technical evaluation mission, ICOMOS considers that overall the state of conservation of the nominated property is satisfactory.

Factors affecting the nominated property

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

The State Party acknowledges that there are significant pressures of pasture erosion and desertification occurring throughout Mongolia, although this is not particularly severe in the nominated component parts. While grass fires are a possibility and could affect the deer stones, there has been no evidence of damage from past fires.

There are no mining or cultivation activities in the nominated component parts, and the impact from traditional grazing has been minimal. Nonetheless, the carrying capacity of the land for grazing should be defined and monitored.

Various past activities that caused impacts are no longer occurring, such as the use of cement repairs. The re-use of decorated stones for animal shelters has ceased. There are no intrusions from the construction of major roads, settlements or industrial development. There are no commercial activities apart from those related to tourism. At the southwestern part of the buffer zone of the Khoid Tamir component part there is a disused coal mine with remnant machinery.

The Uushigiin Övör component part has a number of fragments of deer stones which may be at risk of being taken by visitors. As noted above, the component part has a wire-mesh protective fence that cuts across the circular enclosure of one of the *khirgisüürs*, and the information provided by the State Party confirms that there are plans to relocate the fence. In the buffer zone just south of the component part boundary is a tent hotel that needs to be relocated outside the buffer zone. The State Party has advised that discussions have commenced with the owner of the hotel in order to resolve this issue.

ICOMOS considers that the factors affecting the property are relatively minor, and with effective management they should be satisfactorily addressed.

ICOMOS considers that the state of conservation is satisfactory and that factors affecting the nominated property are grazing animal impacts, tourism development, disused mining infrastructure in the buffer zone of one component part, and unsympathetic protective fencing.

3 Proposed justification for inscription

Proposed justification

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

- Of both exceptional beauty and cultural significance, the nominated serial property constitutes an outstanding example of Bronze Age megalithic monumental art of the highest quality.
- As masterworks of Late Bronze Age culture, the deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all feature stylised stag images. The images also sometimes feature anthropomorphic elements or various objects, tools and weapons.
- The deer stones and their related *khirgisüürs* demonstrate the artistic vitality and cultural practices of Late Bronze Age Eurasian nomadic peoples.

- The property is an exceptional testimony to the ceremonial funeral practices and culture of the Eurasian Bronze Age nomads, which had evolved and disappeared slowly from the 2nd to the 1st millennia BCE.
- The property portrays an outstanding example of a type of animal-style art and archaeological landscape that represents a significant stage of Bronze Age culture in Central and North Asia.

Based on the revised nomination dossier, the key attributes of the nominated serial property are the deer stones and related sites, including *khirgisüürs* containing human remains, pavement areas, circular or square rock fences, satellite mounds containing horse remains, and satellite boulder ovals or rings/hearthths, as well as a quarry, together with their landscape settings.

Comparative analysis

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

Approximately 1,500 deer stones have been identified throughout Eurasia, although more than eighty percent of these are found in Mongolia. The revised comparative analysis establishes the importance of the selected component parts within the sites identified within Mongolia and neighbouring regions in Russia and China. The State Party has clearly organised the comparative information in a table that indicates the number and range of attributes, the quality of the art and the presence of special art figures. The authenticity and integrity of each compared site is also included.

The analysis notes that a number of large sites identical to the proposed nomination are to be found in parts of the Khangai Range and in the Mongolian Altai. The Khoid Tamir complex is considered to provide the richest assemblage of rock art, deer stones and sacrificial structures, as well as a spectacular natural setting. The Jargalantyn Am and Uushigiin Övör component parts are claimed to have the largest complexes with megalithic deer stones and sacrificial structures from the Bronze Age. The Urtyn Bulag is notable for its large *khirgisüürs*. The analysis contends that the nominated property has greater authenticity and higher integrity than the other Mongolian sites identified and supports the rationale for the selection of the serial component parts.

The comparative analysis considers similar sites outside Mongolia, where more than 300 deer stones have been identified. The State Party notes that the vast majority of these sites do not have a *khirgisüürs* complex and are of the Sayan-Altai type, which is artistically different from the deer stones found in the nominated component parts. The analysis also indicates issues with integrity and authenticity that set the nominated component parts apart from others in the Russian Federation and the Xinjiang Uygur Autonomous Region in northwest China. The

analysis also refers to sites in Eastern Europe, though the anthropomorphic stones found there have no known relationship to the Eurasian deer stone tradition.

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

With regard to other rock art sites in Asia, only the Petroglyphs within the Archaeological Landscape of Tanbaly (Kazakhstan, 2004, criterion (iii)) includes stag images that can be compared with those of the nominated property. A primary difference is the presentation of images on stone steles that are components of funerary and ceremonial sites.

Another framework for comparison relates to burial monuments and sites that have a megalithic character. The analysis notes the presence of many such properties inscribed on the World Heritage List. The analysis suggests that the most relevant comparisons can be made with standing-stone megalithic monuments in Europe and the British Isles dating from the Neolithic and the Bronze Age. While these megaliths are distinctly different and do not have images and engravings, they do have similar associations with rituals, sacrifices and religious beliefs.

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

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

Criteria under which inscription is proposed

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

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

This criterion is justified by the State Party on the grounds that the nominated serial property constitutes an outstanding example of Late Bronze Age megalithic monumental art. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type of human forms wrapped in the body of a great antlered stag, an early 'animal art style' in central Eurasia. Both the deer stones and their

attendant *khirgisüürs* demonstrate the artistic vitality and creative genius of human achievement in prehistoric times.

ICOMOS considers that the deer stones demonstrate a high intellectual or symbolic endowment, and a high level of artistic skill, reflecting the Eurasian nomadic cultures in the Bronze Age. Based on the outstanding creative and visual qualities of the deer stones, ICOMOS considers that this criterion has been demonstrated.

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

This criterion is justified by the State Party on the grounds that the property is an exceptional testimony to the ceremonial funeral practice and culture of Eurasian Bronze Age nomads, which evolved and then slowly disappeared between the 2nd and 1st millennia BCE. The component parts illustrate the shift to the emergence of a horse-riding nomadic society, with increased social hierarchy.

ICOMOS considers that the nominated property is a testimony to the culture of Bronze Age Eurasian nomads. The impressive qualities of the property, with its rich material expressions of culture are indicators of the importance of this testimony. In information provided in January 2022, the State Party further strengthened the evidence in relation to this criterion and provided a more coherent explanation of the relationships between deer stones, *khirgisüürs* and other attributes, the presence and role of human burials, and other archaeological evidence. ICOMOS considers that this criterion is strongly demonstrated.

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

This criterion is justified by the State Party on the grounds that the nominated property illustrates an outstanding example of type of animal style art and monumental heritage complexes that represent a significant stage of Bronze Age history in Central and North Asia. In justifying this criterion, the State Party refers to the landscapes where these complexes are most often located.

ICOMOS considers that there is insufficient evidence to enable the nominated property to be considered outstanding within the framing necessary for criterion (iv), and that the arguments presented are more strongly applied in relation to criteria (i) and (iii). ICOMOS therefore concludes that this criterion has not been demonstrated.

ICOMOS considers that the nominated property meets criteria (i) and (iii), but that criterion (iv) has not been demonstrated.

Integrity and authenticity

Integrity

The integrity of the nominated serial property is based on the location of the deer stone monuments within the context of spatially extended complexes that also include *khirgisüürs* containing human remains, pavement areas, circular or square rock fences, satellite mounds containing horse remains, and satellite boulder ovals or rings/hearths. These elements demonstrate the monumental art and provide testimony to the ceremonial funeral practice and culture of Eurasian Bronze Age nomads.

The nominated property is affected by development in minor ways only. There is some tourism development which is located too close to the Uushigiin Övör component part and the residual impact of abandoned mining in the buffer zone of the Khoid Tamir component part.

ICOMOS considers that the nominated serial property includes all the elements necessary to express the proposed Outstanding Universal Value and the selection of component sites has been justified. The integrity of the whole series and of each component part has been demonstrated.

Authenticity

The authenticity of the nominated property is based on its form, design, materials, location and setting. In support of the statement on authenticity, the State Party has provided information about the archaeological research undertaken within the nominated components.

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

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

Boundaries

The boundaries of the component parts of the nominated property incorporate most identified attributes of the proposed Outstanding Universal Value and appear generally well defined. There are some sites located within the buffer zones, such as a large *khirgisüür* and several deer stones in the western part of the buffer zone of the Uushigiin Övör component part.

The buffer zones generally provide adequate protection for the property. The buffer zones reflect the topography

of the landscape surrounding the component parts, incorporating hills and river valleys. Given the importance of the landscape context of the nominated component parts, these aspects of the buffer zone are important. ICOMOS recommends that the buffer zone to the south of the Uushigiin Övör component part be extended to include the area where there is currently a tent hotel. The hotel should be relocated outside the extended buffer zone, further away from the nominated property.

Based on the revised nomination dossier, there are a total of twenty-two residents in the nominated property, and 179 within the buffer zones.

Evaluation of the proposed justification for inscription

In summary, ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List. The nominated serial property demonstrates criteria (i) and (iii), and the conditions of authenticity and integrity for the whole series as well as of the component parts have been met.

4 Conservation measures and monitoring

Documentation

While some inventory work has been undertaken, additional survey work is required. All of the deer stones have been inventoried, and it is understood that an inventory of the component parts is being updated.

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

There is currently limited documentation about the significant elements of the landscapes in which these complexes are located. As previously recommended, ICOMOS considers that a landscape management approach is necessary for the setting of the component parts, and that continued documentation is required for the important elements in these landscapes.

Conservation measures

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

The Government of Mongolia adopted a National Programme for the Protection of Stone Heritage Properties in Mongolia in 2019 that contains several activities at the nominated property, including the replacement of the poorly sited protective fence at the Uushigiin Övör component part.

While the proposed conservation measures are appropriate, additional measures and remediation should be considered to address a range of issues. These include the past use of cement and the incorrect orientation of some re-erected deer stones. If any deer

stones are still incorporated into slab graves, careful consideration should be given to whether re-erection is appropriate, given the values that may be associated with this later cultural phase. If re-erection of the deer stones is ultimately determined to be appropriate, mitigation measures such as full heritage recording of the slab graves should be undertaken.

ICOMOS observes that there has been a degree of conjecture involved in past reconstructions and the determination of locations for re-erected stones. For this reason, ICOMOS recommends that the State Party does not undertake any further re-erection of deer stones without a robust methodology consistent with best conservation practice.

Monitoring

A baseline condition assessment of the nominated property is being undertaken from 2020 to 2022, and the State Party has provided a suite of key monitoring indicators. These are generally satisfactory, although they could be further improved through introducing new indicators that focus on monitoring the actual state of conservation of the identified attributes, and alignment with the Periodic Reporting questionnaire.

ICOMOS considers that the conservation measures undertaken as part of the national programme are appropriate. No further re-erection of deer stones should be undertaken without a robust conservation methodology. The monitoring arrangements are generally satisfactory, but greater emphasis should be placed on measuring the actual state of conservation of the identified attributes and it would be also advisable that the monitoring system is adapted for easy integration of its outcomes into the Periodic Reporting questionnaire.

5 Protection and management

Legal protection

According to the State Party, the primary mechanisms for protecting the nominated property are the traditional practices undertaken by local people, based on their respect for the old relics and spiritual objects. They also value the grasslands and customarily do not disturb them by digging. This traditional protection has been formalised by means of local people working under contract to the local governing administrations.

Legal protection is provided through the Mongolian Law on the Protection of Cultural Heritage (2014) and the List of Immovable Historical and Cultural Heritage Properties under State, Provincial and Local (Soum) Protection (2008). Protection applies to the four component parts via various provincial and local proclamations and lists. Khoid Tamir and Uushigiin Övör are included in the State list, while Jargalantyn Am and Urtyn Bulag are in provincial and local lists. Uushigiin Övör is also a monument under State Special Protection.

Management system

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

A concise management plan has recently been developed and includes a revised landscape approach and research objectives. The management plan now requires implementation. The administration/management office for the property is responsible for implementing the management plan. Technical assistance and guidelines are to be provided by the Mongolian National Commission for UNESCO, the Mongolian National Committee for World Heritage and the UNESCO-accredited Foundation for the Protection of Natural and Cultural Heritage.

The management plan outlines a range of objectives, details about the management authority and its role, and lists a range of activities (together with responsibilities for implementation and broad timeframes). Long-term objectives are identified, although the State Party has indicated that many are achievable within three to five years.

The State Party indicates that, in accordance with the Law on the Protection of Cultural Heritage, the protection administration will be established and provided with personnel and resources following World Heritage inscription. The State Party has indicated that there will be eighteen to twenty staff members working in the protection administration and that additional expert staff are available in the two provinces.

Some additional management tools have been identified for future development, including a risk management plan for the nominated property. The State Party acknowledges that tourism currently lacks sufficient management and monitoring, and this has been identified in the implementation plan. As noted above, ICOMOS considers a landscape management approach is required for the setting of the nominated property.

In relation to financial resources, there is no body responsible for funding the management and protection of the property. The State Party has identified some funds available in existing budgets as well as possible additional sources. However, limited resources will be an issue for the long-term management of this property.

Visitor management

While there are publications related to the deer stones, no on-site interpretation is provided. However, the archaeological research centre at Khoid Tamir is providing some information for local people and tourists. A tourist information centre is proposed to be built next to the archaeological research centre and a specific route for tourists is being established. Proposed future activities include making a documentary film and publishing a book about the deer stones.

Information provided by the State Party reports that a “comprehensive tourism and risk management plan” has already been formulated, including tourism master plans developed at the province level. The information provided is brief, and ICOMOS recommends continuing attention to these tools, taking into account the guidance available from the World Heritage Centre and the Advisory Bodies.

At the provincial level, a tourism route has been created specifically for the four component parts, and they have been included in other tourism routes. Tourist camps have been constructed and road access has been improved. Visitor facilities and infrastructure will be regulated.

Community involvement

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

Effectiveness of the protection and management of the nominated property

In summary, ICOMOS considers that the protection and management are adequate but should be further improved. The management plan should be fully implemented and additional planning tools should be completed, including more detailed work on the plans for risk management and sustainable tourism. Personnel and resources for the protection administration should be provided, and full implementation of the management plan undertaken as soon as possible.

While some documentation exists for the nominated property, further survey work is required, and the State Party has scheduled this additional work, including important elements in the landscape settings. ICOMOS recommends that the State Party develop a landscape management approach for the settings of the nominated component parts.

Every effort should be made to support the local community in the effective protection and management of the property. The role of the local nomadic peoples is important to the long-term and effective protection and management of the nominated property. This is supplemented by legislative protection at the national level, as well the development of protective instruments at the provincial and local levels.

Visitor management and interpretation are adequate but require improvement. The future impact of visitors is a matter of potential concern, and ICOMOS has recommended the relocation of a tent hotel that is too close to the Uushigiin Övör component part.

6 Conclusion

The Deer Stone Monuments and Related Sites of Bronze Age is a serial property of four component parts that includes examples of high-quality megalithic monumental art created by Eurasian nomadic peoples. These form key parts of larger complexes that include *khirgisüürs* (burial mounds) and other site attributes. The deer stone monuments exhibit an extraordinary variety of both highly stylised and representational engravings of stags.

The decision taken by the World Heritage Committee at its extended 44th session (2021) indicated the potential of this serial property to be inscribed on the World Heritage List and outlined a number of specific issues that needed to be addressed. The State Party should be commended for its attention to these matters within a relatively short timeframe, demonstrating the effectiveness of the refer back mechanism. Each of the critical issues has been satisfactorily addressed, and the longer-term actions have been initiated and are in progress.

Importantly, the State Party has revised the justification for inscription to better establish the significance of the deer stones within their cultural, physical and archaeological contexts. The deer stones and the complexes in which they are located exhibit the outstanding achievements of the monumental artistic traditions of the Eurasian nomadic peoples of the Bronze Age. By placing the deer stones within the context of these important archaeological features and structures, their significance is more coherently presented. Based on the revised information provided, ICOMOS considers criteria (i) and (iii) to be demonstrated. The conditions of authenticity and integrity for the whole series and of each of the component parts have been met.

The comparative analysis has been revised and usefully reorganised by the State Party, allowing the significance of the nominated component parts to be readily understood, justifying their selection.

The boundaries of the component parts and buffer zones are generally appropriate, although ICOMOS recommends that the buffer zone to the south of the Uushigiin Övör component part be extended, and the current tent hotel be relocated.

The state of conservation is generally satisfactory, and the conservation approaches are appropriate. However, it is strongly recommended that no further re-erection of deer stones should be undertaken without a robust conservation methodology. In the case of the monitoring arrangements, a greater emphasis should be put on indicators of the actual state of conservation of the identified attributes.

The protection and management are satisfactory but need improvement in several areas. In response to the recommendation by ICOMOS that a landscape approach to the management of the property be adopted, the State Party has identified landscape elements in each

nominated component part. Continued documentation is recommended including important elements in the landscape setting. Additional planning tools should be further developed such as the plans for risk management and sustainable tourism, taking into account the advice and information available from the World Heritage Centre and Advisory Bodies. Personnel and resources for the protection administration should be provided, and full implementation of the management plan undertaken as soon as possible. Interpretive materials for the property should be improved, and every effort should be made to support the local community in the effective protection and management of the property. A number of additional recommendations are made to support the State Party's continued efforts.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Deer Stone Monuments and Related Sites of Bronze Age, Mongolia be inscribed on the World Heritage List on the basis of **criteria (i) and (iii)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The Deer Stone Monuments and Related Sites are significant and striking examples associated with the Late Bronze Age culture of Eurasian nomadic peoples. Deer stone monuments dated from approximately 1200 to 600 BCE. They are almost always located within complexes that include *khirgisüürs* (elaborated burial mounds), sacrificial altars, human burials and remains of horses, and other elements. Together the four component parts represent the occurrence and diversity of Mongolian deer stone monuments, *khirgisüürs* and satellite structures, and are notable examples of the world's megalithic ceremonial and funeral sites. Deer stones are gigantic steles, ranging in height up to four metres with engravings of stylised stag images. Elaborately decorated the stones are set directly in the ground singly or in groups.

In terms of ornamentation, cultural significance, archaeological and landscape contexts, the Mongolian deer stones are unique within the world's Bronze Age monumental heritage sites. About 1,500 deer stones have been discovered across the Eurasian steppe, classified into three distinct forms based on their artistic traditions. More than eighty percent of these occur in Mongolia, and the images of a stylised stag that cover these stones are without parallels across Bronze Age Eurasia. The significance of deer stone complexes at Khoid Tamir, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör lies not only in their ancient origins and broad distribution, but also in their number, the variety and elegance of their ornamentation, and their intact spatial associations with *khirgisüürs* and other elements.

Criterion (i): The Deer Stone Monuments are of exceptional beauty and cultural significance and are masterworks of Late Bronze Age culture. They constitute an outstanding example of Bronze Age megalithic monumental art of the highest quality, demonstrating the artistic vitality and creative genius of human achievement in prehistoric times. They demonstrate an extraordinary variety in their ornamentation, yet all featuring the imagery of a great antlered stag.

Criterion (iii): The Deer Stone Monuments and Related Sites provide an exceptional testimony to the culture of Eurasian Bronze Age nomads, which had evolved and disappeared slowly from the 2nd to the 1st millennia BCE. In their landscape settings, they are testimony to the ceremonial and funeral practices of these peoples.

Integrity

The serial property includes all the elements necessary to express its Outstanding Universal Value, and the selection of component parts has been justified. The elements within the four component parts reflect the original layout and size of the complexes as they were shaped in the Late Bronze and Early Iron Ages. Aside from some tourism facilities, there are no commercial activities associated with the property. The individual component parts and the serial property as a whole meet the requirements of integrity.

Authenticity

Archaeological studies support the truthfulness of cultural values attributed to the sites within the property. The component parts reflect the original form, design, materials, layout, size, and locations of these complex monuments as they were created and shaped in the Late Bronze and Early Iron Ages. Surviving vestiges and monuments attest to the artistic skills and techniques used in the creation of these complex structures, and the knowledge and talent of the people who built them.

Management and protection requirements

Legal protection is provided through the Mongolian Law on the Protection of Cultural Heritage (2014) and the List of Immovable Historical and Cultural Heritage Properties under State, Provincial and Local (Soum) Protection (2008). Protection applies to the four component parts via various provincial and local proclamations and lists. Khoid Tamir and Uushigiin Övör are included in the State list, while Jargalantyn Am and Urtyn Bulag are in provincial and local lists. Uushigiin Övör is also a monument under State Special Protection.

All component parts derive some protection from their remote locations and their traditional land use by nomadic herders. For the most part, such traditional ways of protection are still observed within these areas.

A concise management plan establishes a shared set of objectives for the four component parts. This has been elaborated with the active participation of local

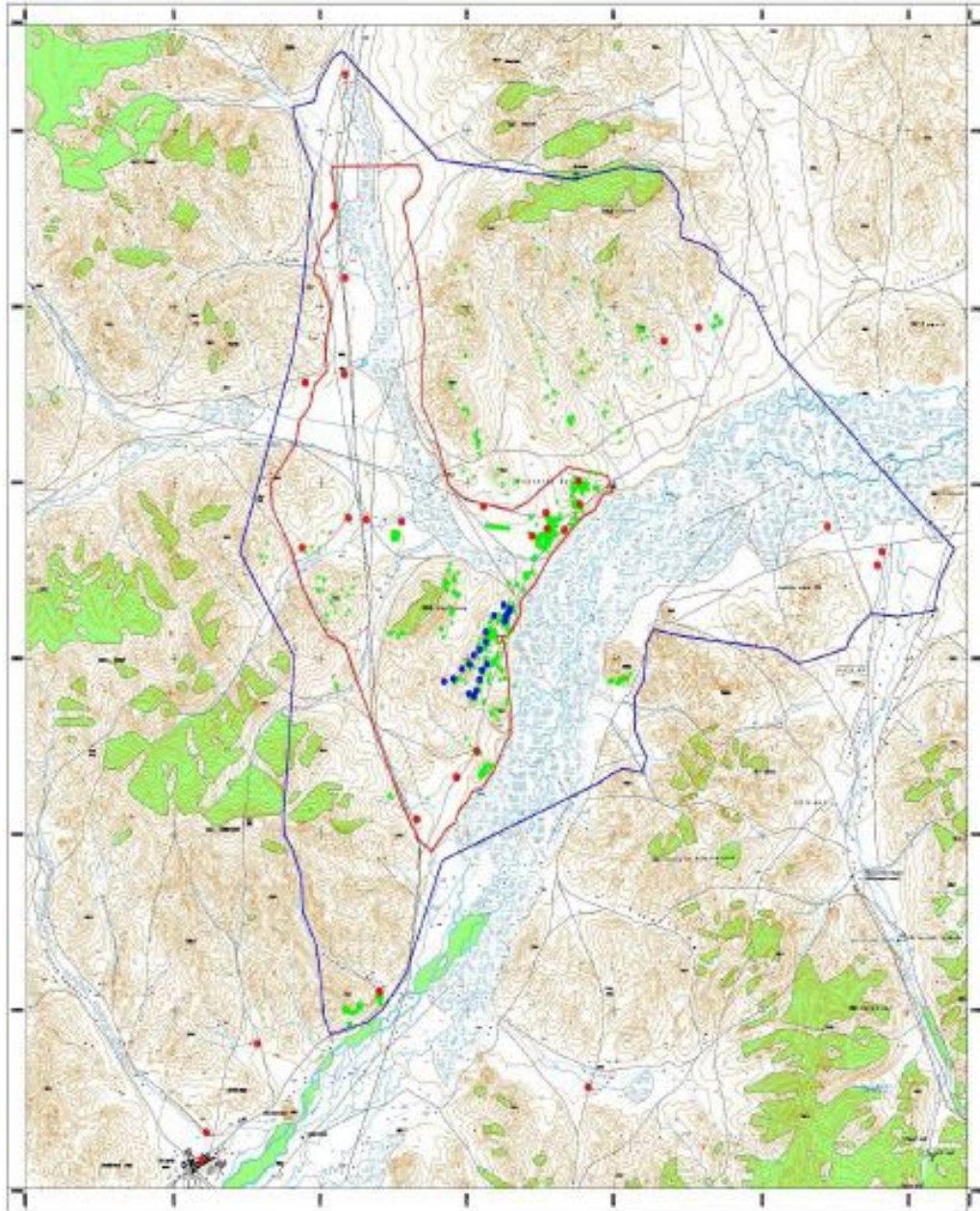
communities and stakeholders. A site management administration unit for the protection and management of World Heritage properties which will ensure the implementation of the integrated management plan has been established. There are a number of aspects of the management system that require continuing development and implementation including documentation, risk management, sustainable tourism planning and monitoring.

Additional recommendations

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

- a) Implementing the management plan fully, ensuring that sufficient personnel and resources for the administration and management are in place,
- b) Completing the survey and documentation of the component parts, including important elements in the landscape setting,
- c) Adopting a landscape management approach for the setting of the property,
- d) Preparing and implementing more detailed risk management and sustainable tourism plans,
- e) Avoiding further re-erection of deer stones without a robust methodology consistent with best conservation practices, and consideration of remedial measures as needed,
- f) Giving emphasis, in the monitoring arrangements, to the actual state of conservation of the identified attributes,
- g) Defining the carrying capacity of the land for grazing, and supporting traditional methods of pasture rotation,
- h) Establishing a timetable for the removal of the remnant machinery of the disused coal mine in the southwestern part of the buffer zone of the Khoid Tamir component part,
- i) Implementing the planned improvements to the interpretation of the serial property,
- j) Relocating the wire mesh protective fence at the Uushigiin Övör component part that currently cuts through one of the *khirgisüürs*,
- k) Continuing the consultations needed to relocate the tent hotel at the Uushigiin Övör component part outside of the buffer zone;

ICOMOS further recommends that the name of the property be revised to read “Deer Stone Monuments and Related Bronze Age Sites” in order to better reflect the revised justification presented by the State Party.



Map showing the boundaries of the nominated property