MONGOLIA

NOMINATION
FOR

DEER STONE MONUMENTS AND RELATED SITES OF BRONZE AGE

2022

DEER STONE MONUMENTS AND RELATED SITES OF BRONZE AGE

Foundation for the Protection of Natural and Cultural Heritage
Mongolian National Commission for UNESCO
Archaeological Research Center, National University of Mongolia
Institute of Archaeology, Mongolian Academy of Sciences

Acknowledgements:

The nomination document was made possible thanks to the generous financial support of UNESCO World Heritage Centre within the Netherlands Funds-in-Trust.
We should like to extend our thanks to all the individuals and institutions that provided us with professional and organizational support in the preparation of the Nomination format.

ANNEXES

ANNEX I:	Text of the Law on Protecting Cultural Heritage of Mongolia
ANNEX II:	Mongolian National Tentative List for World Heritage
ANNEX III:	Management plan of the nominated property - "Deer stone monuments and related sites of Bronze Age"
ANNEX IV:	Extracts of the related decisions, plans and programs
ANNEX V:	Maps
ANNEX VI:	Photos
ANNEX VII:	Documentary Film

Accronyms and Abbreviations:

FPNCH	Foundation for the Protection of Natural and Cultural Heritage
GIS	Geographic Information System
ARC	Archaeological Research Center, National University of Mongolia
IA	Institute of Archaeology, Mongolian Academy of Sciences
ICOMOS	International Council on Monuments and Sites
IUCN	International Union of Conservation of Nature
MAS	Mongolian Academy of Sciences
MC	Ministry of Culture
MNCU	Mongolian National Commission for UNESCO
MNC WH	Mongolian National Committee for World Heritage
MESS	Ministry of Education, Science and Sport
MNET	Ministry of Nature, Environment and Tourism
MJ	Ministry of Justice
MH	Ministry of Health
MRT	Ministry of Road and Transport
NUM	National University of Mongolia
SPA	Special protected Area
UNESCO	United Nations's Educational, Scientific and Cultural Organization
PA	Protection Administration (of World Heritage Property)
KT	Khoid Tamir
JA	Jargalantyn Am
UB	Urtyn Bulag
UÖ	Uushigiin Övör
OUV	Outstanding Universal Value
DS	Deer Stone
Aimag	Province
Soum	Local administration unit sub-ordinate to a province
Khirgisüür	Elaborated burial mounds and sacrificial altars

Contents

EXECUTIVE SUMMARY

State Party

Mongolia

State, Province or Region

Ikhtamir county, Battsengel county and Öndör-Ulaan county of Arkhangai province; Bürentogtokh county of Khövsgöl province

Name of Property

Deer Stone Monuments and Related sites of Bronze Age

Geographical coordinates to the nearest Second

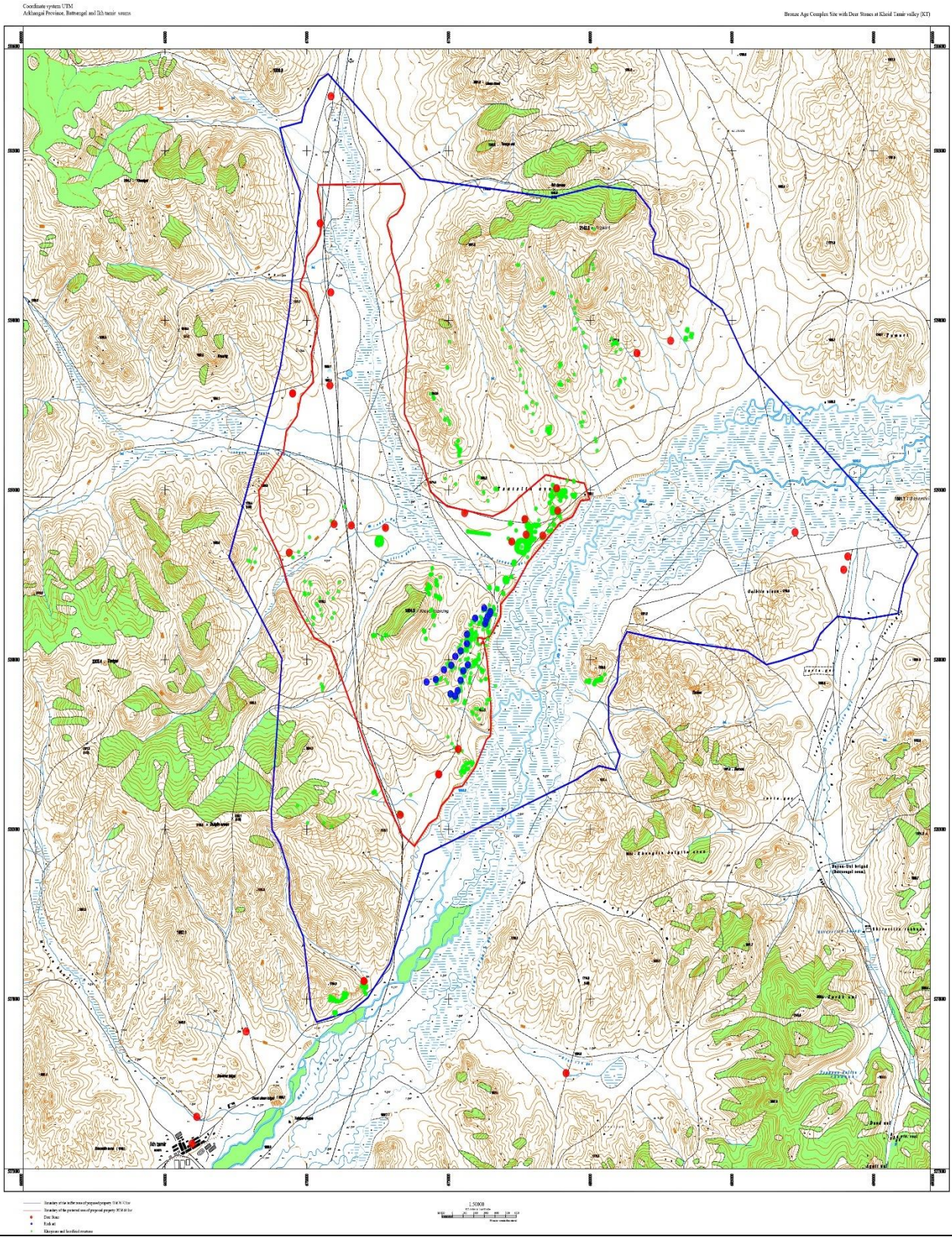
Site name	Region (soum)	Coordinates
Bronze Age Complex Site with Deer Stones at Khoid Tamir valley (KT)	Ikhtamir and Battsengel counties of Arkhangai province	N 47° 45' 37.3" E 101° 20' 34.3"
Bronze Age Complex Site with Deer Stones at Jargalantyn Am (JA)	Öndör-Ulaan county, Arkhangai province	N 48° 10' 20.9" E 101° 5' 36.5"
Bronze Age Khirgisüür complex with Deer Stones at Urtyn Bulag (UB)	Öndör-Ulaan county, Arkhangai province	N 48° 04' 46.5" E 101° 03' 30.8"
Bronze Age Complex Site with Deer Stones at Uushigiin Övör (UÖ)	Bürentogtokh county, Khövsgul province	N 49° 39' 19.3" E 99° 55' 42.0"

Textual description of the boundary (ies) of the nominated property

- The protective area of the nominated property in the Khoid Tamir valley covers 33676.72 hectares. The boundaries pass through: Khüiten dörölj, Tsokhoit dörölj, Tsokhiot uul in the west; Baraan övör uul, Khaalgatyn am, Shonkhor uul, Bayantsagaan valley, Shuvuut tolgoi, Tsorgo uul mountain in the northwest and north; Argalant uul, Manuu tolgoi, Talyn tolgoi, Khoid Tamir river in the northeast and east; Bayan uul, Galbyn ulaan uul, Khoyor modny ukhaa tolgoi, Murui uul, Süül tolgoi, Ulaan chikh uul, Maraat tolgoi, Khoid Tamir river, Züün Jargalantyn am, Günjiin am ravine in the southeast and south (see Map 4).
- The protective area of the nominated component part at the JA covers 100 hectares and the buffer zone covers 5329.12 hectares. The boundaries of the buffer zone pass along the Khanui river in the east; through eastern slopes of Shonkh Mountain in the west, Jargalant stream valley in the north and Urtyn Bulag stream in the south.
- The ptotective area of the nominated component part at the UB covers 364.14 hectares and the sharing the buffer zone as JA component part which covers 5329.12 hectares. The boundaries of buffer zone is the same as at the JA.
- The protective area of the nominated part at UÖ covers only 47.25 hectares and the buffer zone covers 2732.87 hectares. The boundaries pass through: the southern slopes of Ulaan Uushig Mountain in the north, Delger Murun River in the south, Sört valley in the west, and Buduun Tolgoi steppe in the east (see Map 8).

A4 or A3 size map of the nominated property, showing boundaries and buffer zone

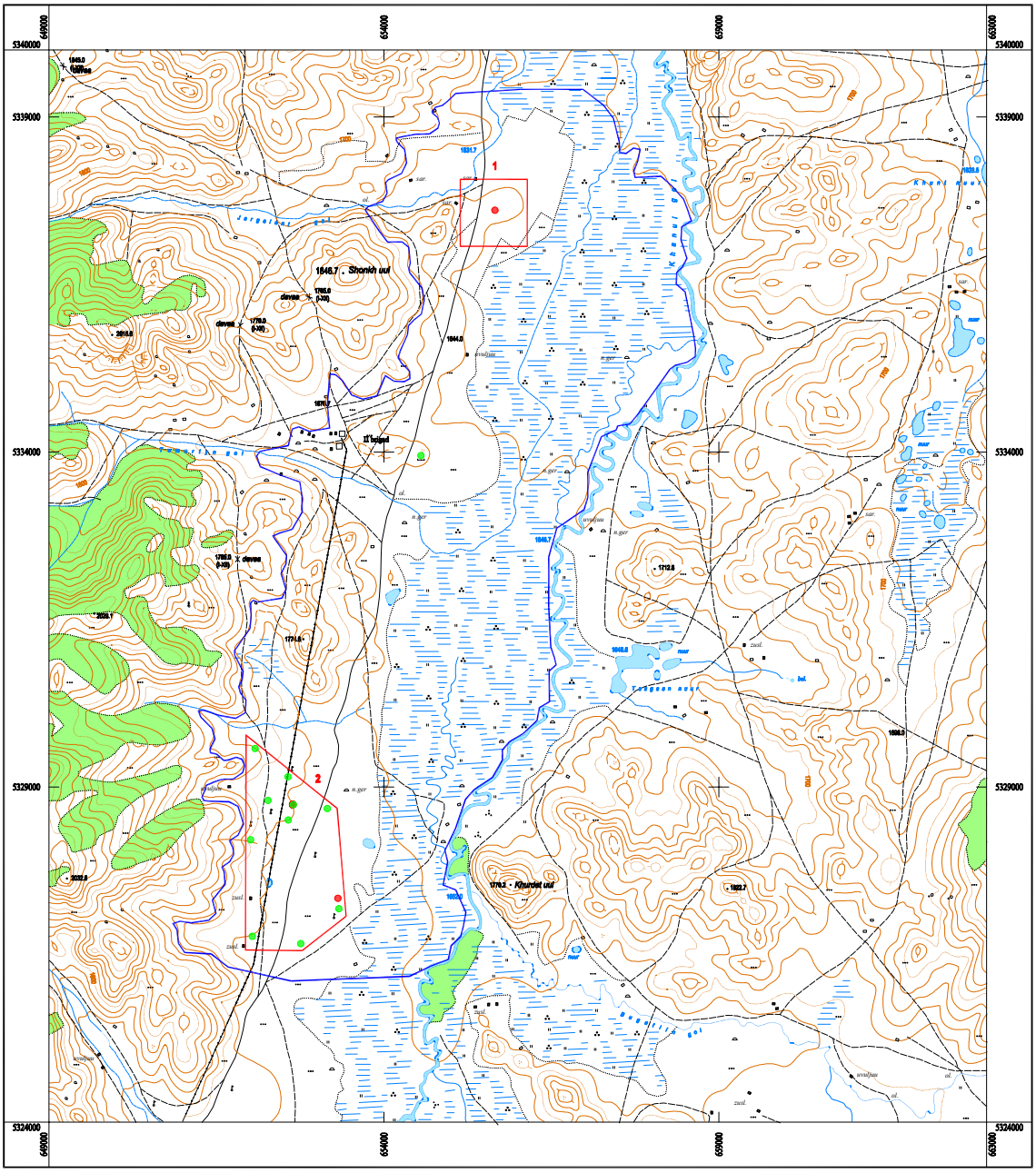
Map 4. Boundaries of Protected Area and its Buffer zone - Bronze Age Complex Site with Deer Stones at Khoid Tamir (1:50,000)



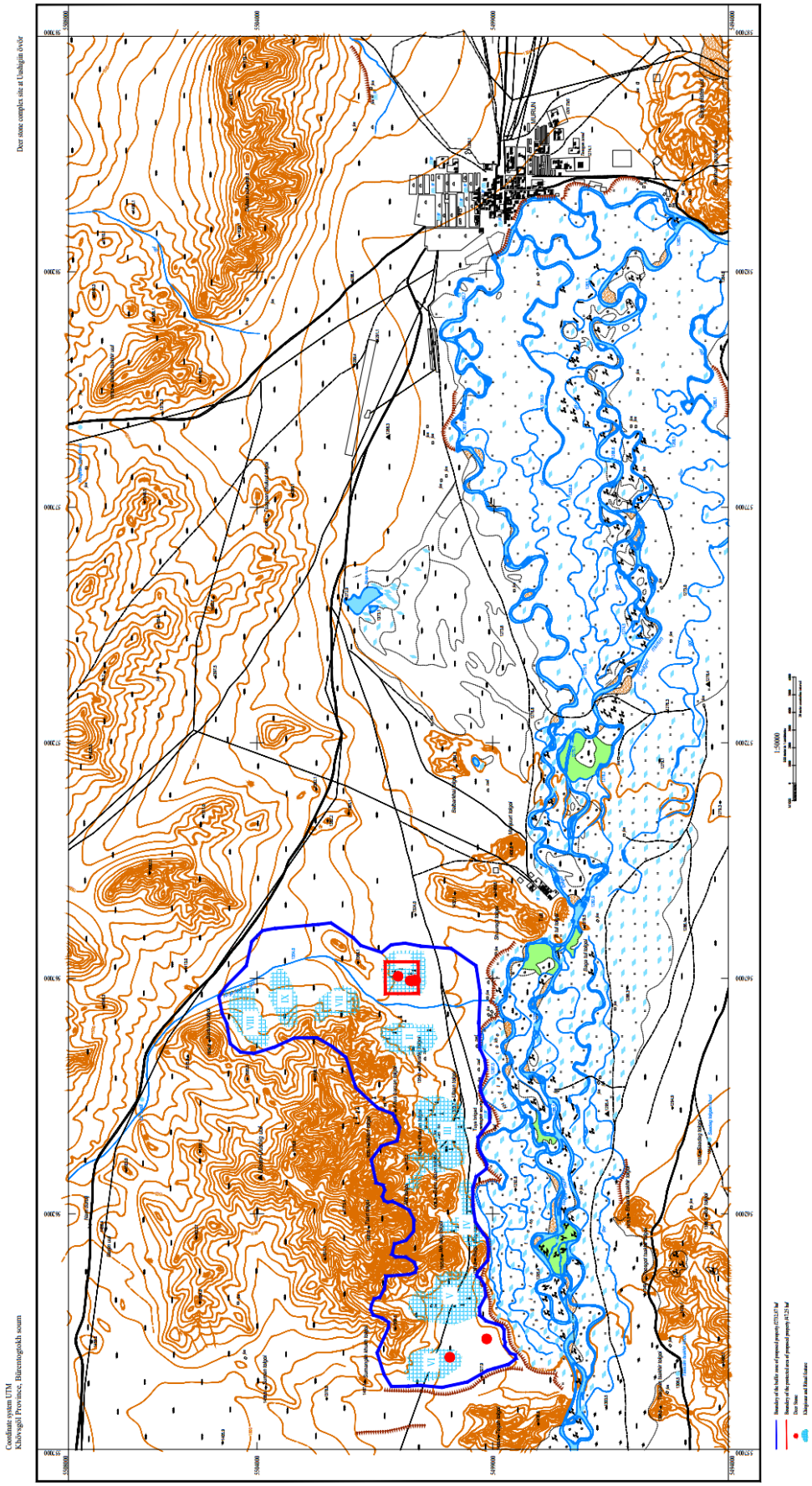
Map 5. Boundaries of Protected Areas and Buffer zone of the Bronze Age Complex Site with Deer Stones at Jargalantyn Am (1:50,000) and Bronze Age Khirgisüür Complex with Deer Sones at the Urtyn Bulag within a single Buffer zone

Coordinate system UTM
Arkhangai Province, Öndör-Ulaan soum

Bronze Age Complex Site with Deer Stones at Jargalantyn Am (JA)



Map 8. Boundaries of Protected Area and its Buffer zone Bronze Age Complex Site with Deer Stones at Uushigiin Övör (1:50,000)


Deer stone complex site at Uushgiin Ovoo
Coordinate system UTM
Khövsgöl Province, Bürentogtokh soum
1:50000

Criteria under which property is nominated (itemize criteria) (see Paragraph 77 of the Operational Guideline)

c-(i), (iii), (iv),

Draft Statement of Outstanding Universal Value (text should clarify what is considered to be the Outstanding Universal Value embodied by the nominated property)

a. Brief synthesis

Mongolia is rich with monuments and complex heritage sites that belong to the Bronze Age culture of Eurasian nomadic people. The most exciting, elegant, and valuable heritage structures among them are deer stone monuments dated from c. 1200 to 600 BCE. These monuments are almost always located in the context of a partially extended complex including khirgisüür (elaborated burial mounds) and sacrificial altars. Deer stones belong to a class of Bronze Age monuments known most frequently as menhirs. The Mongolian deer stone monuments are the most important and remarkable among this world's megalithic ceremonial and funeral culture. The Deer stone is a gigantic stele, ranging in height up to 4 meters with engravings of stylized stag images. Elaborately decorated these massive monoliths set directly in the ground singly or in groups. Vertically it is generally divided into three sections: upper section including the head, middle section including the torso, and lower section including the part under the belt. In terms of ornamentation, cultural significance, archaeological and landscape contexts, the Mongolian deer stone is unique within world Bronze Age monumental heritage sites; but its uniqueness and cultural value lie in other associations as well. The first research on the deer stone was conducted around 100 years ago. Thus far, over 1600 deer stones have been discovered all over the Eurasian steppe area, including over 1300 only in Mongolia. Within Mongolia and Eurasia, there are three relatively distinct forms of deer stone: 1) **Mongol-Transbaikal type** (Mongolian type). Characterized by stylized stag images; 2) **Sayan-Altai type which** is either carved or decorated with relatively realistic images of animals; and 3) **Eurasian type** which is non-imaged and less well articulated as a type. The significance of nominated deer stone and khirgisüür complexes **at Khoid Tamir, Jargalantyn Am, Urtym Bulag and Uushigiin Övör** lies not only in their ancient origins and broad distribution, but also in their number, and the variety and elegance of their ornamentation. The images of a stylized stag that cover these stones and form and composition of khirgisüür are without any parallels across Bronze Age Eurasia.

b. Justification for Criteria

Criterion (i): The proposed parts are both of exceptional beauty and cultural significance – true masterworks of Late Bronze Age culture. They constitute an outstanding example of Bronze Age megalithic monumental art of the highest quality and uniqueness. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type - a human wrapped in the signs of a great antlered stag. Both deer stones and their attendant khirgisüür demonstrate the artistic vitality and creative genius of human achievement in prehistoric times.

Criterion (iii): The proposed parts are a genuine and exceptional testimony to ceremonial, funeral practice, and culture of the Eurasian Bronze Age nomads, which had evolved and disappeared slowly from the 2nd to the 1st millennium BCE.

Criterion (iv): The properties illustrate an outstanding example of a type of animal style art and archeological cultural landscape that represents a significant stage of Bronze Age culture in Central and North Asia of human history during which were built the ancient megalithic funeral and ceremonial structures.

c. Statement of Integrity

The nominated serial properties all reflect the original layout and size of the complexes as they were shaped in the Late Bronze and Early Iron Ages. At this time there are no commercial activities associated with the properties except those related to the visits of tourists. These Bronze Age cultural sites are well preserved and their primary parts have the satisfactory condition of integrity.

d. Statement of Authenticity (for nominations made under criteria (i) to (vi))

Scientifically rational and factual evidence and hypotheses on the credibility and truthfulness of cultural values attributed to these sites were suggested by archaeologists through various scientific works and publications. All nominated sites reflect and truthfully demonstrate 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 skill and techniques used in the creation of these complex structures, and the knowledge and talent of the people who built them.

e. Protection and management requirements (See format in Annex 1)

Within Mongolia, there are traditional conditions and practices from which the nominated properties derive protection. All nominated parts benefit from their remote locations, their distance from urban centers, and their traditional use as pasture and worshipping places for nomadic herders. This land use has been in existence for more than 4000 years. For the most part, such traditional ways of protection and preservation are still understood and observed within the nominated areas. In addition, there exist several regulatory layers dedicated to the formal protection of Cultural Heritage. Cultural heritage properties in Mongolia are protected through both national and local province laws, decrees and regulations. Despite existing regulations for the protection of the OUV of the nominated properties, several management principles and practices need to be strengthened. Concerning the specific requirements of this nomination and its concern with OUV, it is necessary to establish a new site management administration unit for the protection and management of World Heritage properties as a whole and to implement the integrated management plan which was elaborated with the active participation of local communities and stakeholders at all levels of intervention. The attached management plan for the nomination should address the coordination of management of all parts to meet one set of shared objectives for preserving OUV.

Name and contact information of official Local institution / agency

Mongolian National Commission for UNESCO

Address: Ulaanbaatar, Mongolia Sukhbaatar District, United Nations Street, UN Building

Telephone: 976- 11-315652, 70015652,
Fax: 976- 11-322612
E-mail: natcom@unesco.mn

1. IDENTIFICATION OF THE PROPERTY

1.a. Country

Mongolia

1.b. Region

Ikhtamir county, Battsengel county and Öndör-Ulaan county of Arkhangai province; Bürentogtokh county of Khövsgöl province

1.c. Name of Property

Deer Stone Monuments and Related Sites of Bronze Age

1.d. Geographical coordinates to the nearest second

	Name of the component part	**Region(s) (soum)**	**Coordinates** (Latitude and longitude)	**Area of Nominated component of the Property (ha)**	**Area of Buffer Zone (ha)**	**Map N°**
1	Bronze Age Complex Site with Deer Stones at Khoid Tamir valley (KT)	Ikhtamir and Battsengel counties of Arkhangai province	N 47° 45’ 37.3” E 101° 20’ 34.3”	9256.64	24420.08	3, 4
2	Bronze Age Complex Site with Deer Stones at Jargalantyn Am (JA)	Öndör-Ulaan county, Arkhangai province	N 48° 10’ 20.9” E 101° 5’ 36.5”	100	4964.98	3, 5, 6, 7
3	Bronze Age Khirgisüür Complex Site with Deer Stones at Urtyn Bulag (UB)	Öndör-Ulaan county, Arkhangai province	N 48° 04’ 46.5” E 101° 03’ 30.8”	364.14	5229.12	3, 5, 8
4	Bronze Age Complex Site with Deer Stones at Uushigiin Övör (UÖ)	Bürentogtokh county, Khövsgöl province	N 49° 39’ 19.3” E 99° 55’ 42.0”	47.25	2732.87	3, 9, 10, 11
			Total area (in hectares)	9768.03	32,482.07	

1.e. Maps and plans, showing the boundaries of the nominated properties and buffer zones

List of maps (ANNEX V)

Map 1 Location of Mongolia (1:42,847,426, Annex V, p.187)

Map 2 Distribution of Deer stone Monuments in Mongolia (1:13,756,644, Annex V, p.188)

Map 3 Locations of Bronze Age Complex Sites with Deer Stones: at Khoid Tamir, at Jargalantyn Am, Urtyn Bulag and at Uushigiin Övör (1:14,000,000, Annex V, p.189)

Map 4 Boundaries of Protected Area and its Buffer zone - Bronze Age Complex Site with Deer Stones at Khoid Tamir (1:50,000, Annex V, p.190)

Map 5 Boundaries of Protected Areas and Buffer zone of the Bronze Age Complex Site with Deer Stones at JA and Bronze Age Khirgisüür complex site with Deer Stones at Urtyn Bulag (UB) within a single Buffer Zone at Jargalantyn Am (1:50,000, Annex V, p.191)

Map 6 General Plan of the Nominated Component Part - Bronze Age Complex Site with Deer Stones at Jargalantyn Am (1:2,000, Annex V, p.192)

Map 7 Plan of the Nominated Component Part - Bronze Age Complex Site with Deer Stones at Jargalantyn Am (1:500, Annex V, p.193)

Map 8 Plan of the nominated component Part – Bronze Age Khirgisüür complex site with Deer Stones at Urtyn Bulag (Annex V, p.194)

Map 9 Boundaries of Protected Area and its Buffer zone - Bronze Age Complex Site with Deer Stones at Uushigiin Övör (1:50,000, Annex V, p.195)

Map 10 General Plan of the Nominated Component Part - Bronze Age Complex Site with Deer Stones at Uushigiin Övör (1:2,000, Annex V, p.196)

Map 11 Plan of the Nominated Component Part - Bronze Age Complex Site with Deer Stones at Uushigiin Övör – by Volkov (2002) and by Takahama Shu (2005) (Annex V, p.197)

1.f. Area of the nominated properties (Serial Nomination)

Property name	**Area/ha**	**Buffer/ha**	**Total/ha**
Bronze Age Complex Site with Deer Stones at Khoid Tamir valley (KT)	9256.64	24420.08	33676.72
Bronze Age Complex Site with Deer Stones at Jargalantyn Am (JA)	100	4964.98	5064.98
Bronze Age Khirgisüür Complex Site with Deer Stones at Urtyn Bulag (UB)	364.14	5229.12	5593.26
Bronze Age Complex Site with Deer Stones at Uushgiin Övör (UÖ)	47.25	2732.87	2780.12

2. DESCRIPTION

2.a. Description of Properties

Mongolia as the true land of pastoral nomadism is famous for its significant role in the world civilization as connecting power of Eurasian cultural and geographical extremities and global manpower of exchanges of knowledge and know-how. Meantime it is the land of original culture with distinctive and unique characters, which is expressed by rich and diverse cultural heritage. It is the Deer Stones that rank among the most impressive of these ancient monuments; the artwork displayed on them gives yet fascinating glimpses into the skills and sensibilities of the past civilizations that created them. These stone steles are the most ancient artistic and monumental features of nomadic heritage in the territory of Mongolia and they reveal much important information about the history, art, and culture of ancient periods to our actual time. Aside from a need to study these monuments, we must preserve them for future generations.

Many cultures throughout Eurasia created their collective memory facilities to establish fundamental worships and beliefs and shared values, and "there are thousands of ways it is formed and transformed over time" as noted by W. Fitzhugh (2017). Especially in northern Eurasia, stone monuments played a key role in remembrance and cultural landscape formation, representations of power, and social and cultural continuity. Late Bronze Age Mongolia of 1200-600 BCE in which deer stone monuments and khirgisüür burial and ceremonial mounds population dominated the steppe landscape with highly visible reminders of a pastoral nomadic society's history and contemporary traditions (Jacobson 2001; Fitzhugh 2009a, b, c; Turbat et al. 2011).

Mongolia has important monuments and complex heritage sites belonging to the Bronze Age culture of Eurasian nomadic peoples. Amongst these, important heritage structures are deer stone monuments dating from about 1200 to 600 BCE. These monuments are almost always located in the context of spatially extended complexes that include khirgisüürs (burial mounds) and sacrificial altars. The Mongolian deer stone monuments relate to megalithic ceremonial and funerary culture. A deer stone is a gigantic stele, ranging in height up to 4 metres, with engravings of stylized stag images or more depictive representations. These massive, elaborately decorated monoliths are set directly in the ground as single stones or in groups. A deer stone is generally divided into three ornamented anthropomorphic sections: an upper section that includes the head, a middle section that includes the torso, and a lower section that includes the lower body. Within Mongolia and Eurasia there are three relatively distinct forms of deer stones. The nominated serial property displays two of these: the Mongol-Transbaikal type (Mongolian type), which is characterized by stylized stag images; and the Eurasian type, which does not have images and is less well articulated as a type. The third type, Sayan-Altai, displays realistically depicted animals. Most examples of the latter are today found in the Russian Federation, with only a few in Mongolia. The four component parts represent major concentrations of deer stones as well as significant concentrations of surface monuments of a funerary and ceremonial nature. There appears to be a clear association of the deer stones and surface monuments such as khirgisüürs with specific rivers and mountains. The component parts are all within low valleys. Deer stones were often accompanied by khirgisüürs. A khirgisüür is a composite site of a round stone mound at the centre and a square or round stone enclosure (sometimes referred to as a fence), with many small stone heaps (or satellites) outside the eastern and southern stone enclosure rows, and sometimes with many small stone circles outside the

stone enclosure. Some scholars consider khirgisüürs to be animal sacrifice sites related to solar worship. Others consider them to be human tombs.

Deer Stones and related cultural landscape provide striking evidence of how successive nomadic cultures during the Bronze and Early Iron Age were based around those monuments and were anchored to a series of complex sites, represented by some major monuments like Uushigiin Övör, Khoid Tamir valley, Urtym Bulag and the Jargalantyn Am sites.

The Khoid Tamir component part offers the richest assemblage of surface monuments with khirgisüürs, mounds, circles and 48 massive standing stones. The northern most of the two Jargalantyn Am component parts is a large complex consisting of 26 deer stones and related features. This component can be described as the largest Bronze Age offering complex in Mongolia. The southern component part at Jargalantyn Am is dominated by two very large khirgisüürs (north and south), possibly the largest in Mongolia, between which are three deer stones. One of the khirgisüür's 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. The Uushigiin Övör component part contains 24 deer stones. These standing steles are of two types, the Mongol-Transbaikal type and the Eurasian type. They form a complex with other features. This component presents the combination of the early nomads' funerary and ritual traditions.

The Uushigiin Övör component is dated to 1312-810 BCE. Of the four component parts, it is the best portrayal of the early nomadic funerary and ritual tradition. 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.

One could see in the Deer stones the full array of typological development of the nomadic art history from the very beginning of "Animal style" till the flourishing period of Scythian style art. Thus, allows us to say that the Deer Stones are the mirrors of Nomadic art in its most complete and perfect form.

Deer Stones indicate that the steppe and river valleys provided ideal habitats for pastoral communities to develop a complex society with strong expressed mounted warrior cultures. Exceptional uniformity of construction and erecting technics of Deer Stone and related funeral/ritual monuments all over the steppes of Inner Asia from the Khentii mountains toward the Altai mountain range testify in full excellence the cultural and possibly political integration of nomadic tribes into the quasi-imperial formation.

The semantics of deer stones perfectly recovered in recent scholarly literature tell us about a cult of Warrior-Ancestors, which were the core of worship and ritual system of Late Bronze age communities, served as the cementing base of such kind of cultural-political unity. To this extent, deer stones are considered as outstanding monuments of the ritual-ceremonial activities and world view of ancient nomadic peoples of Inner Asia.

Deer Stones and related archaeological landscape consisted of various types of ritual and ceremonial monuments like khirgisüür, satellite features associated with the above and with the DS themselves. Those complex monuments revealed in perfect combination at the sites proposed in the nomination had overwhelming importance in the cultural life of the nomadic population of the Bronze Age.

The khirgisüürs display a remarkable presentation of stone-built structures which together with deer stone monuments demonstrate exceptional completeness of ritual and burial structures evolved within North Asian funeral cultures of nomadic people in the Bronze Age with high symbolic, cosmic endowment. The settings of khirgisüür in combination with their attendant deer stone monuments are always characterized by great physical beauty which is a specific heritage site defined and bounded by rivers, valleys, mountains. Urtyn Bulag component part with majestic examples of khirgisüürs representing

most elaborated and grandious monuments of emerging pastoral society with complex hierarchy.

Many important issues related to the culture of khirgisüür and deer stone monuments and their relationships, meanings, and chronology have been long debated by scholars and even today it has not been fully solved yet. In recent years, progress has been made on the identification and research of khirgisüür and deer stone monuments and links between them.

Recent researches reveal that these deer stone monuments were erected in association with three kinds of stone-built funerary structures: khirgisüür, square-shaped burial mounds, and dozens of sacrificial structures. It is becoming increasingly clear that deer stone is a memorial monument dedicated to the person who was buried in the Khirgisüür or burial structures.

In most cases, Uushigiin Övör and other deer stone sites with khirgisüür deer stone monuments are erected in association with khirgisüür mounds containing human burials in shallow centrally placed pits or stone slab crypts.

In addition to this evidence of their close functional relationship, deer stones and khirgisüür are usually accompanied by sacrificial offerings of horses whose heads, cervical vertebra, and hooves are buried in shallow pits beneath small circular rock mound. Yet, horse sacrifice was a fundamental instrument in both commemorations. Archaeological investigations indicate that ancient nomads who lived within the Mongolian territory began to use horses from the middle of the Bronze Age. From that time, onwards nomadic people have been worshipping a horse as a symbol of power, strength, and friendship. This ancient worship was performed by the creators of deer stone monuments and khirgisüür. Presumably, the horses were sacrificed as offerings to the Deer stone personage by followers and relatives. The researchers agree that "Deer stones always occur with Khirgisüür, but that there are khirgisüürs without deer stones" (Turbat et al. 2021). Indeed, khirgisüürs were created hundreds of times more numerous than deer stones in Mongolia. By contrast, the creation and setting of amazing deer stone monuments were a rare event, almost certainly, commemorating a few individuals of the highest social position.

From the distribution and location of these two types of monuments, as well as sacrificial rituals and traditions associated with them, these monuments are not only interrelated but also were left by a single archaeological culture.

In addition to all above mentioned scientific grounds of the justification that "The deer stones and khirgisüür are part of the same cultural history", there are recent results of the scientific researches and radiocarbon analysis on the horse skulls found from sacrificial structures of deer stone and khirgisüür. These results showed that the chronologies of these skulls are from the same time and belong to 1200-600 BC. Together the two heritage properties constitute elements of a single ceremonial complex that most researchers have interpreted as Honoring departed leaders, one in flesh and bone and the other represented symbolically by an anthropomorphic deer stone, with ceremonial sacrifices and feasting occurring at each location.

Study of Deer Stones

Deet Stones have been studied for nearly a hundred years, with numerous scholarly works being put forth. As a result of more than a hundred years of research, the main issues of deer stone research have been well developed and many issues have been resolved. These include semantics, distribution and classification, the association of khirgisüür and deer stones, their sacrificial structures, and chronological and cultural relationships. However, the fundamental question of the origin and historical destiny has not been fully resolved. Future research will focus on these issues.

Many major books have been published, especially by Russian and Mongolian scholars. Among the Mongolian scholars, D. Navaan in his fundamental monography "Bronze Age of Eastern Mongolia" (Ulaanbaatar, 1975) and D. Tseveendorj as well in his monographs "Monuments of Mongolian Prehistoric period" (Ulaanbaatar, 1983) and "History of Ancient Art of Mongolia" (Ulaanbaatar, 1999) dedicated special chapters on DS's. The very first major book dedicated to the Deer Stones is the - "Ancient Monuments of the Altai. Deer stones" by Russian archaeologist V.D. Kubarev, was published in 1979 (Novosibirsk). The first book especially covers Mongolian deer stones was published in 1981 by V.V. Volkov, and entitled "Deer Stones of Mongolia" The second edition of this book was printed in 2002 in Moscow. Other publications such as "Deer stones, as the Historic Source (based on North Caucasian Deer stones)" by N.L. Chlenova (Novosibirsk, 1984), and "Deer Stones in the Culture of Eurasian Nomads" by D.G. Savinov (Saint-Petersburg, 1994), and "Monumental Statues of Western Eurasian Habitants of Early Iron Age" by V.S. Ol'khovsky (Moscow, 2005) are also considered seminal works on the study of deer stones.

Over the last decade, the study of deer stones has continued to grow, with more works being published in Mongolia. For instance, there are several catalogs entitled "Deer stones of Jargalantyn Am" by Ts. Turbat and J. Bayarsaikhan (Ulaanbaatar, 2011), and "Deer stones of the Northern Tamir River Valley" by J. Gantulga and Ch. Yeruul-Erdene (Ulaanbaatar, 2011). Recently published "Deer stones of Northern Mongolia" by J. Bayarsaikhan (Ulaanbaatar, 2017) and catalog "Deer Stones of Mongolia" (Ulaanbaatar, 2016) and "Deer stones cultures of Mongolia and neighboring regions" In 3 Vols. (Ulaanbaatar, 2021) edited by Ts. Turbat covers whole areas of the distribution in Mongolia and presents the most significant monuments in detail.

We can consider the general overview of the deer stone research in 4 periods. This periodic division takes the specifics, goals, and scope of the research work for each period.

The first period. The era of the first discoverers (late 19th century to 1910). The study of deer stones began in Mongolia in the late 19th century. During his travels in Western Mongolia in 1876-1877, the Russian scientist G.N. Potanin discovered the first deer stones and reported it to science (1881: 49, 64-76).

In general, the research of this period is based on the discovery of the first deer stones, their introduction into scientific research, and attempts to date them. And research at this time has shown that the relationship between the many species of deer stones is not well understood and can be traced back to different periods. Although a link has been established between the deer stone and the khirgisüür, this important conclusion has been largely ignored by many later scholars, and it can be said that the conclusions were made much earlier.

The second period. Classification period (1920-1970s). In 1927, G.I. Borovka made a scientifically based suggestion that the date of the deer stone dates back to the first millennium BCE, the Scythian period (Borovka 1927: 82), marking the end of the first discovery period and the beginning of the next classification period of scientific research. During this time, a lot of original materials were created, classified according to date and content, and possibly region and culture, and deer stones found their place among the Bronze and Early Iron Age archeological cultures.

In general, the main achievements of this period in the study of deer stones have resulted in the development of a three-type classification, in which the chronology is somewhat closer to the truth, the meaning is clear, and the role of society is revealed. However, as before, the source material was limited (*for example, V.V. Volkov had seen only 30 statues in person by 1967)*, and in theory, theoretically worshiped polarized Europe, it was not possible to research the issue of deer stones systematically. Such an opportunity appeared in the next period of the study.

The third period. The period of systematic research (late 1970s to 2000s). The study

of deer stones has become more systematic since the late 1970s. During this period, Russian Altai, Tuva, and Mongolian deer stones, as well as European deer stones, were published in large numbers, and the source material for the study was abundant. The main feature of this period is the systematic study of deer stones in this rich base on the basis of a single monograph, and a wider range of issues on the basis of the whole Eurasian steppe. All aspects of the study of deer stones as we know them were developed during this time, and some have been resolved.

For example, V.V. Volkov's 1981 book was a great influence on the study of deer stones and is still a table book for researchers. Many of the main ideas of this book are quite different from the author's 1967 book, which is based on the fact that many key monuments, such as the Uushgiin Övör (UÖ) complex site, have been discovered and depicted with deer stones depicting weapons of Karasuk culture. First of all, he significantly changed his 1967 classification and formulated it as follows:

Type I. Eurasian (without a depiction of deer),

Type II. Sayan-Altai (with realistic depiction),

Type III. Mongol-Transbaikal (with decorative simulations) (Volkov 1981: 102).

In general, as the third generation of research intensified, the number of deer stones discovered in Mongolia and Tuva increased, including those with unique depictions. At that time, the number of deer statues that had already been documented was about 500. The enrichment of the original research materials has led to significant progress in classifying them in detail, explaining their purpose and meaning, and setting relevant dates. For example, based on the classification made by N.N. Dikov, further classifications were made and improved. Excavations at several sites have resulted in many new ideas and hypotheses about the origin, purpose, classification, meaning of the deer, the date, how it relates to other types of monuments, and how to make the statue. The publication of V.D. Kubarev's works in 1979 and V.V. Volkov's works in 1981 significantly increased the source material for the study of deer stones and made it possible to unify many previously unresolved issues.

The fourth period. The period of natural science analysis (2000s to the Present). Since the publication of the works of V.V. Volkov, N.L. Chlenova and D.G. Savinov, the study of deer stones has weakened somewhat and has been revived since 2000. However, it should be noted that even during this decline, the study of deer stones in Mongolia continued, and new materials were published. However, the revival of deer stone research, which began in the 2000s, is linked to Mongolia's socio-economic transformation and opening up to the outside world, as well as collaboration with scholars from many foreign countries.

During this time, much progress was made in the study of deer stones. Dozens of works have been published that deal with the origins, dates, categories, structures, and interrelationships of deer stones, and make extensive use of old and new materials.

For example, A joint Mongolian-Japanese project conducted between 1999 and 2005 included excavations at the Uushgiin Övör complex site in Bürentogtokh soum, Khövsgöl aimag, as well as dozens of new monuments. They also dated radiocarbon dates by animal bone samples found in these sacrificial structures of deer stones and khirgisüür (Erdenebaatar et al. 2003; Takahama, Hayashi et al. 2003; 2005; 2006; Takahama 2010).

In 2001, the Mongolian National History Museum and in the Smithsonian Institution's National Museum of Natural History conducted the “Deer Stone” project in Khövsgöl province. The project conducted a comprehensive study of archaeological sites in Khövsgöl province, the ethnic composition of the residents, their culture, lifestyle, and environmental issues.

Between 2003 and 2012, about 90 new deer stones were discovered and fully documented in Khövsgöl province and about 10 in Bayan-Ölgii province. Some of the deer stones were excavated and the absolute date of ^{14}C was determined (Fitzhugh et al. 2003;

2005; 2007; 2009; 2010; 2012; Baiarsaikhan 2004, 35-41; Bayarsaikhan 2009; 2012; Frohlich, Naran 2005: 57-88).

Between 2005 and 2007, a "Deer stone" research project was conducted in Northern Mongolia. For the first time, the Mongolian-American "Deer Stone" project has made 3D models of 40 deer stones at nine sites in Northern Mongolia (Beaubien 2007: 86-95, 113-115).

The large-scale exploration and documentation work in the Mongol Altai region is the project "Historical and Archaeological Monuments of the Western part of the Mongol Altai-I: Bayan-Ölgii aimag" led by Prof. Ts. Turbat between 2005-2006. Within the framework of this work, about 70 new deer stones were discovered in the territory of Bayan-Ölgii province, the geographical location of the monument was determined, and photographs, drawings, and scientific descriptions were made and documented (Turbat et al. 2009: 41-42). As a continuation of this work, between 2008 and 2010, the "Western part of the Mongol Altai Historical and Archaeological Monuments-II: Khovd Aimag" project has conducted extensive research in all soums of Khovd province (Turbat et al. 2008; Battulga et al. 2009). As a result of this work, dozens of deer stones have been newly discovered and fully documented, and old known monuments have been re-documented. As a result, about 150 deer stones have been documented in Khovd province.

A similar project in Central Mongolia was the 2006-2018 joint project between Mongolia and Monaco, which өгллн documented a total of 113 deer stones in the Khoid Tamir Valley and discovered 47 new deer stones and determined their absolute dates (Magail et al. 2006; Gantulga et al. 2011; 2016; Yeruul-Erdene et al. 2011; 2012; 2014; 2018).

Dozens of important scientific studies can be cited here.

Denomination and geographic distribution

These monuments are called "Deer Stones" due to the main images found on them. They have had this name since the beginning of the 20th century. Mongolian herders call them "Engraved Steles", "Inscribed Steles" or "Monuments with Deer Image", etc.

The name Deer Stone is quite different in appearance and includes at least three types of deer stones. The name has become a generic name for its content and purpose. Although there are no depictions of deer on Eurasian type, we consider them a type of deer stone because they have the same function as the other two deer stones and have the same cultural content.

Deer stones are widely distributed throughout Eurasia. Approximately 1600 deer stones have been discovered from Mongolia to Ukraine, from the Ural Mountains to the northern feet of Tianshan. As mentioned above, 80% (n=1300) of all the deer stones are located in Mongolia. In Buryatia, 20 deer stones have been cataloged, another 110 in Sayan-Altai region of Russia, more than 100 in Xinjiang region of China, and around 20 in Kazakhstan. Moreover, some "Deer Stone" type steles of the Early Iron age were found in European Steppe regions. Ten of them were found in the Orenburg province Russia, the Caucasus, and from the Ukrainian steppe.

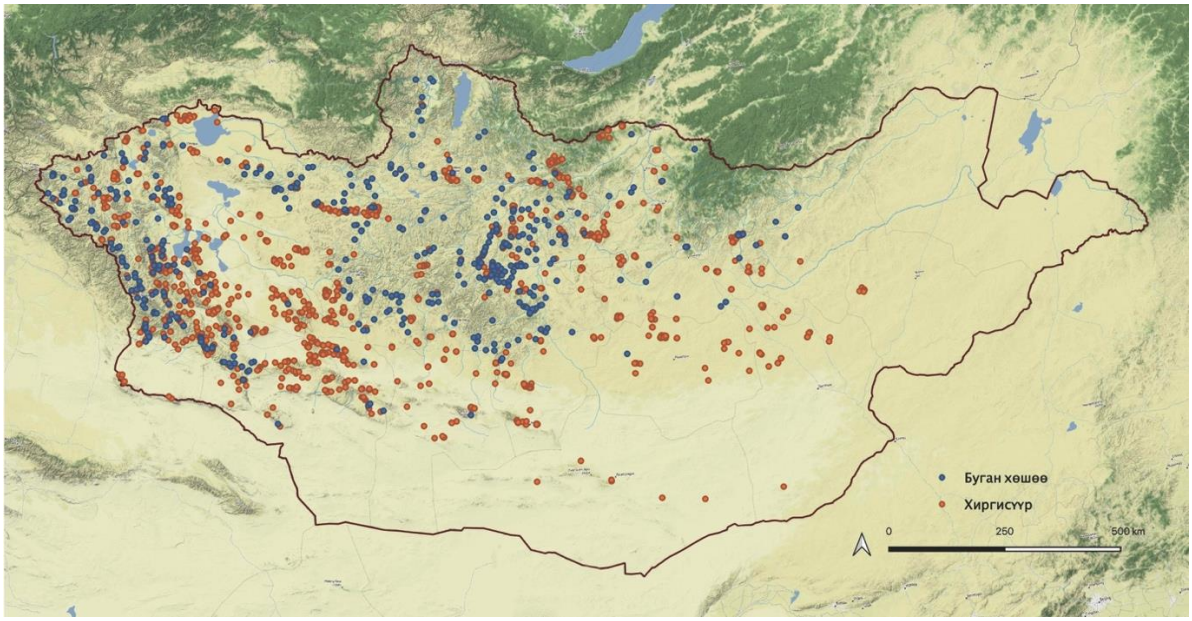


Fig. 1. The distribution of the Deer stones and khirgisüürs in Mongolia

Most of the Mongolian deer stones are distributed in the central and western portions of the country. Provinces with the highest density of deer stones are Arkhangai, Khövsgöl, Bayankhongor, Khovd, and Bayan-Ölgii (see Fig.1). Distributions to the east are limited to the Khentii Mountain range. Currently, the deer stone located furthest east is at the Dund Jargalant site, Binder soum of Khentii province.

Fig. 2. Three types of Deer Stones

The classification of Deer Stones

More than 130 years have passed since the study of deer stones began. During this time, the study of deer stones has developed to a new level, but there are still many unresolved issues, one of which is the issue of classification.

Scientists have been trying to classify deer statues based on their shape, appearance, imagery, and distribution.

Deer stones of the Eurasian type are spread throughout Mongolia, Central Asia, North Caucasia, and Europe to the west. Over 60 percent of the approximately 1300 deer stones indented belong to the Mongol-Transbaikal type, while the remaining 40 percent are divided among the other two categories.

Common consensus over the typology of Deer Stones is established during the last decades. Russian scholars such as V.V. Volkov (1967), E.A. Novgorodova (1989), and D.G. Savinov (1994) divided deer stones into different groups in regards to their methods of creation, figure, and location:

1. Stylized Deer Stones of Mongol-Transbaikal type;
2. Realistic Deer Stones of Sayan-Altai type;
3. Non-imaged Deer Stones of Eurasian type.

However, there are no deer images on this third type, but other depictions and images are present (Fig. 2, 3, 4).

Deer stone differences and similarities. A remarkable similarity is the anthropomorphic references. All these deer stone types are made of flat and square stones with a necklace depiction around the upper part, a belt depiction around the lower part which they divide the deer stones into three parts. The upper part of the stele includes a depiction of human faces, two to three sloped lines, earrings, and necklaces while the middle part contains personal belongings and the lower part includes weapon depictions.

Also, these types of deer stones differ by depictions. Particularly, zoomorphic illustrations are lacking on the Eurasian type; the Mongol-Transbaikal type includes only stylized deer illustrations; the Sayan-Altai type comprises different types of realistic animals such as deer, horses, boars, wild goats, and birds.

1. Stylized deer stones of the Mongol-Transbaikal type: The main feature of this DS type are the engraved stylized deer. This type of DS is typically located in the central and northern areas of Mongolia and neighboring regions of Russia and China in small amounts. It is comparatively uncommon in western Mongolia. However, some huge complex sites such as *Tsagaan Asga* in Bayan-Ölgii aimag, and the *Bodonch River* sites in Khovd aimag do have several stylized deer stones. This type of DS can also be found on the southern side of Lake Baikal.

The unique feature of stylized deer depiction is the carving skill and has distinctive types of representations. Generally, this type can be divided into five sub- types or groups (Fig. 4).

1. Stelae with anthropomorphic depictions (face and sloped face)
2. Stylized deer
3. Stelae with personal belongings (circular earrings, necklaces, mirror, beaded necklaces, and spiral and squire shapes)
4. Stelae with weapon images (dagger, battle axe, ax, blade, bow, spear, shield, belt, hook-shape, whetstone, flag)
5. Stelae with tree branches

Typically, the Mongol-Transbaikal deer stones are made of worked and unworked stones. The worked stones can be categorized into square and flat shapes. In contrast,

unworked stones have different shapes and sizes. This type of deer stone is created from granite which is the dominant stone and on some occasions, marble, sandstone, shale, and trap rocks are used.

Many traditional themes are engraved such as large and small earring loops on either side of the head (upper part of the stelae) and an encircling necklace or neck ornament. In some cases, the necklaces are depicted as a straight groove, and a boar tusk or animal-shaped pendant is depicted hanging from the necklace.

On the other hand, different patterns at the lower part represent the belt. The iconic image of deers is depicted between necklaces and belts. In some cases, deers are engraved below the belt.

Features of the stylized deer images include a long narrow body, peaked triangle withers on their backs, bird-beak mouth, and antlers in a long continuous pattern turned backward over their bodies. They are positioned as if they are flying to the sky. Typically, some steles have images of deer together with horses, wild goats, boars, as well as predators like tigers or snow leopards. In addition, round mirrors, bows, quivers, and pentagonal images or "shields" were engraved on a particular part of the surface, between lines of deer images. For instance, the shield was most often represented on the backside of the DS, above the belt. Also depicted weaponry and household tools like knives, axes, and whetstones hanging from the belt. However, there are usually no images on the upper portion of the front side, but realistic human faces were engraved on more than ten DS.

2. Realistic Deer Stones of Sayan-Altai type: The main feature of this type of DS is realistically depicted animals (including deer of the Scythian type). Moreover, typical répertoire of Scythian animal art, like, boars, horses, fish, wild goats, and felines such as tigers and snow leopards engraved on this DS category. This technique of "Animal style art" has been named conditionally "realistic" vis-à-vis highly stylized deer images of Mongol-Transbaikal type DS. Images of human faces occur only rarely on these types of DS. Instead, two or three diagonal grooves were substituted for a human face. Larger grooves continuously wrapping around the top of the stele are considered images of headgear or a crown. Moreover, some of these DS include an image of a pentagon decorated with a zigzag ornament depicting a shield as well. DS of this type is not ubiquitous, with most being located in Sayan-Altai regions (present-day Tuva and Altai Republics of RF), with only a few in Mongolia (about 6% of the total number).

3. Non-Imaged Deer Stones of Eurasian type: The main characteristic of this type of deer stone is that these do not have any animal representations. Yet, deer stones of this type and the other types share the same main shape and images of weapons and tools, like, diagonal grooves, headgear or diadem, personal weapons, and belts.

Fig.3. Three types of Deer stone
1. Mongol-Transbaikal type – Stylized deer stones (Shivertiin am, Khoid Tamir valley, Ikhtamir soum, Arkhangai), 2. Sayan-Altai type – Realistic deer stones (Döröljiin am, Shine-Ider soum, Khövsgöl), 3. Eurasian type – non-imaged deer stones (Jargalantyn Am, Öndör-Ulaan soum, Arkhangai

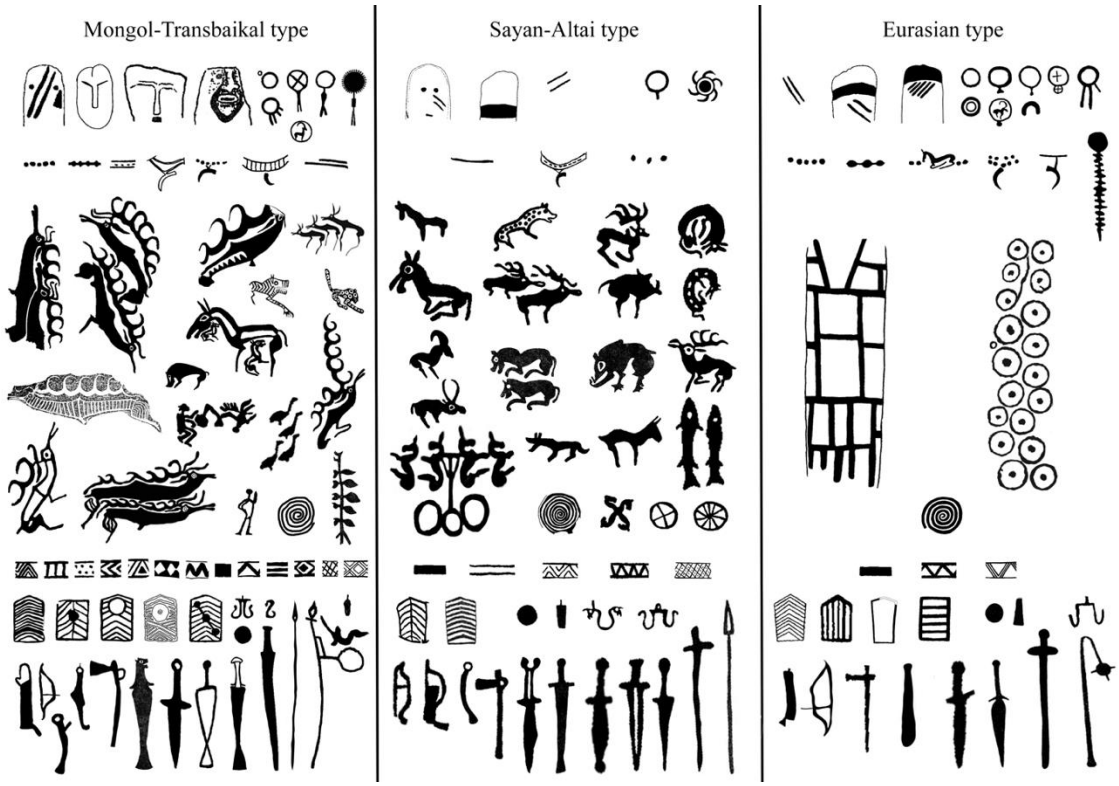


Fig.4. The Depictions of three types of Deer Stones

Semantic Study of Deer Stones

The main representation of deer stones is the stylized deer engraving. The semantics of deer stones have been a question for researchers since the beginning of the 20th century, and continue to be so far in current academic circles. However, the problem of semantics has not thoroughly been decided. For example, some Mongolian scholars have described the significance of deer images concerning their condition in the nomadic environment, stating that "*deer are animals found throughout the vast regions of Inner Asia. They provide many products such as skin, meat, and horns and do no harm to people, therefore, this animal has been worshipped since ancient times*". Other scholars suggest that "*if we accept the premise that animal style art originated as a totemic tradition, or that particular animals were worshipped by particular clans, then a deer stone is a totem of the people who made it*". Some scholars also believe that images of deer and other animals on the stele were analogous to actual tattoos on the bodies of ancient people. They compare the deer images with tattoos on corpses recovered from burials at Pazyryk sites, perfectly preserved in the permafrost conditions of the Altai Mountains.

To Russian academics, these animal images are related to the sun-worshipping of Indo-Iranian myth, or that these images are evidence of Scythian influence and cultural spread. However, recent dates of deer stones show that they belong to an earlier culture, several hundred years before the appearance of the Scythians. Thus, Scythian animal style art did not influence the animal style art of Deer Stones. Instead, recent results suggest that Scythian animal style art originated from the Deer Stone culture. In particular, the meanings of deer and animal images on the Deer Stones correlate to expressions of ancient beliefs and ritual practices, and may very likely relate to concepts of shamanism.

Deer Stones as an art representation

The remarkable cultural achievements of the deer stone, which flourished in the depths of Central Asia, far from sedentary civilizations, are very convincing evidence that the nomads not only wreaked havoc but also created their own high-level culture.

The deer stone is a unique art and cultural phenomenon that should be included in the cultural heritage of mankind.

The most emblematic art ever created by nomadic peoples is the animal style art which is characterized by emphasizing animal motifs both in monumental and portable art. The main artistic techniques of this art style are hyperbolizing and emphasizing most characteristic parts of the body of animals depicted selectively.

We are on the way to unraveling this mysterious monument step by step and understanding the legacy of our ancestors. Deer stone can be called the encyclopedia of nomadic culture and art, as it fully expresses "Animal style art". The "Animal style art" created by the creators of the deer stone culture is considered to be an independent art form created by nomads and has a place in the golden fund of human culture and art.

Animal-style art features various animals including stags, cats, birds, horses, wolves, and mythical beasts. All those images were present in Deer Stones in perfect form and various combinations. Moreover, in the Deer Stones, we could see the evolution of animal style art, featured in stag images from very stylized to more realistic as well. The figures of stags in the crouching position with legs tucked beneath their body, head upright, and muscles tight to give the impression of speed, are particularly impressive.

As a most ancient and brilliant representation of animal style art, the Deer Stones of Mongolia are placed centrally among the cultural heritage of humankind's artistic expression.

Deer Stones as a cosmogonic mythological representation

Deer stones have double semantic layers, more direct as a warrior ancestor and more hidden as a cosmogonic mythological representation.

Based on depictions of realities and tripartite partitions of the surface, most researchers noted that the Deer Stones representing cosmogonic mythology widely spread among Eurasian nomadic cultures.

The upper section or "Upper (Heavenly) World" of Deer Stone is separated from the main body by a horizontal line of "necklace" which could be the representation of the real object and imaginative separation as well. This kind of double meaning is typical for the Deer Stone depictions and the same for the lower part horizontal line which could be interpreted as a belt or separation of "Lower world". Cosmogonic interpretation reflects hidden meanings of visible real objects and tenting to explain it according to "Tripartite World separation" of ancient nomadic mythology. In this perspective the earrings are same time represent the Sun, diagonal triple face marks are representing Orion stars, etc.

According to cosmogonic mythological explanation, the stag, the main figure on the Deer Stones also has a special meaning of solar worship. The specific manner of depicting those stags with bird-like beaks, stylized horns, and unnatural proportion of body testifies to the unreal nature of these images and on the contrary, emphasizes the mythological character of the figure.

Overall, some images of hidden cosmogonic meanings, tripartite separation, and mythological explanation of stag image as well disambiguate the cosmogonic nature of the Deer Stones. According to the Cosmogonic theory the intermitting cycle of life, unity of three worlds, and the central place of human beings among them is the main meaning of Deer Stones.

Fig.5. Deer stone no. 14, Uushigiin Övör, Bürentogtokh county, Khövsgöl province

Representations of humans, and their meanings

Deer stones are thought to be the symbolic illustration of a warrior, thus the depiction of headgear, crowns, hats, 2-3 slopped lines, necklaces, and even the human face.

Formerly, some scholars interpreted the circular images on two sides of the upper part as the sun and moon, or mirrors. The numerous little oval-shaped hollows below these circular images curving around the stele could also be interpreted as celestial or cosmological, like stars and planets. Mongolian archaeologist D. Navaan noted that the sun and moon are represented clearly on some deer stones, and E.A. Novgorodova further argued that these elements were part of a tripartite division of deer stones. The depiction of necklaces delineates an upper portion on the deer stone which is oriented towards the sky, symbolizing a connection to the heavens. The central part of the deer stone, filled with images of deer and other animals, could represent the middle world. Following, the lower portion of the stele depicting weapons and other items hanging from a belt a portion which is almost always hidden by the soil could represent the underworld.

Most researchers now subscribe to the theory of earrings and necklaces as explanations for the engravings. One to three sloped lines, human faces, and animal canines on the necklace have been placed mostly on the narrow side of the deer stones, which face the rising sun.

The cosmogonic explanation put forth earlier may be further challenged by the thirteen deer stones found with clear depictions of human faces. In contemporary common perceptions, the depictions on the upper portions of deer stones are precisely human (Fig. 5). Human faces were also found on deer stones from an earlier period, and some researchers consider these to be elements of an initial or early era of stone engraving culture. Human faces are also clearly represented on some stone statues abroad.

Research on these illustrative elements of deer stones are icons of human individuals, and thereby affect our interpretations of the upper portions of deer stones.

Currently, there are 16 deer stones with a full and partial human face in Mongolia, as well as 8 deer stones specially designed to depict human faces and a total of 24 deer stones that can be considered to depict human faces to some extent. In addition, a small number of deer stones abroad depict human faces. For example, it is possible to have a human face in two stones in the Russian Altai and one deer stone in East Kazakhstan.

The reason for depicting human faces in so few deer stones compared to the total number of deer stones cannot be fully understood at this time, so it will be limited to speculation. The most interesting hypothesis about this phenomenon was made by K.V. Yumatov. According to him, as soon as the deer stone was erected, it lost its religious significance relatively quickly and became a symbol of the warrior's ideology. His idea that deer stones have relatively few depictions of human faces is also very interesting, as the religion and ideology of the time did not allow the depiction of a dead person (Yumatov 1998: 212).

Although the facial expressions on the deer stone have ideas for defining the anthropological appearance of the people, it is not possible to draw definitive conclusions from the well-modeled images. In some statues, you can see a long narrow face and a long straight nose, while in others you can see a wide flat face and hollow cheekbones.

The fact that the human face is depicted in all three types of deer stones makes it difficult to date and shows that it is a higher phenomenon, independent of visual traditions and chronological differences.

Human figures. A deer stone with two human figures along with deer, goats, and weapons are discovered on the southwest side of the khirgisüür with a rectangular enclosure at the site of Ulaan Tolgoi. These two human figures are depicted in an upside-right and

upside-down directions on the wide lower left part. An upside-down figure is carved as fighting and decorated with a hat (a helmet?) standing with one arm in a straight position while the other hand holding a weapon (a thick stick with a ball at the edge). The upside-right figure is carved in as protecting the other man from danger, carrying something on his back, wearing a straw hat, and in a half-seated position.

The weapon could be a mace which is depicted realistically on the stelae. This type of weapon has not been found in archaeological excavations yet. But mace illustrations are common in Bronze and Early Iron Age petroglyphs. Particularly, mace images are portrayed in different ways: hanging from the hunter's belt with bow and arrow, holding it, or killing the predators with it in the Tsagaan salaa, Baga Oigor's rock from the Mongolian Altai ranges.

Animal images

One of the main representations of deer stone is the zoomorphic images of ungulates, predators, birds, fish, and frogs. The horse motifs are important as deer. In addition to deer and horses, boars, wild goats, and cats are seen as predators. But birds, frogs, fish, and cattle are rarely engraved. In rarer cases, a few deer stones contain mythological animal figures.

Deer. Deer images with legs folded beneath flying upward to the sky symbolize the spirit of a dead person. It explains that deers play an important role in shamanic rituals, for example, one of the shamanic items, a drum is tightly related to deers because a shaman drum is made of deerskin with deer illustrations on it. These depicted deers represent as a vehicle/saddle animal for the shaman's inspiration.

If deer stones are created as a monument for a dead person, then deer guide or carry the soul off to the upper world.

The decorations with the mythical (legendary) animals such as deer, dragons, the antelope-like creatures (unicorn), and yaks have been uncovered from the late and aristocratic Xiongnu burials. These legendary animals are depicted on the breast collar and bridle as in the sky distinguishing the social status like an aristocrat is higher than ordinary people and protected by those mythological animals.

Possible reasons for flying deer up to the sky stem from ancient people's beliefs.

Deer representations are depicted in three different positions:

1. Flying
2. Encircling the stelae
3. Oriented downward direction (Fig. 6).

The following three types of deer images are displayed to predict life after death. For instance, the first image illustrates that the soul is going up to the sky, the second image demonstrates the reborn, and the third image shows that the soul will sink in the depth of the natural earth.

Commonly, in the nomadic tombs, the dead are oriented facing to the sky which symbolizes that their souls are being sent off to the sky.

In some occasional cases, if a person behaves badly or harmfully his body is placed in a prone position in order not to let the soul fly up to the sky. However, sometimes deer motifs are overlapped which describes the process of how souls depart.

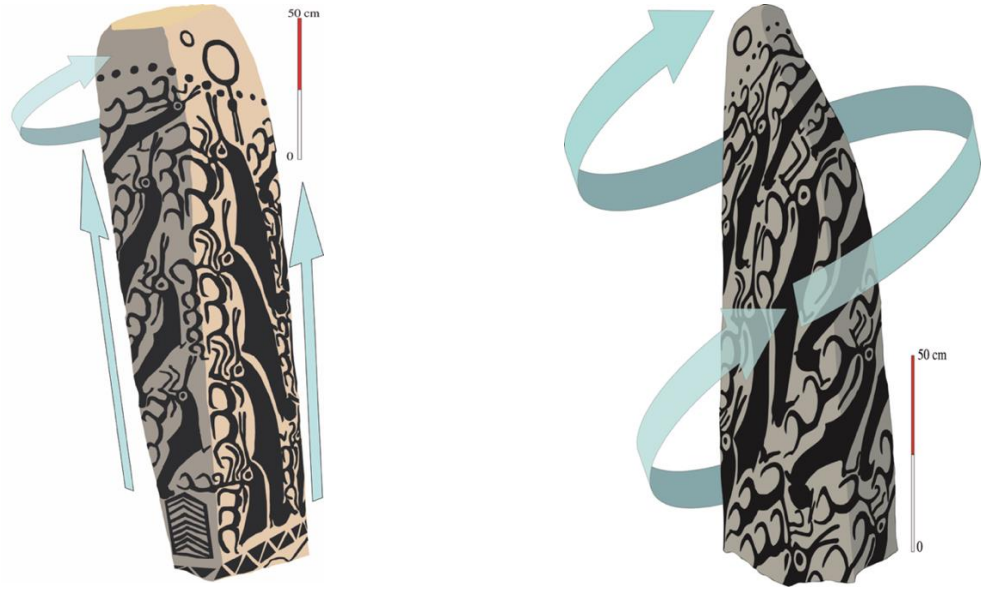


Fig. 6. Deer representations are depicted in different positions © J.Magail

Horse. Horse plays a significant role on the deer stones after deer because horses have been left their extraordinary stories in nomadic socioeconomic contexts and the human's beliefs. As the result of the human and horse relationship, horses are in the history, folklore, and shamanic ceremonies in Central Asia.

In the middle part, horses are depicted as standing or galloping whilst at the lower section, a horse is depicted using two main methods: either by outlining the horse body through a series of incisions or by carving the entire body shape.

A Russian scholar, N.L. Chlenova maintained there are 40 deer images on the 16 deer stones from both the Mongol-Transbaikal and the Sayan-Altai types, as stated in V.V. Volkov's "Deer stones in Mongolia" publication. As the result of morphological analysis of horse motifs, two breeds are observed one with a small body, short legs, and thick neck while the other breed is depicted with a tall body, long legs, and narrow neck. Therefore one of the breeds was engraved as standing and the other breed with folded legs.

A horse image with folded legs is broadly similar to the bronze artifacts from the Ordos, but also comparable to Mongolian, Tuva, and Altai's horse images. Besides, images of tall horses share some similarities with horse images in Minusinks.

Mongolian scholars doubt horse breed, but they have been suggested that horse motifs are related to the sculptor's skill and technology.

According to the study results, horses are depicted with deer in small shapes. However, large-sized horse depictions are found on the deer stones at Altansandal Uul site, Ikhtamir sum in Arkhangai aimag and Züün Khööngö site, Galt sum in Khövsgöl province. A total of 24 steles with horse depictions are recorded at Khöshöötiin gol site, Tsagaan-Uul sum in Khövsgöl province, 17 steles at Züün Khööngö site in Galt sum, and 7 steles residing in the National Museum of Ulaanbaatar.

Boar. Another depicted animal figure is the boar with broad chests, small bodies, snub noses, short tails, and pricked ears. Often boars are engraved with a head bowed into the earth. In some cases, they are depicted as standing or galloping. Boar's image expresses the worship of the Earth. In shamanism, boars are seen as a talisman or the protector of mountains and earth.

Wild goat. Goat representations are not only limited to deer stones; they are much more common on the petroglyphs from the Bronze Age. Goat is one of the main representatives of

the fine arts, but also has a meaningful part in the human minds and beliefs, as can be seen on the stone statues and petroglyphs.

The goats are pecked all over the area of stelae. In some cases, a goat with a horse's body is realistically engraved on deer stones. Also, they are engraved with round eyes, pricked ears, and short tails. In rare cases, goats occur without ears and tails.

Feline. The felines are seen with pointy ears, long tails on the deer stones. They are engraved in different types of shapes and usually placed between other animals especially deer horns or at the upper part of the stelae, or under the belt. Some felines are carved with sharp claws, while some are carved without claws. Overall, felines, like panthers, are depicted with horizontal slashes while tigers are depicted with small circular depressions. It is uncommon when feline depictions are incised in the whole monument. The cat worship was unfamiliar during the early nomads in Eurasia. However, archaeological finds from the Bronze Age illustrate that felines such as tigers, panthers, and lynx played a minor role in religious belief. Although there is not enough evidence to trace the origin of the feline worship. However, it is interpreted as representing protection.

Fish. Remarkably, only two fish depictions are documented. One of them is engraved as a pair on the deer stone in the vicinity of Saadag Khairkhan, south of Zagastain davaa in Zavkhan aimag while the other one is engraved as a solitary in Sortiin denj, Burentogtokh sum in Khuvsgul aimag. Fish carry a symbolic meaning of the origin of the universe, rivers, oceans, reproduction, women, peace, and energy. Fish manifest union of ancient southern and northern inhabitants. In addition, the fish also serve as an assistant spirit for a shaman.

Deer stone and khirgisüür

Deer stones, which are a human wrapped in the ornamentation of a great stylized antlered stag, are found predominantly with more complex stone structures known as **khirgisüür**. The exceptional concentration of Deer stone monuments with Khirgisüür is the most outstanding example of early human artistic activity from anywhere in the World.

The specifics of khirgisüür monumental structures are that they have big stone mounds in the center with either circular or square fences made of stones laid along the perimeter. Deer stones are sometimes found within the perimeter of the khirgisüür stone frame, or separately a distance from the khirgisüür.

Khirgisüür is a complete and perfect creation of workmanship. These monuments display remarkable presentation of stone-built structures which together with Deer stone monuments demonstrate exceptional completeness of ritual and burial structures of a now-vanished funeral architectural culture (Fig. 7). This also represents an outstanding example of a specific style of ritual and burial structures evolved within North Asian funeral cultures of nomadic people in the Bronze Age having high symbolic, cosmic endowment and a high level of technical knowledge and skills of that time.

The settings of khirgisüür in combination with their attendant Deer stone monuments are always characterized by great physical beauty which is a archeological landscape defined and bounded by rivers, valleys, mountains, and specific achievements of the human creative genius of prehistoric times.

According to the most recent studies, there are found 244 (20%) deer stone complexes with khirgisüür in Mongolia. However, this is only the number of deer stones that are directly related to the khirgisüür, and 55% of the total deer stones are somehow adjacent to the khirgisüür, excluding the statues that were originally located on a special ritual complex not far from the khirgisüür (Fig. 7).

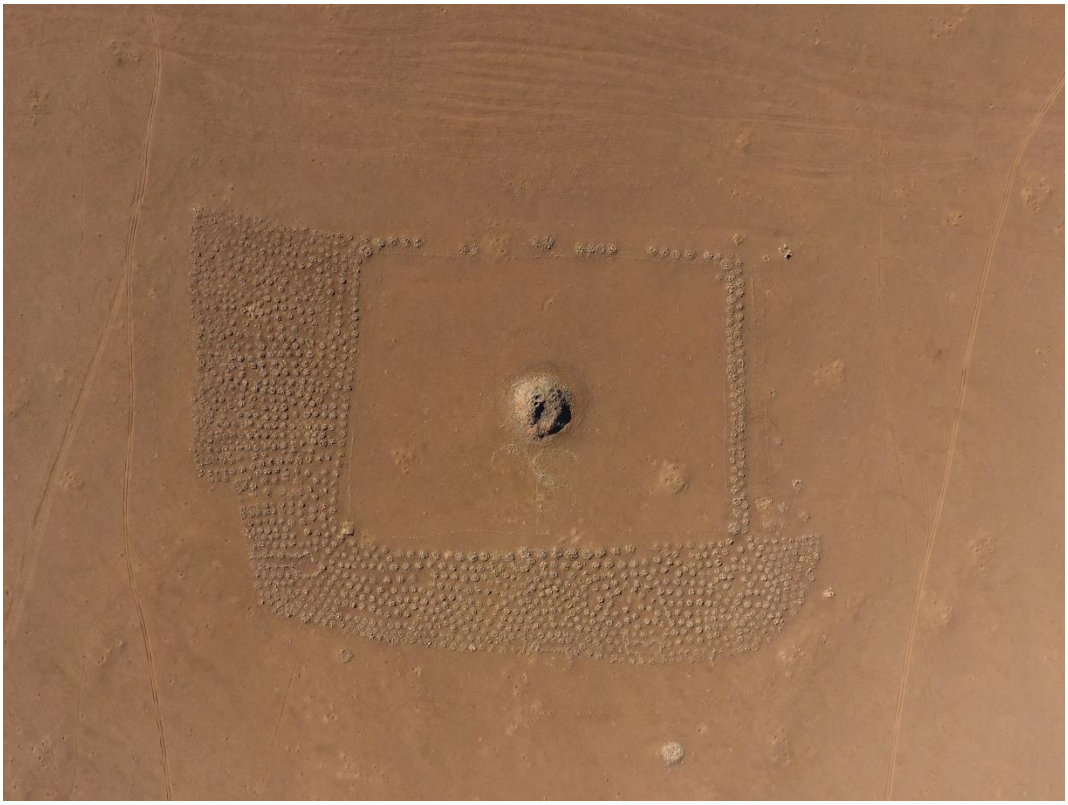


Fig. 7. Monume ntal funeral and ritual structure called "khirgisüür" at Urtyn Bulag, with over 2000 ritual structures in (this khirgisüür has included in the newly proposed protected area) Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai

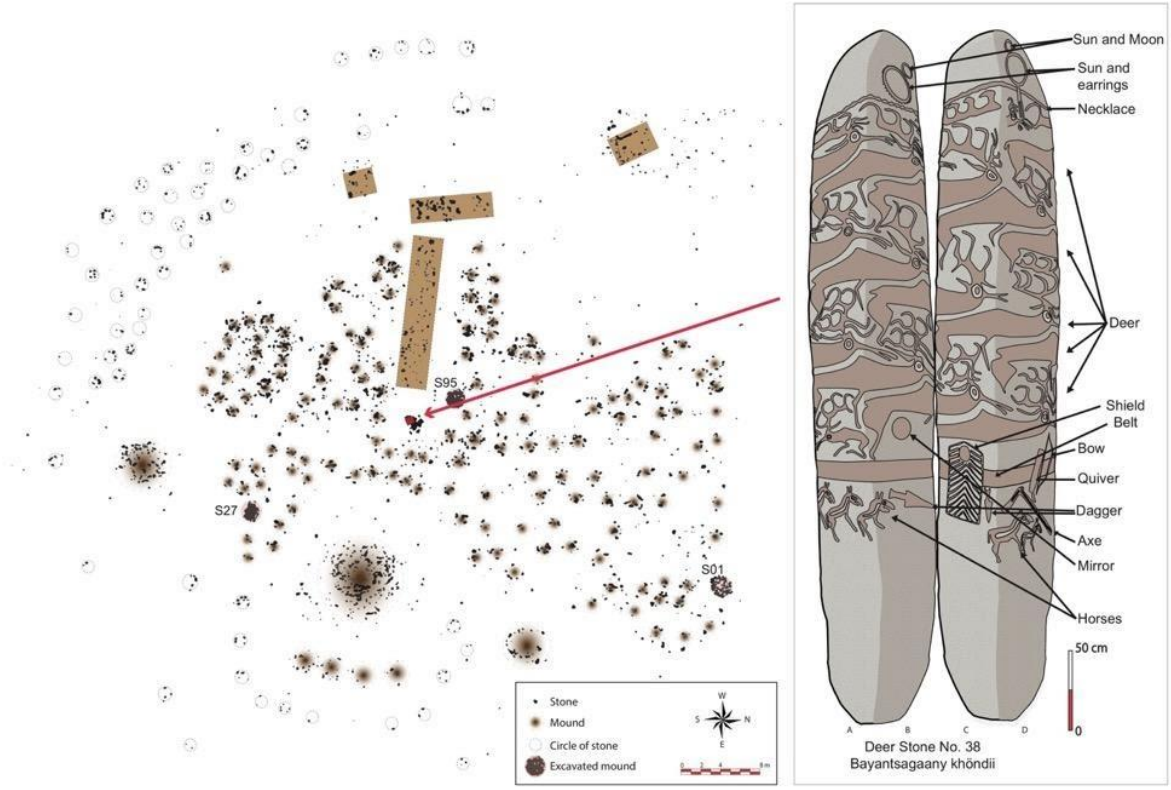


Fig. 8. Sacrificial complex for 38th deer stone at the valley of Bayantsagaan in Khoid Tamir

Few of the khirgisüürs were excavated and documented including khirgisüürs with deer stone at the Uushigiin Övör in Bürentogtokh soum, Khövsgöl province, Khar Gobi in Mönkhkhairkhan soum, Khovd province, Bilüüt Tolgoi in Tsengel soum, Khovd province, and Egiin Gol in Khutag-Öndör soum, Bulgan province. These khirgisüürs all contain human burials testifying that deer stone complex with khirgisüür had both funerary and ceremonial (memorial) functions.

No human remains have been found from the sacrificial stone structures usually accompanied around deer stone monuments and khirgisüür. It is because these structures were built for ritual and sacrificial purposes. In the above given additional information on the relationships between deer stone monuments and khirgisüür, we confirm in detail that the khirgisüür containing human burial and deer stone monuments are from the same period of history (Fig. 8).

Related ritual and offering monuments

Just as the sheer number of Deer Stones and related ritual monuments at the three nominated properties indicate significant populations in the Bronze and Early Iron Age, hundreds of burial and ritual mounds, namely the elaborate khirgisüür, standing stones, enclosures, and altars indicate that these valleys carried particular significance during the given periods: that they were appropriate locations for monuments of a funerary and ritual nature. The general dating of the surface monuments is the Late Bronze Age except for later period nearby monuments.

Late Bronze Age: heavy burial mounds called khirgisüür with up to several hundred adjacent circular altars and small mounds; four-cornered funeral mounds of Sagsai type with massive standing stones in them corners. Associated rock art sites of major importance are detected in KT sites as well.

Deer stones are found predominantly with more complex monuments known as khirgisüür. The specifics of khirgisüür monumental structures are that they have big stone mounds in the center with either circular or square fences made of stones laid along the perimeter. In addition, many ritual features and structures surround the stone-framed perimeter. Deer stones are sometimes found within the perimeter of the khirgisüür stone frame, or separately a distance from the khirgisüür.

From the distribution and location of these two types of monuments, as well as sacrificial rituals and traditions associated with them, it is clear that these monuments are not only interrelated but also were left by a single archaeological culture. Russian scholar Yu.S. Khudyakov (1987: 136-162) was the first researcher who studied them and provided the suggestion that khirgisüür and DS monuments are not only interrelated but were created during the same period by a single archaeological culture, a suggestion that has shown a tendency for being accepted and supported by an increasing number of researchers.

Sacrificial structures found in association with either of two monuments are yet another important type of feature that provides a link between the two aforementioned monuments. Small round stone mounds that are laid outside of circular and square fences of DS complex or khirgisüür in a certain sequenced order are found towards its southeast and southern directions. Mostly small circular fences laid with stones appear half covered in the soil in the number of 8-13 and form the outermost fencing of the DS or khirgisüür. These two structures are laid in neat order and sequence.

Two types of stone structures found next to khirgisüürs and DS are referred to in the research literature as “sacrificial structures” or “satellite structures”. These two types of sacrificial structures belong to an earlier period, in other words, earlier structures are built at the same time as the first erection of DS as well as during their sacrificial processing.

Different types of sacrificial structures related to deer stones and khirgisüürs mentioned above can be divided into the following classifications: 1) round sacrificial structures with stone mounds, and 2) circular stone sacrificial structures.

Round sacrificial structures with stone mounds: (hereinafter to be referred as 1st type): This type of sacrificial structure is concentrated around DS monuments with typical images of deer, as well as khirgisüürs found within the territory of Central Mongolia. In fewer cases, the same type of sacrificial structure is found next to the Eurasian type of DS and khirgisüürs from western Mongolia.

This type of sacrificial structure is found around DS monuments, with anywhere from a few to hundreds of these stone mounds. The average diameter of these sacrificial structures is 2.5-3m, with the average height of the stone mound at about 0.5 m. However, in some cases, the height of the mounds can be as low as the height level of stones in the framing fences.

While excavating this type of sacrificial structure, at the depth of 30-50 cm below the surface, in the center of the stone structure found a horse head with the mandible, vertebrae, and four hooves. The portions of the horse are laid in a pit and covered with stones and earth. In laying the horse head, its snout is directed to the east, where the sun rises, while two of the four hooves will be laid at the left and right sides of the snout. The remaining two hooves are laid beneath each side of the horse mandible, whereas the vertebrae are separated from the horse head and laid along either the right or left-hand side of the skull.

Circular stone sacrificial structures: (hereinafter to be referred as 2nd type) This type of sacrificial structure is found mostly in Northern Mongolia, Tuva, and Western Mongolia, next to or around DS of Eurasian type and khirgisüür. Also, this category of sacrificial structure can be found at sites with large DS monuments in Central Mongolia, around the large khirgisüürs, and encase the 1st type of satellite sacrificial structures. Those are smaller than the 1st type of sacrificial structure and on average has a diameter of 1 m. Only very small pieces of calcinated animal bone, charcoal, and sometimes fragments of ceramic pots are found within this type of sacrificial structure near DS excavated in the Mongolian (Fitzhugh, Bayarsaikhan 2003-2008), Altai and Tuva (Kubarev 1979). Almost no other archeological findings were found with these sacrificial structures and small burnt bone particles are not yet attributed solidly to a specific animal. These burnt bone fragments and charcoal particles are found in dark brown soil with traces of burning, at 15-20 cm deep below the soil surface or the base of the pit level with the fencing stones.

Later period monuments: Late Bronze to Early Iron Age and the Ancient Turkic period (6-9th c. CE) enclosures detected in JA site. Xiongnu period (3rd c. BCE – 2nd c. CE) funeral features excavated recently in KT as well. The valleys where located proposed properties are rich in Xiongnu period funeral and ritual features and Mongol empire period large scale settlements.

Chronology

Researchers have considered the chronology of the deer stone in many ways. The issue has been the subject of much debate over the decades with the participation of many scholars and has its research history.

Deer Stone chronologies have been equated with the Scythian period (8-3th c. BCE) from the beginning of the 20th century until the 1970s. Russian archaeologist L.R. Kyzlasov made a very brief and clear suggestion to archaeologists: “More excavation is needed” to better understand the chronology of Deer Stones. Evident by the numerous archaeological excavations in Mongolia, this suggestion was followed and has contributed a generous amount of data to Mongolian archaeology. At the same time, methodological and conceptual improvements have been used to tackle this problem of Mongolian archaeology.

To determine the chronology of Deer Stones, previous researchers used comparative studies of archaeological artifacts, called a "comparative chronological" method. In 1975, Russian archaeologists as V.V. Volkov and E.A. Novgorodova compiled a comparative study on weapon depictions on deer stones from the Uushigiin Övör site (Mongolia) with Karasuk culture (13-8th century BCE) weaponry of the Late Bronze Age at Minusinsk hollow. They suggested the origin of Deer Stones could be even earlier than we imagined. Unfortunately, this proposal was not accepted by other researchers. The strong correlation between Deer Stones and the Scythian culture remains strong among Russian researchers.

The chronology of the artifacts depicted on the deer stones, especially the weapons, compares them to real artifacts, allowing for a fairly reasonable conclusion, but with a very wide range, sometimes hundreds of years.

Therefore, the final step in finalizing the deer stone chronology is to establish an "absolute chronology" by natural science laboratory analysis.

There is a practice of determining the absolute chronology of a deer stone only by ^{14}C or radiocarbon method. The main tools for such chronology are samples found in sacrificial structures of deer stones, including burnt and unburned animal bones and charcoal. The only suitable method for converting the sample to a relatively high-precision date is the radiocarbon method, ^{14}C, or the radioactive carbon method.

The most of ^{14}C dates of deer stones were published in 2010 by the Mongolian-American "Deer Stone" project team led by W. Fitzhugh and J. Bayarsaikhan (Fitzhugh 2010). This team excavated several sacrificial structures of deer stones and published the results of 22 samples from these excavations at Khyadag, Ulaan Tolgoi of Alag-Erdene soum, Khöshöötiin am, Nükhtiin am of Galt soum, Tsatstai khoshuu of Rinchinlkhümbe soum, Tsokhiotyn am of Shine-Ider soum, Bor Khujiryn gol, Khöshöötiin gol of Tsagaan-Uul soum, and Zuny gol of Tömörbulag soum (Fitzhugh, Bayarsaikhan 2011).

One of the first examples of the publication of the absolute date of a deer stones is the 4 dates of a joint Mongolian-Japanese expedition to Uushigiin Övör (Shu 2010: 127). These are two samples from the ritual structures of the Khirgisüür no.1 and other samples from the ritual structures with the horse's head (No. 5 and 7) of the deer stones. The after calibration, the general chronology of the samples dates back to the 13th to 10th centuries BCE.

A joint Mongolian-Monaco research team working in the Khoid Tamir Valley, Ikhtamir soum, Arkhangai, has been working on deer stones and khirgisüürs for many years and has published several absolute chronological materials (Gantulga et al. 2016).

Thus, there is more and more information about the absolute date of the deer stone. This time, 45 dates of ^{14}C absolute chronology, which we are considering, belong to the Altai and Khangai-Khövsgöl provinces, so they are relatively large in geographical distribution and number, so they can represent the date of the total deer stones (Turbat 2021: 244-254) (Table 1).

Time / **Type**	**1200 BCE**	**1100 BCE**	**1000 BCE**	**900 BCE**	**800 BCE**	**700 BCE**
Eurasian						
Mongol-Transbaikal						
Sayan-Altai						

According to the table, the general chronology of Mongolian deer stones is the period from 1200 to 700 BCE.

Even in the comparative chronology, this absolute chronology is considered to be very accurate, as Sayan-Altai-type deer stones belong to a later period, the Early Scythian period.

According to a recent study of the absolute chronology of the khirgisüür, which is associated with the deer stones, the most well-represented ^{14}C date in Mongolia is 1200-800 BCE (Amartuvshin, Tselkhagarav 2018: Fig. 1). Note that this absolute date is almost identical to that of the deer stones.

Finally, these results confirm that the origin of "Animal Style Art" is in the territory of Mongolia.

Archaeological Landscape

Deer stones in association with khirgisüür and sacrificial structures create a most significant archaeological landscape in whole central and western Mongolia. Nearly all main river valleys of Mongolia are marked by Deer Stones and/or Khirgisüürs occupying foremost central and prominent places. In several instances, the DS and khirgisüürs are placed together with rock art sites and form a perfect combination representing the ancient art of the Bronze Age.

We are proposing these cluster sites as "works of nature and man" and "archaeological landscape" which are of OUV from the historical, aesthetic, ethnological or anthropological points of view" as defined in Article 1 of the World Heritage Convention. They are illustrative of the evolution of nomadic societies over certain historical time in Central and North Asia.

In our case, deer stone monuments in combination with various types of ritual and ceremonial structures like khirgisüür, containing human remain circular or square rock fences in some places and rock art sites satellite features including round and circular sacrificial structures are complex webs of interrelated structures and sites, all set within the "natural framework". The settings of deer stone monuments in combination with other structures are always characterized by amazing physical beauty which is a relatively small area defined and bounded by rivers, valleys, and mountains.

Therefore, while we are identifying and proposing these cluster archaeological cultural sites as individual archeological landscapes, we would like to emphasize the importance of the natural environment in the creation of deer stone heritage complexes. In such attempts, we have been using the words "Cultural landscape" and "archaeological cultural landscape", especially under the justification of criterion (IV) for justifying that the proposed property is an outstanding example of a type of monumental heritage complexes within the natural environment which illustrates a significant stage in human history.

Considering the ICOMOS's reviews that "a landscape approach should be adopted for the management of the nominated property". We have docuented the landscape elements at each proposed cluster sites and included in the narrative.

Consequently, we are offering the new version of the justification of criterion (IV) in 3.3 of the Format for the nomination: "Proposed Statement of Outstanding Universal Value" as following: Criterion (IV): The properties illustrate an outstanding example of the type of animal style art and monumental heritage complexes that represent a significant stage of Bronze Age funeral and ceremonial Culture of human history in Central and North Asia.

THE PROPERTIES

This serial nomination includes four component parties, all representing major concentrations of Deer Stones and khirgisüür, as well as significant concentrations of surface monuments of a funerary and ceremonial nature. In all four cases, the clear integration of Deer Stones and surface monuments, such as khirgisüür with specific rivers, sacred mountains, and directions allow us to speak of an extensive archaeological cultural landscape reflecting more than 600 years (c. 1200-600 BCE) of human existence. The four parts of this serial nomination are heritage complexes at KT, JA, UB and UÖ **(Table 1).**

All four properties are located in the Central part of Mongolia within the eastern and northern slopes of the Khangai Ridge (Khangain Nuruu) **(see Map 3).** The properties are all within low valleys with rich vegetation and animal husbandry activities. Scientific investigations of the Khangai mountainous region indicate that in the Late Bronze Age, this region of Central Mongolia was the ritual and socio-economic center of nomadic populations attested by a high concentration of first-class archaeological monuments stretched around it. The proposed four properties were the most significant centers of nomadic art and worship around 3200 years ago.

In the late middle Holocene (c. 6000–4000 years BP) the Central Mongolian landscape assumed its present mountain steppe character; the herding of domestic animals began to dominate the economic way of life, and the low valleys represented by four properties nominated here became sought after for their all-important whole year pastures. It is for this reason, unquestionably, that so many present-day seasonal residences are located in these valleys or where one finds rich monuments from the Bronze and Early Iron Ages.

With the transition to full horse-riding nomadism in the mid-second millennium BCE and thereafter, these valleys were sought after for a whole year pasture for the domestic animals. The presence of significant populations is recorded in thousands of compositions and images from the Early Nomadic Period (mid 2nd millennium BCE), the Scythian Period (1st millennium BCE), and from the later Xiongnu and Mongol empire periods.

Table 1. Summary information of all attributes in the component parts

a. Khoid Tamir valley

No.	Type of monuments	Protected area	Buffer zone
1	Deer stone	51	42
2	Khirgisüür	260	115
3	Burial	190	88
4	Stone structure (sacrificial)	126	51
5	Rock art	3000	-
6	Stone quarry	1	-

b. Jargalantyn Am

No.	Type of monuments	Protected area	Buffer zone
1	Deer stone	26	8
2	Khirgisüür	10	63
3	Burial	7	15
4	Stone structure (sacrificial)	6	8

c. Urtiin bulag

No.	Type of monuments	Protected area	Buffer zone
1	Khirgisüür	12	(same as JA)
2	Deer stone	11	63
3	Burial	11	15
4	Stone structure (sacrificial)	-	8

d. Uushigiin Övör

No.	Type of monuments	Protected area	Buffer zone
1	Deer stone	24	10
2	Khirgisüür	4	150
3	Burial	-	250
4	Stone structure (sacrificial)	-	67

A. BRONZE AGE COMPLEX SITE WITH DEER STONES AT KHOID TAMIR VALLEY

Of the four component parts properties proposed for this serial nomination, the KT valley offers the most spectacular natural setting and the richest assemblage of surface monuments. In addition to the khirgisüür, heavy mounds, high circles, and massive standing stones from the Bronze Age, these monuments include a large number of Early Medieval period Turkic enclosures and image stones. In the resulting integration of rock art, surface monuments, and the larger landscape, this property is the most obvious example of an archaeological cultural landscape of the Bronze Age period regrouped around the DS.

KT valley site is located in the fertile and wide river valley of Tamir in the northeastern part of Khangai mountain ridge. Meantime it is the most varied and concentrated cultural landscape among the three proposed nomination sites. Moreover, the Khoid Tamir valley is particular by its position as the meeting point of different cultural traditions of the Late Bronze Age, and exceptional testimony of cultural interactions during this period.

Along the valley, several thousands of archaeological monuments, regrouping in more than 40 sites were inventoried by the Mongolian-Monaco joint team during 2006-2012. Most of them had funeral characters, but also ritual and habitation sites from the Stone Age to the Late Medieval periods were discovered. Because of its large size and distribution of ritual and sacrificial features, this complex should be divided into 4 sections: DS's of Tsats Tolgoi, DS's of Tsatsiin Ereg, DS's of Bayantsagaan, and Rock Art of Khöröögiin Üzüür.

DS's of KT valley belongs mostly to the Mongol-Transbaikalia and Eurasian types. Nevertheless, those steles were spread all along the valley some 50 km's long, the site is considered as the highest concentration of such monuments in a single entity of territory. More than 110 steles in a valley and a unique stone quarry for those steles are evidence that the valley was one of the hearts of Deer Stone culture (Fig. 9).

KT valley deer stones have had the features of their own offering, including Tsatsiin Ereg section. Several particular and new motifs are encountered in the images on the DS, including – the humans fighting with weapons, a new type of weapon – 'one-handed flail' and traces of natural ochre painting on deer stones. Moreover, absolute date of the site is done on the 14C analysis of five DS sacrificial structures which giving 1200-760 BCE.

Fig.9. Stone quarry of Deer stone in the Khoid Tamir valley, Ikhtamir soum, Arkhangai

Fig. 10. Remains of red ochre on the deer stone (no. 11), Tsatsiin Ereg, Khoid Tamir valley, Ikhtamir soum, Arkhangai

Red ochre on the deer stones. Natural ochre is the earliest known pigment used from the Upper Paleolithic period for paint uses, including rock art paintings, animals, and various images on rock and cave surfaces. From the Neolithic time, the red ochre was used in funeral rituals in Mongolia and neighboring regions. In addition, there are also many cases in funeral rituals of Slab graves of the Late Bronze Age. Some researchers hypothesized that the use of the red ochre is a symbol of life and represents blood (Navaan 1976: 133-134).

Researchers observed, that rarely found remains of red ochre on the DS (Ol'khovskii 2005: 53). In the Khoid Tamir valley identified the traces of the red ochre on 4 DS. For

instance, the painted body of several deers of DS no. 11, necklace, several deer and belt of DS no. 24, some parts of several deers and mirror of DS no. 63 and no. 68 (Fig. 10).

It is possible that the red ochre is not only had a decorative function but also related to specific rituals similar to the use of red ochre in funeral rites. The hypothesis of some scientists like S. Dulam about the symbolism of the red color and in particular the red ochre is a symbol of blood and painted human bones by red ochre in the ancient funerary ritual, which is immediately "resurrected". As the red ochre used in funerals are normally well preserved, the red ochre on the deer stones is often dimmed by the effects of natural effects like sun, rain, and wind, as researchers have never observed.

One-handed flail. Here was a newly identified one-handed flail depiction on the DS no.41 in Khoid Tamir valley. And similar weapon previously presented on the DS no.8 of Uushigiin Övör, Khövsgöl province (Fig. 11).

This weapon has a long handle, plunger ball with three sharp spines, these connecting links. The handle and plunger are connected to a thickness of 1 cm and 20 cm long. This weapon was widely used in the army of Xianbei, Tuoba, and Chinese Han dynasty, later nomadic people of Eastern Europe in 8-10th centuries, Mongolian army in 13-14th centuries, Western Europe in the 13th century.

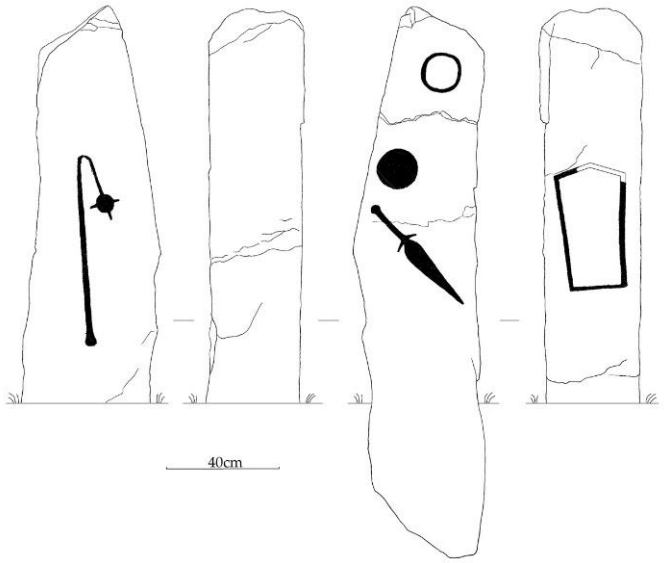


Fig. 11. Depiction of Weapons (one-handed flail, shield, dagger, mirror) on the deer stone (no. 41), Khoid Tamir valley, Ikhtamir soum, Arkhangai

Rock Art site of Khöröögiin Üzüür. Besides the DS and other ritual-funeral structures, KT valley has a rich rock art heritage. Among the several petroglyph sites, the Khöröögiin Üzüür is the biggest and retaining highest artistic values. Petroglyphs of this site are found, in abundance, on slabs and it is estimated that this complex includes approximately 800 compositions with over 2800 images in 21 groups stretching 3 km along with the river band from east to the west. Among the 21 groups, the biggest has 140 compositions, but most of the groups have several dozens of images. Most of the images on this site are depicted realistically (Fig. 12).

A common technique of engraving was pecking the whole surface or silhouette, the contouring (outline carve), but also carving or graffiti-style occurred. In some cases, the combination of those methods in one image is also took place.

Chronologically most of the images belong to the Bronze and Iron Age, but earlier period Late Neolithic/Eneolithic graffiti images were discovered recently, and humble pieces of Medieval period engravings reveal the continuity of rock art tradition in a particular river valley. Some Bronze Age engravings depicting DS style deers too.

In terms of theme and composition, the petroglyphs of Khöröögiin Üzüür are divided into eight categories, each of which are discussed in detail in the recent publication of Mongol-Monaco archaeologists (Gantulga, Yeruul-Erdene, Magail 2018). Although most of the images in this site refer to images of various animals, nevertheless there are also 130 human figures.

At Khöröögiin Üzüür site a large concentration of tamga (traditional property signs) with more than 131 signs, which can be divided into 10 different types according to their configurations.

Although burials and sacrificial structures are the most common of the archaeological sites of the ancient nomads as they are a result of rituals performed within the framework of religious beliefs, petroglyphs are an indispensable part of ritual landscapes and offer complimentary material for this research.

Moreover, the sheer size of DS and related Bronze Age settings and the presence of Rock art of the same time period suggests that this valley supported an important population in the Bronze and Iron Age. This valley offers the most significant opportunities for considering the transformation of early pastoral societies into horse riding nomadic empires with highly militarized ideology, which attested in an overwhelming number of horse sacrifices and DS warrior cults.

Fig. 12. Chronological table of Petroglyphs of Khöröögiin Üzüür

Occupation site. From the 4 properties proposed, only Khoid Tamir valley offers the most spectacular natural setting and the richest assemblage of surface monuments of different periods in human history in this region. To emphasize such heritage richness in the areas surrounding the nominated Khoit Tamir property, we have mentioned in the nomination

document the cultural heritage sites from Stone Age to the Late Medieval Period (Fig. 16) including one Stone Age "occupation site" that has been identified during recent research work carried out by Mongolia-Monaco Joint expedition.

This heritage site called "Avdar khad" is not related to the history of the deer stone complex from the Bronze Age. Until now, no archeological research has been carried out on these surrounding heritage sites and is not the mapping of potential other heritage sites around the region. These heritage sites are not related to the nominated property.

The List of Deer stones in the Khoid Tamir valley

a. Deer stones of Protected area

No.	Site name, ID	Type	Current location	Coordinate (WGS 84, DMS)	State of preservation	Dimension, color and material	Reference
1	KT1	Mongol-Transbaikal	Slab grave	101 23 11.2 47 45 57.6	Medium	Dimension: 140×46×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 66
2	KT2	Mongol-Transbaikal	Slab grave	101 23 11.5 47 45 57.5	Medium	Dimension: 174×60×36 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 67
3	KT3	Mongol-Transbaikal	Slab grave	101 23 11.4 47 45 57.6	Low	Dimension: 205×120×18 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 68
4	KT4	Mongol-Transbaikal	Slab grave	101 23 11.4 47 45 57.4	Low	Dimension: 148×65×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 69
5	KT5	Mongol-Transbaikal	Slab grave	101 23 11.2 47 45 57.3	Medium	Dimension: 168×48×28 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 70
6	KT6	Mongol-Transbaikal	khirgisüür	101 23 00.8 47 45 37.3	Good	Dimension: 347×77×41 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 71
7	KT7	Mongol-Transbaikal	Slab grave	101 23 12.3 47 45 32.3	Low	Dimension: 180×55×33 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 72
8	KT8	Mongol-Transbaikal	Slab grave	101 23 12.1 47 45 32.2	Low	Dimension: 280×30×38 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 73
9	KT9	Mongol-Transbaikal	Slab grave	101 23 12.1 47 45 36.1	Low	Dimension: 140×45×42 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 74
10	KT10	Mongol-Transbaikal	Slab grave	101 23 12.3 47 45 32.1	Medium	Dimension: 133×59×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 75
11	KT11	Mongol-Transbaikal	Slab grave	101 23 12.4 47 45 32.1	Good	Dimension: 201×60×41 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 76
12	KT12	Mongol-Transbaikal	Slab grave	101 23 12.1 47 45 32.0	Medium	Dimension: 188×72×35 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 77
13	KT13	Mongol-Transbaikal	Ritual structure	101 23 05.1 47 45 23.1	Medium	Dimension: 165×91×39 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 78
14	KT14	Mongol-Transbaikal	Ritual structure	101 23 01.2 47 45 18.4	Low	Dimension: 240×82×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 79
15	KT15	Mongol-Transbaikal	Ritual structure	101 23 01.3 47 45 17.8	Low	Dimension: 217×43×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 80
16	KT16	Mongol-Transbaikal	Ritual structure	101 22 59.7 47 45 17.0	Low	Dimension: 65×35×10 cm, 71×59×8 cm, 100×35×11 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 81
17	KT17	Mongol-Transbaikal	Ritual structure	101 22 58.6 47 45 17.1	Low	Dimension: 127×45×18 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 82

18	KT18	Mongol-Transbaikal	Ritual structure	101 22 46.4 47 45 12.7	Low	Dimension: 241×67×23 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 83
19	KT19	Mongol-Transbaikal	Ritual structure	101 22 45.9 47 45 13.0	Medium	Dimension: 186×57×36 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 84
20	KT20	Mongol-Transbaikal	Alone	101 22 17.5 47 45 11.5	Medium	Dimension: 185×98×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 85
21	KT21	Mongol-Transbaikal	Slab grave	101 22 17.5 47 45 13.3	Good	Dimension: 314×49×45 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 86
22	KT22	Mongol-Transbaikal	Slab grave	101 22 17.2 47 45 14.0	Good	Dimension: 347×40×41 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 87
23	KT23	Mongol-Transbaikal	Slab grave	101 22 17.4 47 45 14.5	Low	Dimension: 106×45×24 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 88
24	KT24	Mongol-Transbaikal	Slab grave	101 22 17.6 47 45 14.5	Good	Dimension: 228×73×27 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 89
25	KT25	Mongol-Transbaikal	Slab grave	101 22 18.0 47 45 14.2	Low	Dimension: 159×51×29 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 90
26	KT26	Mongol-Transbaikal	Slab grave	101 22 18.0 47 45 13.9	Good	Dimension: 140×50×23 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 91
27	KT27	Mongol-Transbaikal	Slab grave	101 22 17.9 47 45 13.7	Low	Dimension: 65×37×27 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 93
28	KT28	Mongol-Transbaikal	Slab grave	101 22 17.7 47 45 13.8	Medium	Dimension: 244×39×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 94
29	KT29	Mongol-Transbaikal	Ritual structure	101 21 53.0 47 45 08.3	Low	Dimension: 224×45×21 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 95
30	KT30	Mongol-Transbaikal	Ritual structure	101 21 53.0 47 45 08.2	Low	Dimension: 197×50×33 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 96
31	KT31	Mongol-Transbaikal	Alone	101 21 52.9 47 45 08.2	Medium	Dimension: 302×48×35 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 97
32	KT32	Mongol-Transbaikal	Ritual structure	101 17 21.9 47 45 29.3	Good	Dimension: 242×51×45 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 98
33	KT33	Mongol-Transbaikal	Ritual structure	101 16 52.9 47 45 31.2	Medium	Dimension: 174×39×28 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 99
34	KT34	Mongol-Transbaikal	Slab grave	101 15 35.6 47 45 05.4	Good	Dimension: 225×58×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 100
35	KT35	Mongol-Transbaikal	Slab grave	101 15 41.4 47 45 00.9	Good	Dimension: 260×45×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 101
36	KT36	Mongol-Transbaikal	Slab grave	101 15 41.5 47 45 00.8	Good	Dimension: 261×72×23 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 102
37	KT37	Mongol-Transbaikal	Ritual structure	101 15 41.9 47 45 00.7	Good	Dimension: 408×52×47 cm,	Gantulga, Yeruul-Erdene, Magail

						Material: Granite	2016: 103
38	KT38	Mongol-Transbaikal	Ritual structure	101 20 34.3 47 45 37.3	Low	Dimension: 150×35×23 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 104
39	KT39	Mongol-Transbaikal	Ritual structure	101 18 19.9 47 45 25.9	Good	Dimension: 305×41×29 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 105
40	KT40	Eurasian	Slab grave	101 18 30.7 47 40 54.2	Good	Dimension: 201×44×40 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 106
41	KT41	Eurasian	Alone	101 18 34.4 47 40 51.2	Good	Dimension: 86×35×34 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 107
42	KT62	Mongol-Transbaikal	Ritual structure	101 20 13.5 47 41 52.2	Good	Dimension: 203×99×18 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 127
43	KT86	Mongol-Transbaikal	Ritual structure	101 19 39.5 47 41 28.8	Low	Dimension: 87×43×34 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 151
44	KT87	Mongol-Transbaikal	Ritual structure	101 19 39.4 47 41 28.9	Low	Dimension: 179×42×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 152
45	KT88	Mongol-Transbaikal	Ritual structure	101 19 39.4 47 41 29.1	Good	Dimension: 218×56×38 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 153
46	KT94	Mongol-Transbaikal	Ritual structure	101 16 56.9 47 49 12.4	Low	Dimension: 130.5×33×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 158
47	KT107	Mongol-Transbaikal	Ritual structure	101 16 51.6 47 47 43.6	Medium	Dimension: 123×33×24 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 171
48	KT108	Mongol-Transbaikal	Ritual structure	101 22 16.3 47 45 29.3	Medium	Dimension: 218×56×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 172
49	KT109	Mongol-Transbaikal	Grave	101 14 03.3 47 37 29.9	Medium	Dimension: 142×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 173
50	KT110	Mongol-Transbaikal	Ritual structure	101 22 33.2 47 45 08.0	Low	Dimension: 37×31×11 cm, Material: Granite	Gantulga et al. 2016: 25, Fig. 62-64
51	KT111	Mongol-Transbaikal	Ritual structure	101 22 54.9 47 45 17.2	Low	Dimension: 37×31×11 cm, Material: Granite	Gantulga et al. 2016: 25, Fig. 62-64

b. Deer Stones in buffer zone

No.	**Site name, ID**	**Type**	**Current location**	**Coordinate** (WGS 84, DMS)	**State of preservation**	**Dimension, color and material**	**Reference**
1	KT63	Mongol-Transbaikal	Slab grave	101 31 16.2 47 44 30.4	Good	Dimension: 270×79×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 128
2	KT64	Mongol-Transbaikal	Slab grave	101 31 16.2 47 44 30.4	Good	Dimension: 267×51×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 129

3	KT65	Mongol-Transbaikal	Slab grave	101 31 16.3 47 44 30.4	Medium	Dimension: 325×61×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 130
4	KT66	Mongol-Transbaikal	Slab grave	101 31 16.3 47 44 30.4	Medium	Dimension: 205×57×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 131
5	KT67	Mongol-Transbaikal	Ritual structure	101 31 15.7 47 44 31.2	Medium	Dimension: 169×30×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 132
6	KT68	Mongol-Transbaikal	Ritual structure	101 31 14.9 47 44 31.3	Good	Dimension: 340×92×41.5 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 133
7	KT69	Mongol-Transbaikal	Ritual structure	101 31 14.6 47 44 31.4	Low	Dimension: 340×92×41.5 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 134
8	KT70	Mongol-Transbaikal	Ritual structure	101 31 14.7 47 44 31.5	Medium	Dimension: 362×70×28 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 135
9	KT71	Mongol-Transbaikal	Ritual structure	101 31 14.2 47 44 31.3	Low	Dimension: 175×38×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magai 2016: 136
10	KT72	Mongol-Transbaikal	Ritual structure	101 31 13.1 47 44 30.8	Medium	Dimension: 262×57×36 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 137
11	KT73	Mongol-Transbaikal	Ritual structure	101 31 12.7 47 44 30.7	Medium	Dimension: 175×45×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 138
12	KT74	Mongol-Transbaikal	Slab grave	101 31 13.6 47 44 29.6	Low	Dimension: 77×48×42 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 139
13	KT75	Mongol-Transbaikal	Slab grave	101 31 17.1 47 44 29.8	Low	Dimension: 272×37×32 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 140
14	KT76	Mongol-Transbaikal	Slab grave	101 31 17.0 47 44 30.0	Low	Dimension: 171×78×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 141
15	KT77	Mongol-Transbaikal	Slab grave	101 31 21.3 47 44 42.0	Low	Dimension: 224×57×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 142
16	KT78	Mongol-Transbaikal	Alone	101 31 22.4 47 44 42.9	Good	Dimension: 167×71×21 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 143
17	KT79	Mongol-	Alone	101 31 22.4	Good	Dimension:	Gantulga, Yeruul-

		Transbaikal		47 44 42.9		177×30×20 cm, Material: Granite	Erdene, Magail 2016: 144
18	KT80	Mongol-Transbaikal	Alone	101 31 22.5 47 44 43.0	Good	Dimension: 152×71×15 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 145
19	KT81	Mongol-Transbaikal	Alone	101 31 22.5 47 44 43.0	Good	Dimension: 252×50×28 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 146
20	KT82	Mongol-Transbaikal	Alone	101 31 22.6 47 44 43.0	Low	Dimension: 44×37×14.5 cm, 19×18×10 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 147
21	KT83	Mongol-Transbaikal	Alone	101 29 53.1 47 45 07.1	Low	Dimension: 208×58×26 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 148
22	KT84	Eurasian	Alone	101 31 16.8 47 44 30.1	Medium	Dimension: 143×47×12 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 149
23	KT85	Mongol-Transbaikal	Alone	101 26 30.2 47 48 17.0	Low	Dimension: 58×55×14 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 150
24	KT90	Mongol-Transbaikal	Alone	101 26 30.8 47 48 14.2	Low	Dimension: 78×70×12 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 155
25	KT91	Mongol-Transbaikal	Alone	101 25 32.7 47 48 04.6	Low	Dimension: 67×71×13 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 155
26	KT92	Mongol-Transbaikal	Alone	101 25 33.2 47 48 03.6	Low	Dimension: 54×52×14 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 156
27	KT93	Mongol-Transbaikal	Ritual structure	101 17 05.5 47 52 19.4	Good	Dimension: 296×75×43 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 157
28	KT94	Mongol-Transbaikal	Ritual structure	101 16 56.9 47 49 12.4	Medium	Dimension: 130.5×33×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 158
29	KT95	Eurasian	Slab grave	101 17 27.9 47 38 14.6	Low	Dimension: 86×31×27 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 159
30	KT96	Mongol-Transbaikal	Slab grave	101 17 24.3 47 38 14.2	Low	Dimension: 185×50×25 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 160
31	KT97	Mongol-Transbaikal	Slab grave	101 17 24.2 47 38 14.3	Medium	Dimension: 151×83.5×18	Gantulga, Yeruul-Erdene, Magail

						cm, Material: Granite	2016: 161
32	KT98	Mongol-Transbaikal	Slab grave	101 17 24.4 47 38 14.2	Low	Dimension: 138×81×19 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 162
33	KT99	Mongol-Transbaikal	Ritual structure	101 16 41.7 47 50 18.6	Medium	Dimension: 312×71×21 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 163
34	KT100	Mongol-Transbaikal	Slab grave	101 15 47.7 47 47 37.5	Medium	Dimension: 214×53×33 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 164
35	KT101	Mongol-Transbaikal	Slab grave	101 15 48.1 47 47 37.2	Good	Dimension: 247×48×20 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 165
36	KT102	Eurasian	Slab grave	101 15 48.1 47 47 37.1	Medium	Dimension: 116×76×13 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 166
37	KT103	Mongol-Transbaikal	Slab grave	101 15 48.3 47 47 36.9	Medium	Dimension: 226×95×30 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 167
38	KT104	Mongol-Transbaikal	Slab grave	101 15 48.4 47 47 37.0	Medium	Dimension: 240×90.5×19 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 168
39	KT105	Mongol-Transbaikal	Slab grave	101 15 48.5 47 47 36.8	Low	Dimension: 260.5×87×33 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 169
40	KT106	Eurasian	Slab grave	101 15 48.1 47 47 36.8	Low	Dimension: 218×55×21 cm, Material: Granite	Gantulga, Yeruul-Erdene, Magail 2016: 170
41	KT112	Mongol-Transbaikal	Ritual structure	101 14 35.3 47 47 48.8	Good	Dimension: 153×40×25 cm, Material: Granite	Gantulga et al. 2018: 9, Fig. 16, 20
42	KT113	Mongol-Transbaikal	Slab grave	101 17 57.9 47 38 33.6	Low	Dimension: 93×55×25 cm, Material: Granite	Gantulga et al. 2018: 9, Fig. 17, 18, 21

B. BRONZE AGE COMPLEX SITE WITH DEER STONES AT JARGALANTYN AM (JA)

The monumental site of Jargalantyn Am is located on the east side valley of the river Khanui. The complex is situated on a level terrace between the end of the marsh and the foot of the mountains in the west.

The Jargalantyn Am's component part is a large complex consisting of 26 Deer Stone monuments and related features. This component can be described as the largest Bronze Age offering commplex in Mongolia.

The complex is a huge stone structure consisting of DS's, related rituals, and offering features, forming a peculiar organization. As noted by previous scholars, the JA monument is the biggest offering structure of the Bronze Age in Mongolia (Turbat et al. 2011).

It seems that the very rare complex includes diverse ceremonial and offering structures and a complicated architectural structure. The researchers who worked there from 1989-1991 described the monument as an "*offering complex with a complicated structure, which is constructed of megaliths*" (Volkov 2002).

The site measures 150´300 m and has small kurgans and surface stone mounds with standing deer stones placed together or in rows. There are three structures with enclosures probably of later period, which have walls constructed by lying deer stones at the moment of discovery by V.V. Volkov at the end of the 1980s, situated at the north part of the complex in a row (Volkov 2002) (Fig. 13).

Fig. 13. Deer stone complex of Jargalantyn Am (from top), Khanui valley, Öndör-Ulaan soum, Arkhangai

As seen from the topographic plan of the site from 2009, nine groups of the offering structures in the central offering ensemble are situated on the site which measures 389 m long from the south-west to the north-east and 187 m wide from the west to the east. Including the rectangular offering complexes of a later period at the north part and a khirgisüür at the north-west part, the size of the whole Jargalantyn Am complex reaches 380´470 m or 17.9 hectares (Fig. 14).

The stone structures at the Jargalantyn Am complex consist of several categories that differed from each other in shape, size, and period.

1. The nine groups of offering structures with stone "horse mounds" situated in a long line from the north to the south, which is directly related to DS;
2. A bigger khirgisüür which is surrounded by many offering structures in the north-west portion of the site;
3. The rectangular offering structures spread to the north and the east portions of the complex.

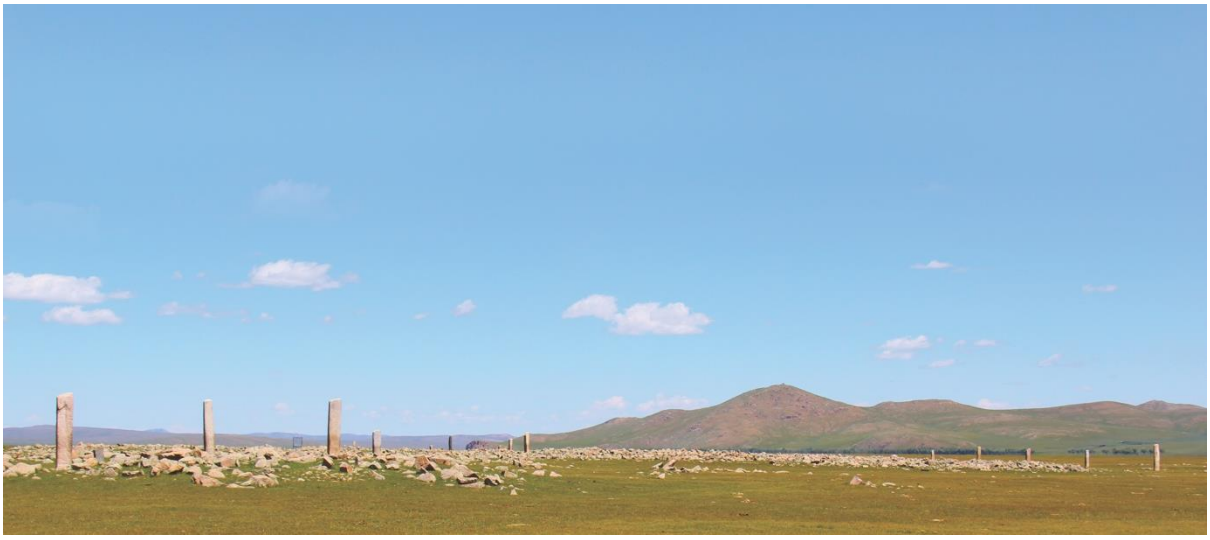


Fig. 14. General view of Deer stone complex of Jargalantyn Am (from southwestern)

The central offering ensemble or 1st group of the structures belongs to an earlier period. Most probably DS from those structures have been replaced and re-used as building materials for structures of the 2nd group of the later period. More detailed description of those groups is given below:

Offering Structures of Earlier Period. The central offering ensemble consists of several internal stone structures. Deer Stones at the JA site have the same sacrificial structures as other larger DS and khirgisüür sites of Central Mongolia.

At this site, there are total over 830 sacrificial "horse" mounds which belong to this 1st type and can be divided into nine groups. Approximately 670 of them belong to the central portion of the sacrificial structure. The south and north side of the central sacrificial group can be divided into four groups, with about 260 sacrificial mounds on each side. These mounds named "horse" because of horse head, mandibular and foot bones in systematic way buried in those structures.

There are about 400 stone circles of 2nd category lied around the nine groups of the 1st type of sacrificial structure at the site of Jargalantyn Am. Stone circles were containing calcined animal bones and charcoals in between them.

Offering Structures of Later Period. Three large rectangular structures located in the north part of the JA monumental site have been characterized as being "offering structures from a later period". The reason is that number of deer stones were systematically displaced from their original location near the central area of the main complex and used as building material for those later structures.

Furthermore, there are a total of seven rectangular stone structures of smaller size is located in the north part of central (or earlier) sacrificial structure. These structures differ widely in their external shape and their location from the earlier sacrificial structures, but are similar to the three large offering complexes of the later period.

All of the three big rectangular sacrificial complexes which are placed in a single row and located to the south-east and behind the complex have been excavated. The first one on the front side had been previously looted and the other two were excavated by Mongolian and Russian archaeologists in 1989-1990. Many deer stones which were used as enclosures for the rectangular complexes were revealed during the excavation process.

Several of these deer stones are simple and decorated. Those structures had a ritual function. Certainly, more than 100 animal skulls discovered in this category of sacrificial structures speaks to the scale of sacrifices. Nevertheless, it is clear that all these three structures

were not burials and that the reuse of deer stones as building material for a different type of structure and used by people from a later period.

The List of Deer Stones of Jargalantyn Am complex site

a. Deer stones of Protected area

No.	Site name, ID	Type	Current location	Coordinate (WGS 84, DMS)	State of preservation	Dimension, color and material	Reference
1	JA1	Mongol-Transbaikal	Ritual structures	101 05 37.274 48 10 21.000	Medium	Dimension: 345×45×44 cm, Material: Granite	Turbat et al. 2011: 58
2	JA2	Mongol-Transbaikal	Ritual structures	101 05 34.093 48 10 17.585	Medium	Dimension: 355×44×39 cm, Material: Granite	Turbat et al. 2011: 60
3	JA3	Mongol-Transbaikal	Ritual structures	101 05 37.647 48 10 23.339	Medium	Dimension: 260×39×38,5 cm, Material: Granite	Turbat et al. 2011: 62
4	JA4	Mongol-Transbaikal	Ritual structures	101 05 33.538 48 10 16.778	Medium	Dimension: 303×43×41 cm, Material: Granite	Turbat et al. 2011: 64
5	JA5	Mongol-Transbaikal	Ritual structures	101 05 33.573 48 10 16.891	Good	Dimension: 325×60×30 cm, Material: Granite	Turbat et al. 2011: 66
6	JA6	Mongol-Transbaikal	Ritual structures	101 05 31.671 48 10 15.610	Medium	Dimension: 272×50×32 cm, Material: Granite	Turbat et al. 2011: 68
7	JA7	Mongol-Transbaikal	Ritual structures	101 05 39.380 48 10 19.401	Good	Dimension: 273×44×33,5 cm, Material: Granite	Turbat et al. 2011: 70
8	JA8	Mongol-Transbaikal	Ritual structures	101 05 39.865 48 10 20.041	Medium	Dimension: 249×44×27 cm, Material: Granite	Turbat et al. 2011: 72
9	JA9	Mongol-Transbaikal	Ritual structures	101 05 31.544 48 10 15.330	Good	Dimension: 289×44,5×34 cm, Material: Granite	Turbat et al. 2011: 74
10	JA10	Mongol-Transbaikal	Ritual structures	101 05 40.159 48 10 20.571	Good	Dimension: 253×69×33 cm, Material: Granite	Turbat et al. 2011: 76
11	JA11	Mongol-Transbaikal	Ritual structures	101 05 35.706 48 10 19.775	Good	Dimension: 335×63×43 cm, Material: Granite	Turbat et al. 2011: 78
12	JA12	Mongol-Transbaikal	Ritual structures	101 05 38.269 48 10 23.182	Good	Dimension: 336×48×32 cm, Material: Limestone	Turbat et al. 2011: 80
13	JA13	Mongol-Transbaikal	Ritual structures	101 05 37.438 48 10 21.344	Good	Dimension: 232×27×30 cm, Material: Granite	Turbat et al. 2011: 82
14	JA14	Eurasian	Ritual structures	101 05 37.478 48 10 21.490	Medium	Dimension: 156×18×46 cm, Material: Granite	Turbat et al. 2011: 84
15	JA15	Mongol-Transbaikal	Ritual structures	101 05 28.911 48 10 25.049	Good	Dimension: 324×38×38 cm, Material: Granite	Turbat et al. 2011: 86
16	JA16	Mongol-Transbaikal	Ritual structures	101 05 33.692 48 10 17.079	Medium	Dimension: 97×44×19 cm,	Turbat et al. 2011: 88

						Material: Limestone	
17	JA17	Mongol-Transbaikal	Ritual structures	101 05 40.608 48 10 21.530	Medium	Dimension: 220×56×24 cm, Material: Granite	Turbat et al. 2011: 90
18	JA18	Mongol-Transbaikal	Ritual structures	101 05 40.405 48 10 21.062	Bad	Dimension: 223×46×19 cm, Material: Granite	Turbat et al. 2011: 92
19	JA19	Mongol-Transbaikal	Ritual structures	101 05 38.239 48 10 23.377	Medium	Dimension: 138×44×24 cm, Material: Granite	Turbat et al. 2011: 94
20	JA20	Mongol-Transbaikal	Ritual structures	101 05 34.714 48 10 18.271	Good	Dimension: 389×68×48 cm, Material: Granite	Turbat et al. 2011: 96
21	JA21	Mongol-Transbaikal	Ritual structures	101 05 38.458 48 10 25.172	Medium	Dimension: 386×56×35 cm, Material: Granite	Turbat et al. 2011: 98
22	JA22	Eurasian	Ritual structures	101 05 38.495 48 10 25.035	Good	Dimension: 187×28×27 cm, Material: Granite	Turbat et al. 2011: 100
23	JA23	Mongol-Transbaikal	Ritual structures	101 05 38.982 48 10 25.741	Medium	Dimension: 250×32×29 cm, Material: Granite	Turbat et al. 2011: 102
24	JA24	Mongol-Transbaikal	Ritual structures	101 05 37.960 48 10 25.308	Good	Dimension: 210×31×30 cm, Material: Granite	Turbat et al. 2011: 104
25	JA25	Mongol-Transbaikal	Ritual structures	101 05 38.301 48 10 24.508	Medium	Dimension: 153×48×22 cm, Material: Granite	Turbat et al. 2011: 106
26	JA26	Eurasian	Ritual structures	101 05 37.690 48 10 23.377	Bad	Dimension: 139×46×20 cm, Material: Granite	Turbat et al. 2011: 108

b. Deer stones of Buffer zone

No.	**Site name, ID**	**Type**	**Current location**	**Coordinate** (WGS 84, DMS)	**State of preservation**	**Dimension, color and material**	**Reference**
27	UB0	Eurasian	Slab grave	101 03 30.71 48 04 51.20	Bad	Dimension: 102×30×23 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
28	UB1	Mongol-Transbaikal	Slab grave	101 02 59.86 48 05 37.25	Bad	Dimension: 62×60×36 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
29	UB2	Mongol-Transbaikal	Slab grave	101 03 00.07 48 05 37.09	Bad	Dimension: 220×63×30 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
30	UB3	Mongol-Transbaikal	Slab grave	101 02 59.78 48 05 37.13	Bad	Dimension: 159×40×39 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
31	UB4	Mongol-Transbaikal	Slab grave	101 02 59.94 48 05 37.02	Bad	Dimension: 139×53×25 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
32	UB5	Mongol-	Slab grave	101 03 00.06	Bad	Dimension:	Turbat,

		Transbaikal		48 05 36.96		116×50×29 cm, Material: Granite	Gantulga, Enkhbayar 2016: 17
33	UB6	Mongol-Transbaikal	Alone	101 02 59.87 48 05 36.97	Bad	Dimension: 185×30×20 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17
34	UB7	Mongol-Transbaikal	Alone	101 02 59.81 48 05 36.83	Bad	Dimension: 204×54×22 cm, Material: Granite	Turbat, Gantulga, Enkhbayar 2016: 17

- JA – Jargalantyn Am, - UB – Urtyn bulag

C. BRONZE AGE KHIRGISÜÜR COMPLEX WITH DEER STONES AT URTYN BULAG SITE

The site of Urt Bulag, located on the north bank of the Khanui River, is a complex of monuments with several large khirgisüürs, deer stones, and slab burials. Most prominent landmark of the site is the large khirgisüürs with thousands of sacrificial structures, which makes this complex site look even more majestic. The largest khirgisüür dominating the site measures 388×410 m with a square fence, each corner of the fence is accentuated with a 170 cm high stone mound of 7,0–8,0 m diameter, and the central mound is 26 m in diameter and 4.9 m high (Fig. 15).

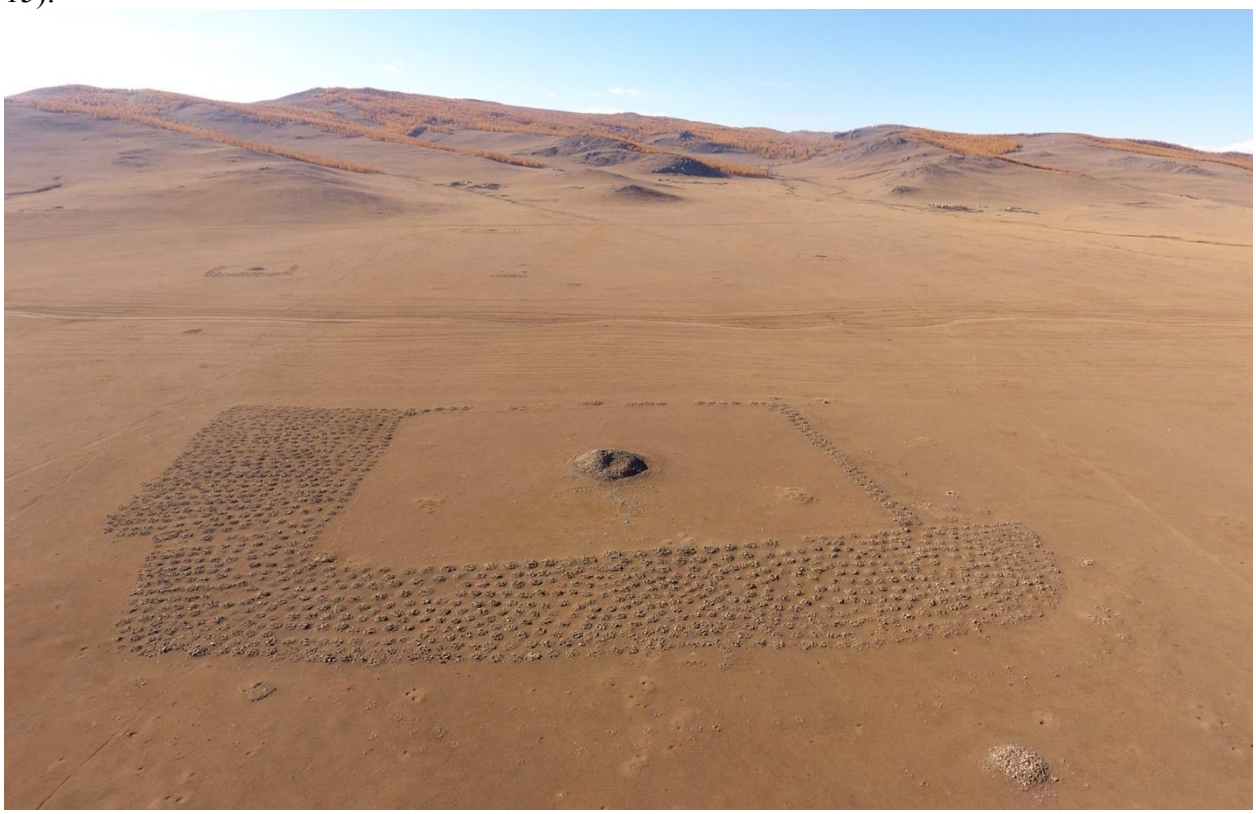


Fig. 15. Large khirgisüür in Urtyn Bulag (aerial view from the East)

Outside the square fence from the north, east and south sides encircled by 1752 round sacrificial structures formed by stone mounds with a diameter of 2,5–5,0 m, and the second encirclement of 1021 circular stone sacrificial structures with a diameter of 1,0–3,0 m. In total, this large khirgisüür has encircled with a total of 2773 sacrificial structures of two different types.

In the Late Bronze Age or 1200-900 BCE, the Deer Stone-Khirgisüür culture people were the first to exploit the given landscape by building those magnificent funeral-ceremonial monuments. After them, at the end of Bronze Age, around 900 BCE, the slab burial culture population advanced from the East to expulse the former inhabitants. They removed boulders from the khirgisüürs and the deer stones from the sacrificial structures, and used them in their burials, which called Slab burial. In result of this actions the original settings of this complex was slightly modified.

Later period archaeological features. Within this component part 11 features of different time period were inventoried, including 7 slab burials of Late Bronze Age-Early Bronze Age.

D. BRONZE AGE COMPLEX SITE WITH DEER STONES AT UUSHIGIIN ÖVÖR SITE (UÖ)

The Uushigiin Övör site located in the vast and fertile valley of Delgermörön river in the north of Mongolia, as well as the important concentration of relics of the Bronze Age of Mongolia. Total surface of the complex is more than 400 hectares. According to most recent study, the complex contains 24 Deer Stones and of these four component parts, it is the best portrayal of the early nomadic funerary and ritual tradition.

Standing steles of this site belong to two types of deer stones, namely, Mongol-Transbaikal type and Eurasian type. They form a complex consisting of deer stones, nearby located khirgisüür and other sacrificial structures. Sacrificial features of both deer stones and khirgisüür are regrouped separately, specially the first is the integral part of Deer stone cult ritual complexes.

Uushigiin Övör site is dated to 1312-810 BCE after radiocarbon ^{14}C datation method on the horse bones unearthed in sacrificial circular structures of the nearby located khirgisüür.

With its 24 deer stones and associated khirgisüür and slab burials of the Late Bronze Age, the site representing unique feature and best combination to the study of early nomad's funeral and ritual tradition. At present, total 14 deer stones stand up still in the original emplacement two lines. There are 3 deer stones at the first line and 11 are at the second one. Most of those deer stones have highly elaborated depictions on it and considered to be the one of biggest complex sites in Mongolia for its number, design and art representing Bronze Age culture. Especially, human faced stele No.14 is very rare example among the all registered deer stones. This monumental stele with human face is 256 cm high, 21 cm thick and width is 36 cm, human face focused to the south and made by the grey granite stone. The earring carving on this human face is special among anothers. Human head with eyes, eyebrows, nose, and cheek convex, mouth, ring earring on the left ear, ring earring with two branches of fringes on right ear and a thin necklace on the neck are completely engraved. Below the human face, there are 9 big and 6 small deer images wrap the surface of 4 sides of the deer stone, and a battle axe, quiver, grindstone, hook, dagger in the sheath and a small ring items from the wide belt with lattice pattern, and 18 plunging small deer engraved below. Likewise, 5 angles shield with palate pattern engraved back side of the monument.

Fig.16. Deer stone complex of Uushigiin Övör (from north-east), Bürentogtokh county, Khövsgöl province

Fig.17. Deer stone no. 14, Uushigiin Övör, Bürentogtokh county, Khövsgöl province

Fig. 18. Sacrificial complex of Deer stones at Sörtiin Denj within buffer zone

Deer stones at Uushigiin Övör belongs to the Mongol-Transbaikal type and special for the all the characters of delineation methods. For example, several deer images are engraved skillfully on 4 sides of the deer stones on No. 2, 3, 4, 5, 6, 9, 10, 11, 12 and 13, and 3 deer images are engraved to the top side (No. 2, 5) of the deer stones (Fig. 17, 18).

Indeed, large khirgisüür and Sörtiin Denj deer stone complex are located at the slope of Ulaan Uushig Mountain at the west of "Uushigiin Övör" heritage complex site. In the nomination file, we included these heritage properties in the buffer zone of the Uushigiin Övör Component. As the engraving style and integrity of this site are less valuable and it is difficult to compare with the engraving style and integrity of "Uushigiin Övör" site, our specialists prefer not to include this site in the nominated property, instead included in the buffer zone (Fig. 16).

The List of Deer Stones of Uushigiin Övör complex site

a. Deer stones of Protected area

No.	Site name, ID	Type	Current location	Coordinate (WGS 84, DMS)	State of preservation	Dimension, color and material	Reference
1	UÖ1	Mongol-Transbaikal	Ritual structures	99 55 42.207 49 39 19.073	Medium	Dimension: 133×32×50 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 78; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
2	UÖ2	Mongol-Transbaikal	Ritual structures	99 55 42.151 49 39 19.430	Medium	Dimension: 224×20×83 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 78; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
3	UÖ3	Mongol-Transbaikal	Ritual structures	99 55 42.048 49 39 19.951	Medium	Dimension: 170×19×66.5 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001;

							Volkov 2002: 79, Tabl. 73, *2*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
4	UÖ4	Mongol-Transbaikal	Ritual structures	99 55 39.046 49 39 21.392	Medium	Dimension: 212×24.5×54 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 79, Tabl. 74, *1*; Fitzhugh, Bayarsaikhan 2004; Shu et al. 2006; Erdenebaatar 2006; Beaubien 2007; Mongolian archaeology II 2016: 11-13; Bayarsaikhan 2017: 267-278
5	UÖ5	Mongol-Transbaikal	Ritual structures	99 55 38.972 49 39 21.347	Medium	Dimension: 210×35×66 cm, Material: Marble	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 80, Tabl. 75, *2*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
6	UÖ6	Mongol-Transbaikal	Ritual structures	99 55 39.207 49 39 19.028	Medium	Dimension: 176×23.5×37 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 80, Tabl. 75, *1*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
7	UÖ7	Mongol-Transbaikal	Ritual structures	99 55 39.267 49 39 18.993	Medium	Dimension: 375×26.5×85 cm, Material: Marble	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978:

							36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 80, Tabl. 73, 3; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
8	UÖ8	Mongol-Transbaikal	Ritual structures	99 55 39.261 49 39 18.926	Medium	Dimension: 182×25×45 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 81, Tabl. 76, *1*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
9	UÖ9	Mongol-Transbaikal	Ritual structures	99 55 39.086 49 39 18.459	Medium	Dimension: 250×24×25 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 81, Tabl. 76, *2*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
10	UÖ10	Mongol-Transbaikal	Ritual structures	99 55 39.071 49 39 18.338	Medium	Dimension: 242×22×53.3 cm, Material: Granite	Ser-Odjav 1965: 47-68; Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 81, Tabl. 77, *1*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
11	UÖ11	Mongol-Transbaikal	Ritual structures	99 55 39.424 49 39 17.557	Medium	Dimension: 152×32.6×34 cm, Material: Granite	Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981;

							Fitzhugh 2001; Volkov 2002: 81, Tabl. 77, *2*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
12	UÖ12	Mongol-Transbaikal	Ritual structures	99 55 39.082 49 39 17.619	Medium	Dimension: 151×23×30 cm, Material: Granite	Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 82, Tabl. 74, *2*; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
13	UÖ13	Mongol-Transbaikal	Ritual structures	99 55 39.396 49 39 17.447	Medium	Dimension: 271×28×55.5 cm, Material: Granite	Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 82; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
14	UÖ14	Mongol-Transbaikal	Ritual structures	99 55 39.039 49 39 16.315	Good	Dimension: 256×21×36 cm, Material: Granite	Volkov, Novgorodova 1975; Tseveendorj 1975; Tseveendorj 1978: 36-85; Volkov 1981; Fitzhugh 2001; Volkov 2002: 82, Tabl. 79, 5; Fitzhugh, Bayarsaikhan 2004; Erdenebaatar 2006; Shu et al. 2006; Beaubien 2007; Bayarsaikhan 2017: 267-278
15	UÖ15	Mongol-Transbaikal	Moved	99 55 39.351 49 39 15.634	Bad	Dimension: 135×38×28 cm, Material: Granite	Volkov, Novgorodova 1975; Volkov 1981; Volkov 2002: 78; Erdenebaatar 2006; Shu et al. 2006; Bayarsaikhan 2017: 277
16	UÖ16	Mongol-	Ritual	99 55 39.206	Bad	Dimension:	Erdenebaatar 2006;

		Transbaikal	structures	49 39 19.269		67×25.5×24 cm (medium), 93×24×21 см (base), Material: Granite	Shu et al. 2006;
17	UÖ17	Mongol-Transbaikal	Ritual structures	99 55 38.867 49 39 20.043	Bad	Dimension: 61×35×15 cm, 30×21×8 cm, 36×22×12 cm, 73×35×15 cm, Material: Marble	Erdenebaatar 2006; Shu et al. 2006;
18	UÖ18	Mongol-Transbaikal	Ritual structures	99 55 38.953 49 39 20.119	Bad	Dimension: 64×31×12 cm, 27×21×11.5 cm, 37×19.5×10 cm, Material: Granite	Gantulga, Batsukh, Enkhbayar 2017: 47
19	UÖ19	Mongol-Transbaikal	Ritual structures	99 55 39.030 49 39 20.177	Bad	Dimension: 119×44×15 cm, Material: Granite	Gantulga, Batsukh, Enkhbayar 2017: 47
20	UÖ20	Mongol-Transbaikal	Ritual structures	99 55 39.160 49 39 20.183	Bad	Dimension: 118×62×13 cm, Material: Granite	Gantulga, Batsukh, Enkhbayar 2017: 47
21	UÖ21	Mongol-Transbaikal	Ritual structures	99 55 38.323 49 39 17.607	Bad	Dimension: 46×26×8 cm, 27×17.5×9 cm, 29×27×9.5 cm, 28.5×20×9 cm, 30×19.5×6 cm, 37×26×12 cm, 25×20×12 cm, 22×20×8 cm, Material: Granite	Gantulga, Batsukh, Enkhbayar 2017: 47
22	UÖ22	Mongol-Transbaikal	Ritual structures	99 55 39.13 49 39 19.45	Bad	Dimension: 118×67×10 cm, Material:	Gantulga, Batsukh, Enkhbayar 2017: 47

						Marble	
23	UÖ23	Eurasian	Khirgisüür	99 55 44.10 49 39 28.35	Medium	Dimension: 74×31×24 cm, Material: Marble	Gantulga, Batsukh, Enkhbayar 2017: 47
24	UÖ24	Mongol-Transbaikal	Ritual structures	99 55 39.27 49 39 19.42	Bad	Dimension: 76×35×15 cm, Material: Granite	Gantulga, Batsukh, Enkhbayar 2017: 47

b. Deer stones of Buffer zone

No.	**Site name, ID**	**Type**	**Current location**	**Coordinate** (WGS 84, DMS)	**State of preservation**	**Dimension, color and material**	**Reference**
25	SD1.1	Eurasian	Khirgisüür	99 49 00.12 49 38 55.79	Medium	Dimension: 49×33×16 cm, Material: Granite	Bayarsaikhan 2017: 267
26	SD1.2	Mongol-Transbaikal	Khirgisüür	99 49 00.26 49 38 55.79	Bad	Dimension: 100×37×15 cm, Material: Granite	Bayarsaikhan 2017: 267
27	SD2.1	Eurasian	Ritual structures	99 49 19.20 49 38 30.41	Medium	Dimension: 59×29×34 cm, Material: Granite	Kovalev, Rukavishnikova, Erdenebaatar 2014
28	SD2.2	Eurasian	Ritual structures	99 49 19.17 49 38 30.49	Medium	Dimension: 111×22×26 cm, Material: Granite	Kovalev, Rukavishnikova, Erdenebaatar 2014
29	SD2.3	Eurasian	Ritual structures	99 49 19.13 49 38 30.54	Bad	Dimension: 39×19×23 cm, Material: Granite	Kovalev, Rukavishnikova, Erdenebaatar 2014
30	SD2.4	Eurasian	Ritual structures	99 49 19.09 49 38 30.58	Bad	Dimension: 65×28×22 cm, Material: Granite	Kovalev, Rukavishnikova, Erdenebaatar 2014
31	SD2.5	Eurasian	Moved	106 57 28.47 47 55 13.92	Good	Dimension: 132×31×20 cm, Material: Granite	Kovalev, Erdenebaatar 2007: 103; Kovalev, Rukavishnikova, Erdenebaatar 2014
32	SD2.6	Eurasian	Moved	99 49 19.04 49 38 30.66	Medium	Dimension: 93×39×18 cm, Material: Granite	Kovalev, Erdenebaatar 2007: 103; Kovalev, Rukavishnikova, Erdenebaatar 2014
33	SD2.7	Sayan-Altai	Moved	106 54 54.90	Good	Dimension:	Kovalev,

				47 55 14.12		160×33×29 cm, Material: Granite	Rukavishnikova, Erdenebaatar 2014; Bayarsaikhan 2015: 152-161
34	SD2.8	Sayan-Altai	Moved	99 49 18.99 49 38 30.71	Bad	Dimension: 224×34×23 cm, Material: Granite	Kovalev, Erdenebaatar 2007: 103; Bayarsaikhan 2017: 267

- UÖ - Uushigiin Övör, - SD - Sörtiin Denj

2b. HISTORY AND DEVELOPMENT

The history of the nominated property begins in the Late Middle Holocene (c. 6000-4000 years BP), when the central Mongolian landscape assumed its present mountain steppe character. The herding of domesticated animals began to dominate the way of life, and the low valleys became important for their pastures, which lasted all year. With the transition to full horse-riding nomadism in the mid-2nd millennium BCE and thereafter, these valleys were evidently important for pasturing domesticated animals. The presence of significant populations is recorded in thousands of compositions and images from various periods.

In the cultures of northern Eurasia, stone monuments played a key role as representations of power and remembrance for social and cultural continuity. In the Late Bronze Age in Mongolia (1200-600 BCE), deer stone monuments and *khirgisüür* burials and ceremonial mounds dominated the steppe landscape. These were highly visible reminders of the pastoral nomadic society's history and contemporary traditions. 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. 80% of all known deer stones are in Mongolia. Deer stones provide evidence of the way in which successive nomadic cultures during the Bronze and Early Iron Ages were based around those monuments and were anchored to a series of complex sites. Deer stones indicate that the steppe and river valleys provided ideal habitats for pastoral communities to develop complex societies with strongly expressed mounted warrior cultures. The uniformity of construction and erection techniques for deer stones and related funeral/ritual monuments all over the steppes of Inner Asia from the Khentii mountains toward the Altai mountain range testify to the cultural and possibly political integration of nomadic tribes into a quasiimperial formation.

The meaning of deer stones relates to the cult of warriorancestors who were at the core of a worship and ritual system of Late Bronze Age communities, fostering a cultural-political unity and reflecting a world view of ancient nomadic peoples of Inner Asia. In addition, they have several layers of meaning among Eurasian nomadic cultures, the more obvious being related to warrior ancestors but also having cosmological/mythological meanings expressed through surface carvings. 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. This demonstrates that the earliest central Eurasian "animal-style art" (zoomorphic motifs depicted in dynamic scenes of vigorous animal interaction) is from Mongolia. 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 influenced by later peoples in two historical periods. Around the 8th to 7th centuries BCE, later peoples made slab tombs using the deer stones and the sacrificial structures, thus destroying the original form and appearance of these complexes.

Following this, in the 6th to 8th centuries CE, ancient Turks used deer stones as parapets and tethers, and as Kurgan stele. Nonetheless, 24 fully intact dee stones are to be found at their original sites at Khoid Tamir.

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

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

A. BRONZE AGE COMPLEX SITE WITH DEER STONES IN THE KHOID TAMIR VALLEY

The original structures and the changes. Deer Stones and their sacrificial complexes in the valley of Khoid Tamir river, came down to our times, perhaps after much destruction two different historical periods after they were first made. But it would be wrong to maintain that all the Deer Stones were removed from their original site and used in other monuments. As of today, 24 fully intact Deer Stones are to be found at their original site.

Nomads who lived more than 3,200 years ago had erected scores of Deer Stones, khirgisüür and thousands of sacrificial monuments dedicated to them in many places in the valley of Khoid Tamir such as along the Tsatsiin Ereg, the Bayantsagaan valley and Shivertiin Am valley. The largest of the sacrificial complexes with highest number of Deer Stones are at Shivertiin Am valley, followed perhaps by Tsatsiin Ereg, which had many small sacrificial monuments.

The population of the Slab grave culture, who appeared on the historical scene of the Central Mongolia around the 8-7th centuries BCE, in succession to the creators of the Deer Stone and Khirgisüür archaeological culture, had made their slab tombs using the stones of the earlier-mentioned 56 deer-stones and the sacrificial structures, thus destroying the original form and appearance of these impressive complexes with massive and elaborate structure. Following this, in the 6th-8th centuries CE, the ancient Turks had used 7 deer-stones as parapets and tethers of memorial monuments and as Kurgan stele.

Archaeological Research. A Mongolian archaeologist Ts. Dorjsüren was the first person ever to make the Deer Stones along the Khoid Tamir valley a subject of research starting in 1955. In 1974, Mongolian and Hungarian researchers found a deer-stone, more than 4 meters in length, buried underground in the valley of Bayantsagaan. This monument was later studied by academician D. Tseveendorj, who identified a specific motif on this stele as a very ancient traditional method of counting days and months.

In 1976-1983, researchers of Joint Mongolia-Soviet History Culture Expedition excavated and studied 4 slab graves with Deer Stone monuments at Shivertiin Am in Ikhtamir soum and 2 slab graves with Deer Stone monuments at Shivertiin Am in Battsengel soum, noting that there was a total of more than 30 Deer Stones at the Shivertiin Am complex. This was, most likely, one of the sacrificial complexes with highest number of Deer Stone monuments ever to be built on the territory of Mongolia.

In 1979, D. Tseveendorj published the definitions including the hand drawings of a total of 41 Deer Stones found in the Khoid Tamir river basin, giving his interpretation of the periodicity and origin of the Deer Stone culture. And later in 1981, V.V. Volkov also published a brief

description together with some hand drawings of 65 Deer Stone monuments from Khoid Tamir basin.

Since 2006, researchers of the joint Mongolian-Monaco archaeological project "Khoid Tamir- Khunui" have been carrying out extensive excavation in the Khoid Tamir basin. They discovered more than 50 Deer Stones during their more than a decade of extensive investigation and also identified those sites at the mouth of Bayantsagaan Valley and along the ravine stretching north to south in Shivertiin Am from where Deer Stones were being excavated.

The present situation. As of today, 24 of the 113 Deer Stones at 25 sites along the Khoid Tamir valley are in their original location, 63 of them had been used in the slab graves as well as parapets and Kurgan stele of memorial monuments during the period of the Ancient Turks, while 21 of them have been taken away and 5 of the Deer Stones have been used as modern- day tombstones. 44 of these Deer Stones are broken while the engravings on 52 Deer Stones have become indistinct and have been dislodged.

Between 2006 and 2018, researchers of the joint Mongolian-Monaco "Khoid Tamir-Khunui" project placed more than 20 Deer Stones at their original sites or restored them near the slab graves that they had studied.

B. BRONZE AGE COMPLEX SITE WITH DEER STONES AT JARGALANTYN AM

The original view and the changes. Archaeological research has been determined that the Jargalatyn Am complex had developed through two stages in history. In the first phase, the sacrificial structures (with the 1st and 2nd types) related to the Deer Stones in the central part of the complex were built together with the great khirgisüür along the northwestern part of the complex. This is an absolute dating determined applying the ^{14}C radiocarbon method and can be assumed that they relate to the 9th-10th centuries BCE under the general periodicity of the Khirgisüür-Deer Stone archaeological culture. However, a couple of centuries later, or in the 8th-7th centuries BCE, when another group of people occupied and settled on this area, major changes took place which we assume is the second phase of development of the complex. During this period, the 3 large burial-sacrificial complexes, located to the north part, were built and in the process, many Deer Stones were used as building materials in the form of parapets and tethers.

Although these two periods appear to be phases when the monuments of the previous period were destroyed by the people of the succeeding period, in reality, they are vitally important manifestations of the cultural sequence of the ancient nomads of the latter period of the Bronze Age in Mongolia. On the other hand, as the deer stones were used as parapets and tethers of the stone structures, they were buried underground for almost 2000 years, thanks to which they have come down to our times in a relatively good shape and form.

Archaeological research. Archaeologists of Mongolia and the then Soviet Union, starting in 1968, began taking an interest in and commenced their research into the Jargalatyn Am site and V.V. Volkov, in his book entitled "Deer stones of Mongolia" published in Ulaanbaatar in 1981, in which he included the definitions and hand drawings of some of the deer stones found at one of the three major sacrificial structures located to the northern part of the complex, located at the extreme east of the complex that had been plundered already in the antiquities.

Following this, a field research unit of the joint Mongolia-Soviet History and Culture Expedition carried out extensive archaeological excavation and research from 1989 to 1991. In the course of this expedition, Mongolian and Russian archaeologists not only excavated 3 large burial-sacrificial structures from the northern part of the complex, relating to a later phase, but also excavated 7 sacrificial features from a pile of stones to the south of the primary sacrificial complex of the deer-stones and discovered that each contained head of the horse with the nozzle facing eastward.

In 2009, Ts. Turbat with his team implemented a project called "Khanui Khöndii" under the auspices of the Society for the Protection of Mongolia's Tangible Cultural Heritage, with the objective of protecting, restoring, and improving the conservation of the Jargalantyn Am Complex monuments, which are the priceless heritage of not only Mongolia but also of the entire nomadic culture. Under the project, the research team not only refilled and restored the earlier excavated sites but also erected 24 deer stones in their original sites.

The present situation. The Jargalatyn Am complex obtained its present view thanks to the restoration and conservation project implemented in 2009. This complex not only has the greatest number of deer stones in one location but has become a complex with the best-preserved Deer Stones. Deer Stones as well as different kinds of Bronze Age burial-sacrificial structures are to be found in one location at this site.

C. BRONZE AGE KHIRGISÜÜR COMPLEX WITH DEER STONES AT URTYN BULAG

Bronze Age Khisuur Complex site with Deer Stones is located at the north bank of Khanui river and includes several large khirgisüürs, deer stones and some slab graves. Firstly, in 2001 Mongol-American joint archeological research team has initiated the implementation of "Khanui Value" project and documented the largest khirgisüür complex's attributes, and excavated two round sacrificial structures and 3 circular burial sites. And since 2006, the above-mentioned research tem has been carrying out archeological field studies, documenting , identifying attributes and monuments, and excavating some satellite sacrificial structures. Chronology of these khirgisüür complexes is equated with the 1030-820th centuries BCE. By today, there have been registered and documented 11 deer stones, 4 big khirgisüürs at Urtyn Bulag.

The original structures and the changes. The site of Urtyn Bulag, located on the north bank of the Khanui River, is a complex of monuments with several large khirgisüürs, deer stones, and slab burials.

Most prominent landmark of the site is the large khirgisüürs with thousands of sacrificial structures, which makes this complex site look even more majestic. The largest khirgisüür dominating the site measures 388×410 m with a square fence, each corner of the fence is accentuated with a 170 cm high stone mound of 7,0–8,0 m diameter, and the central mound is 26 m in diameter and 4.9 m high. Outside the square fence from the north, east and south sides encircled by 1752 round sacrificial structures formed by stone mounds with a diameter of 2,5–5,0 m, and the second encirclement of 1021 circular stone sacrificial structures with a diameter of 1,0–3,0 m. In total, this large khirgisüür has encircled with a total of 2773 sacrificial structures of two different types.

In the Late Bronze Age or 1200-900 BCE, the Deer Stone-Khirgisüür culture people were the first to exploit the given landscape by building those magnificent funeral-ceremonial monuments. After them, at the end of Bronze Age, around 900 BCE, the slab burial culture population advanced from the East to expulse the former inhabitants. They removed boulders from the khirgisüürs and the deer stones from the sacrificial structures, and used them in their burials, which called Slab burial. In result of this actions the original settings of this complex was slightly modified.

Archaeological Research. From the very beginning of the archaeological study of the Jargalantyn Am Complex, in the 1970's the nearby located Urtyn Bulag site attracted great interest to researchers, but no significant research has been conducted until the 2000's.

In 2001, the joint Mongolian-American "Khanui Valley" project team documented and mapped a large khirgisüür at Urtyn Bulag and excavated 2 circular stone sacrificial structures and three round sacrificial structures with a stone mound. In 2006, another Mongolian-American joint team – "Deer Stone" project crew excavated 2 round sacrificial structures with a stone

mound of the largest khirgisüür in Urtyn Bulag, had collected samples of horse bone for the radiocarbon datations (which gave the absolute dating 1030–820 BCE). In the following year researchers of the third joint Mongolian-American project "Settlement of Khanui Valley" team have documented archaeological features in Urtyn Bulag site and excavated some monuments in the Khanui valley.

In 2018, the Mongolian-Chinese joint project "Nomadic Heritages of the Bronze and Iron Age" excavated two slab burials at the site Urtyn Bulag. They unearthed 3 deer stones which were used within the fence of one of the slab burials (Grave 4). Also, they found some artifacts such as spindle whorl and pottery shards with ornaments.

The present situation. The central mound of the largest khirgisüür at the Urtyn Bulag Complex site looted in the antiquity. Some of the deer stones used in the slab graves have been deteriorated and partially broken.

D. BRONZE AGE COMPLEX SITE WITH DEER STONES AT UUSHIGIIN ÖVÖR

The original view and the changes. Among the three nominated sites, Uushigiin Övör Deer Stone and Khirgisüür complex keeps its authentic view with the best form. Despite some Deer Stones having fallen down or broken incidents happened, there is no intrusion of Slab grave population happened as it occurred in Khoid Tamir and Jargalantyn Am complexes. Therefore, this site is appreciated as the most elaborate and best-preserved to study the Deer Stone culture. Moreover, Deer Stone 14 of this site with its depiction of the Human face in its most elaborate form played a key role in deciphering the semantics of Deer Stones.

Archaeological Research. The monuments at Uushigiin Övör site were first registered and documented by Mongolian archaeologist N. Ser-Odjav in 1964, noting in his report that there were 10 deer-stones. Soviet scholars V.V. Volkov and E.A. Novgorodova, who worked there in 1970 within the framework of the Joint Mongolia-Soviet History and Culture Expedition (JMRHCE), made a general plan of the site identifying and documenting 15 deer stones, and in particular, based on the Deer Stone number 14 with a carved human face, they had noted that on the overall the Deer Stones were dedicated to humans. They also theorized that some of the weapons depicted on the deer stones relate to 1st Millenium BCE. Later, V.V. Volkov included the general plan, definitions, and hand drawings of the monuments in his monograph noting that the Deer Stone No. 14 was an actual depiction of the people that lived in north Mongolia more than 2500 years ago, and suggested that the Deer Stones were part of a sacrificial structure.

In 1999 and in 2003-2006, a joint Mongolia-Japan research team worked vigorously in this region, identifying and registering 10 monument sites surrounding the Ulaan Uushig mountain. The team made a ground plan of the sites, naming Uushigiin Övör as Ulaan Uushig-1, excavated and studied the 1st and 12th khirgisüür, 1st slab grave and a number of sacrificial structures, and had paper stamping copies of 15 Deer Stones. The 4 samples taken by the team from the animal bones at the satellite sacrificial structures through laboratory tests were found to be related to the 13-9th centuries BCE.

In 2001-2007, the Mongolian-American "Deer Stones" project, while carrying out a research survey, made some paper estampage and 3D model of some of the monuments. In 2006-2007, Mongolian and Korean archaeologists, under their joint project "Paper Estampages of Stone Monuments on the Territory of Mongolia" had made paper estampage of the 4th, 6-10th, 13th, 14th, and 16th deer stones. In 2013, a joint Mongolian-Russian research team carried out excavations on a surface of 75×55 meters in size in the area where the Uushigiin Övör Deer Stones were found, discovered 6 Deer Stones lower parts in their initial places as well as the fragments of 5 monuments suggesting that they were identical to the burial structure - khirgisüür and their satellite sacrificial structures found in the central parts of Mongolia.

In 2017, as part of the work on registering and documenting Deer Stones on the territory of Khövsgöl province, researchers J. Gantulga and D. Batsükh registered and documented the monuments at Uushigiin Övör, once again precisely identified the broken pieces found in the course of previous excavations, and determined that they were the broken as well as unbroken pieces of 24 monuments.

The present situation. Actually, 14 Deer Stones were found in the erected situation in their initial places as well as about 10 more were lied down in the fragmented form. Overall, the site places as a unique one among the whole repertoire of Deer Stone culture as best preserved and most elaborate and offers good opportunities to restore the funeral-sacrificial complexes of the Late Bronze Age.

3. JUSTIFICATION FOR INSCRIPTION

3.1.a. Brief Synthesis

Deer stones belong to a class of Bronze Age monuments found throughout the world and are known most frequently as menhirs. Decorated or not, these are massive monoliths set directly in the ground singly or in groups. Insofar as it can be known, the function of menhirs, like their appearance, varies widely from region to region but remains conjectural.

Within North and Central Asia, the best-known menhir is known as **"Deer Stone"** after the classic Mongolian version of that monument type. Deer stone monuments are generally dated to the Late Bronze and Early Iron Ages, i.e. from c. 1200 to 600 BCE. The term derives from the stones' characteristic ornamentation of large, stylized stag images arranged in diagonal, vertical, or horizontal stripes across the stone shaft. The deer stone has ancient North Asian roots: the sources of the deer stone tradition may be traced back through monumental standing stones erected as early as the fourth millennium BCE in present-day Khakassia.

The deer stone tradition is typified by the monuments at Khoid Tamir, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör - the four sites included in this serial nomination. In terms of ornamentation, cultural significance, archaeological and landscape contexts, the Mongolian deer stone is unique within world Bronze Age monuments; but its uniqueness and cultural value lie in other associations as well.

Within North and Central Asia there are three relatively distinct forms of deer stone:

1. **Mongol-Transbaikal type.** This type is characterized by stylized stag images and is the most sophisticated in terms of the shape and carving of the stone and terms of ornamentation. The Mongolian deer stone is concentrated in north-central Mongolia, but fine examples are known elsewhere, from the eastern steppes across to the Altai Mountains. Isolated examples of the Mongolian type have been found in Transbaikal, just north of the Mongolian border, and on the eastern edge of Xinjiang province, within the Altai Mountain region.
2. **Sayan-Altai type**. This type is either uncarved or decorated with relatively realistic images of animals such as horses, ibex, and argali. With rare exceptions, this type is much simpler; as it appears in the Sayan region, it may be early but within the Altai region of Russia, it is probably a late-comer to the deer stone tradition.
3. **Eurasian type.** This stone is less well articulated as a type and appears to be the latest of the deer stone's formulations. In its most western appearances, it frequently takes the crude form of a human figure.

The Mongolian deer stone is the most important of this North Asian menhir tradition. Although across Mongolia there are more than 1500 identified deer stones, each stone is different in its carved ornamentation and each reflects the hand of individual craftsmen. In addition, the Mongolian deer stone is almost always located in the context of a spatially extended complex including khirgisüür (elaborated mounds), burial mounds, and sacrificial altars. The landscape in which these frequently huge complexes occur is often of outstanding natural beauty, including river basins and surrounding hills. The four sites included in this serial nomination - Khoid Tamir, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör are among the most spectacular of these complexes.

At the designated sites as well as elsewhere across Mongolia, the deer stones regularly appear in groups, closely joined or dispersed, of up to 100 deer stones and in conjunction khirgisüür and with several other monuments of ritual and burial significance.

The exceptional concentration of Deer stone monuments with Khirgisüür is the most outstanding example of early human artistic activity from anywhere in the World.

The specifics of khirgisüür monumental structure are that it has a big stone mound in the center with either a circular or square enclosure of stone row (usually referred to as a fence) laid along the perimeter. Deer stones are sometimes found within the perimeter of the khirgisüür stone frame, or separately a distance from the khirgisüür.

Khirgisüür is a complete and perfect creation of workmanship. These monuments display remarkable presentation of stone-built structures which together with Deer stone monuments demonstrate exceptional completeness of ritual and burial structures of a now-vanished funeral architectural culture (Fig. 6). This also represents an outstanding example of a specific style of ritual and burial structures evolved within North Asian funeral cultures of nomadic people in the Bronze Age having high symbolic, cosmic endowment and a high level of technical knowledge and skills of that time.

The settings of khirgisüür in combination with their attendant Deer stone monuments are always characterized by great physical beauty which is a cultural landscape defined and bounded by rivers, valleys, mountains, and specific achievements of the human creative genius of prehistoric times.

Sacrificial structures found in association with either of two monuments are yet another important type of feature that provides a link between the two aforementioned monuments. Many small round stone mounds (heaps) that are laid outside the enccosure rows of circular or square form of DS complex or khirgisüür in a certain sequenced order are found towards its southeast and southern directions. Mostly small circular structures laid with stones appear half covered in the soil in the number of 8-13 and form the outermost enclosure rows of the DS or khirgisüür. These two structures are laid in neat order and sequence.

The significance of deer stones lies not only in their ancient origins and broad distribution, but also in their number, and the variety and elegance of their ornamentation. The image of a stylized stag that covers the stones is without any parallels across Bronze Age Eurasia; and although one finds echoes of that image as far west as the Black Sea, the image itself and its cultural significance came out of the Mongolian steppe in the late Bronze Age.

- In fact, deer stones appeared in the eastern steppe in association with the emergence of horse-dependent nomadism in the late Bronze Age.
- Their appearance traces the movement of that nomadic culture across Mongolia and beyond, into Central Asia. Unique within world art traditions, these stones testify to the unique character of ancient nomadic culture within Mongolia.
- The deer stone is a granitic shaft, ranging in height up to 4 meters above its base in the ground. In most cases the stone has four flat sides, the north and south being the widest and the eastern one being the tallest.
- Vertically it is generally divided into three sections: upper including the head, middle including the torso, and lower including the region under the belt.
- On occasion - as in the famous example from Uushigiin Övör - there is a human face found on the upper east side. Otherwise, the stones' anthropomorphic reference is indicated by a series of slashes on the eastern side of the "head", as if to indicate facial features, a variety of elegant earrings, and a beaded necklace.
- At the center or around the lower section of the stone there is usually a carved belt from which may hang a dagger, a bow and quiver, a hammer, and a mirror.
- On the back of the stone, as if carried on the back of a human body, is carved an object most frequently interpreted as a shield.
- Covering the body of the stone, sometimes in a limited row and sometimes in entirety, are the images of stylized stags with elongated bodies and magnificent antlers. Despite their extreme stylization, it is possible to recognize the stag image as that of an elk

(Cervus elaphus sibircus), an animal that moves in large numbers and inhabits the borderlands between open steppe and forest.

- Interspersed among the stags may be other animals such as horses, ibex, a curious form of crouching feline, even birds and fish. On rare occasions, there may be the image of a cart.
- It is striking that all the deer stones at the nominated sites, as across Mongolia, are endlessly varied in their design details. These images together on any one stone probably reflect family or tribal myths involving origins and heroic exploits.
- In many cases, and particularly at the nominated sites, the carved details of the deer stones can be of exquisite refinement and clarity.
- Although over the millennia many deer stones have fallen, they were originally placed facing to the east as if about the rising sun.
- The stones are typically found in association with a late Bronze Age monument known as a khirgisüür. These are structures sometimes of considerable size and complexity. Centered by a round mound, their circumference is defined by a squared or rounded fence or terrace around which appear a great variety of stone altars and pathways. In many cases (and particularly in the khirgisüür complexes of western Mongolia), stone radii connect the central mound with the external fence and are oriented according to the four directions or subdivisions thereof.
- In addition to the khirgisüür, these great complexes include a variety of burial mounds and ritual altars, as it is described in the section 2a. "Description properties.

The meaning of the deer stones and their carvings is not yet clearly defined.

- But it is generally agreed that deer stones refer to heroic ancestors or warriors who were at the core of worship and ritual system of the late Bronze Age communities reflecting a woorld view or ancient nomadic peoples of niver Asia. Also, they have cosmological and mythological meanings expressed through surface ornamentation carvings.
- It is clear, however, that the anthropomorphic reference is always male, and that the stones' insistent orientation to the east suggests a function that was primarily ritual and not funerary.
- It is not yet clarified how the deer stones relate to the sometimes hundreds of surface mounds and altars: whether all the stones and mounds were made within the same short period by a single cultural group or whether they reflect cultural activity over several hundred years.
    - In these respects, deer stone complexes - such as the nominated here - represent outstanding repositories of cultural traditions and social values. In the complexity of deer stone monuments with khirgisüür and the ritual and temporal references carried by the complexes, deer stone and khirgisüür complexes are unique records of late Bronze Age culture.
    - The nominated serial property constitutes an outstanding example of Bronze Age megalithic monumental art of the Late Bronze Age culture. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type – a human wrapped in the signs of a great antlered stag. Both the deer stones and their attendant khirgisüürs demonstrate the artistic vitality and creative genius of human achievement in prehistoric times. The deer stones within the nominated serial property portray a style that has a high intellectual or symbolic endowment, and a high level of artistic skill. The style evolved and is reflective of Eurasian nomadic cultures in the Bronze Age.

- The nominated serial DS and khirgisüür complexes are a unique testimony to the culture of Bronze Age Eurasian nomads. The impressive qualities of the property, with its rich material expressions of the the culture, coupled with the apparent lack of other sites associated with these nomadic people, are indicators of vital importance of this testimony.
- The nominated property illustrates an outstanding example of type of animal style art and megalithic monumental heritage complexes that represent a significant stage of Bronze Age funeral and ceremonial culture of human history in central and North Asia.

The nominated properties:

- Deer stone complex in Khoid Tamir valley, Battsengel' and Ikhtamir soums, Arkhangai province. Spread over 45,000 hectares within two soum, the Khoid Tamir complex includes over 100 deer stones, many khirgisüür, burials, and altars; on the boulders of surrounding ridges are located several petroglyphic concentrations reflecting Late Bronze and Early Iron Age traditions. Within the valley have been found locations from which were quarried the material for the deer stones. It is believed that this complex is the largest one situated in one river valley. In the resulting integration of deer stones, khirgisüür, surface monuments, petroglyphs, and the larger landscape, this property is the most obvious example of a archeological landscape of the late Bronze Age centered around deer stones.
- Deer stone complex at Jargalantyn Am, in Öndör-Ulaan soum, Arkhangai province is located 1 km from Khanui River, This complex occupies an area of 17.9 hectares and includes thirty deer stones and a several of khirgisüür and slab burials. This complex is referred to as an "open museum of deer stones" because there are no other sites that contain so many deer stones so close to each other and in immediate proximity with several unusually fine khirgisüür. Like the deer stones at Uushigiin Övör and Khoid Tamir, those at Jargalantyn Am are of unusually fine quality; although many were found fallen (and have been re-erected), the stones are well-preserved.
- Bronze Age Khirgisüür Complex with Deer Stones at Urtyn Bulag (UB)
  The component part at the Urtyn Bulag (UB) is dominated by two very large khirgisüürs, possibly the largest khirgisüür in Mongolia, between which are located another 8 medium sized khirgisüürs. One of the khirgisüürs has more than 1,700 small satellite mounds, each potentially containing a horse skull. Such large khirgisüür may reflect the existence of powerful leaders and hierarchic society during the Late Bronze Age. Moreover 11 deer stones attached to the various types of monuments such as khirgisüür and slab burials were inventoried.
- Deer stone complex at Uushigiin Övör, Bürentogtokh soum, Hövsgöl province. The Uushigiin Övör complex covers a long swath of land sloping south from Uushig Mountain and occupying approximately 400 hectares. Uushigiin Övör is understandably one of the most famous in Mongolia by the beauty of the location, the quality of the stones (over 20), and the great number and variety of khirgisüür and burial mounds. The deer stones are grouped at the south end of the complex and were each originally oriented to the east. Most of the stones are of the Mongol-Transbaikal type. One of the finest is the south-most stone carved with a human face and a "body" totally covered with the images of stylized stags, a belt, and the implements of a warrior. The human face is in the most elaborate form which has played a key role in understanding the meaning of Deer Stones.

3.1.b. Criteria under which inscription is proposed (and justification for inscription under these criteria)

Criterion (i): represents a masterpiece of human creative genius.

Deer Stone monuments are a unique relic of fine arts, history, ethnography and archeology that originated in Central and Northern Asia in the Bronze and Early Iron Age and spread throughout the Eurasian steppes. These megalithic monumental complexes contain many points of interest with regard to the Fine Arts.

The proposed properties include two archaeological monument type with their satellite sacrificial structures that are of exceptional beauty and cultural significance.

- The deer stones demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type of a human wrapped in the signs of a great antlered stag. Thus, deer stones in general and those included in the proposed properties more specifically reflect the evolution of a specifically North Asian sculptural and design tradition, set within extended and magnificent landscapes. These are highly visible reminders of the pastural nomadic society's history and cultural traditions.
- The stylized deer image best known on the Mongolian deer stones appears, also, within rock art sites across Mongolia and into the Altai Mountains to the west and the Sayan Mountains to the north. Thus, this distinctive motif which is as well known as the earliest central Eurasian "animal style art" (zoomorphic motifs dedicated in dynamic scenes of vigorous animal interaction) can be used to trace the movement of those late Bronze and Early Iron Age people who first erected the deer stone properties nominated here. The stag image offers a kind of trail of the movement of these people and animal style art out of Mongolia and toward the west.
- Neolithic and Bronze Age petroglyph and petrograph depictions show that abstract or modeled representations can be associated with the tools and materials used to create the work. The stone and bronze tools used to create rock engravings and paintings enable techniques suited to abstract or general designs than for realistic depictions. In contrast, the creation of the Deer Stones clearly indicates the use of detailed mental modeling, characterized by a well-planned, canonical, and artistic school and discipline. The prepared stones of Deer Stones made in accordance with the characteristics of its design, helped to distinguish it from the petroglyphs, bridging it closer to sculptures.
- The second monument type included in these properties, khirgisüür, is similarly highly varied in its formulations but as a type unique within Eurasian Bronze Age monuments. The structure regularly appears in conjunction with deer stones; and like the stones, the khirgisüür combine monumentality with great artistic variety and refinement.
- Both deer stones and their attendant khirgisüür reflect the artistic vitality and creative genius of the emerging nomadic culture of the Mongolian steppe during the late Bronze Age.

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;

The proposed properties are a direct reflection of a major shift within North Asian cultures in the Late Bronze Age: the emergence of a horse-riding, expansive nomadic society increasingly distinguished by the cultural trappings of hierarchy.

These complexes constitute an outstanding example of Bronze Age megalithic monumental art of the highest quality and uniqueness – true masterworks of late Bronze Age culture.

- These trappings included elaborated funerary and ritual practices expressed in khirgisüür, associated mounds, and the signs of animal sacrifice.
- They also include the clear appearance of male warriors grouped around an increasingly hierarchical social order.
- It is essential to realize that this culture became the basis of all later steppe empires that spread out of the Mongolian grasslands and across Central Asia: that of the Scythians (first millennium BCE), of the Türks and Uighurs (later first millennium CE), and finally of the Mongols (13^{th}-14^{th} c. CE).
- That distinctive early culture, marked at its artistic pinnacle by deer stones, thus exploded into the great steppe empires of later millennia. In the modern period, all that remains of those great steppe empires are the traditions of transhumant nomadism in the grasslands and the scattered stone monuments found across the Mongolian steppe.

Criterion (iv): represents an outstanding example of a type of building architectural or technological ensemble or landscape reflecting (a) significant stage(s) in human history.

In several ways, the proposed properties represent a tradition of a type of technological ensemble and archeological landscape of outstanding value reflecting a significant stage in Central and Northern Asian and early Iron Age culture.

- The deer stones themselves, as human referents wrapped in the accouterments of a hunter and warrior, refer to the emergence of a newly expansive nomadic culture in the Late Bronze Age.
- The symbolic form of stag enwrapping these stone figures reflects origins in a culture born in the North Asian zone where mountains, steppe, and forestland merge. Thus, the deer stone carries on its body signs indicative of a specific cultural and geophysical world from which emerged Mongolia's particular form of North Asian nomadism.
- Although we do not fully understand the meaning of the stag image, it is clear that it carried a deep mythic significance for the early nomads. Eventually, we may be able to understand the mythic traditions and family narratives embedded in the very particular combination of animals, tools, and weaponry that adorn the stones.

The deer stone complexes are always set within a landscape that combines rivers and mountains.

- The placement and orientation of the deer stones clearly indicate the ancient mythic significance of directionality, the flow of rivers, and the protective frame of mountains.
- The settings of deer stone complexes, exemplified by the nominated properties, are always characterized by great physical beauty: an archeological and cultural landscape defined and bounded by rivers and mountains.
- Thus, the monuments within the landscape refer to deep cultural values binding humans to their land. Rooted in much more ancient traditions associated with the source of life and the presence of death, the khirgisüür and deer stones distinguish these complexes within a great continuum of North Asian human culture.

3.1.C. STATEMENT OF INTEGRITY

UNESCO Operational Guidelines require that the proposed property includes all elements necessary to express its Outstanding Universal Value (OUV). The nominated sites all include and reflect the original layout and size of the complexes as they were shaped in prehistoric times. For example, currently, they include and feature a decent number of deer stone megalithic monuments with stylized beautiful stag images and spatially extended complexes including khirgisüür (elaborated mound), burial mounds, and sacrificial altars, so on.

- KT complex includes over 100 deer stone monuments, many khirgisüür, burials and also includes several petroglyphic concentrations that are located within the archeological landscape surrounding the deer stone complex. Within the boundary of this part of the nominated property, there are prehistoric quarry and workshop areas that still feature working pieces such as broken steles, cavities cut into the rock, and a variety of other surface features.
- The part at JA occupying a small area of 17.9 hectares includes 30 deer stone monuments and several khirgisüür, burial mounds, and numerous altars. This complex is referred to as an "Open museum of deer stones".
- Khirgisüür complex with deer stones at UB occupying an area of 5329.12 hectares, which includes several large size khirgisüür and related deer stones, and number of later period funeral features like Slab burials. Probably the largest khirgisüür is located within this component part, and eventually representing the high interests for the safeguarding and studying. In combination with JA part, in which is sharing the same buffer zone, UB complex is referred as the most prominent site of Bronze Age civilization of Central Asia.
- The deer stone complex at UÖ embraces the most important elements necessary to express its OUV including most outstanding by their beauty of the location, quality, and meanings of deer stones among which is the deer megalithic stone carved with a human face, head, and body, totally engraved with images of stylized stags, belt and implements of a warrior.

All above-mentioned deer stone monuments, khirgisüür, burials, altars, and surrounding locations, and archeological cultural landscapes which are included in the boundaries of nominated parts perfectly demonstrate elements relating to the property's OUV.

Operational Guidelines also require the boundaries to be delineated for adequate size to ensure the complete presentation of the features and processes which convey its significance.

In our case, the boundaries of the protective area of each part are delineated to capture all the values that together convey its OUV.

The size of protected areas of parts is defined considering the importance of the wholeness of the nominated site which embraces the different elements and vital values related to its location and setting, form and design, materials and substance, use and function, etc. Therefore, for instance, to consider the importance of the functional and structural integrity of deer stone complex at KT the size of the protected area is defined as it covers a big area of 9256 ha to be included all the main deer stone monuments, khirgisüür, burials, altars, rock arts, quarry workshop and surrounding archeological landscape and so on. The provision of buffer zones of nominated sites provides overall protection to the properties and the integrity of individual monuments and sites. They contain all the elements needed to express the property's OUV.

Operational Guidelines require the assessment of the extent to which the property suffers from adverse effects of development and/or neglect.

- All are well preserved in that there are no intrusions from the construction of major roads, settlements, or industrial development; At this time there are no commercial activities associated with the properties except that related to the visits of tourists;
- The territory of all three properties has been used as grazing land for thousands of years, as is the case across the central Mongolian grassland. Over time the impact from this activity is minimal;
- All the archaeological survey that has occurred at these sites has been in the nature of scientific research. Any exploratory excavations of particular monuments that have been undertaken have been restored;
- The most intrusive activity within the properties has been in the uncovering and re-erecting of fallen and half-buried deer stones; this activity has resulted in restoring the stones to their original settings and orientation and the larger sites more closely to their original appearance.

All of the components of the property are under the protection of the laws and regulations of Mongolia about the protection and preservation of cultural heritage.

3.1.D. STATEMENT OF AUTHENTICITY (FOR NOMINATIONS MADE UNDER CRITERIA (I) TO (VI))

The archeological study of deer stone complexes in Mongolia and of the three component parts in particular began in the early twentieth century.

Scientifically rational and factual evidences and hypothesis on the credibility and truthfulness of cultural values attributed to nominated component parts were suggested by researchers and archeologists through various scientific works and publications.

- Uushigiin Övör has been carefully examined by several international teams, one of which surveyed this complex site and established its outer boundaries and the number of its monuments. It is well represented in scientific publications.
- Since 2006, the joint Monaco-Mongolian teams working under the auspices of UNESCO have undertaken a thorough survey of the KT site. The importance of this work lies in the evidence the team has revealed regarding the quarrying, carving and raising of the huge stones.
- Between 2009 and 2010, survey work at JA led to the re-erection of twenty fallen deer stones to their original locations and orientations. Thus, since the beginning of the study and interpretation of deer stones and their complexes, the proposed properties have been returned more closely to their original state.
- Since 2001 intensive research is done by several international teams at UB, but mostly focused on the mapping, inventorying and the excavation activities covers only small parts and mainly had restoration aims. Despite the looting occurred already in the antiquity on the large khirgisüür, overall view of the site is grandious and original.

All nominated parts reflect and truthfully demonstrate the original form, design, materials, layout, size, location, and setting of these complex sites as they were created and shaped in the Late Bronze and Early Iron Ages.

Deer stones are usually carved from fine hard sandstone or granitic stone. In most cases, they have been carefully quarried and raised as a single shaft. All the stone fabric is as built around 3000 years ago. Within the deer stone site at KT have been found places from which were quarried the materials for making deer stone monuments. This is a well-preserved example as a testimony to the historical material authenticity of these structures. No additions from other substances and materials have been made to these monuments and structures.

The form and design of deer stone monuments and associated khirgisüür, burials, and altars at nominated sites have not changed since they were created in the late Bronze and early Iron Ages.

The values attributed to nominated deer monuments and that express their creative artistic authenticity are fully demonstrated in the following aspects of scientifically proven descriptions and various information sources.

The DS of Mongolia belongs to an ancient North Asian tradition of standing steles. These monolithic shafts vary in height up to several meters. Based on regional location and ornamentation, three types of Deer Stones have been distinguished. The Sayan type, so named because of its apparent origins in the Sayan Mountains, is decorated with relatively realistic animal imagery. The Mongol-Transbaikal type well represented in the three nominated properties is typically covered with the stylized images of stags. The third type probably the latest of the three is here referred to as Eurasian; it is most frequently found in the region of the Altai Mountains and westward across the Central Asian steppe. The most spectacular of these deer stones is certainly the Mongolian type, but all three types do occasionally occur within the same complex. The imagery of stylized stags enwrapping the Mongolian deer stones is, at its best, an elegant and powerful statement of the originating animal combined with references to birds. These images and those of other animals are carved with great refinement, as are the various tools and weapons on the stone shaft. The animal imagery, the weaponry, and the jewelry adorning the DS point directly back to cultures known archaeologically from the Late Bronze Age. As such, it can be stated that these stone megalithic monuments haven't changed their appearance, ornamentation, and design over at least three thousand years.

As above mentioned in the previous section 3.1.C, the nominated sites include and reflect the original layout of the setting and location of deer monuments and complexes as they were shaped in prehistoric times. The three nominated sites are all found within an open steppe surrounded by low mountains but also in immediate proximity to rivers. These aspects of the natural world carry their traditional values within North Asia. The steppe refers to pasture and animal abundance. There are many indications that since a deep past, rivers have represented the road to the land of the ancestors. Thus, the location of the DS complexes is a critical aspect of their cultural authority.

Scientific researches and excavations have revealed nominated sites with a decent level of preservation, although the exact setting and location of some deer stone monuments and associated sites, as they would have been located and constructed some 3000 years ago, cannot be stated with exact certainty, they can be regarded explicit authentic.

All the research and archeological survey within the nominated sites have been like scientific research and in the uncovering and rerecting of fallen and half-buried deer stones. During these activities, their location and setting can be considered unharmed and some fallen deer stones were restored to their original settings and orientations.

The meanings of deer stone monuments associated with khirgisüür and a variety of sacrificial mounds and altars were rooted in an ancient sacrificial tradition and rituals that honored anthropomorphic beings, deities, ancestors, or mythic heroes. Two types of stone structures (mentioned above) found next to DS's and khirgisüür are referred to in the research literature as "Sacrificial structures" or "Satellite structures". Maybe cultural and social functions were expressed through memorializing the known and mythic ancestors of a lineage and indicating the various familial threads of that lineage.

The formation and orientation of the DS point to fundamental understandings regarding the place of humans within the cosmic order. The orientation of the stones to the East reasserts the direction of the rising sun and the coming of spring, and the quiet posture of these stones reflects an attitude of reverent attention rather than martial prowess.

Modern day Mongols still believe that sacred sites including ancient monuments and sites contain vital spiritual energy of deities and ancestors who help maintain the organic balance of relationships between humans and nature and spiritually nourish their life and existence within these sacred places. Thus, this tradition, social and cultural aspects of the authenticity of nominated sites have been transmitted from generation to generation as part of the traditional continuity of the sense of places.

In the richness of their design, the stability of their materials, and their ancient function within complex ritual traditions, DS carry a unique cultural authority. They also testify to a particular aesthetic and iconographic tradition that is nowhere else duplicated. In these aspects lies their specific authenticity.

The nominated serial properties all reflect the original layout and size of the complexes as they were shaped in the Late Bronze and Early Iron Ages.

- All are well preserved in that there are no intrusions from the construction of major roads, settlements, or industrial development;
- At this time there are no commercial activities associated with the properties except that related to the visits of tourists;
- The territory of all three properties has been used as grazing land for thousands of years, as is the case across the central Mongolian grassland. Over time the impact from this activity is minimal;
- All the archaeological survey that has occurred at these sites has been like scientific research. Any exploratory excavations of particular monuments that have been undertaken have been restored;
- The most intrusive activity within the properties has been in the uncovering and re-erecting of fallen and half-buried deer stones; this activity has resulted in restoring the stones to their original settings and orientation and the larger sites more closely to their original appearance.

The provision of buffer zones will offer overall protection to the nominated properties and the integrity of individual monuments. All of the components of the property are under the protection of the laws and regulations of Mongolia about the protection and preservation of cultural heritage.

3.1.E. PROTECTION AND MANAGEMENT REQUIREMENTS

Within Mongolia there are traditional conditions and practices from which the nominated properties derive protection.

- All the nominated component parts benefit from their remote locations, their distance from urban centers and their traditional use as pasture for nomadic herders. This land use has been in existence for more than 4000 years.
- Since early times the nominated properties have been worshipped by Mongolians as sacred sites imbued with the vital spiritual energy of ancestral spirits. This spiritual orientation involves many taboos and traditions, which strictly prohibit approaching closely to and touching sacred places and monuments or digging and otherwise harming them.
- For the most part, such traditional ways of protection and preservation are still understood and observed within the nominated areas. However, recently developed interest on the part of visitors requires that these protective traditions be reinforced through local and governmental oversight and educational programs.

In addition, there exist several regulatory layers dedicated to the formal protection of Cultural Heritage.

- Cultural heritage properties, including monumental structures and archaeological sites in Mongolia, are protected through both national and local province (aimak) laws, decrees and regulations on the protection of cultural and natural properties.
- National laws include the Constitution of Mongolia (1992), law of Mongolia on protection of cultural heritage (2001), and the law on the "Special Protected Areas (SPA) of Mongolia", and so on.
- Individual buildings, monuments and sites are designated and protected under decisions and orders of the Government and of Ministers and Governors of the provinces (aimaks).
    - In this case, the nominated component parts were included in the newly elaborated National Tentative List of Mongolia for World Heritage submitted to the World Heritage Committee (2015) by the decision of the Government of Mongolia.
    - These actions have greatly enhanced national and local efforts for the protection and appreciation of these properties.

All the nominated properties were included in the National List of Historical and Cultural Immovable Properties under provincial and city protections by the Governmental Order #175 in 2008.

Despite existing regulations for the protection of the OUV of the nominated properties, a number of management principles and practices need to be strengthened.

- Securing the enforcement of laws and regulations related to the protection of these cultural heritage properties.
- Ensuring the coordination of management planning between regional and local governmental bodies.
- Improving scientific research in these sites and conservation and monitoring activities.
- Raising public awareness and involving local communities in the management and protection of all four sites.

With respect to the specific requirements of this nomination and its concern with OUV, it is necessary to establish a new site management administration unit for the protection and management of World Heritage properties as a whole and to implement the integrated management plan 2019-2025 which was elaborated with active participation of local communities and stakeholders at all levels of intervention.

• The attached management plan for the entire serial nomination should address the coordination of management of all component parts to meet one set of shared objectives for preserving OUV.

3.2. Comparative Analysis

UNESCO Operational Guidelines for the implementation of the World Heritage Convention (Parag. 87-89) require that the property should be compared to similar properties, whether on the World Heritage List or not.

Often accompanied by stone burial mounds (khirgisüür) with fenced perimeters and satellite mounds, deer stones, and khirgisüürs are interlinked components of a single late Bronze Age mortuary ceremonial system dating to 1200-700 BC. Deer stone monuments and related cultural and archaeological landscapes provide striking evidence of how the successive nomadic people during the Bronze and Iron Age lived and created a very unique culture and traditions, which are represented by complex heritage sites like proposed sites at KT, JA, UB and UÖ.

As being the distribution center and origin place of the deer stones, Mongolia alone maintains the vast majority of known deer stones of the Mongol-Transbaikal type.

Nominated sites are located in the Central region of Mongolia where there are the highest density of deer stone monuments with the khirgisüür and sacrificial complexes and their engraved megalithic deer stones.

i. Comparative analysis with identical properties within Mongolia

Deer stones are widely distributed throughout Eurasia. Approximately 1500 deer stones have been discovered from Mongolia to Ukraine. As mentioned above, 90 (n=1200) percent of all the deer stones are distributed in Mongolia. Most of the Mongolian deer stones are distributed in the central and western regions of the country. Provinces with the highest density of deer stones are Arkhangai, Khövsgöl, Bayan-Ölgii, Khovd, Bayankhongor, Zavkhan, and Uvs (see Map 3).

Several large sites identical to proposed DS sites located in the south-western part and north-western part of Khangai Range and eastern part of the Mongolian Altai have been extensively studied and published. For example, the proposed properties can be considered in comparison with the following Deer Stone heritage complexes.

1. Ikh Jargalantyn am site, Erdenemandal county, Arkhangai province (Gantulga, Iderkhangai 2018: 195-200),
2. Urtyn Am site, Erdenemandal soum, Arkhangai province (Gantulga, Iderkhangai 2018: 200-202),
3. Khirgisüüriin Denj site, Jargalant soum, Bayankhongor province (Turbat, Batbold, Bayarkhuu 2018: 311-321),
4. Shatar Chuluu site, Erdenetsogt county, Bayankhongor province (Turbat, Batbold, Bayarkhuu 2018: 328-335),
5. Ikh Tsagaany am site, Erdenetsogt soum, Bayankhongor province (Turbat, Batbold, Bayarkhuu 2018: 345-347),
6. Daagan Del site, Shilüüstei soum, Zavkhan province (Bayarkhuu 2018: 328-335),
7. Dund Shurgakhyn am site, Telmen county, Zavkhan province (Bayarkhuu 2018: 41-50),
8. Bodonchiin Gol site, Möst soum, Khovd province (Turbat 2018: 236-254),
9. Ulaan Tolgoi site, Alag-Erdene soum, Khövsgöl province (Erdene-Ochir 2018: 317-321),
10. Khyadagiin Ekh site, Bürentogtokh soum, Khövsgöl province (Erdene-Ochir 2018: 351-356),
11. Khöshöötiin Gol site, Tsagaan-Uul county, Khövsgöl province (Erdene-Ochir 2018: 439-449) (See Fig. 19).

In the Late Bronze Age, this region where the proposed parts are located was the sacrificial, ceremonial and socio-economic Centre of nomadic populations attested by a high concentration of deer stone monuments and associated Khirgisüür and sacrificial structures. In comparison with others, the complex site at KT offers the most spectacular natural setting and richest assemblage of Rock Art, deer stones, and sacrificial structures. In this sense, this site is the most obvious example of an archaeological landscape of the Bronze Age period regrouped around the deer stones. Precisely, more than 110 deer stones in KT valley and unique stone quarry for those megalithic steles are the unquestionable evidence that this site was one of the hearts of deer stone culture. UB site with its most elaborate and largest khirgisüürs of Mongolia offering the exeptional feature to the nomination as an example of spectacular cultural landscape testifying the complex pastoral society of the early nomadic civilization.

Bronze Age complex sites with deer stones at JA and UÖ are the largest complexes with megalithic deer stones khirgisüür and sacrificial ceremonial structures belonging to Bronze Age found in Mongolia and the World. It is verified that the very rare heritage complex includes such diverse ceremonial and sacrificial structural and complicated layout settings and architectural structure.

Thus, in comparison with the deer stone complex sites considered above, we are presenting the justification case by case on how the nominated sites stand out in terms of form, design, use, distribution, meaning, function, location, setting, execution techniques, tradition, etc.

Compared to those major sites the proposed sites are possessing much more authenticity and integrity.

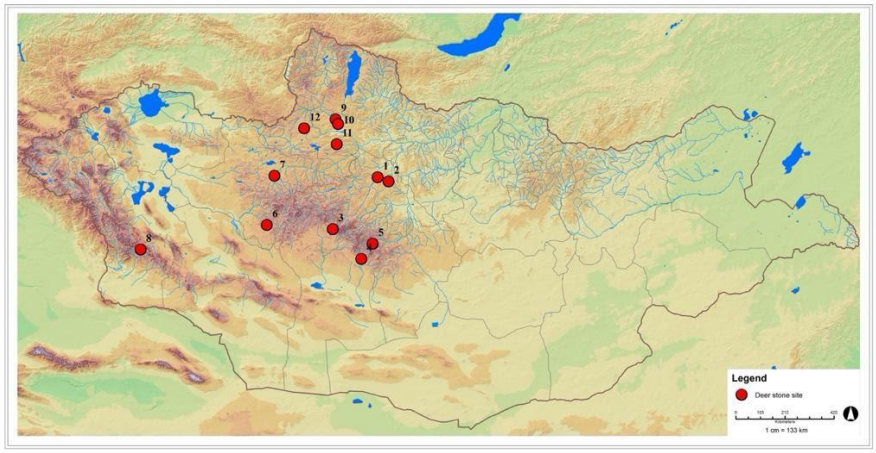


Fig. 19. The location of deer stone sites included in the comparative analysis

1. Ikh Jargalantyn Am Deer stone site. This complex site at Ikh Jargalantyn Am with a few khirgisüürs, square and circle burial mounds are located about 9 km south from the center of Erdenemandal soum of Arkhangai province. A total of 11 deer stones were used for slab burials of later period. Some of these burial mounds have been looted and the structural stones have been thrown around. The average size of the stele is 160-170 cm in height. Some of these deer stones have been damaged and most of their carvings were faded. In other words, the original location of these deer stones has been lost. (Fig. 20). This deer stone site cannot be compared with the proposed 4 cluster sites about the form, meaning of the site, and its integrity.

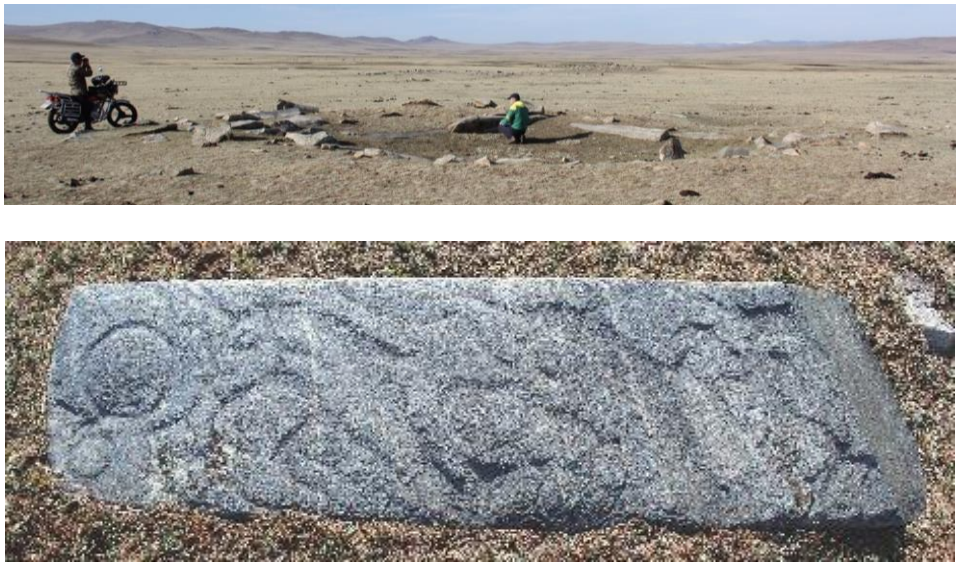


Fig. 20. Deer stones of Ikh Jargalantyn Am

2. Urtyn Am complex site. There are khirgisüür, deer stone, and ancient Turkic sacrificial stone structures that existed at a place called Urtyn Am to the north of Khunui river in the territory of Erdenemandal soum of Arkhangai province (Fig. 21). Once, Russian scholar V.V.Volkov reported that there were 7 deer stones at this site, but today only 4 of them exist. Most of them were re-used for the building of the slab burial mounds and as numbered by V.V.Volkov 2 broken deer stones were transported to the Institute of Archaeology of the Mongolian Academy of Sciences and were kept there for theft prevention. In addition, one of these deer stones may have been transported to the center of Khairkhan soum and no one is aware of the location where the other deer stone was transported. Engraving and depiction of deer stones were faded, and the belt and weapon of one deer stone were painted with red ochre.

Fig. 21. Deer stones at Urtyn Am site

3. Khirgisüüriin Denj complex site. The deer stone complex with khirgisüür is located at the southern mountainside of Egiin Davaa, a branch of Khangai range, 20 km northeast from the center of Jargalant soum of Bayankhongor province (Fig. 22). Russian scholar V.V.Volkov was the first who reported about these deer stones and named them as "Deer stone of Khirgisüüriin Denj site". This complex is a triangle-shaped and flat area, which covers 225 ha and is located in the basin of the river Ar Teel and river Orton Teel to the mountainside of Tsogt Khairkhan. There are 15 khirgisüürs, several small burials, and sacrificial structures of deer stones at the site. Deer stones next to these khirgisüürs were re-used later for funerary structures. As described by V.V.Volkov, this site had a total of 22 deer stones and he assumed that these deer stones may

have been transported to this site from the surrounding area. As of today, 11 deer stones are erected in a circular formation. The numbering of these deer stones is very complicated.

Because 5 deer stones (numbered 3, 4, 10, 11, and 12) have not been found today, which were previously numbered by V.V.Volkov. This complex heritage site has several remarkable deer stones within the culture of deer stones. For instance, the bird, spear, and "branch of a tree" were engraved on the 2nd deer stone, a human face was engraved on the 9th deer stone, knife with a handle on the 13th deer stone.

In comparison with the nominated complex sites, this heritage has lost some values attributed to the Deer stone complex with khirgisüür and some characteristics with authenticity and integrity.

Fig. 22. Deer stones of Khirgisüüriin Denj

4. Shatar Chuluu complex site. Shatar chuluu is a wide hillside on the east bank of river Tui, which is located 17 km north of the center of Bayankhongor province and 11 km south from the Erdenetsogt soum center. Local people call these rocks Aduun Chuluu (Horse rock) or Shatar Chuluu.

Few monuments of the Shatar chuluu site can be found from the bottom of the old river to the edge of the hillside, and the main concentration is located 300 meters from the edge of the hillside including khirgisüür and square burial mounds to the northeast of khirgisüürs in line. This khirgisüür has a square frame and follows stone sacrificial circles in the surrounding area.

Most of the 13 deer stones of this complex site were found from the northeast, where the deer stones were re-used for cornerstone and slab stone of 7 square burial mounds located in line from north to south. Depending on the stone material the conservation condition is relatively different, for instance, deer stones made from granite were conserved in bad and the surface of some deer stones made from schist (shale) was conserved better than the granite (Fig. 23). Deer stones were used and are not restored.

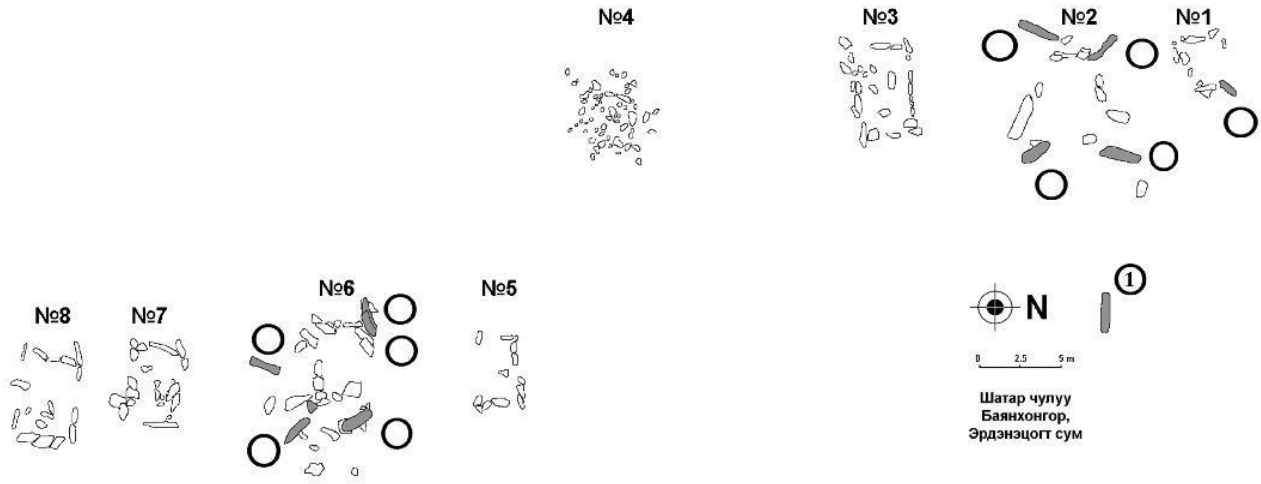


Fig. 23. The plan and some deer stones of Shatar Chuluu complex site

5. Ikh Tsagaany Am site. Ikh Tsagaany Am deer stone complex site is situated in Erdenetsogt soum of Bayankhongor province. The site has consisted of rectangular-shaped horse offering stone structures in the central part, and similar structures in the south and north side by groups, and stone frame circles around the central part, and "path" to the west of the central part, and square burials located at the north of the area, which may have built later period. One deer stone is located in its original place and 5 deer stones are in poor conservations condition which has been re-located for use as building materials located to the north half of the complex (Fig. 24). In addition, there is a big khirgisüür located 400 meters north of the complex site.

Fig. 24. Deer stone complex of Ikh Tsagaany Am and some deer stones

6. Daagan Del complex site. Daagan Del site in Shilüüstei soum of Zavkhan province consists of 8 deer stones erected in parallel on the square-shaped sacrificial structure. All deer stones belong to the Mongol-Transkbaikal type (Fig. 25). Because of the poor preservation conditions, several of these deer stones have been badly affected by the weather and many of the images are barely identifiable. Due to such poor conservation conditions and the absence of khirgisüür this site does not fit to be compared with nominated sites.

Fig. 25. Deer stone complex site of Daagan Del and some deer stones

7. Dund Shurgakhyn Am complex site. Dund Shurgakhyn Am is located in the valley of the Ider river, Telmen soum of Zavkhan province. This site has a concentration of archaeological monuments, including burial mounds, khirgisüürs, and deer stones, belonging to the Bronze Age and Early Iron Age. A total of 15 deer stones belonging to the Mongol-Transbaikal type exists here and most of them lost their original position for the following reasons, for instance, they have been fallen on the ground, broken and half part was covered with earth and so on (Fig. 26).

No archaeological excavation has been carried out on this site. Therefore, we do not have data and information for comparing this site with nominated deer stone complex sites.

Fig. 26. Deer stone of Dund Shurgakhyn Am and related khirgisüür complex

8. Bodonchiin Gol complex site. The biggest and well-engraved deer stone complex in the Mongol Altai region is located at the valley of river Bodonch of Must soum in Khovd province. It was reported that there was a total of 24 deer stones existed, but today only 17 remained in this site (Fig. 27).

Until today, scholars believed that most of the deer stones distributed along to the western part of the Mongol Altai range are of Sayan-Altai type. A result of detailed research and analysis, deer stone monuments which are similar to the Mongol-Transbaikal type have been identified at this Bodonchin Gol site. Unfortunately, identified 3 deer stones of this type do not have such highly stylized deer images and big number of them as nominated sites do. Therefore, the values and design of creation represented by this complex site are not comparable with nominated heritage sites.

Fig. 27. Deer stones of Bodonchiin Gol complex site

9. Ulaan Tolgoi complex site. There is the complex site of khirgisüür and deer stones at the foothill of mountain Ulaan Tolgoi in Alag-Erdene soum of Khövsgöl province. A total of 5 deer stones of the Mongol-Transbaikal type are in the middle of large khirgisüür, and the height of the 2nd deer stone is 370 cm above the ground and this deer stone is considered one of the highest Mongol-Transbaikal type deer stones. Although this complex site consists of big khirgisüür and high deer stone monuments, it could not be compared with nominated sites in relation to the concentration of deer stones and their height. As of today, the 3rd deer stone of the JA site is considered the biggest deer stone by its size – 389 x 68 x 48 cms and 4 tons (Fig. 28).

Fig. 28. Deer stones of Ulaan Tolgoi and its khirgisüür

10. Khyadagiin Ekh complex site. There is a deer stone complex site located at a place called Khyadag in Bürentogtokh soum of Khövsgöl province. Total 5 deer stones were registered on this site and 3 of them belong to the Eurasian type and 2 belong to Mongol-Transbaikal. The conservation condition of deer stones of Khyadag site is very deteriorated and engravings were faded, and stone materials were broken. In addition, only part of the 1st deer stone on the ground is 288 cms (Fig. 29). No ground is for comparing this site with nominated heritage sites.

Fig. 29. Deer stones of Khyadagiin Ekh and its sacrificial stone structure

11. Khöshöötiin Gol complex site. There is a deer stone complex site at the valley of river Khöshööt in Tsagaan Uul soum of Khövsgöl province. The specific of this complex site is that it does not have khirgisüür. Most of the 11 deer stones are of Mongol-Transbaikal type and a few are Eurasian type. One of the deer stones at this site has a depiction of 24 horses and currently, this deer stone is considered as the deer stone with the largest number of horse images in Eurasia (Fig. 30).

However, we cannot compare this deer stone complex with nominated properties due to its lacking in the existence of khirgisüür that is one of the main components of the deer stone heritage complex.

Fig. 30. Deer stone complex at Khöshöötiin Gol site and some deer stones

ii. Comparative analysis with identical properties outside of Mongolia

Over three hundred deer stones have been found outside of Mongolian territory: over 20 in Buryatia, another 110 in the Sayan region and Russian Altai, more than 100 in Chinese Xinjang province, and about 20 in Kazakhstan. The vast majority of these deer stones are either not integrated into a khirgisüür complex or they are of the much simpler Sayan-Altai type. They generally lack the artistic merit of nominated deer stones and do not have amazing engravings of deer images.

The closest analogy to the nominated properties outside Mongolia proper is found in the Russian Altai's Chuya Steppe along the Yustyd River. This site includes huge khirgisüür, burial mounds, and altars, as well as a double row of deer stones. The stones, however, are all of the very simple Sayan-Altai types and almost all have been removed or otherwise damaged.

Within the Altai Mountains region in the Xinjiang province, there are many of both the Sayan-Altai and Mongol-Transbaikal types; these must be related to the tradition on the eastern side of the Altai ridge where there are several deer stone complexes (in Khovd and Bayan Ölgiy provinces). They belong, in other words, to the deer stone tradition represented by the nominated properties.

About twenty stones found in Eastern Europe are sometimes referred to erroneously as deer stones they are stones of an anthropomorphic stele known also in northern Italy and elsewhere. There are no known relationships between these anthropomorphic stones and the proposed deer stone tradition of Mongolia.

Deer stone complex in Tuva Republic of the Russian Federation

Outside of the Mongolian borders, the Tuva Republic of the Russian Federation and Xinjiang Uyghur in the People's Republic of China has the largest number of deer stones after Mongolia. Deer stones are in basins and river valleys within the Altai, Tagna, and Sayan mountain ranges. Big deer stone complexes, burial mounds, and sacrificial stone structures are located in Ovyur (Övör), Pii-Hem, Kyzyl, and Tandyn khoshuu (county) of Tuva.

As a result of the archaeological survey, a total of 112 deer stones were identified from 48 sites in 10 provinces. 35 deer stones (48%) belong to the Eurasian type, 21 deer stones (29%) belong to the Sayan-Altai type and 12 deer stones (16%) belong to the Mongol-Transbaikal type, and 5 deer stones (7%) belong to the mixed type of Mongol-Transbaikal and Sayan-Altai.

The Hovojuk-Aksi deer stone site in Ovor khoshuu is a complex site with a large number of deer stones and khirgisüürs in the Tuva Republic.

Hovojuk Aksi complex site. This site is located at Hovojuk Aksi, which is 27 km from the Khandgait village of Övör khoshuu. This site was first discovered in 2009 by the archeological research expedition of the Tuva Republic led by M.E. Kilunovskaya and V.A. Semenov, during which 20 deer stones were inventoried and documented.

The Hovojuk-Aksi deer stone complex site lies on two sides of the road to Sagly village. It covers a 6300 m^2 area and consists of big and small khirgisüürs, burial mounds, sacrificial stone structures, and deer stones. The big khirgisüür is located to the north of the main road or northeast of the complex monument, with a 1.5-meter-tall stone mound that is 30 meters in diameter and a frame that is 90 meters in diameter. There are 24 sacrificial stone structures in line to the east and the west. Other smaller burial mounds, khirgisüür, and sacrificial structures are located to the south, southeast, and east of the big khirgisüür. A total of 16 circular-shaped burial mounds are between 5 and 22 meters in diameter. There are 2 rectangular-shaped sacrificial structures, khirgisüürs with circular stone frames that are 12 meters in diameter. Near the burial mounds, 21 deer stones are standing 20 to 70 centimeters tall from the ground that is located in line and separate from each other (Fig. 31).

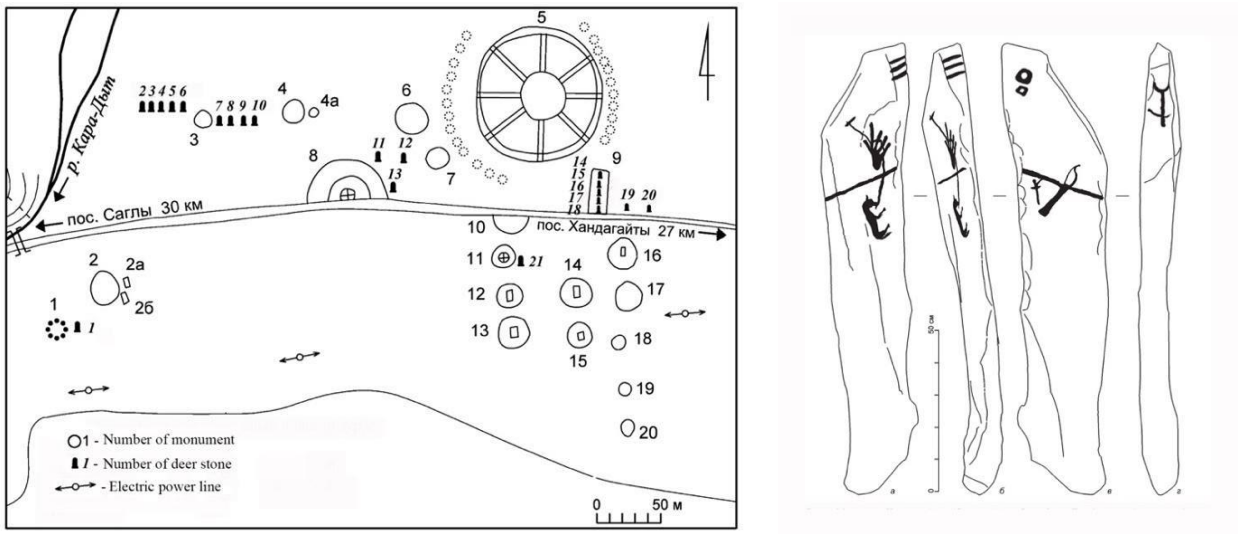


Fig. 31. General plan of the Hovojuk-Aksi complex site and deer stones

The Hovojuk Aksi complex site is a big deer stone complex site with big khirgisüür, 21 deer stone monuments of mostly the Sayan-Altai type, and 24 sacrificial structures. This site possesses the main values attributed to nominated cultural properties, however, as key elements of the deer stone complex site, the nominated deer stone monuments stand out from the deer stones of Hovojuk Aksi in terms of form, design, artistic workmanship, and execution technique. In comparison with Hovojuk Aksi's deer stones, the nominated monuments are taller (20 to 100 cm) and have amazing engravings of deer images in highly stylized form - a characteristic lacked by the deer stones of Hovujik Aksi. In short, these deer stones lack the artistic values of the nominated deer stones.

Deer stone complex in Xinjiang Uighur Autonomous Region of China

A total of 105 deer stones were discovered from 51 sites in the territory of Xinjiang, with the biggest number of deer stones and khirgisüürs located at a site called Sandao Haizi. The "Sandao Haizi Tombs and Deer Stones" are located at the Altai Mountains watershed in Chaganguole Township, northeast of Qinghe County, Xinjiang, and near the Mongolian borders in the west.

The Sandao Haizi area has an altitude of about 2,700 meters and a total area of about 596.16 square kilometers. There are three different sized valleys within a range of approximately 32.4 km in length from north to south and 18.4 km in width from east to west.

Around the "Sandao Haizi" site, there are over 60 khirgisüürs in different sizes. Within this region, 50 deer stones were discovered from 21 sites. The biggest khirgisüür in this area has a circular-shaped double frame, with 4 beams that connect the stone mound cover and a frame inside the mound. The diameter of the outer frame is 290 meters, and the diameter of the 15-meters-tall stone mound cover is 60 meters (Fig. 32).

Fig. 32. The biggest khirgisüür of Sandao Haizi, deer stones in the surrounding area and stone shield discovered during the archeological excavation

The deer stone complex in Xinjang Uighur has the biggest khirgisüür with a double frame and a big stone mound with a large diameter (60 meters). Its height is 15 meters. Many aspects of this heritage such as the form, distribution, use, function, location, and setting of parts of the site, etc. can be compared with the nominated deer stone sites.

However, the nominated deer stones undoubtedly stand out from the deer stones at Sandao Haizi concerning design, form, artistic technique of execution, and ornamentation of deer stone monuments. Beautiful images of stylized stags with elongated bodies and magnificent antlers that, in some cases, wrap the great megalithic bodies of the nominated deer monuments in their entirety are amazing and unparalleled among the deer stones at Sandao Haizi.

In general, considering the authenticity and integrity of the proposed properties, they are the best representation and an outstanding example of a deer stone complex heritage site that is an exceptional testimony of an animal style art type, the funerary and ritual practices, and the culture of the Bronze Age nomads in Eurasia.

Comparative analysis has been updated according to ICOMOS recommendations: "ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage. However, the analysis should be consolidated with certain criteria and summary findings in a table.

Comparative analysis of nominated property parts with similar properties from Mongolia and neighboring regions of Russia and China

	Criteries					
Compared sites	Integrity	Number of Attributes	Range of Attributes	Quality of Art	Peculiar figures on the Deer Stones	Remark
Khoid Tamir (KT)	Mostly in original places	51	Dispersed	Medium-High	One-handed flail; Red ochre marks	Deer stone quarry identified nearby; Large Rock art site is located within the boundary
Jargalantyn Am (JA)	Re-erected in original places	26	Highly Concentrated	High	Best preserved Deer stones; Biggest amount of deer images in single stele	Largest Deer stone sacrificial monument in Mongolia
Urtyn Bulag (UB)	Mostly in original places	12	Dispersed and re-utilized in Slab burials	Medium	-	Consisting largest khirgisüürs of Mongolia
Uushgiin Övör (UÖ)	Re-erected in original places	24	Highly Concentrated	High	Excellent preservation and Art quality of Deer stones	Combination of high quality Deer stones and khirgisüür
Ikh Jargalantyn Am	Re-utilized in later period burials	11	Grouped around the looted burial mounds	Medium	-	
Urtyn Am	Re-utilized in later	4	Grouped around the looted burial	Medium	Red ochre marks in a stele	Initially reported about 7 steles

	period burials		mounds			
Khirgisüüriin Denj	Grouped around the looted burial mounds	11	Re-erected in circular pattern in amateur style	High-Medium	Unique images: Tree branch; Banner	Initially reported about 22 steles
Shatar Chuluu	Grouped around the looted burial mounds	13	Concentrated in a single tomb group	High-Medium-Low	-	
Ikh Tsagaany Am	Single stele in original place and 5 others re-located	6	Concentrated in a single Deer stone sacrificial complex	High-Medium-Low	-	Comparable with JA sacrificial complex
Daagan Del	Re-erected in original places	8	Concentrated in a single Deer stone sacrificial complex	Medium-Low	-	Comparable with JA sacrificial complex
Dund Shurgakhyn Am	Re-located	15	Dispersed around a khirgisüür	Medium-Low	-	No archaeological intervention occured
Bodonchiin Gol	Mostly re-located	17	Re-erected by non-professionals in a single spot	High-Medium	Spiral; Red ochre marks;	Initailly reported abour 24 steles. Largest site of Deer stones in Western Mongolia
Ulaan Tolgoi	In original places	5	Probably re-erected in modern time	High	Tallest deer stone – 370 cm above ground	Tallest Deer stone is comparable with JA
Khyadagiin Ekh	In original place	5	Probably re-erected in modern time	Medium-Low	-	-
Khöshöötiin Gol	In original place	11	Probably re-erected in modern time	High-Medium-Low	Depiction of 22 horses in a single stele	Comparable with JA sacrificial complex
Hovujuk Aksi (Russia)	In original place	20	Concentrated around khirgisüür	Medium-Low	Mostly Sayan-Altai type Deer stones	-
Sandao Haizi (China)	In original place	50	Mostly grouped around khirgisüür in 21 spots	High-Medium-Low	Stone shield; Horse figures	-

iii. Comparative analysis within similar properties inscribed on the WHL

On a global level, the nominated properties, according to the requirements set out in the UNESCO Operational Guidelines, should be firstly compared to similar properties that were already inscribed on the WHL.

Currently, neither of the World Heritage List and Tentative Lists have identical properties with Deer stone monuments with their associated khirgisüür, funerary and ceremonial heritage complex of the Bronze Age Culture in Eurasia including Mongolia.

Nevertheless, in the chronological and typological framework, we could compare Bronze Age deer stone monument complexes with Rock art sites of the Stone and Bronze Ages such as rock arts of open surfaces containing paintings, engravings, and carvings, etc, in different areas of the World. Through deer image type and other images of animals found on the stone, the deer stone monuments could be considered similar to rock art. There are rock art sites around the World, several of which have World Heritage status. The vast majority of these rock arts are mostly listed on the WHL under cultural criteria, (c:III)

1. Spain and Portugal. Prehistoric Rock-art sites in the Goa valley and Siega verde (I, III)
2. Azerbaijan. Gobustan Rock art cultural landscape (III)
3. Kazakhstan. Petroglyphs within the archaeological landscape of Tamgaly (III)
4. Malta. Megalithic Temples of Malta (IV)
5. Zimbabve. Matobo Hills (I, III, IV)
6. Sweden. Rock art carvings in Tanum (I, III, IV)
7. Malawi. Chongoni Rock art area (III, VI)
8. Tanzania. Kondoa Rock art sites (III, VI)
9. Namibia. Twyfelfontain or /Ui-//aes (III, V)
10. lndia. Rock shelters of Bhimbetka (III, V)
11. China. Zuojiang Huashan Rock Art Cultural Landscape (III, IV)
12. Mongolia. Petroglyphic complexes of Mongol Altai (III)

- In fact, the stylized deer image of deer stones may be found in rock art sites across Mongolia. Prime examples may be found in the rock art complexes of the WH site, “Petroglyphic Complexes of the Mongolian Altai.” Scattered images of that deer type also appear in the Russian Altai, in Kazakhstan, and the Chinese Altai – in other words, throughout a vast part of North and Central Asia that was overrun, for some time, by horse-riding nomads of the early Iron Age.
- In none of these instances except that of “Petroglyphic Complexes of the Mongolian Altai” does significant rock art occur together with deer stones and khirgisüür.

Also, the very variety of rock art and its ubiquity precludes any particular relationship with deer stone sites. Within Asia WH rock art sites include, in addition to the “Petroglyphic Complexes of the Mongolian Altai”:

1. Azerbaijan. Gobustan Rock art cultural landscape
2. Kazakhstan. Petroglyphs within the archaeological landscape of Tamgaly
3. India. Rock shelters of Bhimbetka
4. China. Zuojiang Huashan Rock Art Cultural Landscape

Only at Tamgaly, there are stag images that could be compared with those on the deer stones.

There is one main difference between all the aforementioned rock art sites and nominated deer stone heritage sites. Meanwhile, whereas rock art was applied to surfaces of massive natural

stones, the engraved images at deer stone monuments were carved on flat surfaces of large elaborated and specially prepared stone steles which had been intentionally erected as a part of funerary and ceremonial structures.

Also, we can compare these properties with similar properties on the WHL in another typological framework which is based on categories that have been used by ICOMOS for the classification of cultural heritage monuments and sites as burial monuments and sites. Researchers have frequently made notes about the megalithic nature of some burial monuments.

These megalithic monumental sites are found in Europe, Africa, and Asia mainly spread in Great Britain, Ireland, Brittany of France, Altai, Khakassia, Crimea of Russia, Korea, and China. Some megalithic sites include "Heart of Neolithic Orkney", "Stonehenge, Avebury, and Associated sites" in England, Korean "Gochang, Hwasun, and Ganghwa Dolmen", Senegambian stone circles in Gambia and Senegal were inscribed in the World Heritage List.

The most significant comparison to deer stones and deer stone complexes may be found in the megalithic monuments of the world, and particularly those of Europe and the British Isles. These monuments, dating to the Neolithic Period and the Bronze Age take the form of standing stones, sometimes of huge size. They may be erected either individually (e.g., the menhir de Champ-Dolent, France), in long lines (e.g., Carnac, France), in circular formations (e.g., Stonehenge, England; Stone Circles of Senegambia, Gambia, and Senegal), or large groups (e.g., Alemendres Cromlech, Portugal; Metsamor, Armenia).

Compared to the deer stones in Mongolia these megaliths do not have any images and engravings on their bodies. While the individual stones are not as large as those at Stonehenge, at nominated sites, deer images were skillfully carved in animal-style art on hundreds of stones.

However, in terms of dedication both of these structures were built for similar purposes – ritual making, sacrificing, and religious belief. Even though the deer stones and above-stated stone megaliths could be made for a similar purpose, the deer stones are dominated by their abstract artistic images of deer – the distinguished animal of the Bronze Age nomads.

A number of the megalithic monuments are associated, also, with dolmans and tumuli (e.g., Carnac), but these are different from the khirgisüür associated with deer stones and represented in the three nominated sites. However, there is a big difference between deer stone monuments and megalithic monumental sites because deer stones usually have an association with big khirgisüür and sacrificial structures and altars.

Finally, none of the megalithic monuments mentioned above or any others outside Mongolia and Central Asia can be associated with nomadic cultures and certainly not with the emergence of a whole new cultural complex in the late Bronze Age.

In addition to the most evident geographical difference, there is the artistic and chronological aspect that must be highlighted. Most of the megalithic sites which are dated to the Late Neolithic and Early Bronze Age periods are older than the Deer stone sites of the Bronze Age period in Eurasia, including Mongolia.

3.3. Proposed Statement of Outstanding Universal Value

a. Brief synthesis

Mongolia is rich with monuments and complex heritage sites that belong to the Bronze Age culture of Eurasian nomadic people. The most exciting, elegant, and valuable heritage structures among them are deer stone monuments dated from c. 1200 to 600 BCE. These monuments are almost always located in the context of a partially extended complex including khirgisüür (elaborated burial mounds) and sacrificial altars. Deer stones belong to a class of Bronze Age monuments known most frequently as menhirs. The Mongolian deer stone monuments with giant khirgisüür and satellite structures are the most important and remarkable

among this world's megalithic ceremonial and funeral culture. The Deer stone is a gigantic stele, ranging in height up to 4 meters with engravings of stylized stag images. Elaborately decorated these massive monoliths set directly in the ground singly or in groups. Vertically it is generally divided into three sections: upper section including the head, middle section including the torso, and lower section including the part under the belt. In terms of ornamentation, cultural significance, archaeological and landscape contexts, the Mongolian deer stone is unique within world Bronze Age monumental heritage sites; but its uniqueness and cultural value lie in other associations as well. The first research on the deer stone was conducted around 100 years ago. Thus far, about 1500 deer stones have been discovered all over the Eurasian steppe area, including over 1200 only in Mongolia. Within Mongolia and Eurasia, there are three relatively distinct forms of deer stone: 1) **Mongol-Transbaikal type**. Characterized by stylized stag images; 2) **Sayan-Altai type which** is either carved or decorated with relatively realistic images of animals; and 3) **Eurasian type** which is non-imaged and less well articulated as a type. The significance of nominated 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, and the variety and elegance of their ornamentation. The images of a stylized stag that cover these stones are without any parallels across Bronze Age Eurasia.

b. Justification for Criteria

Criterion (i): The proposed parts are both of exceptional beauty and cultural significance – true masterworks of late Bronze Age culture. They constitute an outstanding example of Bronze Age megalithic monumental art of the highest quality and uniqueness. The deer stone monuments demonstrate an extraordinary variety in their ornamentation, yet all refer to an ideal image type - a human wrapped in the signs of a great antlered stag. Both deer stones and their attendant khirgisüür demonstrate the artistic vitality and creative genius of human achievement in prehistoric times.

Criterion (iii): The proposed parts are a genuine and exceptional testimony to ceremonial, funeral practice, and culture of the Eurasian Bronze Age nomads, which had evolved and disappeared slowly from the 2nd to the 1st millennium BCE.

Criterion (iv): The properties illustrate an outstanding example of a type of animal style art and archeological cultural landscape that represents a significant stage of Bronze Age culture in Central and North Asia of human history during which were built the ancient megalithic funeral and ceremonial structures.

c. Statement of Integrity

The nominated parts all reflect the original layout and size of the complexes as they were shaped in the Late Bronze and Early Iron Ages. At this time there are no commercial activities associated with the properties except those related to the visits of tourists. These Bronze Age cultural sites are well preserved and their primary parts have the satisfactory condition of integrity.

d. Statement of Authenticity (for nominations made under criteria (i) to (vi))

Scientifically rational and factual evidence and hypotheses on the credibility and truthfulness of cultural values attributed to these sites were suggested by archaeologists through various scientific works and publications. All nominated sites reflect and truthfully demonstrate 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 skill and techniques used in the creation of these complex structures, and the knowledge and talent of the people who built them.

e. Protection and management requirements (See format in Annex 1)

Within Mongolia, there are traditional conditions and practices from which the nominated properties derive protection. All nominated parts benefit from their remote locations, their distance from urban centers, and their traditional land use as pasture and worshipping places for nomadic herders. This land use has been in existence for more than 4000 years. For the most part, such traditional ways of protection and preservation are still understood and observed within the nominated areas. In addition, there exist several regulatory layers dedicated to the formal protection of Cultural Heritage. Cultural heritage properties in Mongolia are protected through both national and local province laws, decrees and regulations. Despite existing regulations for the protection of the OUV of the nominated properties, several management principles and practices need to be strengthened. Concerning the specific requirements of this nomination and its concern with OUV, it is necessary to establish a new site management administration unit for the protection and management of World Heritage properties as a whole and to implement the integrated management plan which was elaborated with the active participation of local communities and stakeholders at all levels of intervention. The attached management plan for the nomination should address the coordination of management of all parts to meet one set of shared objectives for preserving OUV.

4. STATE OF CONSERVATION AND FACTORS AFFECTING THE PROPERTIES

4.a. Present state of Conservation

Nominated property includes the following component parts:
1. Bronze Age Complex site with Deer stones in Khoid Tamir valley
2. Bronze Age Complex site with Deer stones at Jargalantyn Am
3. Bronze Age khirgisüür complex with Deer Stones at Urtyn Bulag
4. Bronze Age Complex site with Deer stones at Uushigiin Övör

a. Khoid Tamir valley

No.	Type of monuments	Protected area	Buffer zone	Total	State of conservation		
					Broken	Writing, painting	Robbed, destroyed
1	Deer stone	51	42	93	32 (34.4%)	-	5 (5.4%)
2	Khirgisüür	260	115	375	-	-	35 (9.3%)
3	Burial	190	88	278	-	-	10 (3.5%)
4	Stone structure (sacrificial)	126	51	177	-	-	10 (5.6%)
5	Rock art	3000	-	3000	-	5 (0.1%)	-
6	Stone quarry	1	-	1	-	-	-

b. Jargalantyn am

No.	Type of monuments	Protected area	Buffer zone	Total	State of conservation		
					Broken	Writing, painting	Robbed, destroyed
1	Deer stone	26	-	37	5 (14.7%)	1 (2.9%)	-
2	Khirgisüür	1	52	52	-	-	10 (19%)
3	Burial	7	15	22	-	-	-
4	Stone structure (sacrificial)	6	8	14	-	-	4 (28.5%)

c. Urtyn Bulag

No.	Type of monuments	Protected area	Buffer zone	Total	State of conservation		
					Broken	Writing, painting	Robbed, destroyed
1	Deer stone	11	-	37	8 (72%)	-	-
2	Khirgisüür	12	52	64	-	-	10 (19%)
3	Burial	11	15	26	-	-	-
4	Stone structure (sacrificial)	-	8	14 (including 6 of JA)	-	-	4 (28.5%)

d. Uushigiin Övör

No.	Type of monuments	Protected area	Buffer zone	Total	State of conservation		
					Broken	Writing, painting	Robbed, destroyed
1	Deer stone	24	12	36	10 (27.7%)	-	-
2	Khirgisüür	4	150	154	-	-	30 (19.4%)
3	Burial	-	250	250	-	-	46 (18.4%)
4	Stone structure (sacrificial)	-	67	67	-	-	-

The largest number of re-erected deer stones are located in Khoid Tamir valley, at Jargalantyn Am and Uushigiin Övör complexes.

The conservation and restoration work in the Khoid Tamir valley and Uushigiin Övör were assisted by domestic and foreign organizations and researchers. For example, a team from the Mongolia-Monaco joint project re-erected (reconstructed) deer stones in Khoid Tamir Valley (Fig. 33). The conservation works were completed following the methodology and advice provided by Dr. Alexander Gabov, Vice-President of the Association of The Professional Conservators of Canada and accredited sculpture conservator.

The 21 deer stones were selected to be re-erected based on the structure of the heritage site and the comparative studies carried out on the site. We were guided by the following 3 principles to locate places for the re-erection of the deer stones.

First, the deer stones are erected at the left side of the khirgisüür.

Second, the deer stones are erected in the center and by the left side of the main sacrificial structures in the central and northern part of Mongolia.

Third, having studied the initial erection of the 1st, 2nd, and 3rd deer stones which stand in their original places at the heritage site of Jargalantyn Am, and having observed the intentional open spaces within the sacrificial structures.

In the Khoid Tamir valley, 24 of the 113 deer stones at 25 sites along the Khoid Tamir valley are in their original location. 63 of the deer stones, which had been used in the slab graves, parapets, and Kurgan stele of memorial monuments during the period of the Ancient Turks, were uncovered and restored relatively recently to their original settings and comparatively well preserved. 44 Khoid Tamir deer stones have been broken, and the engravings on 52 stones have become indistinct. The central mounds of the khirgisüürs have been looted, although the enclosure and stone mounds are well preserved. The rock art appears to be well preserved. The stone quarry associated with the component part is also well preserved.

Between 2006 and 2018, researchers of the joint Mongolian-Monaco "Khoid Tamir-Khunui" project supported by domestic and foreign organizations have placed the deer stones at their original sites or re-erected them near the slab graves (Fig. 34).

At Jargalantyn Am, there is a deer stone complex that obtained its present view thanks to the restoration and conservation project implemented in 2009, with the support of the US Embassy in Mongolia (Fig. 33). There is a total of 30 deer stones and 24 of them are nicely completed deer stones. Others are made of stones with non-flat edges and non-shaped surfaces. The project plan was to erect 24 of the 30 deer stones at Jargalantyn Am. The three bigger deer stones of the 24 had fallen in their original places while the other 21 deer stones had been removed from their original place and reused for the construction of 3 quadrangular structures. This reflects the complex cultural story of these sites. These DSs were unearthed by

archeological excavations in 1989 and 1990, and re-erected later in the northern part of the heritage complex. The placement plan which was developed in the second stage of the project during May 2009 was based on the above mentioned 3 principles of the reconstruction of deer stone monuments, and according to this placement plan, those 21 deer stones were re-erected at points that might be similar to their original places. This heritage complex not only has the greatest number of deer stones in one location, but it has also become a complex with the best-preserved deer stones. In some cases, the stones have been fixed using cement.

At Urtyn Bulag, Central mound of the south khirgisüür has been damaged by looting in ancient times, but the surrounding stone enclosure and the small stone mounds and stone circles are very well preserved.

Uushigiin Övör. 14 deer stones were found in their initial places in addition to about 10 more, which were laid down in a fragmented form. In recent years, archeological surveys, excavations, and reconstruction works have not been carried out at the deer stone complex site (See Fig.33, 34).

Fig. 33. The process of re-erecting deer stones in the valley of Khoid Tamir

Fig. 34. The process of re-erecting deer stones in Jargalantyn Am site

4.a.1. General issues

At present, Mongolia is facing significant problems of pasture erosion and desertification. These conditions result partially from environmental changes occurring worldwide. They have been exacerbated by low rainfall, sandy soils susceptible to wind erosion, high winds, wildfire, and overgrazing. In many areas, population and agricultural pressures also contribute to the problem by disrupting the traditional pastoral land-use system; by inappropriate mining and industrial practices; inappropriate cultivation practices; and uncontrolled tracking from motorized vehicles.

In the case of the nominated property, the present conservation of pastureland is better than in many parts of Mongolia. Because the parts of the property are located at a considerable distance from cities and population centers, there are no mining or cultivation activities. The territory of all nominated properties has been used as grazing land for thousands of years, as is the case across the central Mongolian grassland. Over time the impact from this activity is minimal. Nonetheless, land use measures for the property must define pasture capacity and monitor and restore overgrazed pasture by reviving traditional methods of pasture rotation.

The nominated components are all originals created in history. While some deer stone monuments have been relocated throughout historical development, they have not been changed in themselves and still demonstrate memorial, sacrificial, and worship traditions of nomadic people and their awareness of the landscape. All the archaeological survey that has occurred at these sites has been like scientific research. Any exploratory excavations of particular monuments that have been undertaken have been restored.

The most intrusive activity within the properties has been in the uncovering and re-erecting of fallen and half-buried deer stones; this activity has resulted in restoring the stones to their original settings and orientation and the larger sites more closely to their original appearance. The nominated serial properties all reflect the original layout and size of the complexes as they were shaped in the Late Bronze and Early Iron Ages.

All are well preserved in that there are no intrusions from the construction of major roads, settlements, or industrial development. At this time there are no commercial activities associated with the properties except those related to the visits of tourists.

The authenticity of the property is demonstrated by its physical condition, which aside from the wear of time and the elements is essentially pristine. There is some modern damage on deer stone (writing, painting, broking) located close to roads; but, in general, the deer stones are relatively impacted by human or animal activities. The authenticity of the sites is protected by their relative inaccessibility due to both terrain and weather.

The provision of buffer zones will offer overall protection to the nominated properties and the integrity of individual monuments. All of the components of the property are under the protection of the laws and regulations of Mongolia on the protection and preservation of cultural heritage.

4.a.2. Individual properties

- **Nominated site in Khoid Tamir valley**
  As of today, 24 of the 113 Deer Stones at 25 sites along the Khoid Tamir valley are in their original location. 63 of them which had been used in the slab graves as well as parapets and Kurgan stele of memorial monuments during the period of the Ancient Turks were uncovered and restored to their original settings. 32 of these Deer Stones are broken while the engravings on 52 Deer Stones have become indistinct. Between 2006 and 2018, researchers of the joint Mongolian-Monaco "Khoid Tamir- Khunui" project

placed Deer Stones at their original sites or restored them near the slab graves that they had studied.

- **Nominated site at Jargalantyn Am**
  The Jargalatyn Am complex obtained its present view thanks to the restoration and conservation project implemented in 2009. There is a total of 30 deer stones and 25 of them are nicely completed deer stones. Others are made of stones with non-flat edges and non- shaped surfaces. This complex not only has the greatest number of deer stones in one location but has become a complex with the best-preserved Deer Stones. Deer Stones as well as different kinds of Bronze Age burial-sacrificial structures are to be found in one location at this site.
- **The nominated site at Urtyn Bulag**
  There are two giant khirgisüür complexes with Deer stones and south of them has been looted, but all the sactificial structures and heritage elements are very well preserved.
- **Nominated site at Uushigiin Övör**
  14 Deer Stones were found in the erected situation in their initial places as well as about 10 more were lied down in the fragmented form. Overall, the site places as a unique one among the whole repertoire of Deer Stone culture as best preserved and most elaborate and offers good opportunities to restore the funeral-sacrificial complexes of the Late Bronze Age.

4.b. Factors affecting the conservation of the properties

General Comments

Mineral extraction, construction of roads, settlements or industrial development appears to have receded as a threat to all the properties in this serial nomination, but an unplanned road (such as is found throughout Mongolia), could create problems, particularly within the four complexes of deer stone. There are no mining or cultivation activities in the nominated serial property, while grass fires are a possibility and could affect the Deer Stones, there has been no evidence of damage from past fires.

Aside from issues of overgrazing which are now affecting all parts of Mongolia, the problem of animal impact on decorated rock surfaces is minimal in the case of all nominated properties. Nonetheless, the carrying capacity of the land for grazing must be defined and traditional methods of pasture rotation kept. Although harsh mountain conditions found in the case of all properties invariably affect the preservation of deer stones, they also discourage casual tourism. Similarly, the isolation of these properties and the fact that they all lie within border areas will support their preservation. On the other hand, some kind of educational effort is necessary to encourage residents not to destroy heritage sites when they construct their shelters and not to mark decorated surfaces in any way. The reuse of decorated stones for animal shelters has been ceased. Given the extremely limited populations in all these valleys, their educational and informational infrastructure, such educational efforts should be quite feasible.

The appointment of local guardians near each complex might help, also, to avoid the kind of destruction visible on the Large Panel in Jargalantyn Am Complex site.

None of the factors negatively impacting these properties are un-resolvable. The use of educational and informational resources would be appropriate to a preservation effort. Educational programs even modest ones at the Museums in Arkhangai and Khövsgöl and schools around the province could have a double purpose: to increase awareness and preservation of antiquities, including deer stones and surface monuments; and to offer residents and their children added resources for understanding their historical and cultural past. New or clearer regulations on the province and national level would help to control.

(I) DEVELOPMENT PRESSURES (E.G., ENCROACHMENT, ADAPTATION, AGRICULTURE, MINING)

Khoid Tamir valley. It may cause a threat in future that more and more herders build their 4 seasons (summer, fall, winter, spring) camps and start to settle in these areas that cause environmental pollutions, exceed pastureland capacity and vegetations degrade by and large. Consequently, the above factors could intensify desertification. Due to climate change/global warming, some parts of the Khoid Tamir valley area have been affected. Currently, these deer stone sites have not been inhabited with populations and are affected by crop-farming or mining activities. However, at the southwestern part of the buffer zone of Khoid Tamir component part there is a disused coal mine with remnant machinery.

Jargalantyn Am. Heritage sites are located in the valley of Khanui river and thus not favorable for settlement or crop-farming activities, except few winter camps owned by local herders. Currently, as there are no mineral deposits discovered here, the sites will not be affected by the mining and other development activities. Yet, improper human actions are occurring, such as drawing nuisances as names, carving duplications of paintings. There are problems of animal impact on heritage sites that require strict monitoring and regulations.

Urtyn Bulag. There are two big khirgisüür complexes that are not yet affected in any way.

Uushigiin Övör. Uushigiin Övör is the most protected of the four components, for several reasons. It lies wholly within the State Protected Zone; it is, further, within a border zone and therefore tourist access could be regulated to this heritage site.

Present wiremesh protective fence of the Uushigiin Övör site covers 2.3 ha and it cuts across the middle of the khirgisüür. Therefore, it has been planned to build new big fence adequate for this site. According to the plan, the new fence will cover 5.5 ha area and some cultural features such as the sacrificial stone structure to the west of the Uushigiin Övör site, circle mounds or khirgisüürs to the north of the site, and some khirgisüürs in the southeast will be included in this fence. Cultural features which will be included in the area of new fence were marked by red color (Fig. 35). In the buffer zone just south of the property boundary is a tent hotel. ICOMOS recommends to relocate this hotel outside the buffer zone. Now, Arjhangai province Governor's office discusses issue with the owner of this hotel and plans to resolve in accordance with law and regulations concerned.

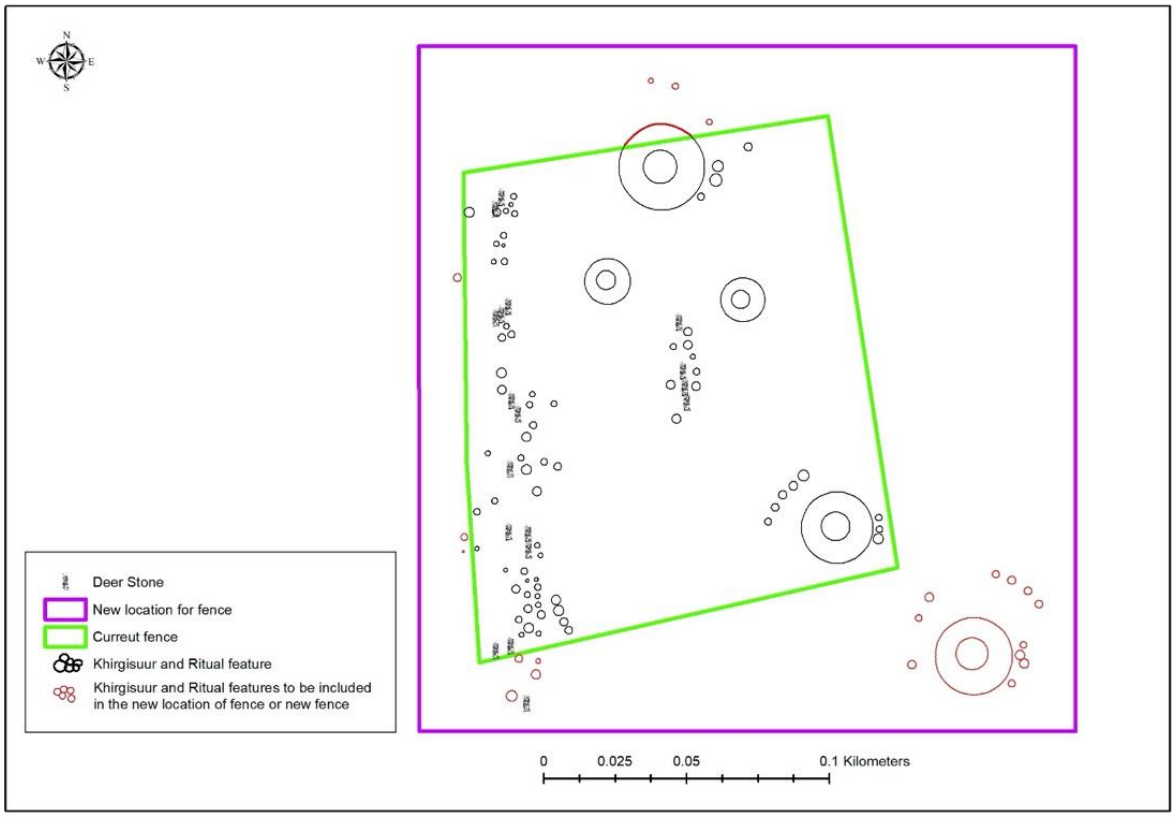


Fig. 35. The protection fence of Uushigiin Övör site

(II) ENVIRONMENTAL PRESSURES (E.G., POLLUTION, CLIMATE CHANGE, DESERTIFICATION)

Nominated deer stone and khirgisüür complex sites are located in wide valleys of Khangai, Khövsgöl mountains of Mongolia. Khoid Tamir, Khanui and Delger rivers are humid and cool, yet freezing cold in winter too. Due to climate change phenomena, potential threats are evident and immense that some deer stones have faded away and carved rocks are cracked and broken down. Desertification could occur causing threats to heritage sites.

(III) NATURAL DISASTERS AND RISK PREPAREDNESS (EARTHQUAKES, FLOODS, FIRES, ETC.)

These nominated sites are located within active seismic and earthquake zones. Along the river banks so that they are not vulnerable to any earthuake threats. There are not trees and forests nearby nominated properties so that fire related risks appear low. However, in dry seasons of spring and autumn, steppe fire might be caused due to local herders' carelessness and negligent.

One feature specific to looks its less vulnerability to fire and different from other archeological sites, such as towns and buildings which have high risks of fire. Nevetheless, fire can cause risks to affect integrity of deer stones by blackening rock surfaces with tar and charcoal, or breaking rocks with excessive heat of fire. In case of fire outbreak, it is possible to extinguish by deploying local people. Currently, there are not any prevention tools or ready plans on natural disaster management. Local authorities are preparing a risk management plan and eager to implement at each component parts.

(IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

Currently, tourism lacks effective management and monitoring. Any individuals can/may take and guide tourists to show deer stones at any place. It is hard to monitor them; in particular, a small number of tourists are often on their own and dare do anything.

Domestic and foreign tourists heading pass the Khoid Tamir valley, Jargalantyn Am complex site of Khanui valley and Uushigiin Övör complex site. More information about deer stones is disseminated to the outside world, more tourists and amatuer archeologists might be attracted to come to the areas. Some deer stones are maked on middle-size rocks that can be carried away by someone who wants to add to one's private collections or sell to overseas museums. Similarly, some people may take small deer stones for above purposes or just as a memorial trophy. Therefore, as these valuable ancient heritage properties are located at easily accessible locations on the ground, potential threats and risks of improper human actions appear high to damage and ruin them.

(V) THE NUMBER OF INHABITANTS IN THE HERITAGE SITE AND ITS BUFFER ZONES

Deer Stone site of the Khoid Tamir valley is loceted within the area of Bugat bag of Ikhtamir in Arkhangai province. Deer Stone site of Jargalantyn Am and Urtyn Bulag is located withing the area of Khanui bag of Öndör-Ulaan soum in Arkhangai province. Deer Stone site of Uushigiin Övör is located within the area of Tuya bag of Bürentogtokh soum in Khövsgöl province.

Name of the Heritage properties	**Soum and bag covering the heritage site**	**Area of nominated property**	**Buffer zone**	**Total**
Deer Stone site in Khoit Tamir valley	Ikhtamir soum, Bugat bag	Household - 5, total Population - 22 and livestock animals - 5000	Household - 18 Population - 54 livestock animals - 11000	Household - 23 Population - 76 Livestock animals - 16000
Deer Stone site at Jargalantyn Am and Urtyn Bulag	Öndör-Ulaan soum, Khanui bag	Household - total population and livestock animals 0	Household - 15 Population - 55 livestock animals - 8000	Household - 15 Population - 55 livestock animals - 8000
Deer Stone site at Uushigiin Övör	Bürentogtokh soum, Tuya bag	Household population livestock animals 0	Household - 20 population - 70 livestock animals - 10951	Household - 20 population - 70 livestock animals - 10951

5. PROTECTION AND MANAGEMENT OF THE PROPERTY

5.a. Ownership

The proposed properties to the World Heritage List including; a) Nominated property in Khoit Tamir valley is loceted at Ikhtamir and Battsengel soums of Arkhangai province covering 24464,14 hectares of area; b) Nominated property at Jargalantyn Am is located in Öndör-Ulaan soum of Arkhangai province covering 2158,62 hectares of area; c) Nominated property at Urtyn Bulag is located in Öndör-Ulaan soum of Arkhangai province covering 364.14 hectares of area; d) Nominated property at Uushigiin Övör is located at Bürentogtokh soum of Khövsgöl province covering 423,13 hectares of area respectively. Pursuant to Clause 7 of Article 1 of the Constitution of Mongolia stated as the "Historical and cultural heritage, scientific and intellectual property of Mongolian people shall remain under the State protection", any heritage property remains within the ownership and protection of given soum or locality where it is located. For instance, legal owner of the Deer Stone site of Uushigiin Övör is the Governor and the Government Office of Bürentogtokh soum, Khövsgöl province. In 2003, "Khövsgöl Dalai Eej" NGO entered into a tenancy agreement to preserve, rehabilitate and promote the property until March 15, 2010. With tenancy agreement, the deer Stone site of Jargalantyn Am is currently being preserved under protection and responsibility of a resident of Öndör-Ulaan soum, Ch. Tulga (see attached tenancy agreement entered between the Governor of Öndör-Ulaan soum, the Governor of Khanui bag and resident Ch. Tulga).

5.b. Protective designation

By Government Resolution #175 dated May 14, 2008, the complex monument of man stone, deer stone, tomb and khirgisüür at around of Altan sandal mountain in Ikhtamir soum and complex monument of deer stones in Uushigiin Övör of Bürentogtokh soum were included in the State protection list, while the Complex monument of khirgisüür and deer stones of Jargalantyn am at basin of Khanui river in Öndör-Ulaan soum was included in the provincial protection list. Besides the inclusion in national lists, these four complexes were also registered in the National Tentative List for inscription to the World Heritage List. By Government Resolution #235 of 1998, deer stone monument of Uushigiin Övör was also proclaimed as a monument under "State Special Protection", and consequently, by Government Resolution #190 of 2003, 42 hectares of land area was set around the monument as protected zone. By the Decision #1/05 of the Citizens' Representative Meeting of Bürentogtokh soum, dated February 27, 2018, the monument of Uushigiin Övör was selected as one of ten prides of the soum. By the Decision of the Citizens' Representative Meeting of Öndör-Ulaan soum dated March 20, 2017, the monument of Jargalantyn Am was registered in the registration and information database of immovable properites with histarical and cultural values and included in list of monuments under soum protection.

Existing legislation for the protection of cultural heritage

- Constitution of Mongolia [Clause 7, Article 1] states that the "Historical and cultural heritage, scientific and intellectual property of Mongolian people shall remain under the State protection", 1992
- Law on Cultural Heritage Protection of Mongolia, 2014
- Provision 3.1.4.1 of the National Security Concept of Mongolia states that "Mongolian history, language, culture, religion, tradition and customs shall be protected, developed and studied under the care and protection of the State, and any relevant creations of

books, textbooks and cinematographic works to be promoted, and tangible and intangible cultural heritage to be preserved and developed".

- Provision 4.3.2 of the Cultural policy of Mongolia states that the "Cultural heritage elements of ancient and present times shall be maintained under State protection and treated as a national treasure".
- Mongolian Government's Action Plan to implement from 2020 to 2025.
- Öndör-Ulaan soum Governor's Order dated January 22, 2013 states to register and include immovable historical and cultural heritage properties located in Khanui, Dongo, Belkhi and Azarga bags under local (soum) protection and to take measures to preserve the quality and conditions.
- List of immovable historical and cultural heritage properties under State, provincial and local (soum) protection.
- These heritage sites are registered in the State and provincial registration and information database within a category of "Invaluable national cultural monuments".

5.c. Means of implementing protective measures

- The Government of Mongolia shall create the relevant legal framework for safeguarding and maintaining proposed properties in compliance with the principles of World Heritage;
- Management of the safeguarding and maintaining of proposed properties shall be regulated under applicable laws and regulations of Mongolia in line with the Convention of World Natural and Cultural Heritage;
- The Government of Mongolia shall pass and implement national policy, program and strategy plan for safeguarding and maintaining proposed properties and cooperate with and encourage initiatives and participation of governmental and non-governmental organizations, private entities, bilateral and international organizations and individuals;
- Under the supervision and guidance of the Ministry of Culture (MC), the administration / management office of deer stone and khirgisüür complex sites of Khoit Tamir valley, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör shall implement the management plan;
- The Mongolian National Commission of World Heritage, National Center for Cultural Heritage (NCCH) and the UNESCO Accredited Foundation for the Protection of Natural and Cultural Heritage (FPNCH) shall provide technical assistance and guidelines to the Management office.
- MC and the Management office shall prepare performance reports regarding the implementation of the UNESCO Convention of World Nature and Cultural Heritage, and submit each report within the deadlines specified in the guidelines of the World Heritage Committee;
- The World Heritage Committee shall review and examine the status of safeguarding and maintaining deer stone complex sites of Khoid Tamir valley, Jargalantyn Am, Urtyn Bulag and Uushigiin Övör , and issue subsequent due diligence statements within the deadlines stated in procedural rule of World Heritage Committee.

At the moment, the nominated sites located within certain range from one another are being protected and preserved under their respective local authorities, and as well in accordance with traditional customs and methods by local herders and residents. However, further protection and preservation initiatives and measures to be implemented according to well-developed unified management plan.

5.d. Existing plans related to municipality and region in which the proposed property is located

- 2021-2025 Action Programs Of Arkhangai and Khuvsgul province Governors. The Action Programs clearly state that immovable cultural heritage heritage properties to be protected, rehabilitated and propagated, and to put an end to illegal excavations of immovable historical and cultural heritage properties and take preventive measures against.
- Implementation Plan of the Arkhangai province Governor's Action Program
- 2021-2025 Action Program of the Governor of Ikhtamir soum, Arkhangai province
- Provincial Tourism Development Sub-program (Decision of the Citizens' Representative Meeting of Arkhangai province dated June 09, 2018). Sub-program covers to include 2 of the proposed properties as tourist route.
- 2021-2025 Action Program of the Governor of Öndör-Ulaan soum, Arkhangai province.
- 2021-2025 "Guide to Development" of Action Program of the Governor of Khövsgöl province
- National Culture-based Development Program
- 2018-2028 Tourism Development Master Plan of Khövsgöl province. The Master Plan covers provincial natural, historical and cultural heritage properties including the proposed Deer Stone heritage complexes as 5 main tourism routes

5.e. Property management plan or other management system

These cultural heritage properties proposed to the World Heritage List are all State owned properties and their protection and control are governed by the Mongolian laws and regulations referred to in 5.b. The List of immovable historcal and cultural heritage properties that are required to be protected at State, provincial and local (soum) levels was approved by the Government of Mongolia in 2008. The proposed properties are all included in above List.

The Protection and Preservation Management Plan for the "Deer Stone Monumnets and related sites of Bronze Age" located at Khoid Tamir valley in Ikhtamir soum of Arkhangai province, at Jargalantyn Am and Urtyn Bulag in Öndör-Ulaan soum of Arkhangai province, and at Uushigiin Övör in Khövsgöl province

Within the framework of nominating the "Dear Stone Monuments and related sites of Bronze Age" to the UNESCO World Heritage List, the MC, Mongolian National Commission for World Heritage, Mongolian National Commission for UNESCO, Foundation for the Protection of Natural and Cultural Heritage – UNESCO Accredited NGO, Institute of Archaeology at the Mongolian Academy of Sciences, Governor's Offices of provinces and soums and local NGOs have worked together to develop this document, the initial draft of Management Plan for protection and preservation of given properties. The development of the document is based on the research materials, data and conclusions made during the response to the questionnaire prepared to fulfill the management requirements for this nomination.

In addition, the initial Management Plan was improved with full consideration of the ICOMOS recommendations of its evaluation mission concerning the requirements of using a landscape management approach in elaborating the Management Plan.

This Management Plan was developed in association with the concept of culture civilization based on views and lifestyle of the ancient people lived in era of Bronze Age to early

iron age in regions of Mongolia and Central Asia, their belief and traditions of the ritualistic practices and their nomadic pastoralism. It is considered that this is fully compatible with the requirements and criteria of the 1972 Convention Concerning the Protection of the World Cultural Natural Heritage and the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage.

This management plan represents the government policy on protection and preservation of these cultural heritage sites proposed for nomination to the World Heritage List. If the proposed properties are inscribed in the World Heritage List, the establishment of the Protection administration of the World heritage property will be the basis for its protection and preservation management activities and implementation of this Management Plan. All of these protection and preservation activities will be carried out in accordance with management plan for four properties, which are located within certain ranges from one another under the jurisdiction of their respective administrative units.

The long-term objectives of the management plan will be developed over a period of ten years. They will involve the articulation and implementation of measures for the overall protection, preservation, scientific and public use of the properties so that this world heritage will be preserved for following generations. It is intended that this management plan could serve as a model for deer stone and khirgisüür complex sites across Mongolia and particularly within valley of rivers and Khangai and Khövsgöl Mountain regions.

The overall objectives of the Management of the nominated serial property are as follows in general:

- Develop legal frameworks for the protection of the deer stone and khirgisüür complexes of Mongolia and their associated ceremonial and sacrificial structures in order to bring them into conformity with international World Heritage standards of protection and appropriate utilization. Take consequent measures for the sustainability of the environment:
    - To implement a comprehensive policy and program to prevent all risks associated with climate change, development, tourism and human activities that affect the historic value and integrity of cultural heritage properties that exist openly in the wild.
    - The preservation and stabilization of adjacent grazing lands, soil and water.
    - Development of recommendations relating to the mitigation of desertification and soil erosion as they affect the proposed properties.
    - Development of recommendations regarding the prevention of wildfire.
    - Call for the implementation of reforestation, appropriate grazing, and wildlife protection.
- Make use of the established panel of stakeholders and local communities (including governmental and non-governmental representatives) and meeting annually in order to review policies, opportunities, and problems relating to the on-going management of the deer stone and khirgisüür sites.
- To establish the legal environment for preserving the cultural heritage sites integral with their territories in compliance with international standards, principles and requirements for the preservation and protection of OUV of world heritage.
- To conduct further research in the protective area in buffer zones, in order to take precautions against possible conditions for concentration of herding families and

livestock, desertification due to over pasture, and as well as, against manufacturing, mining and cultivation activities, and create conditions to only be used as objects for educational research, worshipping, and as a tourist destination.

- To safeguard and revive traditional lifestyle, customs and rituals of nomadic herders in the area, as well as introduce modern advanced technologies without adverse effects.
- To organize and ensure that education, culture and health services provided to the community to keep the traditional lifestyle of local people and herders in line and consistency with their nomadic culture and lifestyle.
- To improve capacity of tourist camps and resorts and solve modern infrastructure issues such as roads, electricity and telecommunication to develop tourism in compliance with international standards and, most imporantly, to dvelop a nomadic culture and ecology based tourism.
- To promote community involvement in conservation and preservation of proposed properties, and support volunteers and partnerships.

Review annual progress on the implementation of this Management Plan, its policies, opportunities and challenges, monitor and evaluate them on an annual basis and incorporate in to mid-term and annual plans.

Management Plan for the Protection and Preservation of the World Heritage – Deer Stone Monuments and related sites of Bronze Age consists of 2 phases of objectives.
(A) Long-term objectives (2019-2028), and
(B) Mid-term objectives (2019-2023) (See Management Plan in Annex III)

Graphic chart of Mongolia's Conservation and Protection Management System for the component parts of nominated serial property

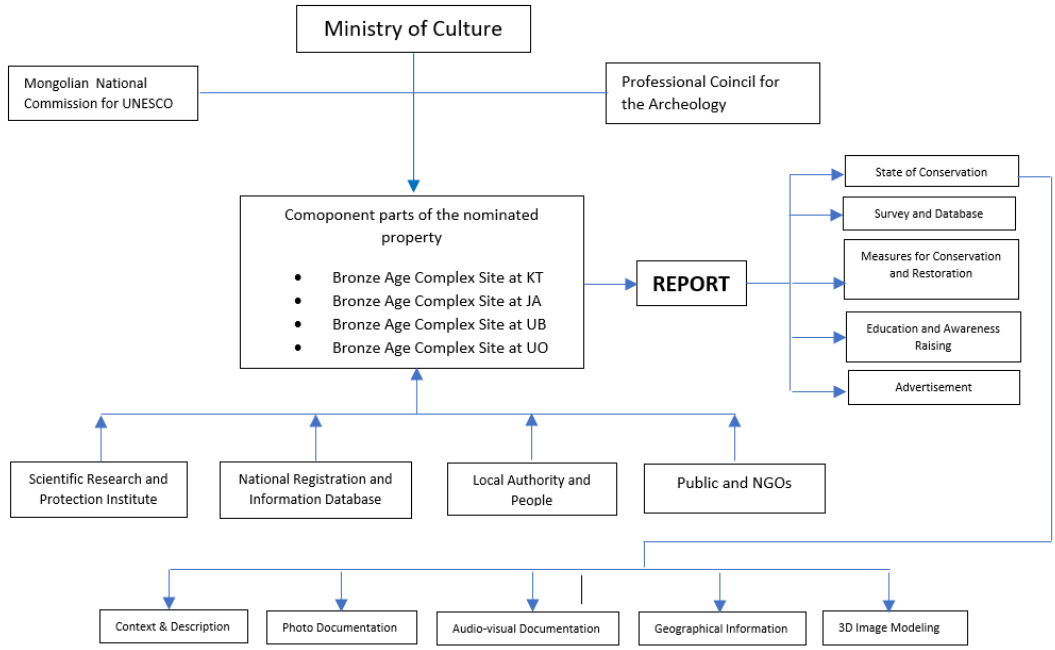


Fig 40. Graphic chart of Mongolia's Conservation and Protection Management System for the component parts of nominated serial property

Note: Elaborated complete management plan is enclosed.

5.f. Sources and levels of finance

Although these complex heritage sites are included in the Registers of national and provincial historical and cultural heritage sites, there is no specific body at present responsible for funding for preservation and protection. Funding from the budget of province and soum's Governor offices is available in a limited amount. Funding from the budgets of the Institutes of History and Archaeology under Mongolian Academy of Sciences is only limited to certain measures such as erection of fallen monuments and statues, light rehabilitation and research works. In the future, protection and preservation units are necessary to be established based in soum localities with paid employees. It is also believed that the restoration, rehabilitation and maintenance of the monuments can be financed with following resources.

- National and local government budgets;
- Fees assessed from tour operators running tourism businesses within the proposed areas;
- Donations from international organizations and foreign countries;
- Fees assessed from individuals wishing to study the deer stone of the proposed properties (just as now, individuals are required to pay fees to scientific organizations in Ulaanbaatar for archaeological work).

Expenses relating to educational initiatives will be drawn from the following sources.

- Fees assessed from scientific organizations wishing to use the proposed properties for scientific and educational purposes;
- Donations from international organizations and foreign countries;
- National and local government budgets.

5.g. Sources of expertise and training in conservation and management techniques

It is critically essential to involve local residents and herders to instill them in heritage protection and management skills for restoration and safeguarding of their own tangible and intangible cultural heriatge elements, traditions and lifestyles in and around the sites where the protection, preservation and restoration activities of properties proposed to the World Heritage List to be implemented. First of all, it is important raise awareness and educate local communities, workers, students and tourists about the importance and historical value of these monuments and sites, and to train them on the basic techniques of preservation and safeguarding. In order to do so, it is required to hold various seminars, training workshops and performance activities at all levels with the support of national and international experts and organizations, Mongolian National Commission for UNESCO and the Mongolian Academy of Science's Institute of Archaeology in cooperation with Administration Protection of World heritage property, local officers from provinces, soums and bags responsible for natural and cultural heritage preservation, and among local residents, herders and students. One of the key tasks is also to combine and incorporate materials of seminars, training workshops and performance activities on cultural heritage sites into reference manuals and textbooks.

In solving these issues, financial resources to be accumulated as described in 5.e, to train students in the field of nature conservation and cultural heritage preservation and restoration in colleges, universities and special training schools with agreement to work as employees for the purposes of preserving the proposed cultural heritage properties and attain required management skills. In addition, to promote and support such activities with means of professional assistance, expertise and financial allocations among local communities and herders in establishing small and medium-sized enterprises for the purposes of protecting and conserving associated tangible and intangible cultural heritage elements, and sustaining local customs, traditions and lifestyles. These activities to be carried out in general education schools of Ikhtamir and Öndör-Ulaan soums of Arkhangai province, and Bürentogtokh Soum of Khövsgöl province, and provincial

vocational training centers where the proposed cultural heritage properties are located. At present, the general education school of Ikhtamir soum and Öndör-Ulaan soum is operating with around 80 teachers and 800 students while school of Bürentogtokh soum with 40 teachers, 560 students and 26 staff.

Internships

It is believed that it would be possible to establish a program of national and international unpaid internships for study of, preservation of, and education about the deer stone complexes of these sites.

Educational projects and programs on preservation, restoration and maintenance of World Heritage properties could be implemented with support of national and international donor organizations.

5.h. Visitor facilities and infrastructure

As these cultural heritage sites are an important research object among scientists and experts and receive certain amounts of visitors, researchers and cultural enthusiasts to explore the heritage sites, however, they are not covered and included in the official centralized tourism routes yet. In particular, the two sites in Arkhangai provinces. In order to make the most of our recreational and effective day-to-day travel, no matter where we go, transportation issues are resolved, and people's financial opportunities are improved. In connection to this, more and more tourists nowadays tend to travel to locations where they have not been before, especially, to UNESCO World Heritage Sites. In the event the properties inscribed in the UNESCO World Heritage List and gain status of Outstanding Universal Value, it is likely that many local and foreign tourists including historians, experts, researchers and enthusiasts interested in studying these heritage sites will be visiting. Nowadays, there are no suitable on-site interpretation centers at proposed sites. Therefore, it is our top priority to address the relevant requirements of tourism and heritage protection, including but not limited to, provision of infrastructure such as electricity, telecommunications and sanitation facility, paved road system to the heritage sites, and in addition to supply with comfortable and seasonal accommodation and tourist camps, mobile houses to allow tourists and staff alike have necessary resting or working conditions. In this connection, it is necessary to establish a training and information centers at World Heritage Sites with purposes to provide World Heritage education and training to staff, specialists, guide translators and service workers. At the present, the Archeological research Center at Khoit Tamir is providing some information for local people and tourists. Tourist information centers are going to be established at world heritage sites on the basis of existing Archeological research Center. Specific route for tourists is being established.The deer stone monuments of Khoit Tamir valley is located in central region of Mongolia along the centralized tourist route. Therefore, the site's official inclusion to the list of tourist route was reflected in the Provincial Tourism Development Sub-program approved by the Decision # 45 of the Citizens' Representative Meeting of Arkhangai province dated June 09, 2018. There are several tourist camps are currently operating near the site. "Guchgur Trade" Company's "Deer Stone" tourist camp with capacity to receive 45 people at once is located in the vicinity of the deer stone monument site at Uushigiin Övör. "Tultiin Tokhoi" tourist camp with capacity to receive 30 people at once is located within 7 to 8 km range south of Uushigiin Övör. The camp is reachable by car, on horseback and by walking. "Ikh Kharganat" tourist camp is located within 6 km of distance from the site and able to receive 60 people. "Ikh Kharganat" tourist camp usually organizes horseback and fishing tours. Tourist camps have been constructed and road access has been improved. All these visitor facilities and infastructure will

be regulated according to local regulations without harm to the OUV of the property. A Tourism Plan has been prepared by provincial authorities in conformity of General tourism development plan of Mongolia.

5.i. Policies and programmes related to the presentation and promotion of the property

Created at the end of the Bronze Age in central region of today's Mongolia, and spread throughout Mongolia in early Iron Age, the deer stone monuments have, consequently, also spread to some parts of Asia and Europe. Since 100 years ago, the monuments of deer stone, slab tombs and khirgisüür have attracted the attention of not only local but also international scientists and became objects of historical and archaeological studies. In this sense, it is likely to become a major cultural and cognitive research experience for future generations. Therefore, our mission is to preserve, protect, study, propagate, promote and transmit OUV of these cultural heritage properties to our future generations with special care. In order to achieve this goal, the relevant educational, research, protection and preservation projects and programs to be implemented at the heritage sites at local, provincial, and even international levels. In particular, preservation and restoration activities will be carried out within the framework of National Program on the Protection and Restoration of proposed immovable historical and cultural heritage properties. Implementation of UNESCO Project "World Heritage – in Youth Hands" to be continued involving teachers of schools located in three soums where proposed heritage sites are, and to register these three schools in the UNESCO Associated Schools Network to make them World Heritage Education Institutions. Based on the Institute of Archeology of the Mongolian Academy of Sciences, a UNESCO Clubs and Associations to be established for the protection and preservation of the nature, environment and heritage of the locality, books, textbooks and handbooks for the World Heritage Education to be created and published, training workshops and seminars to be organized, and website to be created to promote online visibility of the heritage properties and measures to safeguard and protect them. For the development and promotion of creative cultural industry in association with cultural heritage sites, creative arts and souvenirs with images of well known cultural heritage properties will be produced, relevant brochures for tourists will be published and other creative means of initiatives to propagate cultural heritage sites will be promoted. Proposed Management Plan includes making a documentary film and other measures for the presentation and promotion of proposed propperty.

5.j. Staffing levels and expertise (professional, technical, maintenance)

Respective specialty departments responsible for the fields of both tangible and intangible cultural heritage operate separately at the National Center of Cultural Heritage under the Ministry of Culture. Departments responsible specifically for natural, environmental and cultural heritage preservation operate at provincial levels, and administrative officers are employed at the soum and provincial level government offices where heritage sites exist. In addition, local museum staff members, local television and media staff will cooperate as close partners. At present, World Heritage Protection Administration has not yet been established and World heritage specialists will be required to work in cooperation with local government organizations. Addressing social issues in the future will be one of the short-term objectives of the management plan, in order to address the staffing of managers, guides, translators and service workers to work at World Heritage Sites, and the budgeting and, most importantly, to educate and train these staff and provide them necessary living and working facilities and conditions. There will be around 20 staff working in Protection Administration and, in addition, there are enough professional staff available in the two provinces.

6. MONITORING

6.a. Key indicators for measuring the state of conservation

The current status of serial nominated sites to be properly monitored, a base line "Condition of the properties" assessment will be undertaken in 2020-2022. This baseline of information about condition will enable the success of any future management activities and changes which take place in the sites to be properly assessed and understood. In monitoring activities an emphasis will be put on a landscape management approach for component parts and on monitoring the actual state of conservation of the identified attributes.

Key indicators for measuring the state of conservation to be successfully established as follows.

Key Indicator	Periodicity	Location of records
Natural factors		
As indicated in Article 4[a] of the Nominated Property, regular assessment and analysis will be conducted according to the Management Plan for activities undertaken for natural and cultural conservation and protection, their results, effectiveness and factors.		
Soil erosion and pasture degradation •New branch roads and tracks made by cars and livestock. •Pasture degradation. •Success of measures adopted to regulate these problems.	Every 2 years	Ministry of Nature, Environment and Tourism (MNET) Provincial and local governmental administration offices
•Current condition of pastures, vegetation •Identification of plants in danger of extinction. •Frequency and type of fire events related to structures, pastures. •Assessment of reasons for fire events and opportunities for mitigation.	Every 2 years	MNET, Provincial and local governmental administration offices
Current condition of rivers and mineral springs •Fluctuation of water levels of Khoid Tamir, Khanui, Delgermurun rivers, and other springs, rivers and lakes within nominated sites. •Identification of reasons for water loss and opportunities for mitigation.	Every year	MNET, Provincial and local governmental administration offices
Cultural values		
Legislation on conservation and protection of the cultural properties •Level of maintenance of conservation and protection status of the sites. •Level of monitoring or conservation and preservation issues. •Level of implementation of protection management plan and related activities, projects, programs, monitoring, results	every year	Ministry of Education, Science and Sport (MESS), Ministry of Culture (MC), National Center of Cultural Heritage (NCCH), Provincial and local governmental administration offices, provincial museums
Infrastructure •Articulation and development of tourism roads and routes to sites. •Reconstruction of road beds and construction of new roads, new buildings and facilities within the buffer zones of the sites.	Within the planned period	MNET, MESS, MC, Provincial and local governmental administration offices

•Improvement of tourist camp capacity. •Establishment of new tourist facilities and buildings •Monitoring and assessment of adequacy of tourist facilities. •Development of electric power.		
Raising public and staff awareness and improving skills of staff •Assessment of staff needs for monitoring, maintaining and developing awareness raising opportunities. •Development of staff, specialists, guides and intepreters working on the properties. •Periodic assessment of professional needs and capabilities for monitoring, maintaining of OUV of the sites. •Assessment of their training with reference to specific results. •Development of educational opportunities for improving awareness of local communities, herders, teachers and students. •Assessing success of educational opportunities.	Every 2 years	MESS, MC, Provincial and local governmental administration offices
Growth of population and livestock in the protection area and buffer zones •Changes in the composition of population of four soums where the properties are located. •Assessment of the reasons for the fluctuation of population. •Tracking of livestock growth and change in herd composition. •Assessment of negative or positive affect of livestock on the properties. •Identification of illegal activities of individuals and their results.	Every year	MNET, MC, MESS, provincial and local administration offices
State of conservation, protection and restoration of tangible heritage and safeguarding of intangible cultural heritage values • Number of DS monuments and sites requiring major conservation and restoration in all the heritage sites. • Number of excavation and restoration works. • Number of research and evaluation works. • Number of continuing worship ceremonies at and near to the heritage sites. • Number of restored rituals, their locations and growth in number of participants. •Number of cultural traditions relating to protection of heritage sites (e.g., spiritual and worshipping rituals and taboos, traditional feasts, traditional techniques of milk production, manufacturing, arts and so forth) within and around heritage sites. •Assessment of viability of those traditions.	Every 2 years	MC, MESS, NCCH, provincial and local administration offices

6.b. Administrative arrangements for monitoring property

The monitoring included in the list of 6.a will be carried out under the supervision of three ministries, the Ministry of Culture, the Ministry of Education, Science and Sport, and the Ministry of Nature and Environment, by the following organizations:

- Protection Administration of World Heritage Property: (anticipated) (PAWHP)
- National Centre for Cultural Heritage (NCCH)
- NATCOM for UNESCO
- The Archaeological Research Center, National University of Mongolia
- The Institute of Archaeology, Mongolian Academy of Sciences
- The Institute of Geology, Mongolian Academy of Sciences
- The Institute of Botanics, Mongolian Academy of Sciences

6.c. Results of previous reporting exercises

Bronze Age Complex site with Deer Stones at Khoid Tamir Valley

A Mongolian archaeologist Ts. Dorjsüren was the first person ever to make the Deer Stones along the Khoid Tamir valley a subject of research starting in 1955. In 1974, Mongolian and Hungarian researchers found a deer-stone, more than 4 meters in length, buried underground in the valley of Bayantsagaan.

In 1976-1983, researchers of Joint Mongolia-Soviet History and Culture Expedition excavated and studied 4 slab graves with Deer Stone at Shivertiin Am in Ikh Tamir soum and 2 slab graves with Deer Stone monuments at Shivertiin Am in Battsengel soum, noting that there was a total of more than 30 Deer Stones at the Shivertiin Am complex.

In 1979, D. Tseveendorj published the definitions including the hand drawings of a total of 41 Deer Stones found in the Khoid Tamir river basin, giving his own interpretation of the chronology and origin of the deer stone culture. And later in 1981, V.V. Volkov also published a brief description together with some hand drawings of 65 Deer Stone monuments from Khoid Tamir valley.

Since 2006, researchers of the joint Mongolian-Monaco archaeological project "Khoid Tamir-Khunui" have been carrying out extensive excavation in the Khoid Tamir valley. They discovered more than 50 Deer Stones during their more than a decade of extensive investigation and also identified those sites at the mouth of Bayantsagaan Valley and along the ravine stretching north to south in Shivertiin Am from where Deer Stones were being excavated. All the research reports are kept in the Archive of the Institute of History and Archaeology, Mongolian Academy of Sciences.

Bronze Age Complex site with Deer Stones at Jargalantyn Am

Archaeologists of Mongolia and the then Soviet Union, starting in 1968, began taking an interest in and commenced their research into the Jargalatyn Am site. In his book entitled *"Deer-stones of Mongolia"* published in Ulaanbaatar in 1981, V.V. Volkov included the descriptions and hand drawings of some of the deer-stones found at one of the three major sacrificial structures located to the northern part of the complex.

Following this, the joint Mongolia-Soviet History and Culture Expedition, carried out extensive archaeological excavation and research from 1989 to 1991. In the course of this expedition, they not only excavated 3 large burial-sacrificial structures from the northern part of the complex, relating to a later phase, but also excavated 7 sacrificial structures from a pile of stones to the south of the primary sacrificial complex with deer-stones.

In 2009, archaeologist Ts. Törbat with his team, implemented a project called "Khanui Khöndii" under the auspices of the Society for the Protection of Mongolia's Tangible Cultural Heritage. Under the project, research team not only refilled and restored the earlier excavated sites, but also erected 24 deer-stones in their original sites. Research team included all the information and reports in the book “Deer Stones of Jargalantyn Am”.

Bronze Age Khirgisüür Complex site with Deer Stones at Urtyn Bulag

From the very beginning of the archaeological study of the Jargalantyn Am Complex site, in the 1970’s the nearby located Urt Bulag site attracted great interest to researchers, but no significant research has been conducted until the 2000’s.

Only in 2001, the joint Mongolian-American “Khanui Valley” project team documented and mapped a large khirgisüür at Urt Bulag and excavated 2 circular stone sacrificial structures and three round sacrificial structures with a stone mound located in the complex of the second largest khirgisüür (KYR-1) of the site (Allard, Erdenebaatar 2006). In 2006, another Mongolian-American joint team – “Deer Stone” project crew excavated 2 round sacrificial structures with a stone mound of the largest khirgisüür in Urt Bulag, had collected samples of horse bone for the radiocarbon datations (which gave the absolute dating 1030–820 BCE). In the following year researchers of the third joint Mongolian-American project “Settlement of Khanui Valley” team have documented archaeological features in Urt Bulag site and excavated some monuments in the Khanui valley.

In 2018, the Mongolian-Chinese joint project “Nomadic Heritages of the Bronze and Iron Age” excavated two slab burials at the site Urt Bulagiin am. They unearthed 3 deer stones which were used within the fence of one of the slab burials (Erdenebaatar et al. 2018).

Deer stones of Urtyn Bulag site is documented entirely in the complete catalogue of Mongolian Deer stones in 2021 (Turbat et al. 2021).

Bronze Age Complex site with Deer Stones at Uushigiin Övör

The Bronze Age Complex site at Uushigiin Övör was first registered and documented by Mongolian archaeologist N. Ser-Odjav in 1964, noting in his report that there were 10 deer-stones. Soviet scholars V.V. Volkov and E.A. Novgorodova, who worked there in 1970 within the framework of the Joint Mongolia-Soviet History and Culture Expedition (JMRHCE), made a general plan of the site identifying and documenting 15 deer-stones. In particular, based on the Deer Stone #14 with a carved human face, they had noted that all the Deer Stones were dedicated to humans. Later, V.V. Volkov included the general plan, descriptions and hand drawings of the deer stones in his monograph “Deer Stones of Mongolia”.

In 2006-2007, Mongolian and Korean archaeologists, under their joint project "Paper Estampages of Stone Monuments on the Territory of Mongolia” had made paper estampage of the 4th, 6-10th, 13th, 14th and 16th deer-stones. The report of fieldwork is included in the book “Recording the Rock Art, Deer Stones and Inscriptions of Mongolia through Rubbings: A Summary of the Fieldwork”.

In 2013, a joint Mongolian-Russian research team carried out excavations on a surface of 75x55 meters in size in the area, and discovered 6 deer stones lower parts in their initial places as well as the fragments of 5 monuments suggesting that they were identical to the burial structure - khirgisüür and their satellite sacrificial structures found in the central parts of Mongolia.

In 2017, as part of the work on registering and documenting Deer Stones on the territory of Khövsgöl aimag, researchers J. Gantulga and D. Batsükh registered and documented the deer stones at *Uushigiin Övör*, once again precisely identified the broken pieces found in the course of previous excavations, and determined that they were the broken as well as unbroken pieces of 23 monuments. All the research reports are kept in the Archive of the Institute of History and Archaeology.

Pursuant to the Law on Protection of Cultural Heritage of Mongolia and within the framework of the National Registration and Monitoring Exercises on State Conservation of Immovable Monuments and Sites in Mongolia, the four component parts of the nominated serial property were registered and monitored in 2015, using the key indicators elaborated by the National Center of Cultural Heritage to measure and monitor the state of the conservation of cultural properties. Reports on the state of the conservation of nominated property are kept in the Registration and Information Database at National Center of Cultural Heritage and provinces concerned.

7. DOCUMENTATION

7.A.1. PHOTOGRAPHS, SLIDES, IMAGE INVENTORY AND AUTHORIZATION TABLE AND OTHER AUDIOVISUAL MATERIALS

Audiovisual image inventory and photograph and Audiovisual authorization form

No	Format	Caption	Date of photo (mo/yr)	Photographer /Director of video	Copyright	Name, Address Tel. E-mail	Non exclusive cession of rights
1	JPEG	Anthropomorhic figures on the deer stone , Khoid Tamir valley	29.07.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
2	JPEG	Anthropomorhic figures on the deer stone, Khoid Tamir valley	27.07.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
3	JPEG	Deer stone of Shivertiin am, Khoid Tamir valley	24.06.2007	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
4	JPEG	Deer stone sites, Khoid Tamir Valley-Nomadic life style	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
5	JPEG	Deer stone, Ikhtamir soum, Arkhangai province	24.06.2011	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
6	JPEG	Deer stone, Khoid Tamir valley	07.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
7	JPEG	Deer stone, Khoid Tamir valley	14.07.2010	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
8	JPEG	Deer stones of Bayantsagaanii adag, Khoid Tamir valley	14.07.2010	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
9	JPEG	Deer stones of Tsatsiin Ereg, Khoid Tamir valley	05.07.2008	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
10	JPEG	Deer stones of Tsatsyn Ereg, Khoid Tamir valley	05.07.2008	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
11	JPEG	Depiction of horses on the deer stone, Khoid Tamir valley	21.07.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
12	JPEG	Depiction of horses on the deer stones, Khoid Tamir Valley (2)	23.06.2011	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes

13	JPEG	Depiction of horses on the deer stones, Khoid Tamir Valley	15.07.2012	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
14	JPEG	Depiction of Weapons one-handed flail on the deer stone, Khoid Tamir	01.08.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
15	JPEG	Dipiction of weapons shield on the deer stone, Khoid Tamir	16.07.2009	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
16	JPEG	16. Dipiction of weapons shield on the deer stone, Khoid Tamir	01.08.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
17	JPEG	Dipiction of weapons dagger, mirror on the deer stone, Khoid Tamir Valley	01.08.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
18	JPEG	Khirgisüür and deer stone, Shivertiin am,Khoid Tamir valley	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
19	JPEG	Khirgisüür of the deer stone sites, Khoid Tamir valley	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
20	JPEG	Remains of red ochre on the deer stone, Tsatsiin Ereg, Khoid Tamir valley, (2)	21.07.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
21	JPEG	Remains of red ochre on the deer stone, Tsatsiin Ereg, Khoid Tamir valley	21.07.2013	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
22	JPEG	Ritual complex of Deer stone	26.07.2015	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
23	JPEG	Stone quarry of deer stone, Khoid Tamir Valley	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
24	JPEG	Stone quarry of prepare deer stone, Khoid Tamir valley	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
25	JPEG	Rock paintings, Khoid Tamir valley	08.09.2018	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
26	JPEG	Rock paindings, Khoid Tamir valley	09.10.2017	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
27	JPEG	1.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	01.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes

28	JPEG	2.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
29	JPEG	3.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	04.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
30	JPEG	4..Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
31	JPEG	5.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
32	JPEG	6.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
33	JPEG	7.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
34	JPEG	8.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	01.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
35	JPEG	9.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
36	JPEG	10.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	41.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
37	JPEG	11.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	04.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
38	JPEG	12.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	01.06.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
39	JPEG	13.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	25.05.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
40	JPEG	14.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes

41	JPEG	15.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	05.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
42	JPEG	16.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	05.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
43	JPEG	17.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	04.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
44	JPEG	18.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	27.06.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
45	JPEG	19.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	10.06.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
46	JPEG	20.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
47	JPEG	21.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
48	JPEG	22.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
49	JPEG	23.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	06.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
50	JPEG	24.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	05.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
51	JPEG	25.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
52	JPEG	26.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	01.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes

53	JPEG	27.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	05.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
54	JPEG	28.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	25.05.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
55	JPEG	29.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	25.05.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
56	JPEG	30.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	01.09.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
57	JPEG	31.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	25.05.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
58	JPEG	32.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	03.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
59	JPEG	33.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
60	JPEG	34.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	02.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
61	JPEG	35.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	04.09.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
62	JPEG	36.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	31.08.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
63	JPEG	37.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	10.05.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
64	JPEG	38.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	24.07.2015	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes

65	JPEG	39.Deer stone, Jargalantyn Am, Khanui valley, Öndör-Ulaan soum, Arkhangai	25.08.2009	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
66	JPEG	40. 40. Khanui valley, Öndör-Ulaan soum, Arkhangai	21.06.2010	Ts.Turbat	Ts.Turbat	Ts.Turbat Tel: 976-9086364 turbat.tsagaan@gmail.com	Yes
67	JPEG	41.Deer stone complex of Jargalantyn Am (from south-west), Khanui valley, Öndör-Ulaan soum, Arkhangai	06.10.2017	N.Bayarkhuu	N.Bayarkhuu	N.Bayarkhuu Tel:976-91880415 nbayaraa2001@yahoo.com	Yes
68	JPEG	42.Monumental funeral and ritual structure called “khirgisüür” at Urtyn Bulag	06.10.2017	N.Bayarkhuu	N.Bayarkhuu	N.Bayarkhuu Tel:976-91880415 nbayaraa2001@yahoo.com	Yes
69	JPEG	1. Deer stone complex of Uushigiin Övör (from north-east), Bürentogtokh county, Khövsgöl province	08.10.2017	N.Bayarkhuu	N.Bayarkhuu	N.Bayarkhuu Tel:976-91880415 nbayaraa2001@yahoo.com	Yes
70	JPEG	2. Deer stone complex of Uushigiin Övör (from north-east), Bürentogtokh county, Khövsgöl province	08.10.2017	N.Bayarkhuu	N.Bayarkhuu	N.Bayarkhuu Tel:976-91880415 nbayaraa2001@yahoo.com	Yes
71	JPEG	3. Deer stones of, Uushigiin Övör (from south), Bürentogtokh county, Khövsgöl province	08.10.2017	A.Duurenjargal	A.Duurenjargal	A.Duurenjargal Tel: 99158664 ayushduuren@gmail.com	Yes
72	JPEG	4. Deer stones of Uushigiin Övör (from south), Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
73	JPEG	5. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
74	JPEG	6. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
75	JPEG	7. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes

76	JPEG	8. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
77	JPEG	9. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
78	JPEG	10. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
79	JPEG	11. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
80	JPEG	12. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
81	JPEG	13. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
82	JPEG	14. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
83	JPEG	15. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
84	JPEG	16. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
85	JPEG	17.Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
86	JPEG	18. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
87	JPEG	19. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
88	JPEG	20. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
89	JPEG	21. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes

90	JPEG	22. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
91	JPEG	23. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
92	JPEG	24. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
93	JPEG	25. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
94	JPEG	26. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes
95	JPEG	27. Deer stone, Uushigiin Övör, Bürentogtokh county, Khövsgöl province	14.08.2017	J.Gantulga	J.Gantulga	J.Gantulga Tel: +491778472121 ganuudg@gmail.com	Yes

7.A.2. DOCUMENTARY FILM (13 MINUTES) AND AUDIOVISUAL AUTHORIZATION FORM ATTACHED IN THE ANNEX

Audiovisual image inventory
and Audiovisual authorization form

No	Format	Caption	Date of photo (mo/yr)	Photographer/ Director of video	Copyright	Name, Address Tel E-mail	Non exclusive cession of rights
1	Beta SP	Deer stone monuments and related sites of Bronze Age	09/2018	T. Davaa-Ochir	N.Urtnasan	N.Urtnasan Address: Chingeltei District, 4- khoroo Skuhbaatar street, #8/5, Ulaanbaatar, Mongolia Tel: (979)-99100184 Email:n.urtnasan@gmail.com	Yes

7.b. Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property

i. Text of the Law on Protecting Cultural Heritage of Mongolia (ANNEX I)
ii. Mongolian National Tentative List for World Heritage (ANNEX II)
iii. Management plan of the nominated property - "Deer Stone Monuments and Related Sites, The Heart of Bronze Age Culture" (ANNEX III)
iv. National Programme for the Protection of Stone Heritage Properties in Mongolia (ANNEX IV)
v. List of Immovable Historical and Cultural Heritage properties under State, Provincial and Local Protection (Government Resolution #175 of 14 May, 2008) (ANNEX IV)

vi. About delineation of boundaries of some protected areas (Government Resolution #190, of 27 August, 2003) (ANNEX IV)
vii. On taking the protection of historical heritages under the local authority (Order of the Meeting of Citizen's representative Assembly of Öndör-Ulaan Soum of Arkhangai Aimak #10, 20 March, 2017) (ANNEX IV)
viii. Order of the Meeting of Citizen's Representative Assembly of Burentogtokh Soum in Khuvsgul province (Order #5, February 28, 2018) (ANNEX IV)

7.c. Form and date of most recent records or inventory of property

All four properties have been extensively documented in maps, several thousand photographs, several hundred drawings, and in field notes. A significant portion of this material has been published (see 7.e, below).

Photographs and maps are the property of the Institute of History and Archaeology, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia**.**

7.d. Address where inventory, records and archives are held

The Archaeological Research Center, National University of Mongolia
Address: Baga toiruu 47, 14201 Ulaanbaatar, Mongolia

Attention: Prof. Dr. Ts. Turbat, Director of the Archaeological Research Center
Tel: 976-99086364
E-mail: turbat.ts@num.edu.mn

Attention: Dr. J. Gantulga, Senior Research Fellow
Tel: + 491778472121
E-Mail: ganuudg@gmail.com

The Institute of Archaeology, Mongolian Academy of Sciences
Address: Jukov street-77, 13343 Ulaanbaatar, Mongolia

Attention: Prof., ScD. D.Tseveendorj
Tel: 976-11-455028
Fax: 976-11-458305
E-mail: dtseve@yahoo.com

Attention: Dr. N. Batbold, Head of the Division of Bronze and Iron Age
Tel: 976-99011676
E-mail:batboldnt@gmail.com

National Center for Cultural Heritage
Address: Khan-Uul District, 21-r khoroo, Ulaanbaatar, Mongolia

Attention: Dr. G. Enkhbat, Director
Tel: 979-11312735
Fax: 979-11312735
E-mail : enkhbat@monheritage.mn

7.e. Bibliography

Original documentation of Khoid Tamir valley:

- Novgorodova E.A. *Ancient Mongolia (some problems of chronology and ethnocultural history)*. – M., 1989. – 383 p.
- Volkov V.V. *Olenniye kamni Mongolii* [Deer Stones of Mongolia]. – Moskva, 2002 (in Russian).
- Gantulga J., Yeruul-Erdene Ch., Magail J., Tsengel M. *Les pierres à cerfs de la vallée du Haut Tamir*. – Ulaanbaatar, 2011 (in Mongolian and French).
- Gantulga J. *Recherches sur les monuments de l'âge du bronze et du début de l'âge du fer en Mongolie centrale (Les monuments de la vallée de Khoid Tamir*). Dijon, 2015 (Thèse en francais).
- Gantulga J., Yeruul-Erdene Ch., Magail J. *Deer stones of Khoid Tamir. Archaeological research in the valley of Khoid Tamir - I.* – Ulaanbaatar, 2016 (in Mongolian).
- Gantulga J., Lkhundev G., Magail J., Salicis C. *2016 The Field Report of the Mongolian-Monaco Joint Project "Khoid Tamir-Khunui"*. – UB., 2016.
- Gantulga J., Yeruul-Erdene Ch., Magail J. *2018 The Field Report of the Mongolian-Monaco Joint Project "Khoid Tamir-Khunui"*. – UB., 2018.
- Gantulga J., Yeruul-Erdene Ch., Magail J., *Research on Petroglyphs of Khöröögiin Üzüür.* Ulaanbaatar, 2018 (in Mongolian).
- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2018 (in Mongolian).
- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2020 (in Korean).
- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2021 (in Mongolian).

Original documentation of Jargalantyn am:

- Novgorodova E.A. *Ancient Mongolia (some problems of chronology and ethnocultural history)*. – M., 1989. – 383 p.
- Volkov V.V. *Olenniye kamni Mongolii* [Deer Stones of Mongolia]. – Moskva, 2002 (in Russian).
- Sanjmyatav T. *Arkhangai aimgyn nutag dakhi tuukh soyolyn dursgaluud* [Historical-Cultural Monuments in Arkhangai aimag]. – Ulaanbaatar, 1992 (in Mongolian).
- Volkov V.V. *Olenniye kamni Mongolii* [Deer Stones of Mongolia]. – Moskva, 2002 (in Russian).
- Tseveendorj D., Jaen Sog-ho, Tsengel M. *Mongolyn baruun hoid aimgiin khadny zurag* [Rock Art of the North-Western aimag of Mongolia]. – Seoul: North-East Asian History Foundation, Institute of Archaeology of the Mongolian Academy of Sciences, 2008 (in Mongolian and Korean).
- Turbat Ts., Bayarsaikhan J., Batsukh D., Bayarkhuu N. *Deer Stones of Jargalantyn am*. – Ulaanbaatar, 2011 (in English and Mongolian).

- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2018 (in Mongolian).
- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2020 (in Korean).
- Gantulga J., Iderkhangai T. *Deer Stones of Arkhangai province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. I, Edit. Ts. Turbat, – Ulaanbaatar, 2021 (in Mongolian).

Original documentation of Urtyn Bulag:

- Allard, F., Erdenebaatar, D., Houle, J.-L. *Recent archaeological Research in the Khanuy River Valley, Central Mongolia.* – Peterson, D.L., Popova, L.M., Smith, A.T. (Eds.) Beyond the Steppe and the Sown. Proceedings of the 2002 University of Chicago Conference on Eurasian Archaeology. – Brill, 2006: 202-224.
- Erdenebaatar, D., Batbold, N. *Arkhangai aimgiin Öndör-Ulaan sumyn nutagt ajillasan Mongol-Amyerikiin khamtarsan arkhyeologiin kheeriin shinjilgeenii angiin tailan*. – Ulaanbaatar, 2001: 4-5.
- Erdenebaatar, D., Mijiddorj, E., Galbadrakh, B., Erdene, J. *Preliminary results of archaeological excavation at Urt Bulagiin Am*. Journal of Archeology, History and Humanities. №14 (13). 2018: 62-76.
- Fitzhugh, W., Bayarsaikhan, J. *Field report of the Deer stone project 2006*. – Ulaanbaatar, 2006: 5-6, 12.
- Houle, J.-L. *Emergent complexity on the Mongolian steppe: Mobility, Territoriality and the Development of Early Nomadic Polities*. Unpublished PhD dissertation. – University of Pittsburgh, 2010.

Original documentation of Uushigiin Övör:

- Volkov V.V. *Olenniye kamni Mongolii* [Deer Stones of Mongolia]. – Moskva, 2002 (in Russian).
- Bayarsaikhan J. *Deer stones of Northern Mongolia*. – Ulaanbaatar, 2017 (in Mongolian).
- Beaubien H.F. *Documentation of Mongolia's Deer Stones, 2007 Field Season. – American–Mongolian Deer Stone project: Field report 2007.* – Washington, D.C. – UB., 2007: 86-95, 113-115.
- Beaubien H.F., Karas B.V. *Conservation report 2005 Field Season. – Mongolian Deer Stone Project: Field report 2005.* Washington, D.C. – UB., 2005.
- Fitzhugh W. (Ed.) *Mongolia's Arctic Connections: The Hovsgol Deer Stone Project, 2001 Field Report.* –ASC Field Report Series. National Museum of Natural History, Smithsonian Institution. – Washington: Arctic Studies Center. 2001.
- Fitzhugh W. (Ed.) *Mongolia's Arctic Connections: The Hovsgol Deer Stone Project, 2001-2002 Field Report.* – ASC Field Report Series. National Museum of Natural History, Smithsonian Institution. – Washington: Arctic Studies Center. 2003. – 228 pp.
- Fitzhugh W. (Ed.) *Mongolia deer stone project. Field Report 2005.* – ASC Field Report Series. National Museum of Natural History, Smithsonian Institution. – Washington: Arctic Studies Center, National Museum of Mongolian History, UB., 2006. – 158 p.

- Fitzhugh W. (Ed.) *American-Mongolian Deer Stone Project Field Report 2006.* – ASC Field Report Series. National Museum of Natural History, Smithsonian Institution. Washington: Arctic Studies Center; National Museum of Mongolian History, Ulaanbaatar, 2006. – 119 pp.
- Fitzhugh W. *Cumulative Radiocarbon Date List, 2002-2009 (App. 2).* – In: Fitzhugh, W., Bayarsaikhan, J. (Eds.) American-Mongolian Deer Stone Project: Field Report 2009. Arctic Studies Center, National Museum of Natural History, Smithsonian Institution, Washington DC; National Museum of Mongolia. 2010: 219-220.
- Fitzhugh W., Bayarsaikhan J. (Eds.) *The Hovsgol Deer Stone Project, 2003 Field Report.* – National Museum of Natural History, Smithsonian Institution. – Washington, DC: Arctic Studies Center, 2004.
- Frohlich B., Bazarsad N. *Burial Mounds in Khovsgol Aimag, Northern Mongolia: Preliminary Results from 2003- 2004.* – In: W. Fitzhugh, J. Baiyarsaikhan, and P. Marsh (eds.). The Deer Stone Project: Anthropological Studies in Mongolia, 2002-2004. National Museum of Natural History, Smithsonian Institution, and the National Museum of Mongolian History. – Washington, DC, and Ulaanbaatar: Arctic Studies Center, 2005: 57-84.
- Frohlich B., Gallon M. and Bazarsad N. *The Khirgisüür Tombs. – In: W. Fitzhugh (ed.). The Hovsgol Deer Stone Project, 2003 Field Report*. National Museum of Natural History, Smithsonian Institution. – Washington, DC: Arctic Studies Center, 2004: 42-61.
- Kovalev A.A, Erdenebaatar D., Rukavishnikova I.V. *Composition and composition of structures of the Ushkin-Uver ritual complex with deer stones (based on the results of research in 2013).* – Archeology, Ethnography and Anthropology of Eurasia, 2016, V. 44, No 1: 20-30.
- Novgorodova E.A. *Ancient Mongolia (some problems of chronology and ethnocultural history).* – M., 1989. – 383 p.
- Savinov D.G. *Deer stones in the culture of the nomads of Eurasia.* – SPb., 1994. – 208 p.
- Shu T. (Ed.) *Permanent Archaeological Joint Mongolian and Japanese Mission. Preliminary Report on Archaeological Investigations in Mongolia, 2003.* – In: Newsletter on Steppe Archaeology 14/ 2003: 1-19.
- Shu T. (Ed.) *Permanent Archaeological Joint Mongolian and Japanese Mission 2005 Preliminary Report on Archaeological Investigations in Mongolia, 2004.* – In: Newsletter on Steppe Archaeology 15/2004: 1-18.
- Shu, T., Toshio, H., Erdenebaatar, D. *Preliminary report of the archaeological investigations in Mongolia 2004.* – In: Newsletter on Steppe Archaeology 15, 2005: 1-18.
- Shu, T., Toshio, H., Masanori, K., Ryuji, M., Erdenebaatar, D. *Preliminary report of the archaeological investigations in Ulaan Uushig I (Uushgiin Ovor) in Mongolia.* – In: Bulletin of Archaeology. The University of Kanazawa, Vol. 28, 2006: 61-102.
- Ser-Odjav N. *Archaeological study of central and northern Mongolia (Bronze Age).* – Studia Archaeologica, Tom. IV, Fasc. 7: 47-68.
- Gantulga J., Batsukh D., Enkhbayar G. *Khövsgöl aimgyn nutagt orshikh bugan khöshöönii bürtgel, barimtjuulaltyn ajlyn tailan. [Report on registration and documentation of deer stones in Khövsgöl aimag]* – UB., 2017.
- Erdene-Ochir N. *Deer Stones of Khövsgöl province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. II, Edit. Ts. Turbat, – Ulaanbaatar, 2018 (in Mongolian).
- Erdene-Ochir N. *Deer Stones of Khövsgöl province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. II, Edit. Ts. Turbat, – Ulaanbaatar, 2020 (in Korean).

- Erdene-Ochir N., Gantulga J., Batsukh D. *Deer Stones of Khövsgöl province.* – Deer stones cultures of Mongolia and neighboring regions. Vol. II, Edit. Ts. Turbat, – Ulaanbaatar, 2021 (in Mongolian).

Sources cited in nomination:

- Allard F., Erdenebaatar D. *Khirgisüürs, Ritual, and Mobility in the Bronze Age of Mongolia*. – In: Antiquity. Vol. 79, No. 305, Sep. 2005, pp. 547-563.
- Allard F., Erdenebaatar D., Houle J.-L. *Recent Archaeological Research in the Khanuy River Valley, Central Mongolia.* – In: Beyond the Steppe and the Sown: Proceedings of the 2002 University of Chicago Conference on Eurasian Archaeology. D.L. Peterson, L.M. Popova, and - A.T. Smith. – Leiden, Boston: Brill Academic Publishers, 2006, pp. 202-224.
- Allard F., Erdenebaatar D., Olsen A., Maggiore E. *Ritual and Horses in Bronze Age and Present-Day Mongolia: Some Observations from the Khanuy Valley*. – In: Social Orders and Social Landscapes. L.Popova, C. Hartley, and A. Smith (eds.). – Cambridge: Cambridge Scholarly Press, 2007, pp. 151-167.
- Aruz J., Farkas A. and Valtz Fino (Eds.). *The Golden Deer of Eurasia. Perspectives on the Steppe Nomads of the Ancient World.* – New York: Metropolitan Museum of Art, 2006.
- Bayarsaikhan J. *Mongolyn umard nutgiin bugan khoshood* [Deer Stones of Northern Mongolia]. – Ulaanbaatar, 2017 (in Mongolian).
- Bemmann J. *Hirschstein oder neolithischer Menhir? Zwei konkurrierende Interpretationen zueinem ungewöhnlichen Steindenkmal in Sachsen-Anhalt*. – In: Praehistorische Zeitschrift, No. 91, 2, 2016, pp. 495-510.
- Borovka G.I. *Archeologicheskoe obsledovanie srednego techeniy reki Toli*. –Leningrad, 1927: 43-88. [Археологическое обследование среднего течения реки Толы. – Л., 1927: 43-88.].
- Dikov N.N. *Bronzovii vek Zabaikaliy.* Ulan-Ude, 1958. – 105 p. XXXIII table. [Бронзовый век Забайкалья. – Улан- Удэ, 1958. – 105 с. XXXIII табл.].
- Chlenova N.L. *Olenniye kamni kak istoricheskii istochnik (na primere olennykh kamnei Severnogo Kavkaza)* [Deer Stones as the Historical Sources (On the Example of Deer Stones of North Caucasus)]. – Novosibirsk, 1984 (in Russian).
- Eisma D. *Deer Stones of Mongolia.* – Den Haag, 2010.
- Erdenebaatar D. *Burial Materials Related to the History of the Bronze Age in the Territory of Mongolia*. – In: Metallurgy in Ancient Eastern Eurasia from the Urals to the Yellow River. (Ed.) K.M. Linduff. – Lewiston: Edwin Mellen Press, 2004, pp. 190-236.
- Erdenebaatar, D. *Mongol Nutgiin Dorvoljin Bulsh, Khirgisüüriin Soel [Slab burial and Khirgisüür cultures of Mongolia]*. – Ulaanbaatar: Mongolian Academy of Sciences, Institute of History. 2002.
- Esin Y.N., Magail J., Yeruul-Erdene Ch., Gantulga J. *Paint on Deer Stones of Mongolia.* – Archaeology, Ethnology and Anthropology of Eurasia. 45/3 (2017), pp. 79-89.
- Fitzhugh W. *Pre-Scythian khirgisüürs, deer stone art, and Bronze Age cultural intensification in northern Mongolia.* – In: B. Hanks & K. Linduff (Eds.). New research directions in Eurasian steppe archaeology: the emergence of complex societies in the Third to First Millennium BCE. – Cambridge: Cambridge University Press, 2009, pp. 378-411.

- Fitzhugh W. *The Mongolian deer stone-khirgisüür complex: dating and organization of a Late Bronze Age menagerie.* – In: J. Bemmann, H. Parzinger, E. Pohl & D. Tseveendorzh (Eds.). Current archaeological research in Mongolia. Vor- und Frühgeschichtliche Archäologie. – Bonn: Rheinische Friedrich-Wilhelms-Universitat, 2009, pp. 183–199.
- Fitzhugh W. *Mongolian Deer Stones, European Menhirs, and Canadian Arctic Inuksuit: Collective Memory and the Function of Northern Monument Traditions*. – In: Journal of Archaeology Method and Theory. March 2017, Vol. 24, Issue 1, pp. 149-187.
- Gantulga J., Yeruul-Erdene Ch., Magail J., Esin Yu. *Some results of deer stone research in the valley of Khoid Tamir.* – Studia Archaeologica, Tomus XXXIII, Fasc. 6, Ulaanbaatar, 2013, pp. 95-119.
- Gantulga J., Grizeaud J.-J., Magail J., Tsengel M., Yeruul-Erdene Ch. *Compte-rendu de la campagne 2009 de la Mission Archéologique conjointe Monaco-Mongolie.* – Bulletin du Musée d'Anthropologie préhistorique de Monaco, No. 49, Monaco, 2009, pp. 115-120.
- Gantulga J., Enkhbayar G. *Documentation of Deer stones in the territory of Övörkhangai and Arkhangai provinces.* – Studia Archaeologica, Tomus XXXVI, Fasc. 24, Ulaanbaatar, 2017, pp. 331-340.
  Hatakeyama T. *The Tumulus and Stage Stones at Shiebar-kul in Xinjiang, China*. – Newsletter on Steppe Archaeology. I/2002, pp. 1-8.
- Irene Baroni, Jamiyan-Ombo Gantulga, Jérôme Magail and Chimiddorj Yeruul-Erdene. *Three Thousand Years of Nomadism on the Tsatsyn Ereg Site in the Heart of Mongolia.* – The Intangible Elements of Culture in Ethnoarchaeological Research. Springer International Publishing Switzerland, 2016, pp. 151-160.
  Jacobson, E. *The Deer Goddess of Ancient Siberia*: *A Study in the Ecology of Belief*. – Leiden: E.J. Brill, 1993.
- Jacobson-Tepfer E. *Cultural Riddles: Stylized Deer and Deer Stones of the Mongolian Altai*. – Bulletin of the Asia Institute. New Series/Vol. 15, 2001, pp. 31-56.
- Jacobson-Tepfer E. *The Hunter, the Stag, and the Mother of Animals*. Image, Monument, and Landscape in Ancient North Asia. – New York: Oxford University Press, 2015.– 403 p.
- Kubarev V.D. *Drevniye izvayaniya Altaya (olennye kamni)* [Ancient Steles of Altai (Deer Stones)]. – Novosibirsk, 1979 (in Russian).
- Magail J. *Les stèles ornées de Mongolie dites pierre à cerfs, de la fin de l'age du Bronze.* – Statues-menhirs et pierres levees du Neolothique à aujourd'hui. Actes du 3e colloaue international sur la statuaire mégalithique, Saint-Pons-de-Thomières, du 12 au 16 septembre 2012. 2015, p. 89-101.
- Magail J., Gantulga J., Yeruul-Erdene Ch. *Inventaire et relevés des pierres à cerfs de Tsatsyn ereg (Province de l'Arkhangai, Mongolie).* – Bulletin du Musée d'Anthropologie préhistorique de Monaco, No. 50, Monaco, 2010, p. 79-117.
- Magail J. *Tsatsiin Ereg, site majeur du début du Ier millénaire en Mongolie.* – Bulletin du Musée d'Anthropologie préhistorique de Monaco, Monaco, n°48, 2008, p. 107-120.
- Magail J. *Les "pierres à cerfs" des vallées Hunuy et Tamir en Mongolie.* – Bulletin du Musée d'Anthropologie préhistorique de Monaco, Monaco, n°45, 2005, p. 41-56.
- Magail J. *Les "Pierres à cerfs" de Mongolie.* – Arts asiatiques, revue du Musée national des Arts asiatiques - Guimet, n°60. 2005, p. 172-180.
- Magail J. *Les "Pierres à cerfs" de Mongolie, cosmologie des pasteurs, chasseurs et guerriers des steppes du Ier millénaire avant notre ère.* – International Newsletter on Rock Art, Ed. Jean Clottes, n°39. 2004, pp. 17-27.
- Novgorodova E.A. *Alte Kunst der Mongolei*. – Leipzig: EA Seemann Verlag, 1980.

- Novgorodova E.A. *Drevnyaya Mongoliya (nekotoriye problem khronologii I ethnokul'turnoi istorii)* [Ancient Mongolia (some issues of chronology and ethnic history)]. – Moskva, 1989 (in Russian).
- Ozheredov Y.I., Ozheredova A.Y. *Mongol-Transbaikal type of «deer» stones in Western Mongolia.* – Древние и средневековые изваяния Центральной Азии. – Барнаул: Изд-во Алт. ун-та, 2014, стр. 93-96.
- Savinov D.G. *Olenniye kamni v kul'ture kochevnikov Evrazii* [Deer Stones in the Culture of Eurasian Nomads]. – Sankt-Peterburg, 1994 (in Russian).
- Potanin G.N. *Ocherki Severo-Zapadnoi Mongolii* [Очерки Северо-Западной Монголии. Вып. II.]. Vol. II. – Sankt-Peterburg, 1881. – 308 p.
- Turbat Ts. *Chronology of Deer Stones.* – Deer stones cultures of Mongolia and neighboring regions. Vol. III, Edit. Ts. Turbat, – Ulaanbaatar, 2021: 244-54 (in Mongolian).
- Tseveendorj, D. *Mongolyn ertnii urlagyn tuukh* [Monuments of Mongolian Prehistoric period]. Ulaanbaatar 1983 (in Mongolian).
- Tseveendorj D. *Mongolyn ertnii urlagyn tuukh* [History of Ancient Art of Mongolia]. Ulaanbaatar, 1999 (in Mongolian).
- Volkov V.V. *Early Nomads of Mongolia*. – In: Nomads of the Eurasian Steppes in the Early Iron Age. (Eds.) J. Davis-Kimball, V.A. Bashilov, L.T. Yablonsky. – Berkeley, CA: Zinat Press, 1995, pp. 319-335.
- Volkov V.V. *Olenniye kamni Mongolii* [Deer Stones of Mongolia]. – Moskva, 2002 (in Russian).
- Yumatov K.V. *Otrajenie indoevropeiskoi epicheskoi formuli "neuvyadayushei slavi" v kamennih izvayniyh stepnoi Evrazii*. – Drevnie kulturi Tsentralinoi Azii i Sankt-Peterburg. Sankt-Peterburg, 1998: 211-215. [Отражение индоевропейской эпической формулы "неувядающей славы" в каменных изваяниях степной Евразии. – Древние культуры Центральной Азии и Санкт-Петербург. Материалы Всероссийской научной конференции. – СПб., 1998: 211- 215].
- Wang Bo. *Hirschsteine in Xinjang*. – In: Eurasia Antiqua, 2001, Bd. 7, pp. 105–131.
- Wright J. *Organizational principles of Khirgisüür monuments in the lower Egiin Gol valley*. Mongolia. – In: Journal of Anthropological Archaeology. Vol. 26/2007, pp. 350–365.

8. CONTACT INFORMATION OF RESPONSIBLE AUTHORITIES

8.a. Preparers

Dr., Prof. Norov URTNASAN
Head of working team for preparation of the Nomination dossier of "Deer Stone Monumnets, and Related sites of Bronze Age"
President of the Mongolian National Committee for ICOMOS, Ulaanbaatar, Mongolia
Tel: 976-99100184
E-mail: urtnasan_norov@yahoo.com

Dr., Prof. Tsagaan TURBAT
Director of the Archaeological Research Center, National University of Mongolia
Tel: 976-99086364
E-mail: turbat.tsagaan@gmail.com

Dr. Jamiyan-Ombo GANTULGA
Senior Research Fellow, Archaeological Research Center, National University of Mongolia
Tel: +491778472121
E-mail: ganuudg@gmail.com

Dr. Natsag BATBOLD
Head of Department of Bronze and Iron Age, Institute of Archaeology, Mongolian Academy of Sciences
Tel: 976-99011676
E-mail: batboldnt@gmail.com

Ayush DUURENJARGAL
Researcher of the Study and Training Centre for Sacred sites
Ulaanbaatar, Mongolia
Tel: 976-99158664
E-mail: ayushduuren@gmail.com

Tsedevsuren SAMDAN
Researcher, Excutive Director at the Study, Promotion and Training Center at WH
Ulaanbaatar, Mongolia
Tel: 976-99253340
E-mail: ts samdan@yahoo.com

8.b. Official Local Institution / Agency

Mongolian National Commission for UNESCO
Post office 38, Revolution Avenue, Ulaanbaatar, Mongolia
Address: Sukhbaatar District, United Nations Street, UN building
Tel: 976-11-315652, 70015652,
Fax: 976-11-322612
E-mail: natcom@unesco.mn

Mongolian Governor's office Arkhangai province
Tel: 976-70333231

E-mail: arkhangai.gov@gmail.com

Mongolian Governor's office Arkhangai province, Ikhtamir soum,
Tel: 976-99339120
E-mail: sengee.tsegmed@gmail.com

Mongolian Governor's office Arkhangai province, Öndör-Ulaan soum
Tel: 976-99364177
E-mail: undurulaan_zdtg@yahoo.com

Mongolian Governor's office Khövsgöl province
Tel: 976-99053746, 70383303
E-mail: huvsgulzdtg@khs.gov.mn

Mongolian Governor of Khövsgöl province
Address: Governor's Office block A, Khövsgöl province, Mörön, Mongolia
Tel: 976-99389999,
E-mail: ganbold_1973@yahoo.com

Local museum of Khövsgöl province
Tel: 976-70384607
E-mail: onsmuzei@khs.gov.mn

Mongolian Governor's office Khövsgöl province, Bürentogtokh soum
Tel: 976-88296669
Web: www.bürentogtokh.khs.gov.mn
E-mail: btogtokhzdtg@khs.gov.mn

8.c. Other Local Institutions

The Archaeological Research Center, National University of Mongolia
Tel: 976-99086364
E-mail: turbat.ts@num.edu.mn

Foundation for the Protection of Natural and Cultural Heritage,
Address: Chingeltei District, 4- khoroo, Skuhbaatar street, #8/5,
Ulaanbaatar, Mongolia
Tel: 976-99100184
E-mail: n.urtnasan@gmail.com

The Institute of Archaeology, Mongolian Academy of Sciences
Jukov street-77, Ulaanbaatar 13343, Mongolia
Tel: 976-11-455028
Fax: 976-11-458305
E-mail: info@history.mas.ac.mn

Department of Education, Culture and Art, Arkhangai province
Contact name: Ts. Munkhbat
Tel: 976-70333148, 976-99338808
E-mail: ts.munkhbat@gmail.com, arkhangai@mecs.gov.mn

Department of Environment and Tourism Arkhangai province
Contact name: N. Bayanmunkh
Tel: 976-99330002, 976-70333223
E-mail: arkhangai_env@gmail.com, bayanmunkhtsahir@gmail.com

Land Affairs, Construction and Urban Development Department, Arkhangai province
Contact name: N. Munkhbayar
Tel: 976-99177829, 976-70333632
E-mail: arkhangai@gazar.gov.mn

Local Museum of Arkhangai province,
Contact name: T. Munkhburen
Tel: 976-99339269, 976-70332281
E-mail: tulgaamonkhburen@yahoo.com

8.d. Official Web address

http://www.natcom-unesco.mn
Contact name: Ch. Tsetsegbaatar
E-mail: ch.tsetsegbaatar@unesco.mn
Tel: 976-88094552

http://dep.num.edu.mn/aat/
Contact name: Ts. Turbat
E-Mail: turbat.ts@num.edu.mn
Tel: 976-99086364

http://www.archaeology.ac.mn
Contact name: N.Batbold
E-mail: batboldnt@gmail.com
Tel: 976-99011676

http://www.monheritage.mn
Contact name: Ts. Tolmon
E-mail: cch@monheritage.mn
Tel: 976-70110877

http://www.arkhangai.gazar.gov.mn
Contact name: N. Munkhbayar
Tel: 976-99177829, 976-70333632
E-mail: arkhangai@gazar.gov.mn

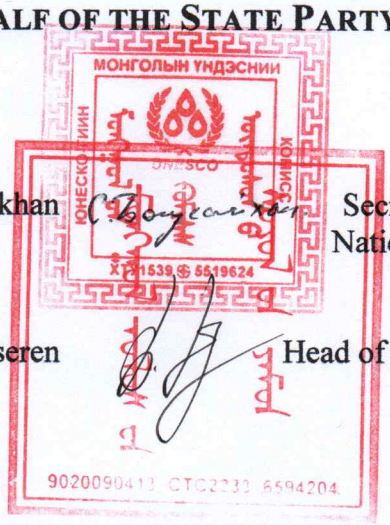
http://wwwbaigal.ar.gov.mn
Contact name: N. Munkhbayar
Tel: 976-99177829, 976-70333632
E-mail: arkhangai@gazar.gov.mn

http:// www.khovsgol.gov.mn
Tel: 976-99053746, 976-70383303

E-mail: huvsgulzdtg@khs.gov.mn

http:// www.bürentogtokh.khs.gov.mn
Contact name: G. Soninpel
Tel: 976-97175767
E-mail: btogtokhzdtg@khs.gov.

9. SIGNATURE ON BEHALF OF THE STATE PARTY



Mr. S. Boldsaikhan — Secretary-General of Mongolian National Comission for UNESCO

Mr. B. Davaatseren — Head of Department of Cultural Heritage, Ministry of Culture