

Executive Summary

State Party	Mongolia												
State, Province or Region	Ulaankhus soum and Tsengel soum, Bayan-Ulgii province												
Name of Property	Petroglyphic Complexes of the Mongolian Altai												
Geographical coordinates to the nearest second	<table border="1"> <thead> <tr> <th>Site name</th> <th>Region (soum)</th> <th>Coordinates</th> </tr> </thead> <tbody> <tr> <td>Tsagaan Salaa/Baga Oigor (BO I)</td> <td>Ulaankhus soum</td> <td>N 49° 20' 02.28" E 88° 23' 43.38"</td> </tr> <tr> <td>Upper Tsagaan Gol (SK0903)</td> <td>Tsengel soum</td> <td>N 49° 05' 41.76" E 88° 15' 19.74"</td> </tr> <tr> <td>Aral Tolgoi (AT0905)</td> <td>Tsengel soum</td> <td>N 48° 44' 20.22" E 88° 08' 58.74"</td> </tr> </tbody> </table>	Site name	Region (soum)	Coordinates	Tsagaan Salaa/Baga Oigor (BO I)	Ulaankhus soum	N 49° 20' 02.28" E 88° 23' 43.38"	Upper Tsagaan Gol (SK0903)	Tsengel soum	N 49° 05' 41.76" E 88° 15' 19.74"	Aral Tolgoi (AT0905)	Tsengel soum	N 48° 44' 20.22" E 88° 08' 58.74"
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Textual description of the boundary(ies) of the nominated property	The three properties involved in this serial nomination include: Aral Tolgoi (AT), Upper Tsagaan Gol (UTG), and Tsagaan Salaa-Baga Oigor (TS-BO). All three properties are located at the far western edge of Mongolia where the Altai Ridge (Altai Nuruu) separates Mongolia from Russia, to the northwest, and China, to the west (see Map 1).												
A4 (or “letter”) size map of the nominated property, showing boundaries and buffer zone (if present)	Three maps, showing the boundaries and buffer zones of TS-BO, Upper Tsagaan Gol and Aral Tolgoi which are included in the serial nomination are attached to the nomination document.												
Justification Statement of Outstanding Universal Value (text should clarify what is considered to be the outstanding universal value embodied by the nominated property)	Located in the Altai Mountains of western Mongolia, the three properties included in this Serial Nomination—Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol, and Aral Tolgoi—are appropriately joined together as extraordinary repositories of petroglyphic rock art. As a group, they also												

	<p>function as cultural landscapes in which rock art, surface monuments, and the larger physical context are deliberately and expressively integrated. Historically and culturally, the three properties complement and extend each other; together they represent the most complete and undamaged representational documentation of the ancient cultures associated with a large region at the intersection of Central and North Asia. In these respects, the properties together are of outstanding universal value.</p> <p>The properties are located in the same geographic zone and at similarly high elevations. All were shaped by the same Late Pleistocene glacial advance and retreat that left behind smoothed and polished rock outcrops. The faunal imagery at these three properties reflects the biological prehistory of this region and its economic consequences: the transition from a cold steppe environment in the Late Pleistocene to the forestation of the Early-Middle Holocene, and, finally, the return to the characteristic mountain steppe environment of this region. The human imagery reflects, in turn, the economic consequences of that long environmental change: the most ancient dependence on hunting of large animals, a gradually increasing dependence on the herding of large and small animals, the appearance of transhumance as herding demanded expanded pastures, and the final appearance of horse-dependent nomadism—the quintessential economic character of the Eurasian steppe zone.</p> <p>Expressed in terms of subjects and styles, of individual images and compositions of a narrative complexity, the rock art here reflects cultural traditions that must have deeply valued pictorial representation and expressive pictorial style. Comparative consideration of the rock art in these</p>
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properties suggests that at least from the Bronze Age through the Turkic Period, northwestern Mongolia was a kind of cultural center in North Asia, with extensions of representational traditions to the north into the Yenisei Valley; to the west and southwest, into present-day Russian Altai, northern China and Kazakhstan; and even deep into the southeast, into Inner Mongolia. Images of elegant, stylized deer dated to the Late Bronze Age indicate, also, the extension into the Altai Mountains of a powerful pictorial tradition centered in northern Mongolia.

In terms of expressive style, techniques of execution, and the purposeful exploitation of unusually beautiful rock surfaces, the quality of the rock art found in these properties is outstanding; but quality is not the only distinguishing characteristic. Two of the properties (Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol) represent the most extensive such complexes yet recorded in North Asia; and the third, Aral Tolgoi, is unquestionably the largest and best preserved concentration of open-air rock art from the Late Pleistocene and Early Holocene yet identified within North Asia (see 3.c, below). Considered within their high mountain context, these three properties tell the story of human culture in this harsh and magnificent region, over a period of more than 12,000 thousand years.

By virtue of their isolated settings, their location within a long border zone, and their partial inclusion in a national protected area, these properties have suffered relatively little human impact over the years. In this respect, the rock art and surface monuments in these properties are in an excellent state of preservation in comparison to all other major, known North Asian rock art sites.

<p>Criteria under which property is nominated (itemize criteria) (see Paragraph 77 of the <i>Operational Guideline</i>)</p>	<p>i. <u>Represents a masterpiece of human creative genius.</u></p> <p>ii. <u>Exhibits an important interchange of human values over a significant span of time.</u></p> <p>iii. <u>Bears a unique or at least exceptional testimony to a cultural tradition or to a civilization that has disappeared.</u></p>
<p>Name and contact information of official local institution/ agency</p>	<p>Mongolian National Commission for UNESCO</p> <p>Address: Government building 11, Revolution Avenue, Post office 38, Ulaanbaatar, Mongolia Tel: 315652 Fax: 322612 E-mail: mon.unesco@mongol.net</p>

PETROGLYPHIC COMPLEXES OF THE MONGOLIAN ALTAI

World Heritage Site Nomination Document



Mongolian National Commission for UNESCO
Institute of Archaeology, Mongolian Academy of Sciences

Acknowledgements:

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Special thanks to:

Ms. Esther Jacobson-Tepfer, *Mongolian Altai Inventory Project, University of Oregon, Eugene, OR 97405 USA*

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1. Identification of the Property

1.a Country

Mongolia

1.b Region

Ulaankhus soum and Tsengel soum of Bayan-Ulgii aimag

1.c Name of Property

Petroglyphic Complexes of Mongolian Altai

1.d Geographical coordinates to the nearest second

Site name	Region (soum)	Coordinates	
Tsagaan Salaa-Baga Oigor (BO I)	Ulaankhus soum	N 49° 20' 02.28" E 88° 23' 43.38"	UTM Zone 15 X) ⁵ 465 518.80 Y) ⁴⁵ 601 376.24
Upper Tsagaan Gol (SK0903)	Tsengel soum	N 49° 05' 41.76" E 88° 15' 19.74"	UTM Zone 15 X) ⁵ 438 768.16 Y) ⁴⁵ 591 653.53
Aral Tolgoi (AT0905)	Tsengel soum	N 48° 44' 20.22" E 88° 08' 58.74"	UTM Zone 15 X) ⁵ 399 074.26 Y) ⁴⁵ 584 526.15

1.e Maps and plans: nominated properties and buffer zones

The following maps are annexed:

- Map1: Topographic map of western Bayan-Ulgii, within western Mongolia: Proposed properties and boundary of the Altai Tavan Bogd Protected Zone
- Map2: Tsagaan Salaa-Baga Oigor: overall complex, perimeters and buffers
- Map3: Tsagaan Salaa-Baga Oigor: Complex study points
- Map4: Tsagaan Salaa-Baga Oigor: Complex sections
- Map5: Upper Tsagaan Gol: overall complex, perimeters and buffers
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1.f Area of the nominated properties (Serial Nomination)

Property name	Region	Coordinates	Area/ha	Buffer/ha	Total/ha
Tsagaan Salaa-Baga Oigor	Ulaankhus soum	N 49° 20' 02.28" E 88° 23' 43.38"	2,100	3,600	5,700
Upper Tsagaan Gol	Tsengel soum	N 49° 05' 41.76" E 88° 15' 19.74"	9,000	6,300	15,300
Aral Tolgoi	Tsengel soum	N 48° 44' 20.22" E 88° 08' 58.74"	200	800	1,000

2. Description

2.a Description of Properties

This serial nomination includes three properties, all representing major concentrations of rock art as well as significant concentrations of surface monuments of a funerary and ceremonial nature. In all three cases, the clear integration of rock art and surface monuments with specific rivers, sacred mountains, and directions allow us to speak of an extensive cultural landscape reflecting more than 12,000 years of human existence. The three properties involved in this serial nomination include: Aral Tolgoi (AT), Upper Tsagaan Gol (UTG), and Tsagaan Salaa-Baga Oigor (TS-BO).

All three properties are located at the far western edge of Mongolia where the Altai Ridge (Altai Nuruu) separates Mongolia from Russia, to the northwest, and China, to the west (see Map1). The properties are all within high valleys carved out by Pleistocene glaciers. In all three cases, the rock art is *petroglyphic* rather than pictographic; it is pecked, engraved, or scratched on hard sandstone outcrops and cliffs, as well as on sandstone and granitic boulders. In addition to the rock pecked images, several rare Turkic inscriptions are found at two of the properties (UTG, TS-BO). Surface monuments include a wide variety of burial mounds, an elaborate structure known as *khirigsuur*, massive and small standing stones, a variety of altars, and standing stone images from the Late Bronze and Turkic periods.

Scientific investigations of the high Altai indicate that in the Late Pleistocene, this region of western Mongolia was still part of what has been termed the “mammoth steppe” (Guthrie 1982), i.e. cold, dry, covered with xeric vegetation required by the mammoths, rhinoceros, horses, and aurochs that thrived in such an environment. With the change in climate that inaugurated the Early Holocene (c. 11,000 years BP) and continued through

the early Middle Holocene (c. 8,000–6,000 years BP), this region became partially heavily forested (Gunin et al. 1999; Dorofeyuk, Tarasov 1998). The rock art of the Altai indicates that the forests giving onto open steppe provided ideal habitat for hunters seeking the meat of large game such as elk, aurochs, and wild horses, as well as the ibex and argali more at home on high ridges. As forests retreated in the late middle Holocene (c. 6,000–4,000 years BP) and the Altai landscape assumed its present mountain steppe character, the herding of large and small animals began to emerge as a dominant economic way of life; and the high valleys represented by at least two of the properties nominated here (UTG, TS-BO) became sought after for their all-important summer pastures. At the same time, the protected draws and crevices in the Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol valleys began to serve herders, also, for winter residences, since their large animals were able to make use of the high, wind-swept pastures. It is for this reason, unquestionably, that so many present-day winter residences are located against cliffs or within draws where one finds a wealth of rock art from the Bronze and Early Iron Ages. The protection sought after today in the physical landscape has changed little, apparently, since the Bronze Age.

With the transition to full horse-dependent nomadism in the mid-first millennium BCE and thereafter, these high valleys were evidently sought after for summer pasture and even for winter pasture for the large animals, capable of grazing on high, wind-swept tundra and of foraging beneath the snow. The presence of significant populations is recorded in thousands of compositions and images from the Early Nomadic Period (early 1st millennium BCE), the Scythian Period (1st millennium BCE), and from the later Turkic Period (7th-8th c. CE). Thereafter the representational record becomes muted, as if a cultural urge to record the world around had disappeared.

Rock art

The abundance of rock art in the high Mongolian Altai is directly related to the availability of a fine, hard sandstone, known as metagreywacke, in the form of outcrops and boulders that had been smoothed, polished, and deeply etched by the glaciers that at one time filled these valleys. Over the course of millennia, the outcrops and boulders developed a distinctive variety of patina: deep, mahogany brown, or black, or a lovely pinkish hue; and many of the carved surfaces found in these valleys are patterned with unusual mineralization or with wavy surfaces that reflect the ancient deposition of sandy material, the action of water on those depositions, and the shaping of that stone over many thousands of years. It is probable that these elegant, beautiful stone surfaces may help to explain why ancient peoples pecked and etched many thousands of images on the outcrops around them, and why they were encouraged to leave behind them a vividly naturalistic record of their world.

The rock art represented by the three properties includes a wide range of subjects and styles; these may be summarized as follows.

Late Pleistocene (before 11,000 years BP): characterized by a cold, dry climate and harsh steppe vegetation. During this period—the earliest represented in our rock art record—large animals such as mammoths, aurochs, horses, elk, argali, and even ostrich were

presented in a static, profile style of monumental realism that recalls the petroglyphs of Portugal's Foz Côa.

Early and Middle Holocene (c. 11,000–6,000 years BP): characterized by the expansion of forests over much of the region and by a relatively wetter, warmer climate until about 5,000 years BP, when the onset of a drying trend caused the forests to begin to retreat. Animals that live between high forests and mountain steppe dominate the art of this period. These include aurochs, elk, and ibex, often represented with a much greater sense of individual power and grace than was visible in the earlier art. Over time, the static realism of the earlier images gave way to the expression of some psychological interaction between large animals; and with the appearance of human hunters—crude figures holding cudgels and represented en face or in profile—this interaction increased. A frontal figure representing a birthing woman appears during this period or even, perhaps, much earlier.

Bronze Age (c. 4,000 – 2,800 years BP): The emergence of the Bronze Age is roughly synchronous with the onset of the Late Holocene and the re-establishment of a relatively cold climate and dry mountain steppe. These conditions encouraged the development of herding and the gradual development of transhumance. The art of this period reveals the new complexity of cultural life with imagery that conjures up the changing world and life ways of the people who lived in these valleys: group hunting, with the hunters equipped with bows, spears, and cudgels; wheeled vehicles, apparently used for transport but also represented as a means of hunting; the use of domesticated yak, loaded with household goods and baskets of children, led by women in long dresses, their hair done in elaborated braids. Large compositions, apparently carrying communal mythic narratives, appear within this period and represent some of the richest rock art. The degree of fine detail within many compositions is striking. Within this great variety of images, only one appears to refer to a spirit realm. This is the image of a faceless, horned being with a bell-shaped body, sometimes shown alone, sometimes with animals, and often bearing the signs of a birthing woman. We do not know what this image represents, but it stands in stark contrast to the powerful, realistic animals and vital human figures from the Bronze Age.

Late Bronze Age (c. 3000–2800 years BP): This was the period that saw the transition to horse-dependent nomadism. Typically, figures from this period are well proportioned, often of powerful build, and represented herding their animals, preparing their households for movement to new pasture, or riding Bactrian camels or horses. During this period, also, we find particular attention to details of weaponry and dress. One of the most striking images from this period within the Altai is that of a highly stylized, elegant stag, represented individually, in pairs, or in groups, and characterized by antlers flowing like waves back over its body.

Early Iron Age (1st millennium BCE): This period coincides with the Scythian Period, during which a completely horse-dependent, herding culture dominated the steppes and mountain steppes of Eurasia, from China to the Black Sea. Within the Altai Mountains, the art of this period is centered on scenes of hunting and riding, with both animals and

men represented with considerable stylization and detail. With the passage of time, this stylization becomes conventionalized and representation becomes increasingly centered on individual, emblem-like images, as of stags.

Turkic Period (7th-9th c. CE): This is the last great period of Altai rock art. Turkic art is centered on the male warrior and horseman, shown hunting, in combat, or galloping at full speed, his falcon on his arm. Images continue to be pecked into the rock outcrops, but many, also, are engraved. Details of weaponry, horse trappings, armor and even the handling of human hair are vivid. In many cases, compositions appear to refer to known epics. To this period, also, belong a number of rare runic inscriptions.

Surface monuments

Just as the sheer number of carved surfaces at the three nominated properties indicate significant populations in the Bronze Age and later, so the hundreds of burial mounds, elaborate *khirigsuur*, standing stones, enclosures, altars, and Turkic image stones indicate that these valleys carried particular significance: that they were appropriate locations for monuments of a funerary and ritual nature. This is particularly true of the two largest properties, TS-BO and UTG. The general dating of the surface monuments is as follows:

Bronze Age: heavy burial mounds, four-cornered mounds, virtual burials in the form of dwellings outlined on the earth in stones; *khirigsuur*, square and round, with up to several hundred adjacent circular altars and small mounds; massive standing stones. Large stone circles, usually set on high terraces, may also belong to this period.

Late Bronze Age: to most of the above should be added a particular form of massive standing stone known as a deer stone. These were carved with deer or other animal images and often had anthropomorphic references (faces, belts, weapons, and so forth).

Early Iron Age: north-south rows of burial mounds with associated altars on the west and rows of small stones (*balbal*) leading out to the east.

Turkic Period: square altars, known as enclosures; rows of *balbal* leading to the east; carved image stones, always facing to the east.

Cultural landscapes

When the setting and directionality of these surface monuments are considered within all three properties—but particularly within TS-BO and UTG—it is clear that particular mountains, rivers, and the cardinal directions (particularly the direction East) had an overwhelming importance. This purposeful location of surface monuments and the often deliberate and related clustering of rock art with reference to ritual sites, snow-crested ridges, and east-flowing rivers allow us to consider these properties not only as the location of extraordinary rock art traditions, but also as true cultural landscapes: landscapes in which human artifacts were consciously organized by reference to the larger physical world.

The Properties

- Tsagaan Salaa-Baga Oigor [TS-BO] is the most northern of the properties. It is located at the convergence of two valleys—that of the Tsagaan Salaa and its tributaries, and that of the Shetya and Baga Oigor Gol—which descend from the high Altai Ridge. These river valleys also lead up to ancient passes into present-day Russian Altai; this fact helps to explain the cultural relationships indicated by rock art here and in the Russian Altai (see 3.c, below). The TS-BO complex stretches for a distance of approximately 15 km along the rivers Tsagaan Salaa and Baga Oigor and up the slopes on the rivers' north and northwest sides for an elevation gain over the valley floor of between 200 and 400 m. The rock art is found across this extent, often in significant concentrations, on outcrops, cliff faces, and boulders and on large and small boulders along the valley floor (see map2). We estimate approximately 5,000 compositions can be found in this complex, with each composition including between one and 160 images. Ceremonial and funerary mounds are located along the terraces over the valley floor and, occasionally, on terraces higher up the slopes (see map3). Their locations suggest a deep and ancient orientation to the river, above all, and to its eastward flow.

Because of its size, the complex has been divided into ten sections (see Map 4). Judging from the style and subject matter of the rock art found in each section, TS I, II, III and BO II and II and III seem to have supported the earliest social communities in the valley. In terms of quantity and quality of the rock art, the richest section is probably TS IV.

This is one of the largest valleys leading up to the high Altai. The landscape here may be characterized as mountain steppe: essentially treeless, covered with pasture of rough grasses and forbs, the mountain slopes giving onto excellent winter pasture above the level of the rock art. There are many indications that several thousand years ago this valley was covered with extensive marshland and scattered ponds that supported significant wildlife as well as domesticated herds. At the present, this marshy terrain is most apparent at the base of sections BO II–IV; elsewhere, however, the valley is best characterized as rocky steppe. Despite the signs throughout this region of increasing desiccation, the valley still benefits from the rivers that flow into it; and the remaining small ponds within the valley floor and on high terraces still support more bird life than one finds in most valleys of this region. Views from the TS-BO complex are dominated by the broad valley of the Baga Oigor River, flowing to the east, and, by the glacier-crowned ridge of Taldagiin Ikh Uul, to the south. Analysis of the complex suggests that these two features and the directionalities they represent regularly influenced the location and orientation of major rock art concentrations and ritual sites.

By comparison to all other known rock art sites within the Altai-Sayan uplift, TS–BO has the most extensive and continuous record of human cultures. The property includes a significant number of images that by subject matter and style indicate a date in the Late Pleistocene Period. These include images of mammoths, massive aurochs, horses, and argali. Profile, realistic elk probably belong to the Early and Middle Holocene. It may be then or closer to the beginning of the Bronze Age when there appeared the earliest images of heroic hunters: frontal figures, armed with large cudgels or long bows and associated with large antlered or horned animals. The Bronze Age

proper is represented by a great variety of styles and subjects, including all manner of hunting, herding, and family scenes, many executed with techniques and styles of unsurpassed quality. A highly stylized stag image makes its appearance in the Late Bronze Age, as do more stylized images of ibex, horses, and hunters. The self-consciousness evident in these later representations increases within the Early Iron Age and later, in the Turkic Period. Three rare Turkic inscriptions have also been found at this property. A few images of figures riding reindeer may date to a post-Turkic Period. In general, however, after the Turkic Period, rock art here—as elsewhere in this region—seems to have come to an end, except for the occasional drawings of later and modern herders.

The terraces of TS-BO are regularly studded with large mounds and khirigsuur; their location reaffirms the importance of the east-flowing river, Baga Oigor Gol, in the spiritual life of the Bronze Age cultures that inhabited this valley. Large circles on high terraces appear to respond to the glacier-crested peak to the south, Taldagiin Ikh Uul, or to the Baga Oigor Gol. A few Early Iron Age cemeteries can be found along the lower levels of the complex.

The sheer size of the TS-BO complex and the quality of its rock art suggest that this large valley supported a significant population in the pre-Bronze Age, the Bronze Age, and the Early Iron Age. Of the three properties proposed here, this valley offers the most significant opportunities for considering the transformation of early hunting societies into societies increasingly dependent on herding and transhumance and their subsequent transformation into horse-dependent nomadism in the Late Bronze and Early Iron Ages.

- The Upper Tsagaan Gol Complex is located approximately 35 km southwest of Tsagaan Salaa-Baga Oigor. Beginning close to the eastern edge of the Tavan Bogd Massif (Map 5), the complex stretches from west to east for a distance of approximately 22 km within the high valley of Tsagaan Gol and its principle tributaries. The largest tributary, Tsagaan Salaa (the White Branch), rises from the Potanin and Alexander glaciers on the highest of the Tavan Bogd peaks, while Khar Salaa (the Black Branch) rises in the snows and glaciers of Rashany Ikh Uul, on the southern edge of Tavan Bogd. The two streams flow east and northeast along the north and south sides of the sacred mountain, Shiviit Khairkhan; beyond the eastern flank of that mountain, the streams join to form Tsagaan Gol. Rock art is found in significant concentrations on glacier scraped and polished outcrops along both sides of Khar Salaa, across the southern flank of Shiviit Khairkhan, and under the steep slopes on the left bank of Tsagaan Salaa. It is also found, in abundance, on boulders crowding the long moraines and lateral moraines descending eastward from Shiviit Khairkhan and along the Tsagaan Gol. We estimate that this complex, also, includes approximately 5,000 compositions with each composition including from one to over 100 images.

Because of its size and the distribution of rock art and surface monuments, this complex should be divided into four sections: Khar Salaa, Shiviit Khairkhan, Tsagaan Salaa, and Tsagaan Gol.

Throughout the upper Tsagaan Gol valley, rich pasture is found along the banks of the two tributaries up to the level of their glacial sources; and tundra vegetation—

supporting the pasturing of large animals in the winter—covers the landscape above the valley floor. Otherwise, the valley is filled with the rocky debris and uneven moraines of ancient glaciers. Precipitous slopes covered with constantly shifting rock flows hem in the valley to north and south. The most prominent landmark, Shiviit Khairkhan, is shaped like a boat, its eastern prow pointing downriver, its northern and southern slopes impassable for any but the wild ibex that inhabit this mountain and their primary predators, wolves and snow leopards. Only on its western end is the mountain covered with rich pasture; this is the route used for larger animals seeking winter grass. Scattered larch trees still cling to the black rock slopes on Shiviit Khairkhan's north side and to a few pockets and terraces on the southern side of the valley.

The upper Tsagaan Gol valley is dominated by several visually impressive features: the sharp and glaciated peaks of Tavan Bogd and Rashany Ikh Uul to the west and southwest; the mass of Shiviit Khairkhan in the center of the valley; lush pastures on either side of the turbulent tributaries, Tsagaan Salaa and Khar Salaa, and the wide, desolate valley of Tsagaan Gol stretching to the east, its rocky extent replaced by marsh only at the river's delta where it joins Khovd Gol.

The rock art of the Upper Tsagaan Gol includes a few outcrops with images of argali, aurochs, and elk dating much before the Bronze Age. The complex, however, is particularly rich in imagery from the Bronze Age, the Early Iron Age, and from the Turkic period. This material includes individual images but also, and more significantly, elaborate compositions reflecting the hunting of large and small animals, the movement of people on foot, with yaks, in carts, and on horseback. There are even a few images from the post-Turkic Period that represent figures riding reindeer. As in the TS-BO complex, there are many compositions reflecting household life, with domesticated and wild animals, women and children, as well as of men. Many compositions are done with such care that they allow us to recreate the intricacies of harnessing horses to carts or the details of weaponry and dress. We have recorded one major Turkic inscription in this property.

Of the three properties proposed for this serial nomination, the Upper Tsagaan Gol Complex offers the most spectacular natural setting and the richest assemblage of surface monuments. In addition to the khirigsuur, heavy mounds, high circles, and massive standing stones from the Bronze Age, these monuments include a large number of Turkic enclosures and image stones. This material is all oriented either to the east-flowing rivers or to the sacred mountain at the center of the complex, Shiviit Khairkhan (see map 5). In the resulting integration of rock art, surface monuments, and the larger landscape, this property is the most obvious example of a cultural landscape.

- Aral Tolgoi is located approximately 40 km south of the Upper Tsagaan Gol Complex, within only a few kilometers of the border with China. This property takes the form of a whale-shaped hill stretching from the southeast to the northwest (see map 9). Rock art is found extensively on outcrops on the southeastern half of the hill. The hill is surrounded by marshy land on the northeast and by alluvial grassland on all other sides. To the southeast is the great lake, Khoton Nuur; to the north and south, Tsagaan Us and Khara Salagiin Gol, rivers that flow into Khoton Nuur, bracket the hill. To the northwest, the plain from which Aral Tolgoi rises is blocked by the mass of Tsagaan Uul and then by high peaks rising to the border with China.

Of the three properties, this one has the most distinctive setting. The contrast between the large blue lake to the east, and the rocky, glaciated peaks to the south and west is striking. A huge rocky moraine marks the northern shore of the lake, while the slopes on the lake's southern shore, continuing west beyond Aral Tolgoi, are covered with the only truly extensive larch forest remaining in western Mongolia. The plain on which Aral Tolgoi is located is covered with good pasture; the hill, itself, is forested on its northern and northwestern extensions. Studies of Khoton Nuur's lake bed sediment and similar palynological studies from further to the north and northeast indicate that the heavy forest still visible here developed in the early Holocene, found its greatest extent in the middle Holocene and began its retreat by the inception of the late Holocene (Gunin et al. 1999). This information helps to inform dating of the rock art at Aral Tolgoi (see 2.b).

The rock art here is found on worn outcroppings that commence at the southeastern end of the hill and continue up the ridge and along the west sloping side to a point just west of a small hut marking the top of Aral Tolgoi. We estimate approximately 300 identifiable images, with many more lost in the deteriorated rock surfaces. This deterioration—considerably more marked than at the other two properties—reflects several factors. The most ancient factor affecting the outcrops must have been the huge pressure of the glaciers that molded this hill, scooped out the great basin of Khoton Nuur, and left behind the massive moraine rising over its north shore. All the outcrops are etched by deep glacial scrape; and massive granitic boulders scattered over the top of the hill testify to the subsequent retreat of glaciers in the late Pleistocene. In addition, the relatively considerable moisture at this edge of western Mongolia, combined with severe winter cold and snow, create conditions that encourage the gradual deterioration of the rocky outcrops and the growth of lichen across the surfaces.

The rock art of this property is distinctively archaic. This is indicated, in the first place, by the style in which many of the animals are presented: static profile, either contoured or silhouetted, with massive bodies, deeply rounded bellies, and legs that are reduced to two tapering cones, front and back. These images are never in action; and although one frequently finds overlaid images—e.g., an argali over a bull—there is never any sign of psychological interaction. These characteristics are hallmarks of an archaic date (compare, e.g., the Paleolithic imagery from the Cça Valley, Portugal). Here, however, subject matter clarifies dating. Images of ostriches—large, flightless birds that inhabited cold, dry climates, free of forest—and a rare image of a rhinoceros anchor this property to the Late Pleistocene. The similarity in the treatment of the rhino's body with that of many aurochs, horses, and argali indicates that those images, also, belong to a very early date. Among the most archaic images are those of birthing women; but a few compositions carry the human figure into a somewhat later date. These include crude, profile or frontal figures, usually with cudgels, and represented alongside horses, elk, or bulls. Although it would be difficult, in these cases, to speak of psychological interaction, these compositions clearly indicate very early attempts to represent the hunt—with all the psychological significance that had.

At Aral Tolgoi, only a few images can be dated to the Bronze Age or later. Chance finds suggest that careful excavation of the terraces composing the buffer zone for this property would reveal extensive artifacts of a Paleolithic and Mesolithic date. At the same time, within the flood plain south of the hill are several deer stones, standing stones, and burial mounds dating to the Late Bronze or Early Iron Ages, and within the hill's

buffer zone and to the west are many Turkic monuments. There is, in other words, no particular relationship between the rock art on Aral Tolgoi and the surface monuments in its buffer zone. It is as if this property were carrying us simultaneously into two different time warps. On the one hand, the rock art on the hill refers us to an age when humans were much more at the mercy of large animals and climate, when the hill must have been both shelter and look-out, and when hunting, fishing, and gathering were the primary means of sustenance. Below that realm, and as if totally unaware of that earlier world, the deer stones, burial mounds, and Turkic enclosures reflect the concerns of Late Bronze-Early Iron Age and Turkic herders who valued these high valleys for summer pasture and as zones of transition up and over the ridge into present-day northern China. Between the two cultural stories carried by Aral Tolgoi there is a great stretch of time and remarkable environmental change. That lacuna dividing the two worlds would ultimately be filled by the visual documentation found in the two other properties in this Serial Nomination, TS-BO and the Upper Tsagaan Gol.

Aral Tolgoi is the largest and finest open-air concentration of pre-Bronze Age rock art yet identified in North Asia or within the Altai-Sayan uplift (see 3.c, below). In this respect, and with reference to the relic forests in this area, Aral Tolgoi complements the other two properties. Taken together, the three properties included in this serial nomination describe the evolution of human culture at the heart of Eurasia; they also reflect the absolute integration of human culture and paleoenvironment.

2.b History and Development of Properties

Natural history

All three properties have been shaped by three specific geological forces—glacial advances and retreat in the Late Pleistocene, the spread of forests and their retreat in the Early-Middle Holocene, and the gradual desiccation of the Altai Ridge beginning thereafter and continuing into the present. In all three valleys in question, the force of glacial action is everywhere evident in the presence of extensive moraines, breached moraines, stony ancient lake beds and the outcrops that have been smoothed and scraped up to elevations of 200 m above the valley floor (TS-BO). Granitic boulders scattered over the landscape of all three properties testify to the source of the glaciers in the high mountain ridge. In terms of ancient forestation and subsequent deforestation, the three properties describe the gradual shift in time from—around Aral Tolgoi—a period of extensive tree cover to—in the TS-BO valley—the complete retreat of forests by approximately 3000 years before the present. The present aspect of all three properties and their valleys has probably not changed extensively in the last 3000 years except in terms of the relatively recent (last 100 years) retreat of major glaciers and the more recent (last 30 years) disappearance of streams, marshes, and ponds.

Conservation history and human impacts

i. TS-BO:

There have been no conservation measures or protective zones affecting TS-BO. The complex has benefited, instead, from its remoteness from human populations other than the very limited herding community that moves up and down the valley throughout the year in order to find fresh pasture. Writing has been added to many surfaces across

the complex; unfortunately, it is particularly heavy in the most southern section of TS II—an area that includes many fine images from the Early Bronze Age. Many years ago, also, someone famously wrote his name across the best mammoth image in the complex (BO III). On the other hand, recent examination of the complex indicates that there have been almost no new signs of such writing since the documentation of the complex was begun (1994).

In recent years, more tourists en route to Tavan Bogd, or even just interested in rock art itself, have been stopping at TS-BO. Recent examination (July 2009) indicates that this has not had any meaningful impact on the complex. Observation of such tourism suggests that the threat to the rock art of this complex comes less from the tourists themselves than from the ignorance of tour leaders and their drivers who do not understand that driving up to and over the rock art surfaces is not appropriate to their preservation.

Several years ago, a foreign company established a wolfram mine on the right bank of the upper Tsagaan Salaa, also known as Olon Boroon. The ore was apparently trucked down the left bank of the Tsagaan Salaa, directly under TS I and II. Recent examination of the surfaces there—and particularly in the most vulnerable area at the south end of TS II—indicates that at least superficially there is little sign of damage except for the apparent loss of one specific boulder with archaic anthropomorphic images. (The boulder was probably broken up to form the roadbed.) The foreign company has apparently now left the area and the only mining occurring at present is by local herders wishing to supplement their incomes. Although the mine does not seem to have impacted TS-BO significantly, it has negatively impacted the mountainside and, most probably, the river itself.

ii. Upper Tsagaan Gol

The upper section of the complex lies within the Altai Tavan Bogd Protected Area and is thus, theoretically, protected. Unfortunately, the way in which the zone has been drawn (see map 6) excludes some of the finest concentrations of rock art and surface monuments. Moreover, the significance of that protection is not always clear since tourist camps have now been admitted into the park within the upper valley and local herders have been moving their summer pastures higher and closer to the glaciers every year.

Tavan Bogd is one of Mongolia's most popular tourist destinations and the valleys of the Tsagaan Gol and its upper tributaries are among the most favored approaches to the high massif. Despite the resulting traffic (by horseback, jeep, and on foot), recent examination (July 2009) of the most potentially impacted concentrations up and down the complex indicates minimal impact from tourism. The only serious exception to this statement is offered by writing (in paint, pecking, and scratching) and by over-scratching of images across a large panel in the Shiviit Khairkhan section; this panel includes approximately 740 images from the Bronze and Early Iron Ages and from the Turkic Period. The vandalism here has occurred only since the completion of the complex's documentation (2004) and—within the context of western Bayan-Ulgii—is unusually egregious. The many modern names inscribed around the figure of a large Turkic rider in the Shiviit Khairkhan section were all done many years ago and do not seem to have been added to since 1995. Similarly, the place known as Khar Chuluut, in

the Tsagaan Gol section, has also acquired many inscriptions but virtually all date from before 1995. The fact is that although this complex represents an extraordinarily rich concentration of rock art, the uneven nature of the terrain would make it difficult for most tourists moving through to even see the imagery.

The Upper Tsagaan Gol benefits from being difficult to reach. Roads remain rough and inhospitable to almost all vehicles. There have been and there are no known plans for any mineral extraction in the upper valley.

iii. Aral Tolgoi

For several reasons, Aral Tolgoi is the most protected of the three properties. It lies wholly within the Altai Tavan Bogd Protected Zone; it is, further, within a border zone and is therefore inaccessible (theoretically) to tourists. The presence of a border guard station at its eastern base helps to enforce the no-pass regulation. Furthermore, the very remoteness of the property and the inhospitality of the roads leading to it on the north and south shores of Khoton Nuur do not encourage casual tourism.

There has been no mining in this border region nor is any now contemplated. The very sensitivity of this last forested region in Mongolia's high Altai would probably militate against any mineral extraction or further roading around or west of the property. Although there are summer inhabitants (herders) to the west of the property, there are none allowed on the hill itself.

In some places, the natural growth of spreading juniper has covered unusually fine images since the property's documentation; many more images may have been lost long ago. The most significant damage to the outcrops and their imagery derives from time and weather conditions; in other words, it is wholly natural. Human impacts are few, but they have become serious; and, in all probability, they derive entirely from the border guard station. Several pecked and painted inscriptions, dated to 2006 and 2009, have appeared beside some of the oldest images. The most unfortunate impacts have occurred at the very top of the hill. A small hut, used for a lookout, has for years sat beside and probably directly over some of the most ancient images on the hill. More significantly, however, a marker (elevation?) has been secured in the same immediate area with cement. Recent examination (July 2009) indicates that one of two panels of ostriches—remarkable indicators of the Late Pleistocene or Early Holocene—has disappeared, probably under the cement casing.

3. Justification for Inscription

Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol, and Aral Tolgoi, proposed together as a Serial Nomination, represent a visual record of human prehistory and history in the heart of Eurasia, extending over a period of more than 12,000 years. By any comparative measure, the quality of the rock art found in these properties is outstanding; two of the properties (Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol) represent the most extensive such complexes yet recorded in North Asia and the third, Aral Tolgoi, is unquestionably the largest and best preserved concentration of open air rock art from the Late Pleistocene and Early Holocene yet identified within North Asia (see 3.c, below). By virtue of its images of aurochs, horses, ostrich, and other animals adapted to a cold,

dry steppe environment, the rock art of Aral Tolgoi evokes a cultural landscape earlier than that represented by the forests that surround it. In that instance, the subjects and styles of rock art tell a story rather different from that evoked by the heavy forests and marshes around the hill. By contrast, the persistent relationships created between rock art, surface monuments, and relatively unchanging physical elements—rivers, ridges, directionality—at Tsagaan Salaa-Baga Oigor and the Upper Tsagaan Gol create an immediate sense of the intense integration of human communities with their physical environment. Those sites, also, represent outstanding examples of cultural landscapes. Considered within the context of the high Altai Mountains, these three properties together tell the story of human culture in this harsh and magnificent region, over a period of more than 12,000 years.

By virtue of their isolated settings, their partial inclusion in a national protected area and in border zones, these properties suffered little human impact over the years until approximately 20 years ago. In this respect and with the exception of problems arising from the natural wear on open-air rock art sites, the rock art in these properties is in an excellent state of preservation relative to all other major, known North Asian rock art sites.

3.a Criteria under which inscription is proposed

- i. Represents a masterpiece of human creative genius. This criterion applies to all three properties. The quality of the rock art included here, its extent, and its relatively un-impacted character are unsurpassed within known rock art sites of North Asia (See 3.c, below).
- ii. Exhibits an important interchange of human values over a significant span of time.
This criterion applies to the TS-BO and to the Upper Tsagaan Gol properties. Imagery in both properties vividly describes the character of early hunting traditions; the appearance of herding as a major economic base; the appearance of horse and camel riding in the Late Bronze Age and the exploitation of riding in hunting and herding activities; and the transition, finally, to full horse dependency in the Early Iron Age. The impact of that cultural development—ultimately the basis of the expansion of steppe empires after 400 B.C.E.—is vividly reflected in Turkic imagery from the Upper Tsagaan Gol. An important and ubiquitous motif in both properties is that of the wheeled vehicle which seems to have come into North Asia from the west during the Bronze Age. The adoption of this vehicle, together with the domestication of yak as beasts of burden, profoundly affected the emergence of transhumance and herding dependency not only within the Altai Nuruu but also across the Eurasian steppe.
- iii. Bears a unique or at least exceptional testimony to a cultural tradition or to a civilization that has disappeared.

This criterion applies specifically to Aral Tolgoi and TS-BO. While a few other sites in North Asia include imagery from a period considerably earlier than the Bronze Age, none have the number of images or the integrity of imagery to compare with these two sites (see 3.c, below). The images of mammoths (TS-BO), rhinoceros (AT), and ostriches (AT), refer to a geological period in the Late Pleistocene that has been identified with the “mammoth steppe”: a period when North Asia was significantly colder, drier, covered by rough grasses and forbs rather than forest, when it supported a very different fauna (Guthrie 1982). Archaic images of aurochs, ibex, horses, and argali may well belong to that period, also. At both sites, images of elk executed in a typically archaic style reflect the transition to a more forested environment in the Early Holocene. This is the period that appears to be documented, also, in the earliest imagery of the Upper Tsagaan Gol.

3.b Proposed Statement of Outstanding Universal Value

Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol, and Aral Tolgoi, proposed together as a Serial Nomination, represent a visual record of human prehistory and history in the heart of Eurasia, extending over a period of more than 12,000 years. By any comparative measure, the quality of the rock art found in these properties is outstanding; two of the properties (Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol) represent the most extensive such complexes yet recorded in North Asia and the third, Aral Tolgoi, is unquestionably the largest and best preserved concentration of open air rock art from the Late Pleistocene and Early Holocene yet identified within North Asia (see 3.c, below). By virtue of its images of aurochs, horses, ostrich, and other animals adapted to a cold, dry steppe environment, the rock art of Aral Tolgoi evokes a cultural landscape earlier than that represented by the forests that surround it. In that instance, the subjects and styles of rock art tell a story rather different from that evoked by the heavy forests and marshes around the hill. By contrast, the persistent relationships created between rock art, surface monuments, and relatively unchanging physical elements—rivers, ridges, directionality—at Tsagaan Salaa-Baga Oigor and the Upper Tsagaan Gol create an immediate sense of the intense integration of human communities with their physical environment. Those sites, also, represent outstanding examples of cultural landscapes. Considered within the context of the high Altai Mountains, these three properties together tell the story of human culture in this harsh and magnificent region, over a period of more than 12,000 years.

By virtue of their isolated settings, their partial inclusion in a national protected area and in border zones, these properties suffered little human impact over the years until approximately 20 years ago. In this respect and with the exception of problems arising from the natural wear on open-air rock art sites, the rock art in these properties is in an excellent state of preservation relative to all other major, known North Asian rock art sites.

Within the whole Altai-Sayan mountainous region at the juncture of Central and North Asia, the three properties proposed here for a Serial Nomination offer a uniquely extensive view of human culture and its continuity, from the Late Pleistocene to the present (see 3.c, below). This is recorded in terms of tangible cultural elements—e.g.,

specific animals and their domestication, the adoption of wheeled vehicles and riding, specific kinds of dress and weapons—as well as through the reflection of intangible cultural elements, such as belief systems and understandings of aesthetic perfection. Together, the three properties document fauna that are key elements in the recreation of paleoenvironment in the heart of Eurasia. The rock art and the hundreds of surface monuments found in these properties reflects the transformation of the economic bases of societies over thousands of years and thus of social order itself; but it also documents the development of a powerful representational tradition, one rich in narrative content and expressive form.

In summary, the three properties represent an extraordinarily extensive documentation of the real, perceived world and an impressive integration of rock art, surface monuments of considerable variety, and the natural context. They are both archives of deep and expressive pictorial tradition and outstanding cultural landscapes.

3.c Comparative analysis

i. Comparative sites within the Mongolian Altai

- The sites included in the serial nomination, *Petroglyphic Complexes of the Mongolian Altai*, are all located in glacier carved, east tending valleys on the eastern slopes of the high Altai, close to Mongolia's border with Russia and north China. In each valley, the petrology is dominated by hard, metagreywacke (sandstone), characteristic of the upper elevations of this range. In this respect and with regard to subject matter and styles, the properties may be compared with a number of other sites in the Mongolian Altai:
 - Rock art concentrations in the Khar Yamaa valley, which also descends from the high Altai ridge at the Russian border;
 - A large concentration of rock art in the Khultsuutiin Gol valley on the east flanks of the sacred mountain, Tsengel Khaikhan Uul;
 - And the large concentration of rock art found on three hills at Вилът, on the north shore of Khoton Nuur.
- Within the Mongolian Altai, there are other, small concentrations of rock art—some of exceedingly high quality—on cliff faces or high rock outcrops, but nothing of a comparable chronological or spatial extent. All the sites referred to above have been documented but only briefly reported in scientific literature, and they have not been extensively published. All share similar cultural references from the Pre-Bronze Age, Bronze Age, Iron Age, and Turkic Period; none, however, are as extensive in cultural references as the nominated properties, nor are any comparable in size to the Upper Tsagaan Gol and Tsagaan Salaa-Baga Oigor. Regional comparisons might also be offered by sites further east and south of the Bayan Ulgii region referred to here; these, however, have been only scantily reported and remain unnamed within the scientific literature.
- Aside from Aral Tolgoi and Tsagaan Salaa-Baga Oigor, there is only one known regional concentration of Pre-Bronze Age imagery—and that is Khoit Tsenkir, in

Khovd aimag (Okladnikov 1972). Khoit Tsenkir is, however, a cave with different petrology, the imagery was painted, and the ensemble is now in a very poor state of preservation.

ii. Comparative sites within Mongolia

- Mongolia is unusually rich in rock art, both petroglyphic and pictographic; but beyond the Altai region, most sites are scattered and relatively small, and few have been adequately published. [For a review of many identified sites, see Dashnyam, Ochir, Urnasan, Tseveendorj 1999; and *Mongolyn Gov'-Altain khadny zurag* 2008]. Outside the Altai Mountains, moreover, one does not find the kind of high, glacier-carved valleys characteristic of the nominated properties. However, within many sites can be found the distinctive hunt scenes and figures with mushroom-shaped headdresses characteristic of the Altai region; one also frequently finds the kind of stylized deer and caprids specific to the Late Bronze and Early Iron Ages and well documented in the nominated properties. Relevant sites include, for example:
 - Bichigtiin am, Bayankhongor aimag
 - Zhargalant Uul, Huvsgul aimag
- One of the most ancient concentrations of pecked rock art in Mongolia other than that of Aral Tolgoi is located in the rock shelter Rashaan Khad, in Khentii aimag. This material, reported to include a rhinoceros, appears to be at the same chronological horizon as Aral Tolgoi.
- A number of sites located in the southeastern tip of the Altai Range have been more completely published. These include:
 - Tevsh Uul (Okladnikov 1980)
 - Molor Tolgoi (Tseveendorj, Batchuluun, Batbold 2004)
 - Javkhlant Uul (Tseveendorj, Tserendagva, Gunchinsuren, Garamzhav 2004).The material at Tevsh Uul is regularly reminiscent of Altai materials. This site also includes two of the most famous representations of wheeled vehicles yet recorded in North or Central Asia. While some of the material at the other sites indicates cultural references in common with the Mongolian Altai properties, the rock art is considerably more limited in quantity, quality, and chronological reference. None of these sites are in glacier carved valleys and the rock in all cases appears to be considerably coarser and more broken.
- The only other major concentration of rock art yet documented in Mongolia is located in the valley of Chuluut Gol, which flows north from the Khangai Nuuru into the Selenge Gol. Far less extensive in cultural references and in number of known images than the nominated properties, the Chuluut Gol rock art is found primarily on river boulders rather than on outcrops. It has been partially published (Novgorodova 1984, Okladnikov 1981).

iii. North Asian comparators outside Mongolia

- On a broadly regional level, the Mongolian nominated properties may be compared with rock art sites in Tuva and Khakassia and in the (Russian) Altai Republic; and to a lesser degree, with sites in north China.
- Some of the most significant and fully recorded rock art has been documented on flat stones and rock walls within the upper Yenisei river valley of Tuva and Khakassia. Much of that has now been lost as a result of reservoir construction, and much of what remains has been severely impacted by older methods of documentation. Moreover, the remaining concentrations are generally small and scattered. However, they do include motifs well-known from the Mongolian properties: hunters with mushroom-shaped headdresses, bulls and yak from the Early Nomadic Period, wheeled vehicles, domestic scenes, and riders. In other respects, however, the rock art of the upper Yenisei Valley indicates cultural layers that are rare or non-existent in the Mongolian properties, e.g., masks, dwellings represented in realistic elevation, large numbers of daggers, inset circles, battle scenes from the Tagar Period (Early Iron Age), and Iron Age household scenes.
- Among the sites in Tuva that offer comparable subject matter may be included:
 - The small mountain, Syryn-Chiureg: Iron Age and Turkic imagery
 - Rock faces at Bizhiktig-Khaya: bulls and Early Nomadic figures
 - Rock faces at Alaga Mountain: stylized deer of the Late Bronze-Early Iron Ages
 - Rock face at Ustiu-Sargol: panel of overlaid goats, Early Scythian Period
- Within Khakassia's Yenisei drainage, comparable material may be found at the following sites:
 - Cliffs at Shalobolin (Piatkin, Martynov 1985) and Oglakhty (Sher et al. 1994) include material dating to the Mesolithic Period: bison, aurochs, bear, and moose. In their overlaid, profile presentation, they are similar to a number of surfaces with overlaid images of elk and horses from Tsagaan Salaa-Baga Oigor; but the Oglakhty and Shalobolin material reflects a more northern faunal grouping.
- In terms of the geophysical and cultural character of the Mongolian Altai properties, the closest and most useful comparisons can be found in the Russian Altai. Kalbak-Tash (Kubarev, Jacobson 1995), in the lower Chuya River basin, includes many of the elements found in the Mongolian properties: large, archaic elk, syncretic bull-deer, and hunters with mushroom-shaped headdresses. On the other hand, a distinctive bird-woman dated to before the Bronze Age is found in Mongolia only in Chuluut Gol—far from the Altai Ridge.
- The closest comparisons with the Mongolian properties can be found in sites along the northeast trending valleys coming down from the South Chuya Ridge in Russian Altai's Kosh Agach Region. Rock art in the Chegan, Yelangash, and Irbistu valleys is

found on hard metagreywacke outcrops that have been smoothed and polished by glacial action. These three sites have been reported in scientific literature, but only concentrations within the Yelangash Valley have been extensively published (Okladnikov et al. 1979, 1980, 1981, 1982). Bronze Age, Iron Age, and Turkic Period imagery in all these sites and others (e.g., Turu-Alty, Zhalghiz-tepe) indicate shared cultural layers with the Mongolian properties, although their rock art is considerably less extensive.

- A few images at Irbistu and at the Kalgut (Molodin and Cheremisin, 1999) site on the Ukok Plateau, just west of the Mongolian border, may be as archaic as the material at Tsagaan Salaa-Baga Oigor and Aral Tolgoi; in both cases, however, the number of relevant images is small and neither site includes images of megafauna from the Late Paleolithic period.
- There are probably many comparative sites in China, but most are poorly published in western languages. One relevant complex is found in scattered sites in the Yinshan (mountains) of Inner Mongolia (Gai 1985). The petroglyphic images here were also done on outcrops and free boulders, but the rock type appears to be considerably different from that of the high Mongolian Altai and there are only a few image types—stylized deer, an occasional figure with a mushroom-shaped headdress—that might suggest common cultural references. In general, the Yinshan material suggests closer ties with Far Eastern rock art traditions.

iv. Central Asian comparators

- While there are a number of high elevation and extensive rock art sites in Central Asia, these are generally very dissimilar from the Mongolian properties in subject matter and style. The most significant of these sites is Saimaly-Tash in Kazakhstan. In this high elevation site, the rock art is pecked on boulders strewn over a huge basin and dates primarily to the Bronze and Early Iron Ages. With only a few exceptions, the rock art at Saimaly-Tash reflects very different cultural references. Tamgaly, also in Kazakhstan but at a lower elevation and considerably smaller than the two large Mongolian properties, is known primarily for representations of sun-head spirit figures or deities. It also includes late formulations of the Mongolian stylized deer and representations of horse sacrifices that parallel what is known from Scythian period burials in the Altai Mountains. Images of humans, ibex, and horses associated with a Scythian Period style (Late Bronze-Early Iron Age) and well-represented in the two large Mongolian properties reappear at sites such as Saimaly-Tash, Tamgaly, Cholpon-Ata (Kazakhstan), and even Sarmishsai (Uzbekistan). Comparisons between that material and the sequence of rock art and excavated materials found in the Altai and Sayan mountains indicate that the roots of Central Asian Saka (i.e., Scythian period) motifs of animals and humans must be sought further to the northeast, in the Altai and Sayan mountains.

v. *Specific motifs offering comparative information*

- A number of image types well represented in the nominated properties suggest the extension of Bronze and Iron Age cultures out of Mongolia and the Altai and west into Central Asia.
 - One of the best-known motifs is that of a stylized stag with elongated head and body, reduced—even vestigial—legs, and antlers that extend back over its body in elaborate waves. This motif is found throughout the two larger Mongolian Altai properties and can there be traced from its earlier Bronze Age phase into its Iron Age exaggerated stylization. The stylized deer motif is rooted in the Mongolian Late Bronze Age where it is best known through pecked representations on deer stones—large, anthropomorphic standing stones, often with elaborate carved deer, weapons, and jewelry—found across northern and central Mongolia. The motif has been extensively documented across South Siberia (Jacobson 1993) and Mongolia (Volkov 2002 [1981], Sanzhmatav 1993), as well as in rock art sites of Kazakhstan such as Bayan Jurek and Tamgaly (cf. Mar’jasev, Gorjacev, Potapov 1998; Sarmashev 2006; Tashbayeva, Khujanazarov, Ranov, Samashev 2001). In the Central Asian sites, however, as in the Yinshan of northern China (Gai 1985), we see the motif in its late, emblematic stage.
 - A syncretic image joining bull and deer and by style firmly associated with the Bronze Age has been documented in Russian Altai sites as well as in the nominated properties (Jacobson 1993), but not elsewhere.
 - The wheeled vehicle offers considerable information regarding cultural expansion during the Bronze Age (Novozhenov 1994). This motif—with the vehicle always drawn by horses—has been extensively documented in the Russian and Mongolian Altai as well as in Tuvan sites; it is ubiquitous in the Upper Tsagaan Gol and Tsagaan Salaa-Baga Oigor. The wheeled vehicle is also well recorded in Central Asian sites, but with a rather different articulation of the relationship of driver and animals to cart; in the latter cases, also, oxen are as commonly associated with the cart as are horses.
 - Within Central and North Asia, one of the most critical indicators of cultural change is the image of the horse rider. To judge from style and context, images of horse riders appear considerably earlier in the Mongolian Altai than have been attested in Tuvan sites, in the Russian Altai, or in Central Asian sites.

vi. *Global comparators*

- On a more global level, the nominated properties can be compared with large concentrations around Mt. Bego, in France, and Valcamonica, in Italy. In both those cases, the rock art is also found on polished outcroppings in high mountain valleys. In

the case of Valcamonica, there is a similarly broad cultural spread over as many as ten millennia, and comparative references to human economies and social groups.

These comparisons are, however, only general since the reflected cultures were vastly different:

- At Valcamonica, we see a considerable focus on weapons and fighting, as well as on ritual dances (?); in the Altai region, we see a greater concern with hunting and various hunting technologies, herding, household scenes, transhumance based on vehicles and yak, horse and camel riding, and, finally the emergence of horse-dependent nomadism with its ultimate result, steppe empire. In general, images of weapons alone and of fighting are significantly less common than are representations of scenes relating to social living.
- The archaic imagery of Aral Tolgoi and Tsagaan Salaa-Baga Oigor can appropriately be compared with pecked imagery from the Côa Valley in Portugal. One finds similarly static animals arranged in profiles, legs reduced to two incomplete tapers, and compositions with many large animals over-pecked, one on the other, but without any psychological interaction.
- Norwegian rock art and petroglyphic concentrations around Lake Onega in northern Russia also offer comparative examples. In both cases, the pecked imagery is found on the living rock over extended landscapes and is especially rich in Bronze Age material referring to hunting. Beyond those facts, however, there is virtually no commonality with the Mongolian properties, the art of which refers to a specifically mountain-steppe environment in the heart of Eurasia while the Scandinavian-White Russian material refers to human life dependent on the sea.
- Other comparisons may be made with rock art sites in the U.S. Southwest; at the same time, it is clear that the further one goes for comparative material from Eurasia, the less compelling are the comparisons.
 - The rock art of Canyon de Chelle, in Arizona, is also set within an extremely extensive canyon setting and, like many concentrations in the Mongolian properties, is often located at the sites of ancient dwellings. The imagery (painted and pecked) includes many scenes of hunting and wild animals, and—as in the case of the Upper Tsagaan Gol—the sites include several sacred locations. Beyond these parallels, however, there are many differences, most particularly in the character of the stone (soft, sedimentary red sandstone in the Chelly Canyon; hard, dark sandstone in the high Altai), in the stylization of imagery (particularly that referring to a spirit world), and in the age of the imagery (4,000 years in the case of the Arizona material, more than 10,000 years in the case of the nominated properties).

vii. Surface monuments

- Since all three nominated properties include a broad and deep array of surface monuments—khirigsuur, burial mounds, standing stones, Turkic memorials and image stones, inter alia—comparative comments regarding that cultural dimension

are possible. Again, the closest comparators would be found in the Russian Altai, which appears to have shared more than 4,000 years of culture with the Mongolian Altai. While rock art sites of Central Asia, also, include surface monuments, these do not represent the extended period of time (early Bronze Age through the Turkic Period) found in the Mongolian properties.

3.d Authenticity and Integrity of the Properties

i. Authenticity

With reference to all three properties in this Serial Nomination, there has been no action ever taken or human process ever applied that impinges on the authenticity of the rock art images in question.

ii. Integrity

With regard to each of the properties in question, no action has ever been taken to detract from the expression of outstanding universal value: no significant part of the whole has been moved, destroyed, or damaged in such a way as to diminish the whole. Impacts such as modern inscriptions are limited; but the potential problem they present must be addressed in the management plan.

In all three sites, there are instances where later artists (e.g., from the Late Bronze Age or Turkic Period) pecked their own images over those of an earlier period. Although this unusual practice may seem to negatively impact the property as a whole, in fact it offers the kind of overlay of subject and style that facilitates the understanding of the development of surface patina and the dating of imagery. For that reason, it would be inappropriate to consider such actions as representing a diminishment of the properties' integrity.

With only one exception, none of the properties have hitherto been damaged by development of any kind; the exception to that statement refers to the road built around the base of TS II in the construction of which several pecked surfaces may have been lost.

The consideration of neglect does not properly apply to these remotely situated properties.

4. State of Conservation and factors affecting the Property

Information relating to this section has been touched on in Section 2, above. What follows here are comments specific to each property.

4.a Present state of conservation

i. Aral Tolgoi

The most obvious source of conservation concerns at this property is the most natural: the simple deterioration of surfaces caused by the original passage of glaciers over the hill. In addition, the moist climate in this part of Bayan-Ulgii has resulted in the spread of an extensive layer of lichen over many of the surfaces. The freezing and

thawing of seasonal moisture also accelerates the crumbling of surfaces. Considered against the apparent age of the images, however, these natural factors may not be an appropriate source of concern. Moreover, it is certain that any attempt to remove the lichen would destroy the outcrop surfaces.

The impact of small animals grazing regularly over the hill is of greater concern. Although they tend to stay on grassy areas, the sheep and goats often cross over the rock outcrops, unquestionably hastening the crumbling of some of the surfaces. Because these flocks belong to families in the Border Guard Station at the foot of Aral Tolgoi, it is possible that the question of continued grazing on the hill can be addressed in the Serial Nomination management plan.

The most significant factors affecting the preservation of this property are those caused by humans. Recent observation (July 2009) indicates that there is one new pecked inscription (dated 2006) on top of outcrop #21 and next to several archaic images; and a new inscription (2009) has been added in green paint near the southeast end of the property. Given the absence of tourists here, it is most likely that the inscriptions are the work of by people serving at the Border Guard Station.

The most serious impacts at Aral Tolgoi have occurred at the very top of the hill, on the outcrop (#22) including the most important of the oldest images. These impacts include the small guard station and the concrete marker mentioned earlier. While the concrete marker can probably not be taken out without radically damaging the surrounding panels, the hut could probably be dismantled or moved a bit to the west, where there are no pecked outcroppings.

Aral Tolgoi is wholly within the Altai Tavan Bogd National Park (see map1) and also within a sensitive border zone. At present, there are no conservation measures at the property other than those created indirectly by its isolation from winter dwellings, tourism, and mineral extraction.

ii. Upper Tsagaan Gol

Natural forces, including freezing and thawing, are endemic to this region as they are to all high mountain areas, and they play a role in the constant transformation of rock outcrops. The cracking, chipping, and exfoliation of surfaces can result in the loss of images; but these are natural processes and can be expected. (Careless walking or driving over such surfaces significantly hastens that process, however.) Within the valley, overgrazing is a problem here, as it is throughout Mongolia. For the most part, however, within this property, the small animals do not move up and over the rocky outcrops on which imagery can be found.

Before the extensive documentation of this complex (1995-2004), modern names had been pecked into surfaces at the most frequently visited area known as Khar Chuluut, in the Tsagaan Gol section of the complex. Names were also found on other panels within the Shiviit Khairkhan section. This activity seems, however, to have come to an end by 1995. Recent observations (July 2009) indicate almost no new inscriptions either at Khar Chuluut or elsewhere. There is, however, one significant and egregious exception to this statement. A large panel in the Shiviit Khairkhan section, including approximately 740 images from the Bronze, Early Iron, and Turkic periods, has been severely damaged by more than a number of new, painted and pecked inscriptions, one including the date of "May 22, 2006." Since the painted inscriptions are written in Tuvin, Kazakh, English,

and Chinese, it is likely the work of visitors rather than of valley residents. The same or other individuals have also added crude pecked elements and have over-scratched several older images. This panel is perhaps the most visited in the complex; the management plan will need to consider how to limit such damage in the future.

The construction of stone animal shelters beside winter dwellings found throughout these valleys is a potential source of destruction of rock art, since the stone used in the shelters comes from adjoining cliffs and outcrops. In the case of the Upper Tsagaan Gol Complex, since 2005 one new winter dwelling and its shelters have been constructed but not in an area to impact rock art. Elsewhere, enlarged animal shelters, also, do not seem to have impacted nearby rock art (observations, July 2009). In at least two cases in the Shiviit Khairkhan section, winter shelters have been built up against protective cliffs on which can be found abundant imagery. It is probable that stone from the image-covered cliffs has been used in the construction of those shelters; in one case, recent examination indicated that a certain panel was missing. On the other hand, the gradual collapse of those cliffs—quite visible and measurable—may be more related to the slate nature of the rock and the deterioration caused by freezing and thawing than to their use in nearby constructions.

Rough roads, or tracks, up both sides of the river have made the upper valley accessible to many more tourists. There is no indication, however, that these roads have in any way impacted the rock art or the surface monuments (observations, July 2009); and since the rock art tends to be primarily on high outcrops, it is unlikely to be affected by roads in the future.

There are no plans for mineral extraction in the upper Tsagaan Gol valley.

Tourism is the biggest potential threat to the Upper Tsagaan Gol Complex. If they were given an opportunity to understand how to look at rock art, the vast majority of visitors would enjoy the pecked images and not harm them. However, it will require a serious program of education and information dissemination to encourage local visitors, foreign tourists, and even specialists to observe the following rules: do not drive on or walk on the imagery; do not mark it in any way, under any circumstances; do not clean it in any but the most superficial way; do not use any kind of ink rubbing to copy the imagery; but do photograph it.

Half of the Upper Tsagaan Gol Complex is included within the Altai Tavan Bogd National Park (see map1). At present, there are no measures in place to ensure that the rules of the park are followed nor is there any existing signage except at one place on the left bank of Tsagaan Salaa. Given the sensitivity of the natural environment here and the beauty of the rock art, this lack of conservation measures should be addressed in the management plan.

iii. Tsagaan Salaa-Baga Oigor

In contrast to the other two properties, TS-BO is not included in any protected zone. Mineral extraction in the upper valley (see 2.b, above) created an indirect threat to the rock art, particularly that of TS II. This occurred through the creation of an improved road at the base of that section and the resulting vibrations created by heavy truck traffic. The major impact from that mining has now ended and presumably will not be duplicated by the individual mining activities of local herders.

Grazing activities over the outcrops with rock art is not a problem here, since the major pasture area is closer to the valley floor or above the rocky outcrops.

The nature of the landscape, here, ensures that roads tend to stay down along the valley floor; as a result, vehicles are not able to drive up among the rocky outcrops. Recent examination (July 2009) of particularly accessible and sensitive areas across the complex indicates that there have been no meaningful negative impacts from tourists. Moreover, there is little sign of new inscriptions, either pecked or painted, since the completion of the documentation of this complex.

A more serious threat to the integrity of TS-BO lies in the construction of animal shelters and winter dwellings along the terraces over the valley floor. In at least two cases (BO I, BO III), rock seems to have been taken from nearby decorated cliffs and boulders for use in the construction of walls. It is probable that, as a result, at least one outstanding panel has disappeared.

4.b Factors affecting the conservation of the properties

(i) Development pressures

Tsagaan Salaa - Baga Oigor. As western Mongolia is increasingly affected by the desertification, erosion, and loss of permafrost attendant on global climate change, increasing numbers of herders are making their spring and summer camps in the higher valleys. For this reason, the rock art of Tsagaan Salaa-Baga Oigor will be increasingly threatened by the impact of herding settlements and pasture use. Thus, inscribing these rock art sites in the World Heritage List will help local, regional, and national authorities limit potential negative impacts and protect the historical and archeological properties.

Upper Tsagaan Gol. This WH nomination is also located in a mountaineous region and thus not favorable for settlement or crop-farming activities with the exception of winter camps owned by local herders. Currently, as there have been no mineral deposits discovered here, and therefore the sites will not be affected by mining activities. In 1992, the local Tuvan population established a *bagh* (the smallest administrative unit in Mongolia)— named the 4th bagh of Tsengel soum, and also known as Shiveet Khairkhan bagh. The Tuvans in this valley worship Shiveet Khairkhan Mountain which supports approximately 135 ibexes and 5 snow leopards, as revealed in research results (Table). Because of their reverence for this mountain, the Tuvan population does not hunt large animals. Nonetheless, there are improper human actions occurring, such as drawing images and names, carving duplications of older carved images and using carved rocks to build winter-camps.

Aral Tolgoi. As indicated above, Aral Tolgoi is the most protected of the three properties, for several reasons. It lies wholly within the Altai Tavan Bogd Protected Zone; it is, further, within a border zone and is therefore inaccessible (theoretically) to tourists. The presence of a border guard station at its eastern base helps to enforce the no-pass regulation. Furthermore, the very remoteness of the property and the inhospitality of the roads leading to it, on the north and south shores of Khoton Nuur, do not encourage casual tourism. There has been no mining in this border region nor is any now

contemplated. The very sensitivity of this last forested region in Mongolia's high Altai would probably militate against any mineral extraction or further road building around or west of the property. Although there are summer inhabitants to the west of the property, there are none allowed on the hill itself.

(ii) Environmental pressures

The rock art sites of Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol and Aral Tolgoi are located in mountaineous zones of Mongolia. Upper Tsagaan Gol and Tsagaan Salaa-Baga Oigor rivers are humid and cool, yet freezing cold in winter, too.

(vi) Natural disasters and risk preparedness

Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol and Aral Tolgoi are located within active seismic and earthquake zones. Rock art of Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol are carved on natural outcrops (bedrock) and large boulders scattered across the mountain slopes and along the river banks; they are therefore not vulnerable to any earthquake threats. Because there are no forests nearby the two nominated properties, Upper Tsagaan Gol and Tsagaan Salaa-Bag Oigor, fire related risks appear low. The rise of Aral Tolgoi is close to heavy larch forest, but there are only a few trees in the area of the rock art. In all three cases, it is conceivable that steppe fires might occur in the dry seasons of spring and autumn. In contrast to the situation in the eastern and central aimags, however, this has not been a problem in the mountainous western zone. In the event of a steppe fire, rock surfaces could theoretically be darkened or cracked; but given the thinness of the vegetation around the outcrops and boulders of the three nominated properties, this degree of damage is highly unlikely.

(vii) Visitor/ tourism pressures

Currently, tourism lacks effective management and monitoring. Any individuals can/may take and guide tourists to show rock arts at any place. It is hard to monitor them; in particular, a small number of tourists are often on their own, without any supervision.

Tourists heading to the Tavan Bogd mountains pass through the valley of Baga Oigor River. As more information about the rock art of Tsagaan Salaa-Baga Oigor is disseminated to the outside world, more tourists and amateur archaeologists may be attracted to come to the area. Many rock images are carved on boulders small enough that they could be carried away by people who want to add to their private collections or to sell to overseas museums. Similarly, experience from many rock art sites around the world indicate that some people may take away parts from large carved rocks for the purposes indicated above or just for memorial trophies. Therefore, as these valuable ancient heritage properties are located at easily accessible locations, there are considerable potential threats and risks of destructive human activities.

(viii) Number of inhabitants within the property and the buffer zone

Tsagaan Salaa - Baga Oigor is located within the territory of the 1st bagh of Ulaankhus soum, Bayan-Ulgii aimag. The bagh population is 80 people from 15 households. The total livestock is 1835 heads.

Upper Tsagaan Gol is located within the territory of the 4th bagh (a.k.a Shiveet Khairkhan bag) of Tsengel soum, Bayan-Ulgii aimag. The bagh population is 431 people from 95 households. The total livestock is 12,083 heads. There are about 10 herder-families who spend winter within the heritage site and nearby areas, but almost no people and livestock in summer except one family or two. An average family owns over 150 heads of livestock, while some own up to 500 heads within the bagh.

Aral Tolgoi. There are no inhabitants living within the property and its proposed buffer zone. Although there are summer inhabitants to the west of the property, there are none allowed on the hill itself. A border guard station is located at its eastern.

Summary of factors affecting the conservation of the properties

Mineral extraction appears to have receded as a threat to all the properties in this serial nomination, but unplanned roading (such as is found throughout Mongolia), could create problems, particularly within the Upper Tsagaan Gol Complex. Some form of educational effort or legal regulations need to be put into place in order to discourage the indiscriminate use of decorated rock in the construction of animal shelters.

Aside from issues of overgrazing which are now affecting all parts of Mongolia, the problem of animal impact on decorated rock surfaces is only significant in the case of Aral Tolgoi. Given the fact that the flocks involved all come from the nearby Border Guard Station, this situation should be controllable.

Although harsh mountain conditions found in the case of all three properties invariably affect the preservation of rock surfaces, they also discourage casual tourism. Similarly, the extreme 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 local residents not to destroy decorated surfaces when they construct their shelters and not to mark decorated surfaces in any way. Given the extremely limited populations in all these valleys, the existence of the Park and its educational and informational infrastructure, such educational efforts should be quite feasible. The appointment of local guardians within each complex might help, also, to avoid the kind of egregious destruction visible on the Large Panel in the Upper Tsagaan Gol Complex. At the same time it should be realized that any attempt to set up signs or fences at any of these properties would be futile: the history of such efforts in this region indicates that all metal rapidly disappears, recycled into other, more practical uses.

None of the factors negatively impacting these properties are un-resolvable. The painted inscriptions can be removed or disguised by experts in rock restoration. The use of the Park's educational and informational resources would be appropriate to a preservation effort. Educational programs—even modest ones—at the Museum in Ulgii and in schools around the aimag could have a double purpose: to increase awareness and

preservation of antiquities, including rock art and surface monuments; and to offer local residents and their children added resources for understanding their historical and cultural past. New or clearer regulations on the aimag and national level would help to control the destruction of grazing lands and cultural artifacts.

5. Protection and Management of the Property

5.a Ownership

1. 5700 hectares of rock art site of the Tsagaan Salaa-Baga Oigor shall be owned by Ulaankhus soum, Bayan-Ulgii aimag.
2. 15300 hectares of rock art site of Upper Tsagaan Gol shall be owned by Tsengel soum, Bayan-Ulgii aimag.
3. 1000 hectares of rock art site of Aral Tolgoi shall be owned by Tsengel soum, Bayan-Ulgii aimag.

The three properties are located in areas traditionally used by herding communities; the herders have a vital interest in the sites. Thus, relevant review and verification must take their interests into consideration.

5.b Protective designation

- Constitution of Mongolia, 1992

According to the article 7, “The historical, cultural, scientific and intellectual heritage of the Mongolian people shall be under the state protection”.

- Law on Protecting Cultural Heritage of Mongolia, 2001
(full text is annexed)
- List of historical and cultural immovable properties under the province and city protection, 2008

Rock arts of Tsagaan Salaa-Baga Oigor of Ulaan Khus soum and Upper Tsagaan Gol (Rock arts of Shiveet mountain) and Aral Tolgoi of Tsengel soum of Bayan-Ulgii are included on the list of historical and cultural properties under the state protection.

- Mongolian Law on Special Protected Areas, 1994

Whole of Aral Tolgoi and half of the Upper Tsagaan Gol Complex are included within the Altai Tavan Bogd National Park.

5.c Means of implementing protective measures

- The Government of Mongolia shall create the relevant legal framework for safeguarding and maintaining nominated properties in compliance with the principles of World Heritage;
- Management of the safeguarding and maintaining of the nominated properties shall be regulated under applicable laws and regulations of Mongolia in line with the Convention of World Nature and Cultural Heritage;
- The Government of Mongolia shall pass and implement national policy, program and strategy plan for safeguarding and maintaining nominated 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 Education, Culture and Science, the administration/ management office of rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi in Bayan-Ulgii aimag shall implement the management plan;
- The Mongolian National Commission of World Heritage shall provide technical assistance and guidelines to the Management office.
- MECS 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 rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi, and issue subsequent due diligence statements within the deadlines stated in procedural rule of World Heritage Committee.

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

There are some plans to develop the region, province and soums articulated in the documents, *Perspectives for Soum Development* and *Plan for the Development of Tourism*, but these do not cover the proposed properties.

5.e Property management plan or other management system

The Petroglyphic complexes of Mongolian Altai are the state property of Mongolia. They are preserved and controlled by the Mongolian laws detailed above in 5.b. In 2008, the Mongolian government approved the *List of Historical and Cultural Immovable Properties* determined to be under province/aimag and city/soum protection and annexed to it the *National Programme for the Conservation and Revitalization of Sites*. This *National Programme* was approved with the appropriate budget and action plan. The nominated properties—Tsagaan Salaa-Baga Oigor of Ulaan Khus soum and Upper Tsagaan Gol (Rock arts of Shiveet Mountain) and Aral Tolgoi of Tsengel soum, all in

Bayan-Ulgii—are included on the list of historical and cultural properties under state protection. The conservation of the *Petroglyphic Complexes of the Mongolian Altai* will be submitted in 2011 to the National Programme.

The management plan for the conservation and preservation of the *Petroglyphic Complexes of the Mongolian Altai: Rock art And Cultural Landscape* was developed by the Ministry of Education, Culture and Science, the Mongolian National Commission for UNESCO, the Mongolian National Committee for World Heritage, and the Institute of Archaeology of the Mongolian Academy of Sciences. This draft management plan will be submitted for ratification to the Government in 2012.

Introductory note:

One of the main objectives of this nomination is to establish the Management Authority to implement and supervise the Management Plan for *Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape*. The Management Plan includes specific mid-term objectives (2010-2012) and long-term objectives (2010–2015).

The Mid-term Objectives (2010-2015)

- Establish the Management Authority of the *Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape* within the town of Ulgii in Bayan-Ulgii aimag.
 - This Management Authority will be located within the Institute of Archaeology of MAS (combining its state and local sections) and will involve the collaborative efforts of local and state agencies as well as MNC for UNESCO.
 - The Management Authority will be in charge of the overall management of the protection, preservation, restoration, research, information, and utilization of the rock art sites nominated for inclusion in the World Heritage List.
 - The Management Authority will develop an advisory and comprehensive panel of stakeholders to assist it in its deliberations.
 - The Management Authority will develop a system of on-site guardians to assist in the daily oversight of the properties. This system may coincide with the already established system of local superintendents.
- Develop the legislative and monitoring framework to enforce the regulations of Mongolia's *Law on Protecting Cultural Heritage*. These regulations, already clearly articulated, involve a wide range of activities—involving both economic and scientific exploitation—within the properties.
 - This effort will be coordinated through the state and local offices of the Institute of Archaeology, MAS.
- Organize seminars and workshops to involve the local community, workers in the tourism industry, and related specialists in order to raise public awareness

regarding the authenticity and integrity of this heritage, and to develop an understanding of appropriate activities within the sites.

- Particular efforts will be directed toward representatives of the tourism industry, since they would be in the position of teaching/leading many others.
- These efforts will be undertaken by the Management Authority in collaboration with the Altai Tavan Bogd Park management and the Department of Education and Culture of Bayan-Ulgii province;
- Organize and/or host local, national and international conferences, and academic seminars on management issues of rock art sites with the involvement of various stakeholders, such as representatives from the local population, governmental and non-governmental organizations, foreign and domestic scholars and rock art experts, policy makers, and so forth.
 - These activities will be led by the Management Authority.
- Organize and/or host local, national and international conferences and academic seminars on scientific issues relating to rock art sites of high mountain regions.
 - These activities will be undertaken by the state and local offices of the Institute of Archaeology, MAS.
- Integrate World Heritage education, particularly relating to World Heritage properties in Mongolia, at all-levels of academic curricula and publish materials appropriate for use in such curricula.
 - These activities will be spearheaded and overseen by the Management Authority.
- Establish a comprehensive rock art site database for Mongolia, beginning with the nominated properties; compile results of scientific research, both domestic and foreign; develop and maintain an interactive website on Mongolian rock art for the use of scholars, planners, and an interested public.
 - These activities require the collaborative efforts of the Institute of Archaeology, both state and local.
- Create an academic base for the study of the petroglyphic complexes of the Mongolian Altai by expanding the Tureg Studies Center within the BU branch institute of the Institute of Archaeology of MAS.

The Long-term Objectives (2010-2020)

The long-term objectives of the management plan will be developed over a period of five 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 great world heritage will be preserved for following generations. It is intended that this management plan could serve as a model for rock art sites across Central and North Asia and particularly within high-mountain, relatively isolated regions.

- Develop legal frameworks for the protection of the petroglyphic complexes of the Mongolian Altai and their associated cultural landscapes in order bring them into conformity with international World Heritage standards of protection and appropriate utilization. Take consequent measures for the sustainability of the environment:
 - The preservation and stabilization of adjacent forests, grazing lands, soil and water.
 - Development of recommendations relating to desertification and soil erosion as they affect the nominated 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 (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 rock art sites.
- Safeguard and develop the region's herding life-style, and its unique traditions, customs, and religions, perfected for centuries and reflected in the rock art of the nominated properties.
 - Establish guidelines for the sustainability of the traditional nomadic life style and its utilization of modern technology in ways that will not adversely affect the nominated properties.
- Develop education and health services that will support the local herding populations so as to help ensure the continuity of their traditional life styles.
- Develop educational and infrastructure services for tourism.
 - Work with existing tourist organizations and their professional groups in order to develop recommendations appropriate to use of rock art sites as tourist attractions.
 - Develop recommended routes for tourists and clear instructions to tourists and tour leaders regarding the appropriate ways of enjoying the rock art sites.

Recommend and enforce appropriate routes within the sites, camping areas, and development of comfort facilities for tourists and tour leaders.

The management plan is annexed to the nomination dossier.

5.f Sources and levels of finance

Because two of the nominated properties are so large and so distant from population centers; and because preservation issues relating to the third site, Aral Tolgoi (within a closed border zone), are really issues of management strategy vis-a-vis Border Guard

Station #1, it is probable that funding necessary to support preservation issues will be considerably less than might be required for a petroglyphic site which is easily accessible and small enough to be fenced and trailed (e.g., Tamgaly, Kazakhstan).

Taking these issues into consideration, it is proposed that safeguarding, maintaining and restoring activities will be financed from the following sources:

National and local government budgets.

Fees assessed from tour operators running tourism businesses within the nominated areas.

Donations from international organizations and foreign countries.

Fees assessed from individuals wishing to study the rock art of the nominated 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 nominated properties for scientific and educational purposes.

Donations from international organizations and foreign countries.

National and local government budgets.

Internships:

The importance of the nominated properties is such that we believe it would be possible to establish a program of national and international unpaid internships for study of, preservation of, and education about the rock art of these sites. It is possible, for example, that individuals working for organizations such as the Peace Corps could be assigned responsibilities for developing an educational program within the public schools, just as they have taught language and served as resources within the Altai Tavan Bogd Protected Area.

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

The development of these properties as World Heritage sites offers Mongolia the opportunity to develop expertise in conservation and management techniques. To do this, the Mongolian National Commission for UNESCO and Institute of Archeology, Mongolian Academy of Science will organize training in conservation and management techniques with international experts and institutions. Given the remote location of these properties, however, conservation and protection must also occur at the local level. We have met and talked with local herders and residents living within the proposed properties and concluded that public awareness campaign and training must be organized at all levels from the bagh level to soum and aimag levels through deploying resources of local authorities and experts. We believe that such campaigns and trainings can provide one of most effective measures/tools to ensure protection of historical, cultural and archeological sites of this valley and also across Mongolia.

5.h Visitor facilities and statistics

In considering this section, it should be understood that Bayan Ulgiy aimag is a high and remote region notable for its vast, thinly populated steppe and mountain steppe and not for urban settlements or highways. The locations of the three rock art properties nominated here and their distance from the only town with hotels and restaurants (Ulgiy) means that there are no traditional tourist facilities—such as hotels, restaurants, or gher camps—available. Given the fact, moreover, that the climatic conditions of this region are such that the properties are accessible for only three or (at best) four months a year, such facilities are not likely to be developed in the near future. However, tour operators have been developing regular routes for horse and camel trekking, as well as sites for sport fishing and hiking, and a number of these tour operators have even established regular comfort facilities at some camps.

As specified above (5.e), the Management Authority will have responsibility for encouraging best practices among tourist agencies and tour leaders, both to ensure the protection of the sites themselves and to ensure the conservation of the environment. The Management Authority will also be responsible for developing educational materials that tourists could find at such places as the Ulgiy and Khovd airports, at local museums, and at the main office of the Altai Tavan Bogd Park. The Authority will need to put in place occasional signage to assist visitors and to remind them of appropriate behavior.

It should also be realized that the location and of Aral Tolgoi within a closed border zone and the extreme age of its rock art mean that it will not become generally available to tourists. As in the case of closed rock art sites in France, the Management Authority would ideally use this site for scientific experts.

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

The rock art sites of Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol and Aral Tolgoi have the potential to become an important and major center for the study of the history and culture of Mongolia and the high Altai region for future generations. The sites should be protected and maintained for such purposes. These sites provide unlimited opportunities for scholars and researchers of all sectors and studies. We believe it is crucial to protect and preserve these complex sites with the original quality of rock arts preserved intact and extraordinary geological formations.

In the sections above, and particularly in 5.e, we indicate our intention to use these properties for educational and scientific purposes, on a local, national, and even international level. These activities will include the following:

- Educational programs for school children.
- Internships relating to management practices for university level students.
- Lectures and presentations offered during the months of high tourism for tourists and tour leaders.

- Seminars for specialists in rock art, archaeology, site management and other areas. These seminars will include city-based and site-based components.

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

Specialists in education and representatives from the cultural departments of the province, environmental and cultural heritage inspectors of each soum will take part in the Management Authority responsible for the properties. They will be expected to attend regularly the courses on improvement of their professional and technical knowledge organized by the Ministry of Education, Culture and Science of Mongolia, the Mongolian National Commission for UNESCO and the Institute of Archaeology, Mongolian Academy of Science. The Management Authority will also be able to take advantage of international experts to advance its educational programs.

6. Monitoring

6.a Key indicators for measuring state of conservation

Indicator	Explanation	Periodicity of examination
Natural factors:		
Given the high mountain and locations of the nominated properties, the natural indicators that are most indicative of change and that will be regularly monitored through the Site Management Plan are listed below:		
Crumbling of surfaces with pecked images as a result of annual processes of freezing and thawing.	This process has been occurring for many thousands of years; it is, in other words, natural, and cannot be stopped, but it should be monitored. The resulting information could be of considerable scientific value to geologists, climatologists, and archaeologists, as well as site managers.	The Site Management Plan mandates examination of specific selected surfaces with petroglyphs on a four-year cycle. These examinations will involve detailed observation and careful photographic documentation on a macro and micro level; the resulting information will become part of an ongoing documentation of rock art and physical processes in the high Altai.
Lichen growth or	The consideration of this indicator	Every four years, at the

<p>decay.</p>	<p>also involves the selection, at all three properties, of specific surfaces to be revisited and re-documented on an annual basis. Because lichen growth in this part of the high Altai is extremely slow and because there is the possibility, in the future, of using lichens for dating purposes, this documentation could be of particular scientific value. Documentation will take place at the same time in each year and will take the form of visual examination to determine the degree of damage sustained since the previous examination; macro and micro photography to document the growth or decay of the lichen and its impact on the stone surface; measurement of the surface temperature at the determined rock faces; and the extraction of micro examples of the lichen at the surface for lab examination and analysis.</p>	<p>same time of year.</p>
<p>Growth of vegetation other than lichens.</p>	<p>Although vegetation growth in this part of Mongolia is very slow, grasses, small shrubs, and low-lying juniper do often intrude on rock-pecked surfaces. The examination and documentation should be the same as that undertaken to measure lichen growth or decay and should be correlated with independently developed measures of climatic change (moisture levels, temperature) for the region.</p>	<p>Same cycle as for the lichen examination.</p>
<p>Erosion of earth over marked surfaces.</p>	<p>This could be due either to entirely natural processes or to the results of animal or human impacts. Examination would involve the identification of specific problem areas, observation and photographic documentation, and the correlation of new erosion with probable causes (natural or otherwise).</p>	<p>Same cycle as for the lichen examination.</p>
<p>Development factor:</p>		

<p>These involve the impacts of humans and their animals, habitations, and means of movement, as well as the impact of increased tourism. Included here, also, are the impacts of extractive industries where they could or might occur.</p>		
<p>Animal grazing.</p>	<p>Monitoring of this indicator will involve a number of considerations:</p> <ol style="list-style-type: none"> 1) Physical examination and photographic documentation of the surfaces and sites in question. 2) Estimation of the increased (or decreased) number of families pasturing their animals in this location (determined through soum or aimag authorities). 3) Estimation of the increased (or decreased) number of animals involved in the problem and an attempt to account for the change (determined through soum or aimag authorities). 	<p>Annual, tracking physical impact of small and large animals grazing on specific surfaces, on surrounding vegetation, and on riparian zones included within the properties.</p>
<p>Construction and renovation of animal shelters and winter dwellings.</p>	<p>Because these structures are necessary for local herding populations but use rock from adjoining sites, they are potentially extremely injurious to the rock art sites. The monitoring of these structures must involve, most particularly, on-site observation and documentation as well as local soum authorities and (where applicable) Park and Border Guard authorities.</p>	<p>Annual.</p>
<p>Impact from tourists and related human impacts.</p>	<p>This involves the examination of the nominated properties to ascertain the extent to which human traffic and activities related to tourism have impacted the rock surfaces. Documentation should take the form of direct observation, precise locational data, and photography. Annual data should also be compiled on the number of visitors, the flow of their movement through the large properties, the location of their camps, and signs of degradation of those areas. These data should be compiled</p>	<p>Annual.</p>

	by the local overseer or site guardian and correlated with information from soum, Park, and Border Guard authorities.	
Construction of infrastructure (roads, camps, comfort facilities, etc.)	This should involve the same process and responsible authorities as above. In this case, also, care must be taken to examine the complete properties and not simply small sections.	Annual.
Mineral exploration and extraction.	This involves the same processes as above and, in addition, annual consultations with the Mongolian Ministry of Environment as the primary planner and management source for mineral extraction in the country.	Every two years.
Location of records:		
<ul style="list-style-type: none"> • Mongolian National Commission for UNESCO, Ulaanbaatar, Mongolian Attention: N.Urtnasan mon.unesco@mongol.net • Institute of Archaeology, Mongolian Academy of Science, Ulaanbaatar, Mongolia Attention: D. Tseveendorj, Director dtseve@yahoo.com • Mongolian Altai Inventory Project, University of Oregon, Eugene, OR 97405 USA, Attention: Esther Jacobson-Tepfer ejacobs@uoregon.edu 		

6.b Administrative arrangements for monitoring property

The responsibility for monitoring the key indicators detailed in 6.a will involve a collaborative effort by several agencies coordinated by the Institute of Archaeology and the MNC for UNESCO:

- The Institute of Archaeology, Mongolian Academy of Sciences (Ulaanbaatar and local Bayan-Ulgii branch)
- The Institute of Geology, Mongolian Academy of Sciences (Ulaanbaatar and local Bayan-Ulgii branch)
- The Institute of Botany, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia
- Mongolian National Commission for UNESCO, Ulaanbaatar, Mongolia
Attention: N.Urtnasan mon.unesco@mongol.net

In addition, issues relating to development will involve the Ministry of Education, Culture and Science, the Ministry of Environment, the Altai Tavan Bogd National Park, Border Guard authorities, and soum and aimag authorities.

In the case of all development factors, the MNC and other responsible agencies will be guided by Mongolia's Law on Protecting Cultural Heritage.

6.c Results of previous reporting exercises

There are no previous reporting exercises.

7. Documentation

7.a Photographs, slides, image inventory and authorization table and other audiovisual materials

The photographs and authorization table are attached to the nomination file.

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

The Management Plan for the Protection and Preservation of Petroglyphic Complexes of the Mongolian Altai: Rock art and Cultural Landscape is attached to the nomination dossier.

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

- All three properties have been extensively documented in maps, several thousand photographs, several thousand drawings, and in field notes. A significant portion of this material has been published (see 7.e, below).
- V.D. Kubarev holds original drawings for all three sites in Novosibirsk, Russia.
- Photographs and maps are the property of the Mongolian Altai Inventory, University of Oregon (see 7.d). A selected number of images relating to TS-BO and stored on CD disks is held in duplicate form by the Institute of Archaeology, MAS, Ulaanbaatar, Mongolia; and by the Mongolian Altai Inventory, University of Oregon.

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

- Institute of Archaeology, Mongolian Academy of Science, Ulaanbaatar, Mongolia
Attention: D. Tseveendorj, Director
dtseve@yahoo.com
- Mongolian Altai Inventory Project
University of Oregon, Eugene, OR 97405 USA,
Attention: Esther Jacobson-Tepfer
ejacobs@uoregon.edu

- Institute of Archaeology and Ethnography, RAS
Novosibirsk, Russia
Attention: V.D. Kubarev
greta@archaeology.ru

7.e Bibliography

Original Documentation :

- Original documentation of TS-BO:
Jacobson, E., V. D. Kubarev, D. Tseveendorj. 2001.
Mongolie du Nord-Ouest: Tsagaan Salaa/Baga Oigor.
Rǎpertoire des Pǎtroglyphes d'Asie centrale, Fascicule No. 6.
2 vols. Paris: De Boccard.
- Original documentation of Upper Tsagaan Gol:
Jacobson-Tepfer, E., V. D. Kubarev, D. Tseveendorj. 2006.
Mongolie du Nord-Ouest: Haut Tsagaan Gol.
Rǎpertoire des Pǎtroglyphes d'Asie centrale, Fascicule No. 7.
2 vols. Paris: De Boccard.
- Original documentation of Aral Tolgoi:
Tseveendorj, D., V. D. Kubarev, E. Yakobson (Jacobson). 2005.
Aral Tolgoin Xadny Zurag. Ulaanbaatar: Institute of Archaeology, MAS.

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8. Contact Information of responsible authorities

8.a Preparer

- Dr. Prof. Urtnasan Norov, Secretary-General of Mongolian National Commission for UNESCO
E-mail: urtnasan_norov@yahoo.com
- Sc.D, Prof. Tseveendorj Damdinsuren, Director of Institute of Archeology, Mongolian Academy of Sciences
E-mail: dtseve@yahoo.com
- Prof. Esther Jacobson-Tepfer, Mongolian Altai Inventory Project, University of Oregon, Eugene, OR 97405 USA,

- E-mail: ejacobs@uoregon.edu
- Dr. Batbold Natsag, Researcher of Institute of Archaeology, Mongolian Academy of Science
E-mail: ntbatbold@yahoo.com
 - Ms. Munkhjargal Nergui, Assistant officer of Mongolian National Commission for UNESCO
E-mail: munkhjargal_nergui@yahoo.com

8.b Official Local Institution / Agency

Mongolian National Commission for UNESCO
Government building XI, P.O 38,
Revolution Avenue,
Ulaanbaatar, Mongolia
Tel: 976-11-315652
Fax: 976-11-322612
E-mail: mon.unesco@mongol.net

8.c Other Local Institutions

Institute of Archaeology,
Mongolian Academy of Sciences,
Jukov street-77,
Ulaanbaatar-51, Mongolia
Tel: 976-11-342213/ 452899
Fax: 976-11-452899
E-mail: dtseve@yahoo.com

8.d Official Web address

There is currently no official web address.

9. Signature on behalf of the State Party



.....
Norov URTNASAN,
Secretary-General,
Mongolian National Commission for UNESCO

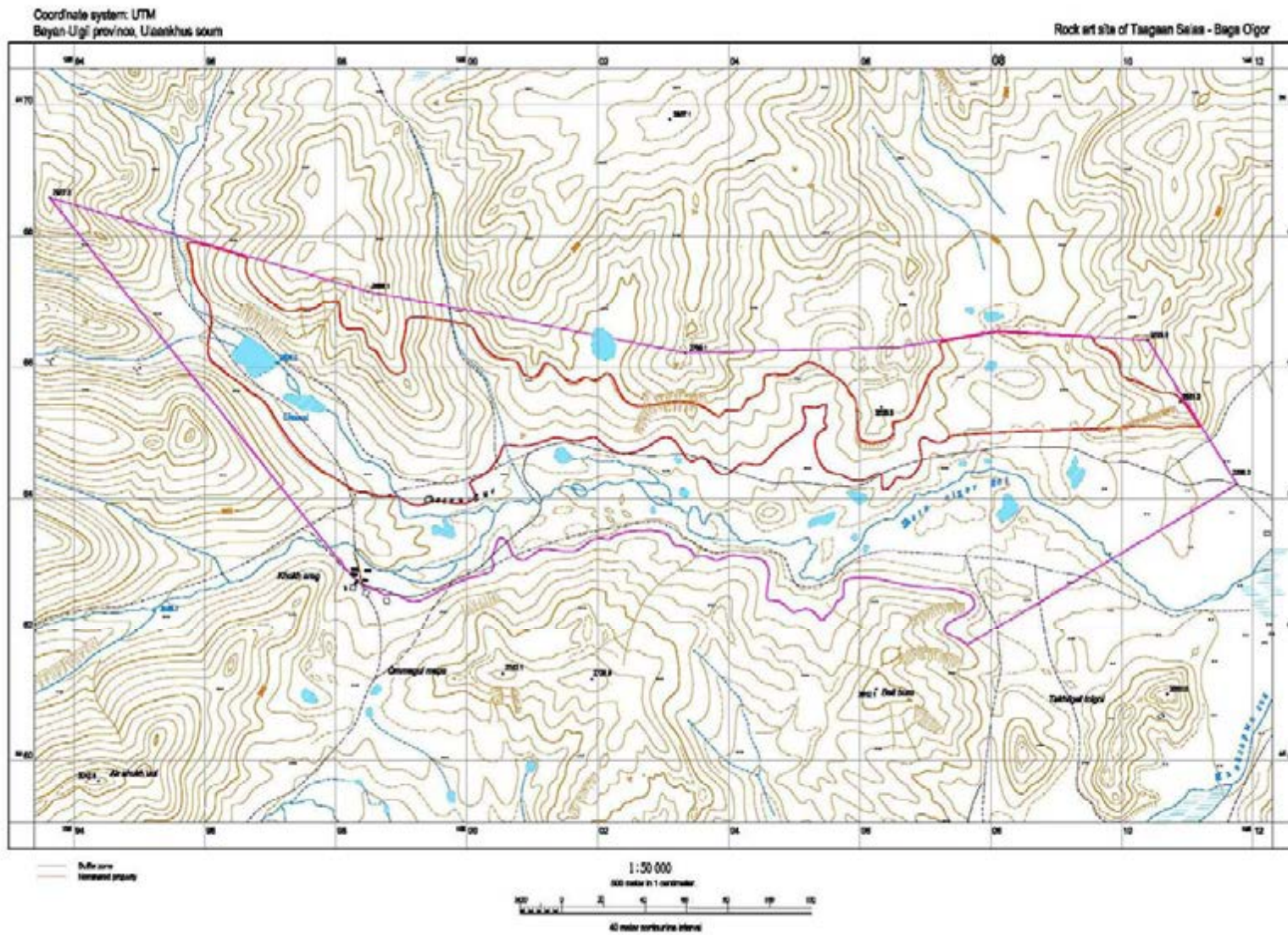
22 January 2010, Ulaanbaatar

ANNEX I

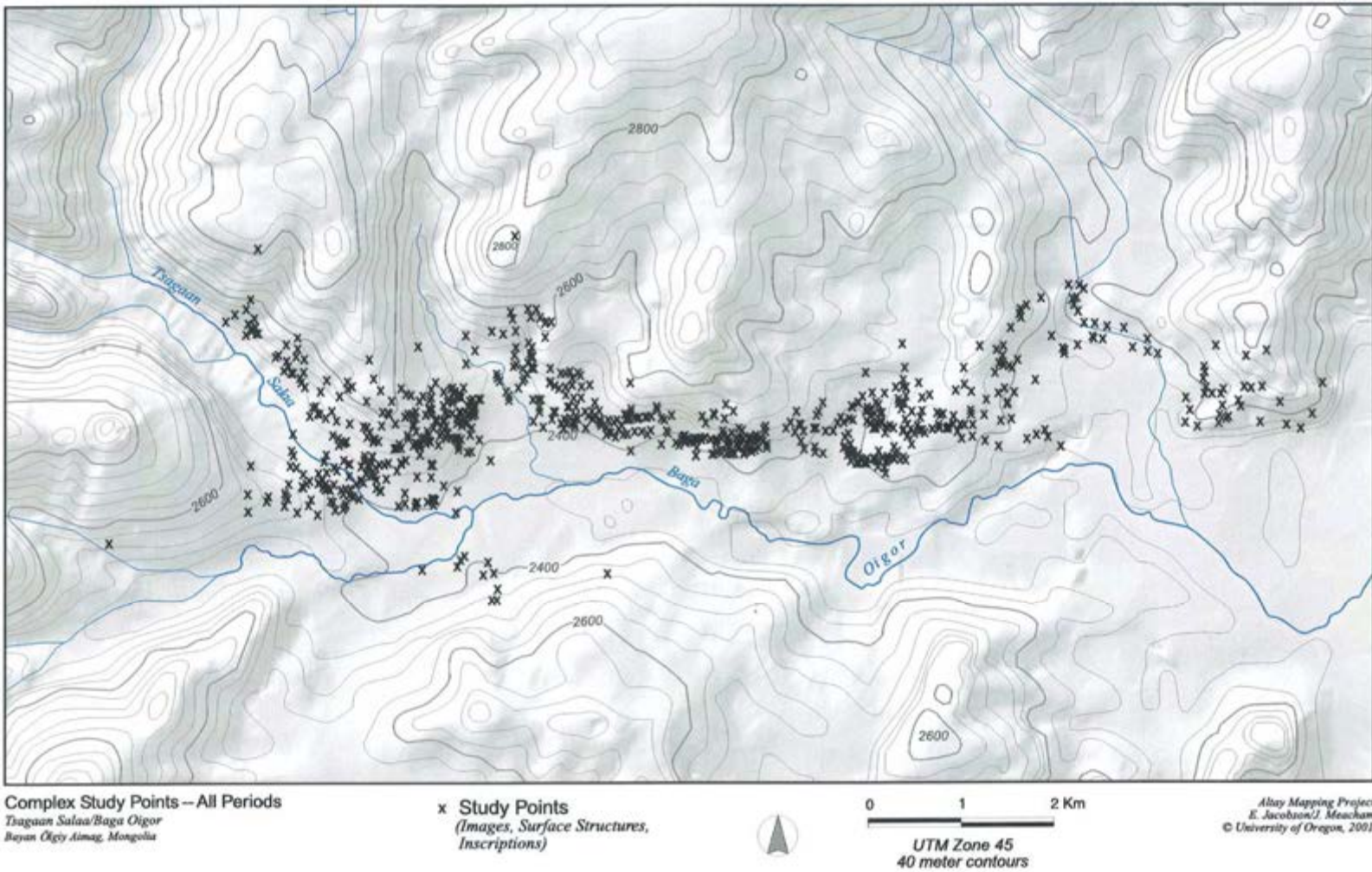
Map 1: Topographic map of western Bayan-Ulgii, within western Mongolia: Proposed properties and boundary of the Altai Tavan Bogd Protected Zone



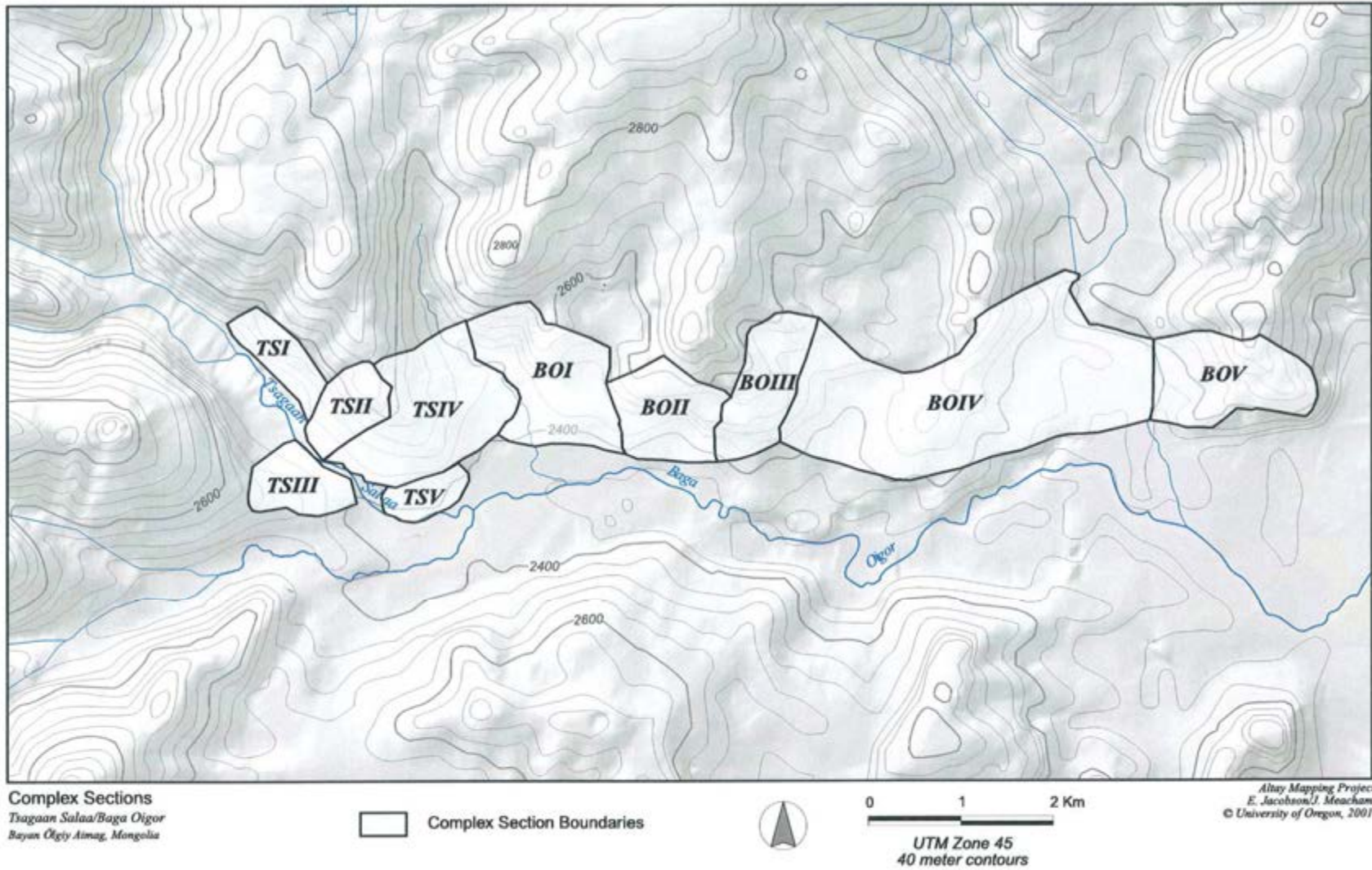
Map 2: Tsagaan Salaa-Baga Oigor: overall complex, perimeters and buffers



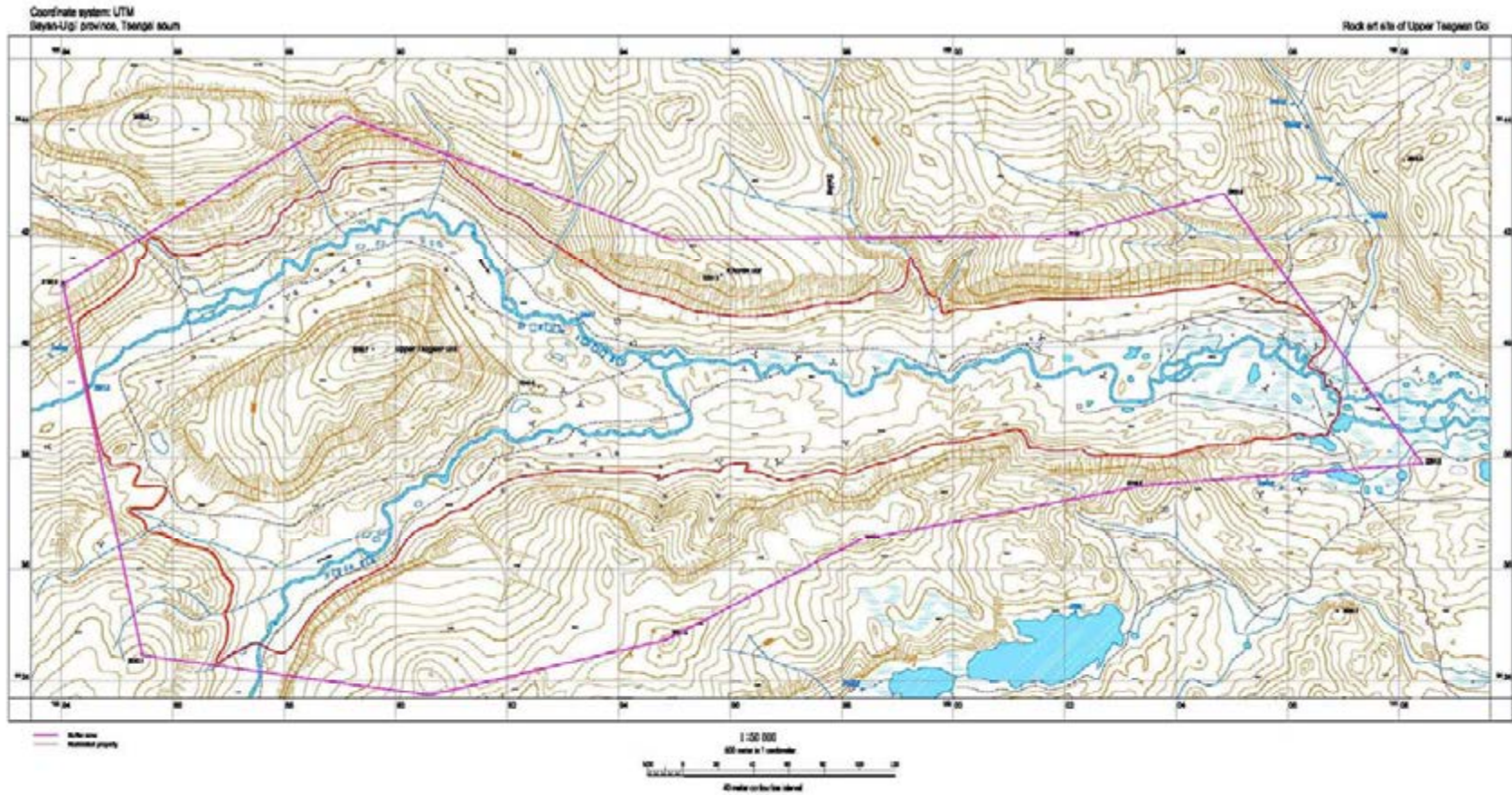
Map 3: Tsagaan Salaa-Baga Oigor: Complex study points



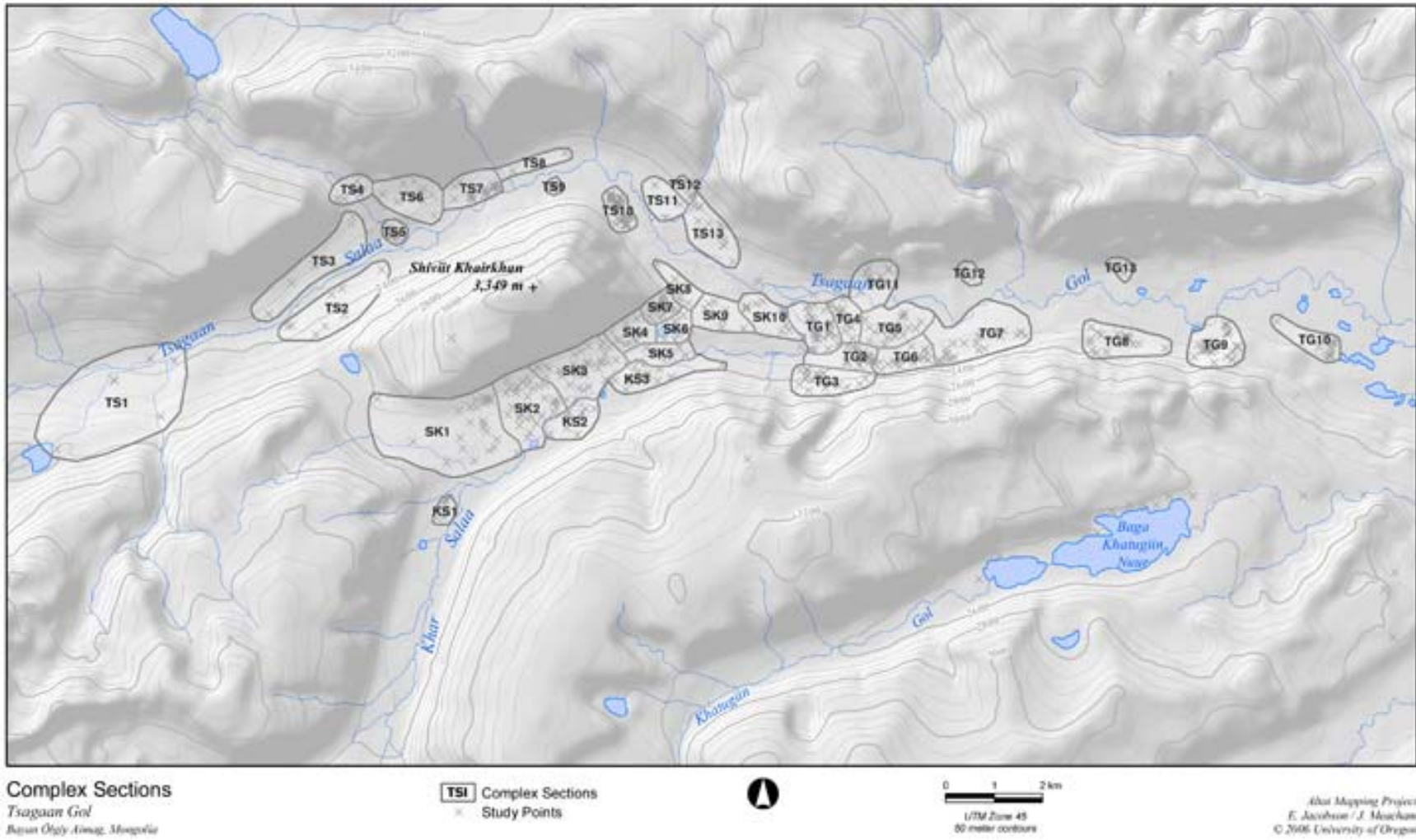
Map 4: Tsagaan Salaa-Baga Oigor: Complex sections



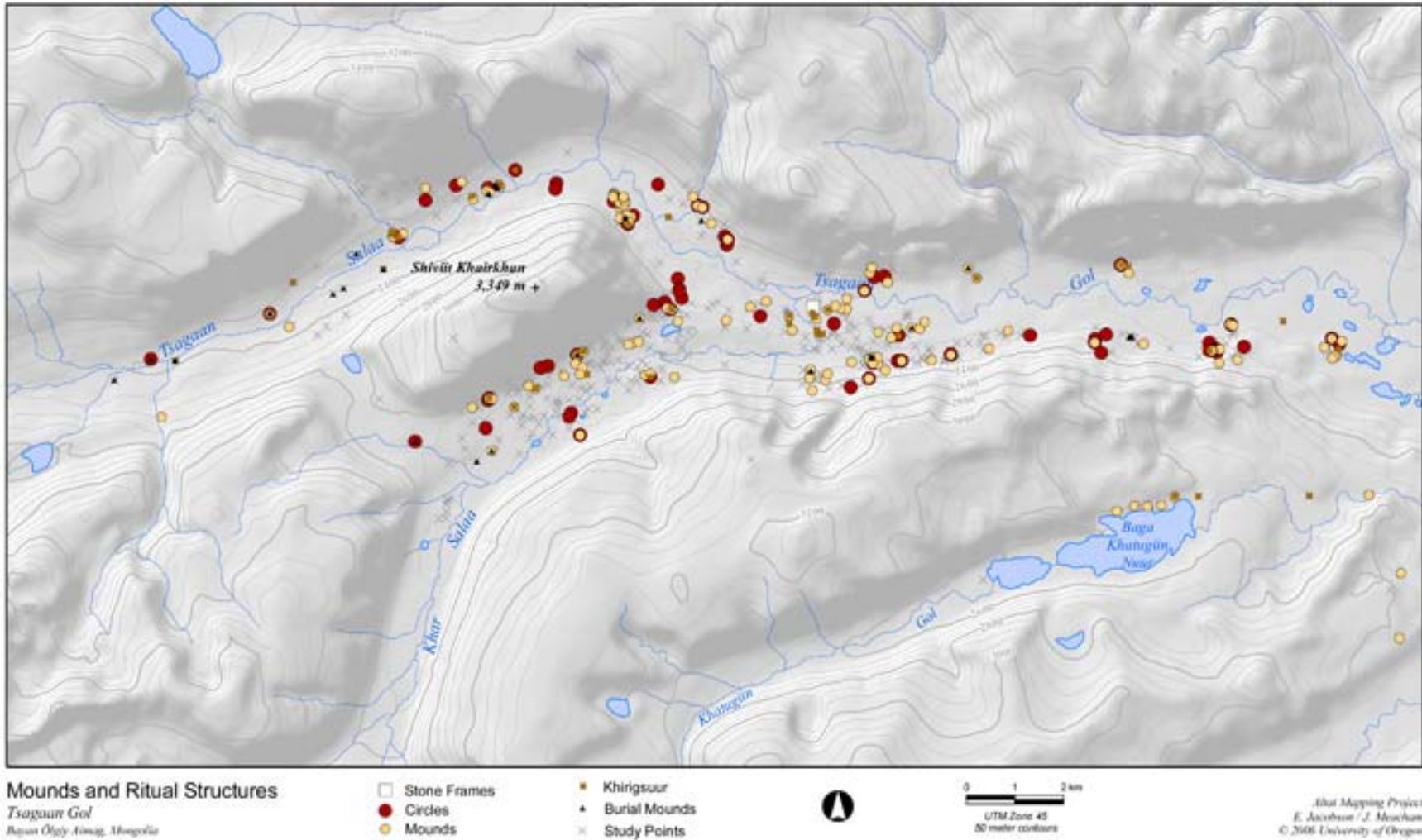
Map 5: Upper Tsagaan Gol: overall complex, perimeters and buffers



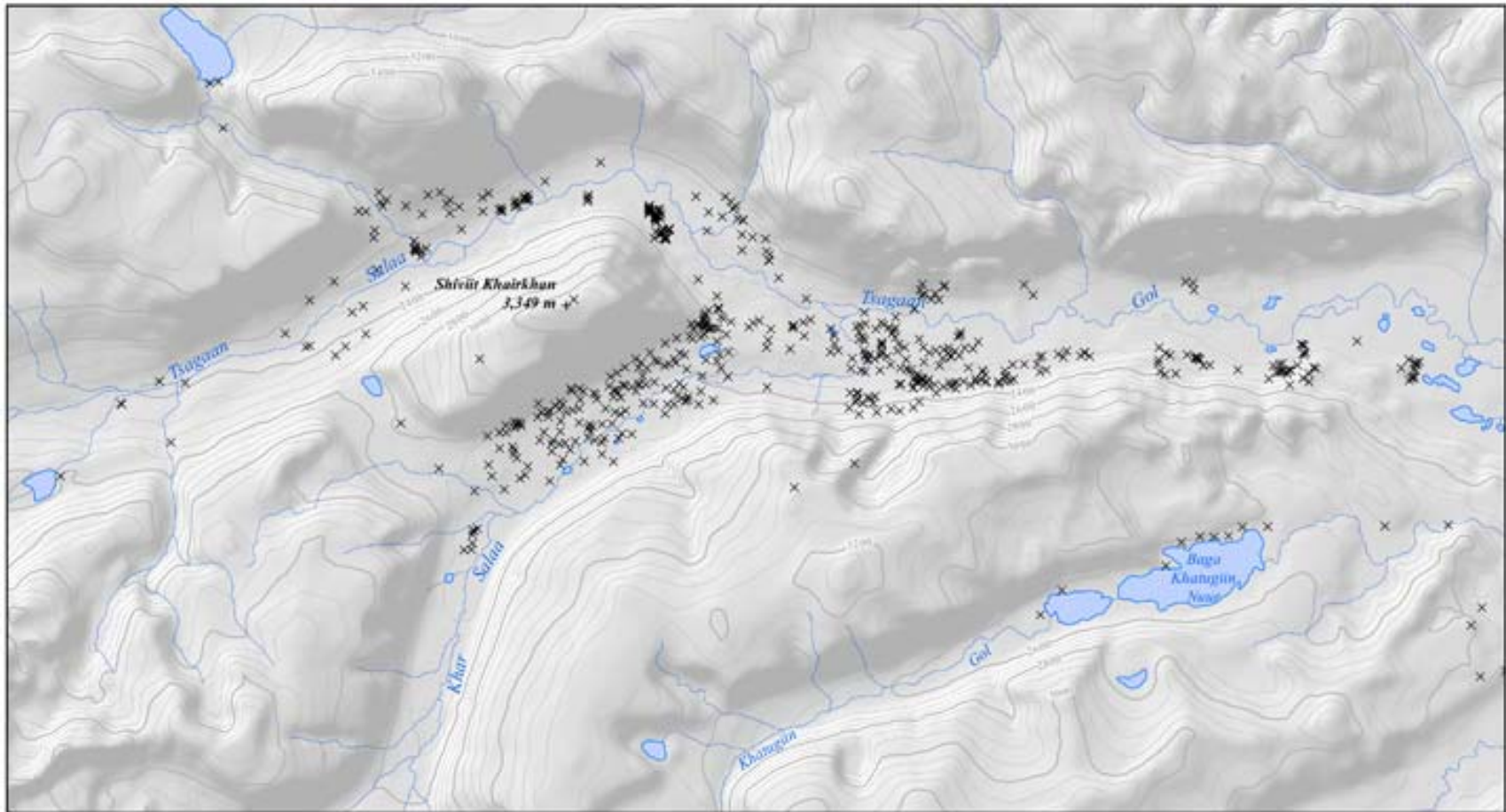
Map 6: Upper Tsagaan Gol: Complex sections and study points



Map 7: Upper Tsagaan Gol: Mounds and Ritual Structures



Map 8: Upper Tsagaan Gol: Study points



Study Points
Tsagaan Gol
Bayan Ölgii Aimag, Mongolia

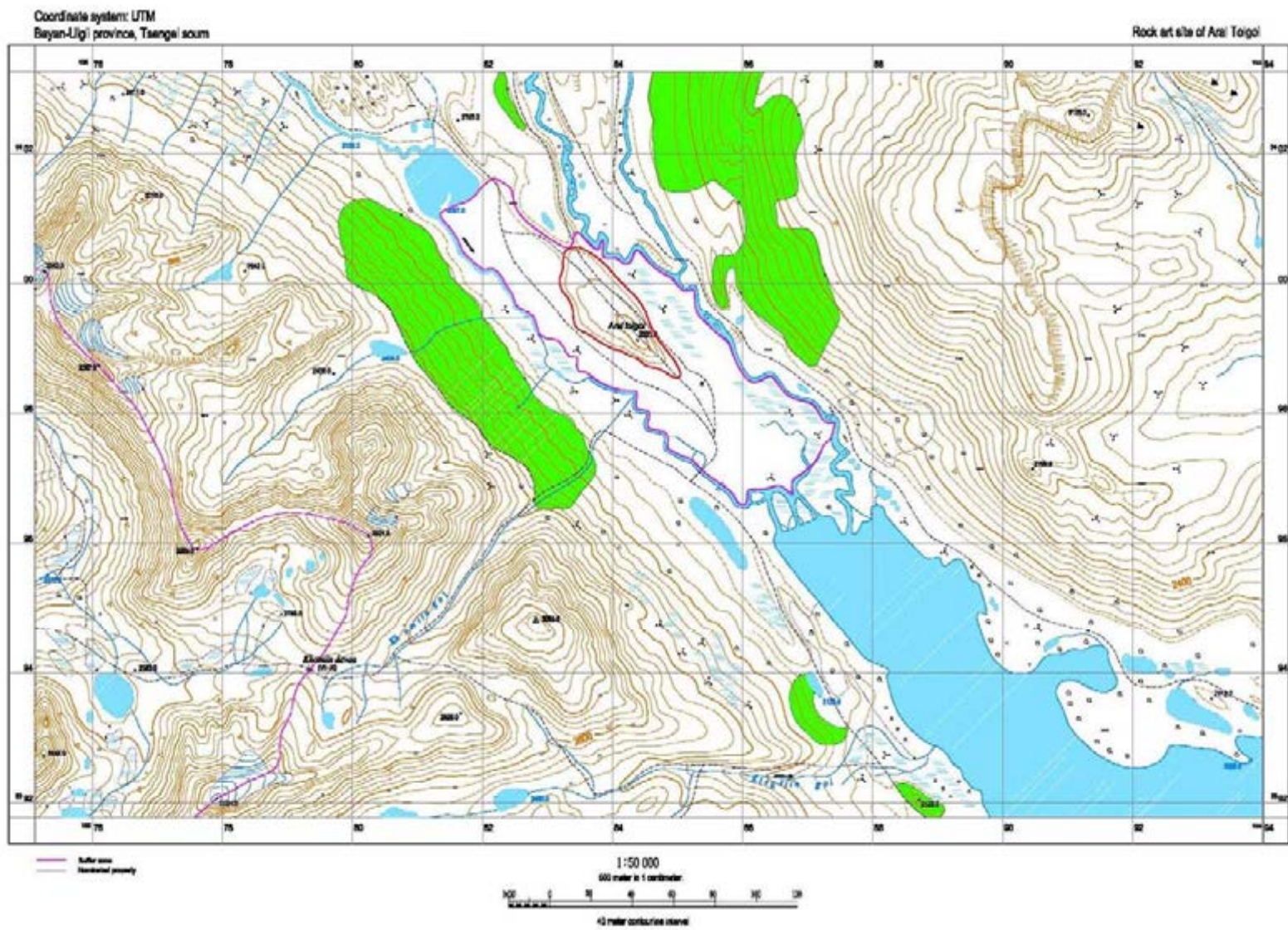
x Study Points



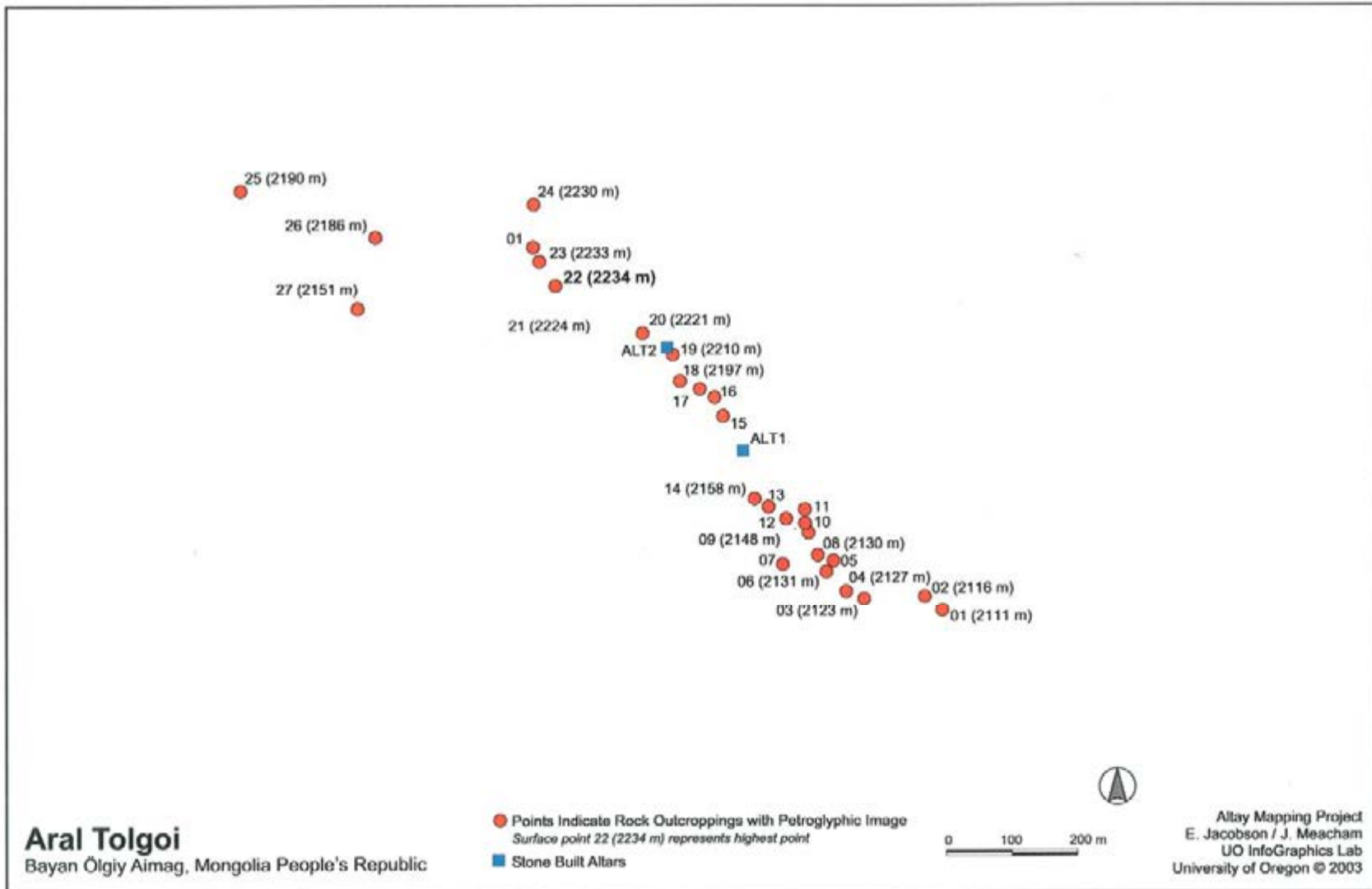
0 1 2 km
UTM Zone 45
50 meter contours

Atlas Mapping Project
E. Jacobson / J. Maucham
© 2006 University of Oregon

Map 9: Aral Tolgoi: overall, perimeters and buffers



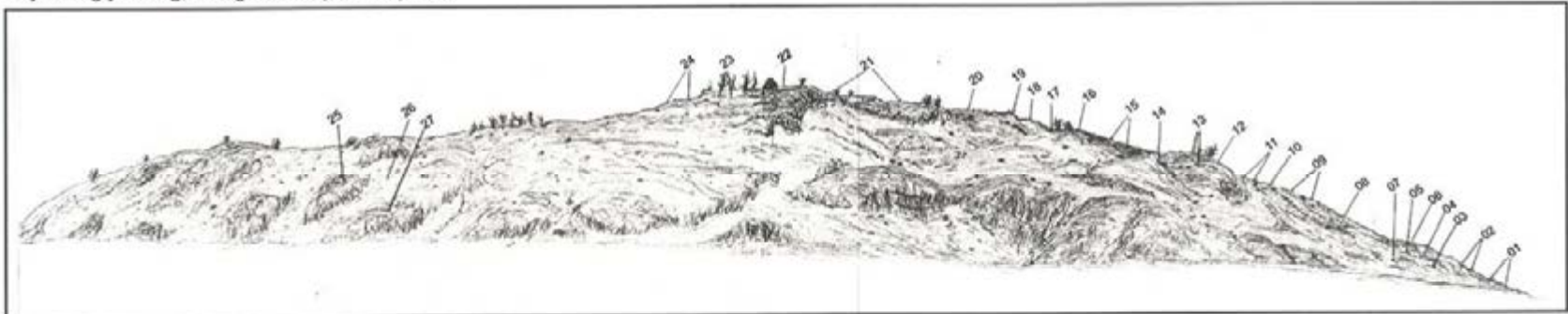
Map 10: Aral Tolgoi: Elevation and schema



Map 11: Aral Tolgoi: Drawing of hill, indicating the points of rock outcroppings with petroglyphic image

Aral Tolgoi

Bayan Ölgii Aimag, Mongolia People's Republic



Points Indicate Rock Outcroppings with Petroglyphic Image
Surface point 22 (2234 m) represents highest point

Allay Mapping Project
E. Jacobson / J. Meacham
UO InfoGraphics Lab
University of Oregon © 2003

ANNEX II



TS/BO-01: Aurochs and overlaid argali on cracked surface. Late Paleolithic-Early Mesolithic



TS/BO-02: Baga Oigor II: spirit figure, early Bronze Age



TS/BO-03: Baga Oigor III: Laden bulls panel



TS/BO-04: General view of Baga Oigor



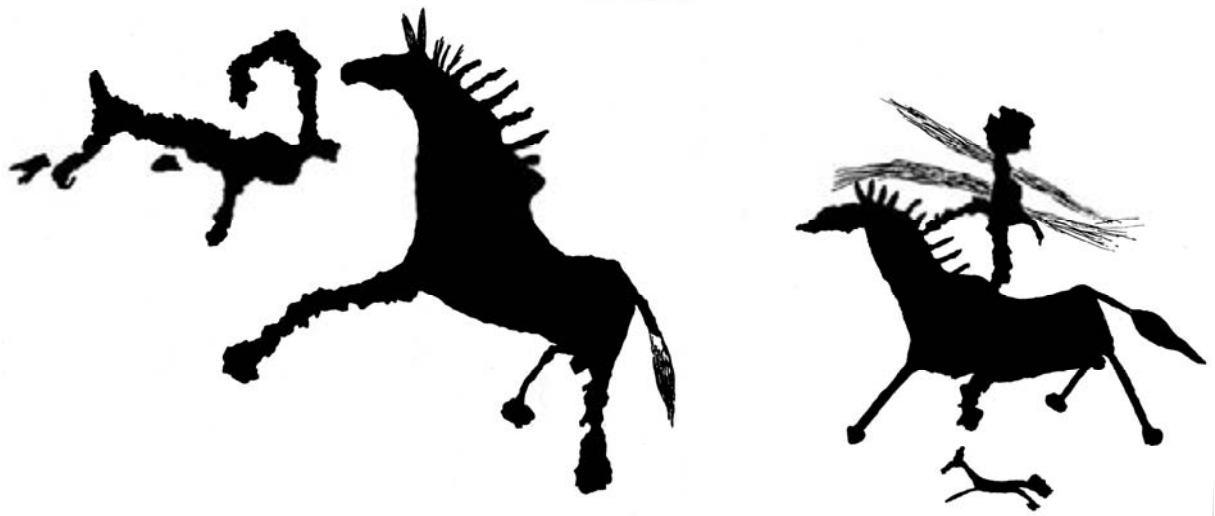
TS/BO-05: General view of Baga Oigor



TS/BO-06: Winter camp of local herder



TS/BO-07: Copy of the rock art image



TS/BO-08: Copy of the rock art image



TS/BO-09: Copy of the rock art image



TS/BO-10: Baga Oigor III: mammoth image, overlaid by modern graffiti



TS/BO-11: Tsagaan Salaa III: hunter with re-curved bow, gorytus. Late Bronze Age



TS/BO-12: Tsagaan Salaa: Man driving a cart. Bronze Age.



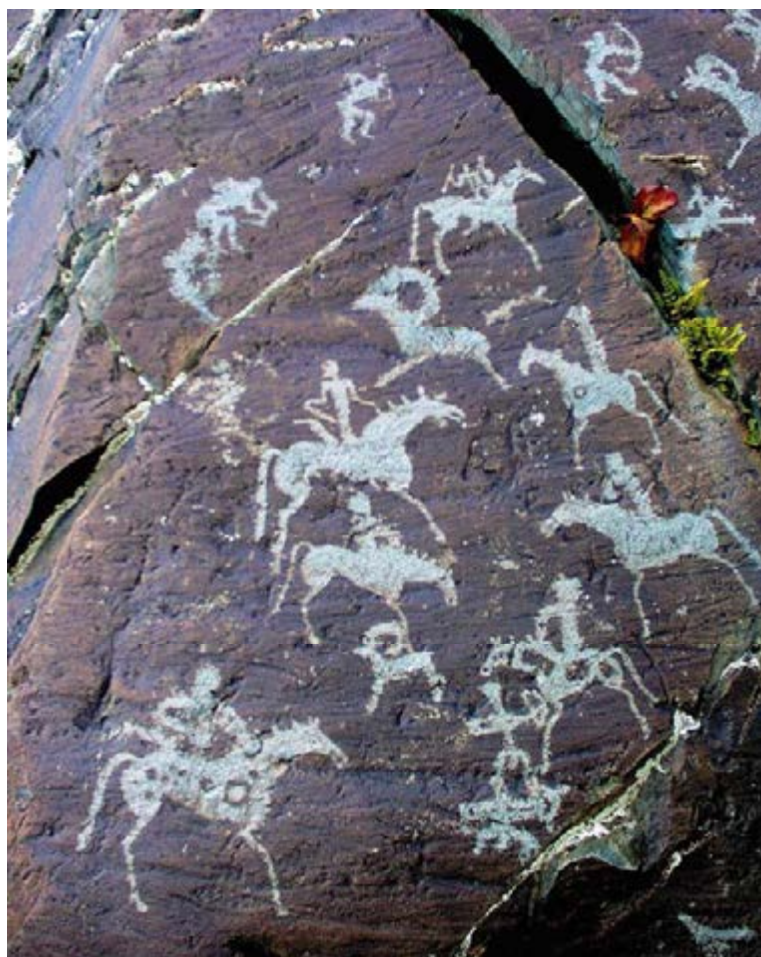
UTG-01: General view



UTG-02: Household scene: woman leading loaded bull, men hunting in front and behind. Late Bronze Age.



UTG-03: Hunting scene. Bronze Age



UTG-04: Hunting scene. Turkic period



UTG-05: Hunting scene-Wild goats, archers. Turkic period



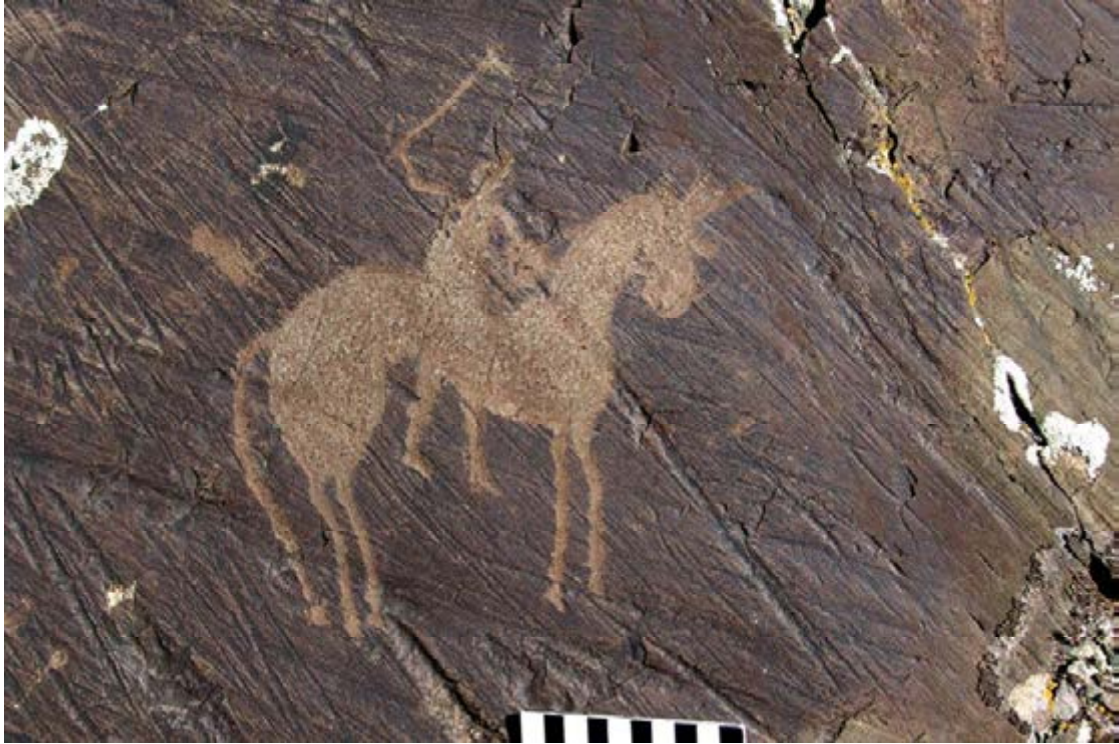
UTG-06: Research work on the rock arts



UTG-07: Large stylized cervid (Early Iron Age) pecked over scene of a deer hunt (Bronze Age)



UTG-08: Mound burial_Bronze Age



UTG-09: Rider with axe. Early Iron Age



UTG-10: Rider with banner & shield on horse led by figure with staff. Iron Age



UTG-11: Rider_Turkic period



UTG-12: Riders dueling with lances, archer. Turkic or Mongol period



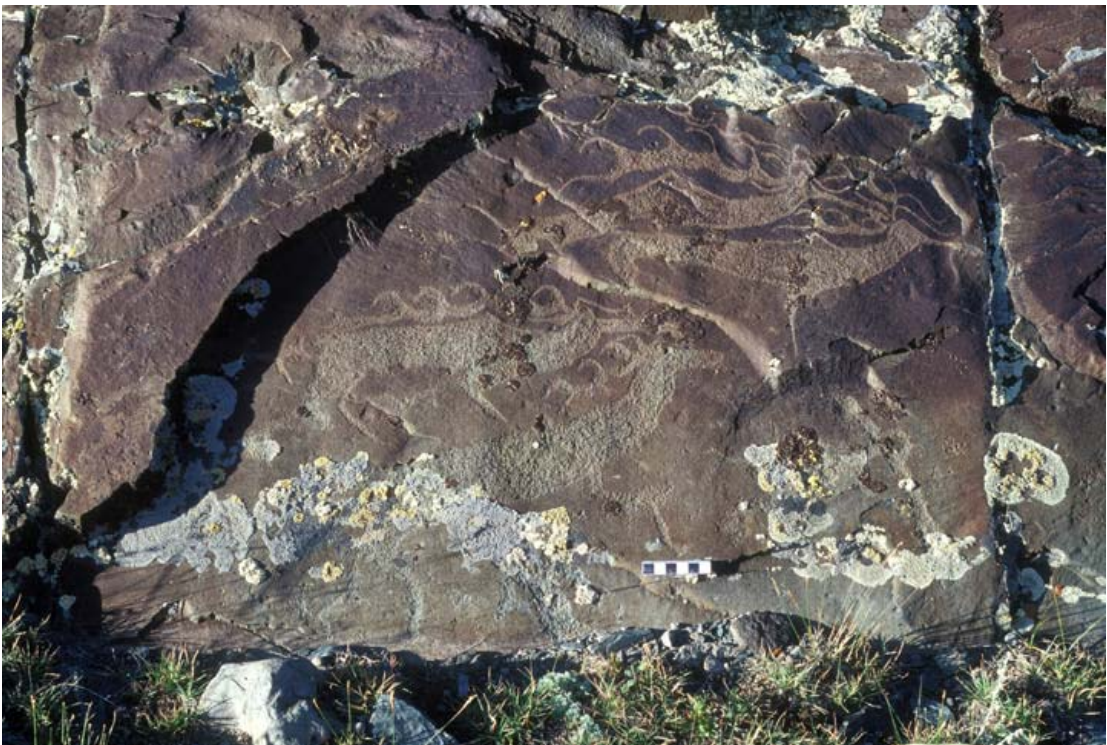
UTG-13: Stylized deer, Late Bronze-Early Iron Age



UTG-14: Wheeled vehicle, driver, and horses. Bronze Age



UTG-15: Wheeled vehicle, horses. Bronze Age



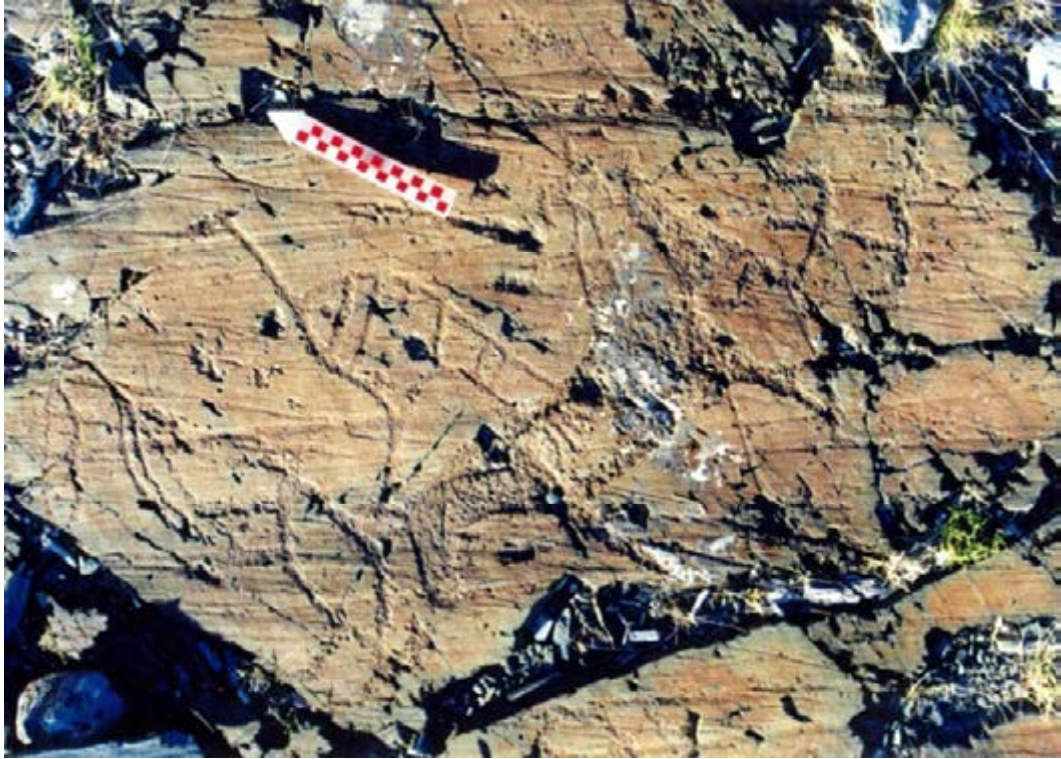
UTG-16: Panel with high stylized deer. Late Bronze Age



UTG-17: Rider on fast horse Turkic rider, galloping. Turkic period



UTG-18: Hunter on horseback, chasing deer. Late Bronze Age



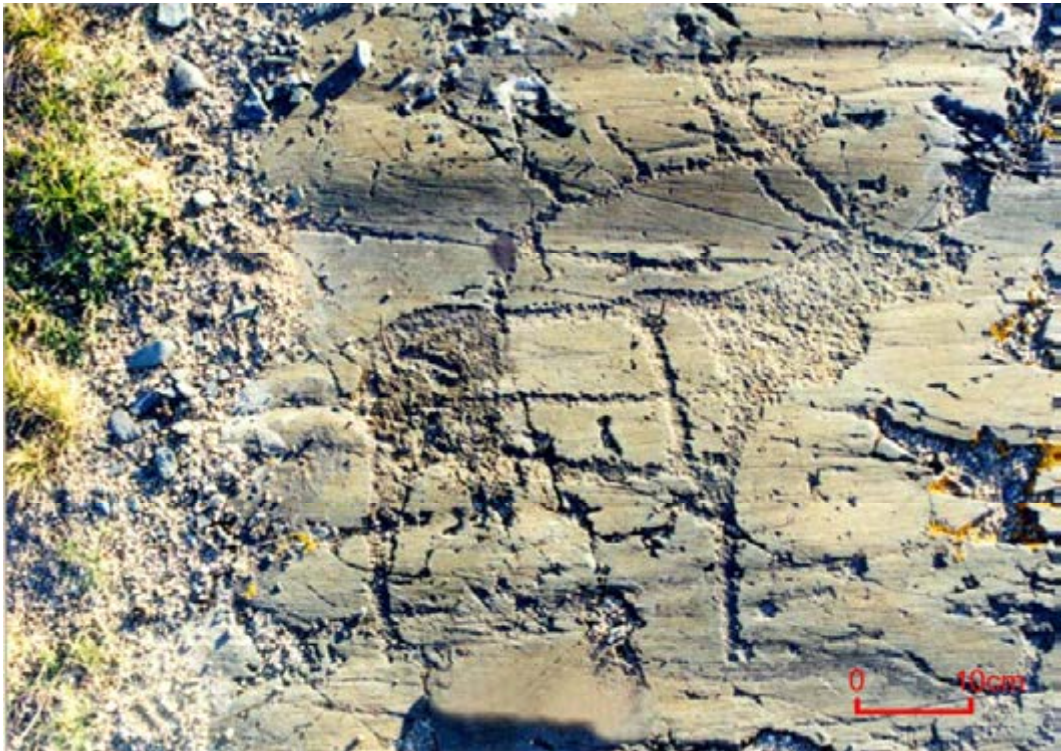
AT-01: Birds & hunting scene_pre-Bronze Age



AT-02: Birds_pre-Bronze Age



AT-03: Deer and Men image. Pre-Bronze Age



AT-04: Deer image. Pre-Bronze Age



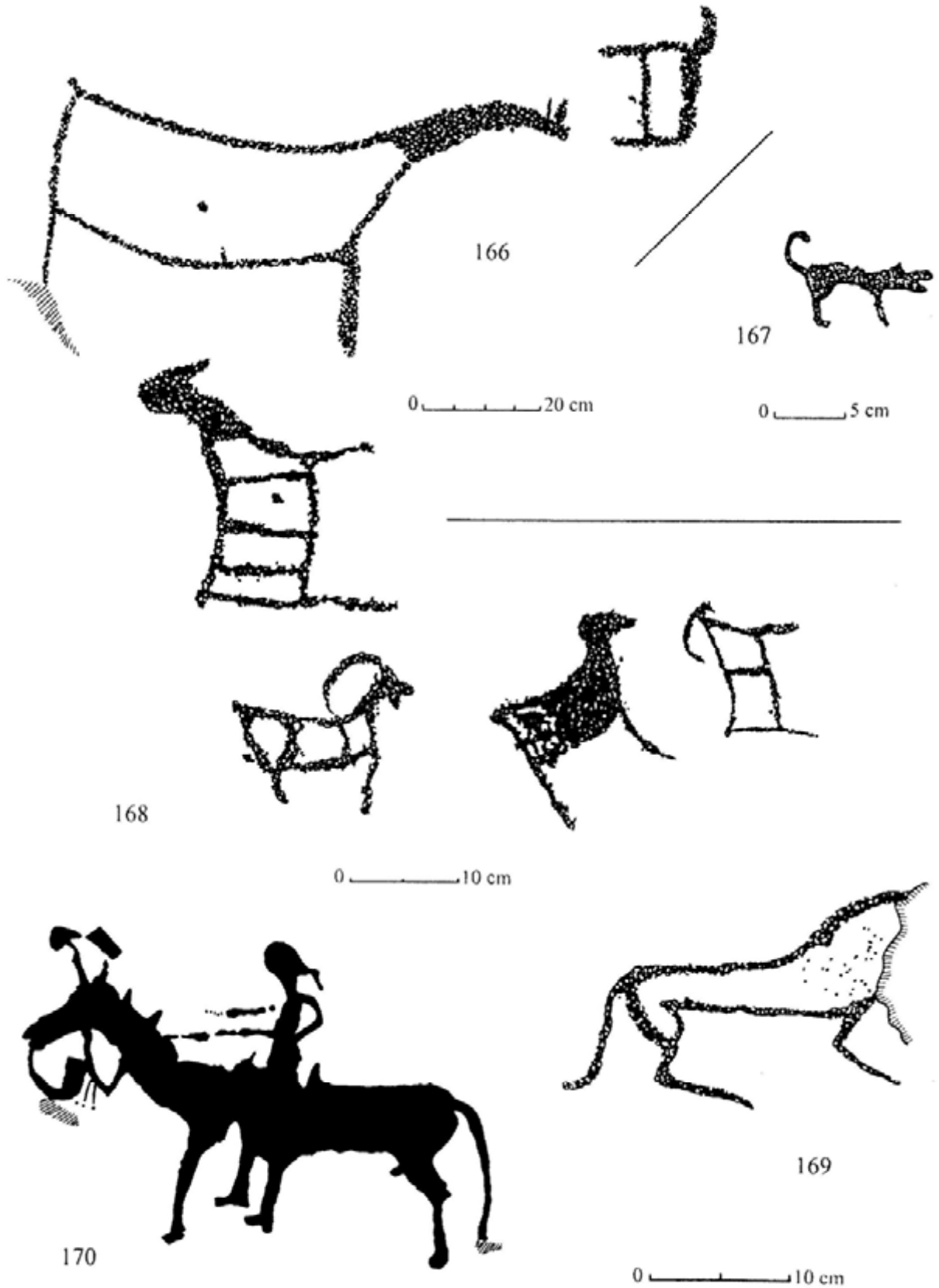
AT-05: Unfinished bull image. Pre-Bronze Age



AT-06: Bull. Pre-Bronze Age



AT-07: Deer & Bull. Pre-Bronze Age



AT-08: Copy of rock arts



AT-09: General view



AT-10: Hunting scene. Pre-Bronze Age



AT-11: Large elk. Pre-Bronze Age



AT-12: Man on the horse without saddle, Bronze Age



AT-13: Man. Pre-Bronze Age



AT-14: Wild goat. Pre-Bronze Age



AT-15: Wild sheep. Pre-Bronze Age

ANNEX III

The Law on Protecting Cultural Heritage of Mongolia

8 June 2001

Ulaanbaatar

I. General provisions

Article 1. Purpose of the Law

1.1 The purpose of the present Law is to regulate relations arising from collection, registration, preservation, protection, research, classification, evaluation, promotion, restoration, ownership, possession and usage of cultural heritage.

Article 2. Legislation on Protecting Cultural Heritage

2.1. The legislation on protecting cultural heritage shall consist of the Constitution, the present Law and other laws and regulations of Mongolia issued on conformity therewith.

2.2. Should the international agreements to which Mongolia is a party, stipulate differently from the present Law, the provisions of the international agreements shall be followed.

Article 3. Historical and Cultural Property

3.1. Irrespective of ownership, the following items of historical, cultural and scientific significance, which are capable to represent any particular part of historical period or time shall be regarded as the historical and cultural property:

- 1) Archaeological remains, such as ancient dwelling, lodge, relic-bearing strata of habitation of ancient people; sites of exploration, procession, and manufacture of natural resources, tombs, burial places, mounds, graves, worship sites, monuments, petrography, and inscriptions i.e.;
- 2) architectural sites such as the remnants of ancient city and settlements, sites of palace, castle and architectural complex of any period, church, temple, street, square, building and house;
- 3) physical items such as ethnic clothes, ornaments, household inventory, labour tool, musical instrument and other items related to traditional games, toys, rituals, religion and the way of life;
- 4) written work such as manuscript, handscript, printed or stenciled book and annals, folk literature and photos, films and video recordings;
- 5) all types of fine arts such as paintings, sculpture, metal and wood work, embroidery, applique, papier-mache and ceramics;
- 6) buildings, constructions and other tangible items related to the lives and activities of historical people;
- 7) Sites of great historical and cultural values, reserve complexes;
- 8) Fossils of ancient human, animals, micro-organisms and plants and fossil-bearing sites;

- 9) rare findings of minerals and precious stones;
- 10) other items of physical and intellectual value.

Article 4. Intangible cultural heritage

4.1. Following intellectual cultural values of great significance of history, ethnography, folk wisdom, rites and manners, design, techniques, schools, art and science with expression of nation's wisdom, talent, knowledge, skill and insights that have been transmitted intangibly fall under the Intangible cultural heritage. Intangible cultural heritage comprises following subparagraphs:

- 1) Mother language, script and culture of their sphere;
- 2) Folklore;
- 3) Folk long and short songs, epics and the manners and techniques to sing and chant them;
- 4) Calls and utterances regarding labors, manners and customs;
- 5) Art correlated organ of speech such as, khuumei, whistling, palate clapping, and manners and techniques to express them;
- 6) Manners and techniques of making, playing, and noting the traditional music instruments;
- 7) Traditional folk dances, bii biyelgee (the upper-body dance);
- 8) Outstanding school and techniques of the contortionism and circus performances;
- 9) Traditional craftsmanship school and techniques;
- 10) Traditions of folk customs and rites;
- 11) Traditions of folk wisdom and knowledge;
- 12) Traditions of folk symbolism ;

Article 5. Classification and Evaluation of Items of Historical and Cultural Value

5.1. The items of historical and cultural value shall be classified into unique, valuable and regular items depending upon their historical, cultural and scientific value and significance.

5.2. The classification and evaluation of historical and cultural items shall be made by a professional council of the State central administration in charge of cultural and scientific affairs based on the proposal of related museums and research institutes.

5.3. The composition and the work procedure of the professional council for classification and evaluation of historical and cultural items shall be determined jointly by the State central administrations in charge of scientific and cultural affairs.

5.4. The list, and changes therein, of unique and valuable historical and cultural items shall be approved by the Government as proposed by the State central administration in charge of cultural affairs.

5.5. The list of bearers of the items of historical and cultural value and Intangible cultural heritage and its amendments shall be approved by member of the Government in charge of cultural and scientific affairs as proposed by the professional council.

5.6. The state central administration in charge of cultural and scientific affairs shall be responsible for issues related to having included, in accordance with the established procedure, some historical and cultural items of unique value in the world cultural heritage.

II. State registration and information fund for items of historical and cultural value

Article 6. System of State Registration and Information Fund for Items of Historical and Cultural Value

6.1. The system of the state registration and information fund for items of historical and cultural value (hereinafter referred to as the Registration and information fund) shall be follows:

- 1) the Registration and information fund at museums, archives, libraries, treasury funds, scientific and educational organizations;
- 2) the Registration and information fund at sums, aimags and the capital city;
- 3) the State Uniform Registration and information fund.

Article 7. Structure of Registration and Information Fund

7.1. The Registration and information fund shall consist of the principal parts such as description of cultural heritage, brief reports on research and development work, photos, slides, audio and video tape and brief report on restoration work.

7.2. The Registration and information fund shall have the full information on classified, evaluated, preserved and protected items of historical and cultural value as well as all information necessary for restoration thereof, should they be destroyed or damaged.

Article 8. Registration of Items of Historical and Cultural Value

8.1. The State-owned items of historical and cultural value shall be registered with the Registration and information fund.

8.2. The private-owned items of historical and cultural value shall be registered with the Registration and information fund as the request of owner.

8.3. The registration of items of historical and cultural value shall be kept confidential as the request of owner.

8.4. The Governor of the respective level shall be responsible for the registration of items of historical and cultural value with the Registration and information fund.

8.5. The procedure of compilation of Registration and information fund and of registration therewith shall be determined by a member of the Government in charge of cultural and scientific affairs.

8.6. The certification of the items of outstanding historical and cultural value and certification of person who bears and transmitted the Intangible cultural heritage will be issued to the bearers and transmitters within 30 days from the date of approval of the Lists which were stated at the article 5.4 and 5.5 of the present Law.

8.7. The State central administration in charge of cultural and scientific affairs shall be responsible for counting the items of historical and cultural value registered with the Registration and information fund once in every four years. The procedure for such counting shall be determined by the Government.

8.8. The governors of aimag and capital city shall exercise the control over the work of registration and information funds at museums, archives and libraries on their respective territories, and shall submit studies, reports and information to the appropriate authority in accordance with the established procedure.

8.8. Unless the Law stipulates otherwise, a person who has traced out items of historical and cultural value, shall inform the Governor of the local sum or district of such findings within seven days.

8.10. The regulation of registration and classification of the items related to the Mongolian history and culture which was returned by the foreign institutions and citizens and stateless person shall be determined by a member of the Government in charge of cultural and scientific affairs.

8.11. The Governor of the sum and district shall be responsible for informing the case of non-permission excavation and exploration at their territories to the State central administration in charge of cultural and scientific affairs within seven days.

III. Collection, research, promotion, usage of items of cultural and historical value

Article 9. Collection and Research of Items of Historical and Cultural Value

9.1. The collection and research of items of historical and cultural value shall be conducted by professional scientific-research organizations or individuals in accordance with the established procedure.

9.2. The procedure for identification and research of Intangible cultural heritage shall be determined by the professional research and development agency and citizen according to the related regulation.

9.3. The relevant scientific-research organization may carry out, on a contractual basis, a research of the State-owned items of unique historical and cultural value with the permission and authorization of the State central administrations in charge of scientific and cultural affairs.

9.4. Professional scientific-research organizations and individuals shall have the priority right to carry out on their own a further detailed study of items of historical and cultural value found during the exploration and research work thereof.

9.5. A brief report of research work together with the items of historical and cultural value shall be kept by the relevant professional scientific-research organization.

9.6. A brief report on research work of the items of historical and cultural value shall be kept at the sum or district registration and information fund.

9.7. The State central administrations in charge of scientific and cultural affairs shall jointly issue the unified information on research work of items of historical and cultural value annually and keep it at the State Uniform Registration and information fund.

Article 10. Promotion and Usage of Items of Historical and Cultural Value

10.1. The State-owned items of historical and cultural value shall be used only for the purposes of public display, promotion, research and education.

10.2. While using the items of historical and cultural value, it shall be prohibited to damage, destroy or to introduce changes thereto.

10.3. It shall be prohibited to use the state-owned items of historical and cultural value for its original purpose. This provision shall not apply to buildings and constructions of historical and cultural value.

10.4. The items of historical and cultural value displayed in museums and libraries and necessary to carry out religious activities shall be used in accordance with the Law on the relationship of the State and church. The decision on such usage shall be made by the Government upon the proposal made by the state central administration in charge of cultural affairs.

10.5. The procedure for copying, filming, video recording, taking photos, printing post stamps and cards, and modeling souvenirs from the items of historical and cultural value shall be determined by the Government.

10.6. The State central administration in charge of cultural affairs or the authorized competent cultural organization may, on the basis of the contract with the owner, use items of historical and cultural value registered with the Registration and information fund for the purpose of temporary display on domestic and foreign exhibitions. The contract shall contain the basic conditions of such usage such as the term, cost insurance, payment to the owner or possessor, liability of users, guarantee for protection, etc.

IV. Archaeological exploration, excavation and survey

Article 11. Basic Guidelines of Archaeological Work and Authorized Organization

11.1. The basic guidelines of archaeological exploration, excavation and survey shall be scientific research, rescue and preservation.

11.2. The archaeological exploration, excavation and survey shall be carried out only by professional scientific-research organizations.

11.3. The State scientific-research organization engaged specifically in archaeological survey shall issue the license for conducting the archaeological exploration, excavation and survey. Such organization shall be determined by the State central administration in charge of scientific affairs.

11.4. While carrying out the archaeological exploration, excavation and research work, the scientific-research organization shall inform the governor of a local sum or district of the purpose and significance of such archaeological exploration, excavation or survey.

11.5. On the basis of the license stipulated in the paragraph 3 of the present Article the owner or possessor of land shall allot the land to the scientific-research organization for its archaeological exploration, excavation and survey work.

11.6. A detailed report on archaeological survey and research shall be executed in two copies: one for the license issuing organization; the other to be kept by the scientific-research organization which carried out the excavation work.

11.7. Should the archaeological exploration, excavation and survey be carried out with the cooperation of foreign scientific-research organizations or scholars, it may be done so in accordance with the appropriate decision of the Government based on the proposal of the scientific-research organization specifically engaged in archaeological survey, provided that such cooperation is not prohibited by the Mongolian legislation.

Article 12. Archaeological excavation

12.1. Archaeological excavations shall be carried out in accordance with the procedure established jointly by the State central administrations in charge of scientific affairs and State central administration in charge of cultural affairs.

12.2. While carrying out the excavation work, it shall be prohibited to damage the rare geological outcrop, the specific mineralized structure, valuable paleontological findings, water source, spring and spar, wild natural structure and its vulnerable parts.

12.3. On the completion of excavation work, the sites of archaeological excavations shall be freed from danger and restored, if necessary, and shall be surrendered to the Governor of a local sum or district with such notification and a brief report on archaeological excavations.

Article 13. Archaeological findings

13.1. The land and its sub-soil where the items of historical, scientific and cultural value are located shall be under the State protection, and archaeological findings shall be the State property.

13.2. Archaeological findings recovered during the exploration, excavation and survey shall be registered with the Registration and information fund of aimag or capital city within 1 year from the date of discovery.

13.3. Should a further detailed study of archaeological findings be determined as necessary, such findings together with the appropriate explanations shall be given to the museum of a local aimag, capital city or sum.

13.4. Should the findings, after a detailed study and research:

- 1) be determined as the items of unique historical and cultural value, they shall be transferred to the treasury fund or the State museum;
- 2) be determined as valuable or regular historical and cultural items, they shall be transferred to the fund of the scientific-research organization which carried out such study, or to the national, aimag, city or sum museums which shall meet necessary requirements for keeping such findings.

V. Rights and obligations of owners and possessors of items of historical and cultural value

Article 14. Rights and Obligations of Owners of Items of Historical and Cultural Value

14.1. The owners of items of historical and cultural value shall have the following rights and obligations:

- 1) have the items of historical and cultural value registered with the Registration and information fund of a local sum or district;
- 2) inform in advance the Registration and information fund of a local sum or district in the event of transferring their rights of ownership over the items of unique

- historical and cultural value to others through selling, giving away as a gift or inheritance;
- 3) obtain a license in accordance with the procedure referred to in Article 18 of the present Law in the event of taking out the country the items of historical and cultural value;
 - 4) use the items of historical and cultural value for its original purpose;
 - 5) display the items of historical and cultural value registered with the Registration and information fund, to the public, advertise or exhibit and make a profit therefrom;
 - 6) receive a financial support from the State in accordance with the established procedure to preserve and protect the items of unique historical and cultural value or valuable items, or to restore them, if necessary;
 - 7) in the event of loss of the items of historical and cultural value registered with the Registration and information fund, inform the Governor and police department of a local sum or district immediately, or should this be impossible within 14 days from the moment of such loss was discovered.

Article 15. Rights and Obligations of Possessors of Items of Historical and Cultural Value

15.1. The possessor of the items of historical and cultural value shall have the following rights and obligations:

- 1) rights and obligations as stipulated in the paragraph 1, 3, 7 of the Article 13 of the present Law;
- 2) fully protect and preserve the items of historical and cultural value;
- 3) display the items of historical and cultural value registered with the Registration and information fund, in accordance with the agreement with its owners, to the public, advertise, exhibit and make a profit therefrom;
- 4) exchange, buy the items of historical and cultural value in accordance with the established procedure taking into account the category of the legal protection;
- 5) collect and study the items of historical and cultural value;
- 6) refrain from transferring the rights of possession and use of the items of historical and cultural value to others without the owners consent.

15.2. The procedure for sale and exchange of items of historical and cultural value shall be determined by the State central administration in charge of cultural affairs.

Article 16. Limitation of Rights to Own items of Historical and Cultural Value

16.1. It shall be prohibited to transfer the owner's rights to the items of unique historical and cultural value or valuable items through means of selling, giving away as a gift or inheritance to foreign citizens and stateless persons.

16.2. Should the owner of items of historical and cultural value registered with the Registration and information fund break, damage or use it without due care, the

ownership rights shall be transferred to the State in accordance with the terms, conditions and procedure stipulated in the Civil Code.

16.3. Should the ownership right to the items of unique historical and cultural value under the private ownership be transferred to others through means of selling, presenting or inheriting, the State shall have the priority right to buy it with or without the consent of a owner, if necessary. The price to be paid for the items of unique historical and cultural value shall be mutually determined, but in the event of disagreement, the dispute shall be resolved by court.

VI. System for protection of items of historical and cultural value

Article 17. Protection and Preservation of Items of Historical and Cultural Value

17.1. The State central administration in charge of cultural affairs, the respective local authority and the governors of local administrative-territorial units shall exercise a control over the protection and preservation of items of historical and cultural value.

17.2. The principle of preserving the items of historical and cultural value at their respective home place shall be adhered to.

17.3. The legal protection items of historical and cultural value shall be categorized into national local and organization's. The list of items of historical and cultural value and the procedure for its protection at the national, local and organization's level shall be determined by the Government, based on the proposal of the State central administration in charge of cultural affairs.

17.4. The state-owned precious metals, the originals of unique items made of precious stones shall be preserved at the treasury fund by the decision of the State central administration in charge of cultural affairs.

17.5. The copies of unique items kept at the treasury fund shall be preserved at the national, or respective aimag, capital city and sum museums, and the originals of other unique items shall be preserved at the national museum.

17.6. The Government may set up 0.1-3 kilometers of protection zone around the immovable items of historical and cultural value such as the remnants of ancient city and settlement, buildings and constructions and compounds in order to provide the integrity and safety thereof. It shall be prohibited to erect buildings and construction and carry out other activity which might damage the items of historical and cultural value in the protection zone.

17.7. The territory and its sub-soil where the items of historical and cultural value and archaeological findings are located, may be included in the protection zone.

17.8. The State central administration in charge of cultural affairs, the governors of local administrative-territorial units shall take measures on rescuing, preserving and restoring the endangered items of historical and cultural value, using the financial resources of central and local budgets, funds and donations.

17.9. Prior to allotment of the site for constructing a city, settlement and buildings, professional historical and archaeological organizations shall carry out exploration and issue a permission. The building contractor shall be responsible for necessary expenses for conducting the exploration, survey and for rescue and protection of the recovered items of historical and cultural value.

17.10. The owner of the items of unique historical and cultural value, and valuable items shall be responsible for ensuring a normal condition for protection and preservation of his/her property. Should such conditions be impossible to ensure, the owner may deposit his/her property at the treasury fund or national museums. In that case, the property shall be insured by the state in accordance with a contract with the owner.

17.11. Should citizens discover any situation which cause or might cause a danger to items of historical and cultural value, he/she shall be obliged to inform immediately the relevant organizations or officials, and, if possible, to take the appropriate measures for protection thereof.

17.12. Should items of historical and cultural value be discovered during the use of a sub-soil, the user shall terminate all his/her work and inform immediately the governor of the relevant sums or district and the police department of such discovery.

17.13. It shall be prohibited to move the immovable items of historical and cultural value without a joint authorization issued by the State central administrations in charge of scientific and cultural affairs.

Article 18. Transportation of Items of Historical and Cultural Value

18.1. For the purposes of use and protection, items of historical and cultural value may be transported provided that the security of such transportation is ensured.

18.2. The Government shall determine the procedure for the transportation of items of historical and cultural value.

Article 19. Export of Items of Historical and Cultural Value

19.1. The state-owned items of unique historical and cultural value may be taken out the country with the permission of the Government only of the purpose of display, promotion and restoration thereof provided that conditions for storage and security thereof shall be ensured.

19.2. The privately owned items of unique historical and cultural value may be taken out of the country with the permission of the State central administration in charge of cultural affairs and prior notification of the customs authorities provided that these items shall be used for its original purpose by the owner only and returned back to the country.

19.3. The valuable historical and cultural items may be taken out the country with the permission of the State central administration in charge of cultural affairs for a period of no more than two years, provided that they shall be returned back to the country. The regular historical and cultural items may be taken out the country with the permission of the State central administration in charge of cultural affairs.

19.4. Should the unique and valuable historical and cultural items or illegally exported historical and cultural items taken out the country in accordance with provisions 2 and 3 of this Article, be lost, they shall be declared as a property of Mongolia, and the State central administration in charge of cultural affairs and the police shall arrange the work for returning them to the country in accordance with the procedure established by law.

19.5. The items of historical and cultural value transferred to the state ownership the decision of the court and state-owned items of historical and cultural value confiscated by the customs authorities during export thereof shall be transferred to the state central administration in charge of cultural affairs. State central administration in charge of cultural affairs shall classify these items and transfer it to the fund of appropriate organizations.

Article 20. Restoration of Items of Historical and Cultural Value

20.1. The restoration of items of historical and cultural value shall be carried out on a contractual basis by the professional institutions, individuals authorized by the state central administration in charge of cultural affairs in accordance with the design and project, drafted on the basis of research and testwork.

20.2. The restoration of items of historical and cultural value shall be financed from the central and local budget, funds, investments, donations contributed by the institutions and individuals, and revenues generated by the activities of the owners of items of historical and cultural value.

Article 21. Protection Fund for Items of Historical and Cultural Value

21.1. The State central administration in charge of cultural affairs shall have a fund to accumulate the financial resources necessary for the preservation, protection. Restoration, research and promotion of items of historical and cultural value.

21.2. The Government shall approve the Charter of the fund stipulated in the paragraph 1 of the present Article.

VII. Others

Article 22. Incentives for the citizens and organizations who are actively engaged in the preservation of cultural heritage

22.1. The State central administration incentives of cultural affairs shall organize the activities to provide incentives to and glorify individuals and organizations for substantial contributions to collection, preservation of items of historical and cultural value, to enrichment of the fund of museum, archive and library, and to search for lost or illegally exported items of historical and cultural value.

22.2. The procedure for glorifying and providing incentives to the organizations and individuals shall be determined by the Government.

Article 22¹. Monitoring of cultural heritage

22¹.1. The monitoring of cultural heritage shall be implemented by the state inspection implementing agency, state inspector and the governors of all level.

22¹.2. State inspection implementing agency shall be responsible of control for the implementation of law, regulation and standards of cultural heritage preservation.

22¹.3. The environmental inspector shall be responsible of control for the protection and preservation of historical and cultural immovable heritage which is stated at the article 3.1.1, 3.1.2 and 3.1.8 of the present Law.

Article 23. Liabilities

23.1. A guilty person, who has breached the following provisions of the present Law shall be liable for administrative penalty unless he/she is held for criminal responsibility:

- 1) for breach of the article 8.1, 8.9, 11.4, 12.2, 12.3, 14.2, 15.2, 17.13 and 21.1 of the present Law, the fine shall be from 10 to 20 thousand tugrugs for citizens, 30-60 thousand tugrugs for civil servants and 100-250 thousand tugrugs for institutions.
- 2) for breach of the article 9.4, 9.6, 10.3, 13.2 and 13.4 of the present Law, the fine shall be from 20 to 50 thousand tugrugs for citizens, 30-60 thousand tugrugs for civil servants and 80-100 thousand tugrugs for institutions.
- 3) for breach of the procedure for utilization, preservation, protection and transportation of the items of historical and cultural value, the fine shall be from 20 to 50 thousand tugrugs for citizens, 30-60 thousand tugrugs for civil servants and 100-150 thousand tugrugs for institutions.
- 4) for breach of the article 17.7 and 17.10, the fine shall be from 200 to 250 thousand tugrugs and

23.2. The administrative penalty specified in the paragraph 1 of the present Article shall be imposed by the following local officials:

- 1) court shall exercise the provisions of the articles of 8.11 and 20.1.
- 2) State natural inspector shall the provisions of the articles of 11.4, 12.2, 12.3, 17.7, 17.10 and 17.13.
- 3) the governor of sums and districts and state cultural inspector shall exercise the provisions of the articles of 8.1, 8.9, 9.4, 9.6, 11.4, 12.3, 13.2, 13.4, 14.2, 15.2, 16.3, 17.7, 17.10, 17.13, 20.1, 21.1, 23.1.1 and 23.1.3.
- 4) State cultural inspector shall exercise the the provision of the article 23.1.7.

ANNEX IV



Mongolian National Commission for UNESCO
Institute of Archaeology, Mongolian Academy of Sciences
Ministry of Education, Culture and Science of Mongolia



Management plan
for
The Petroglyphic Complexes of the Mongolian Altai

2010
Mongolia

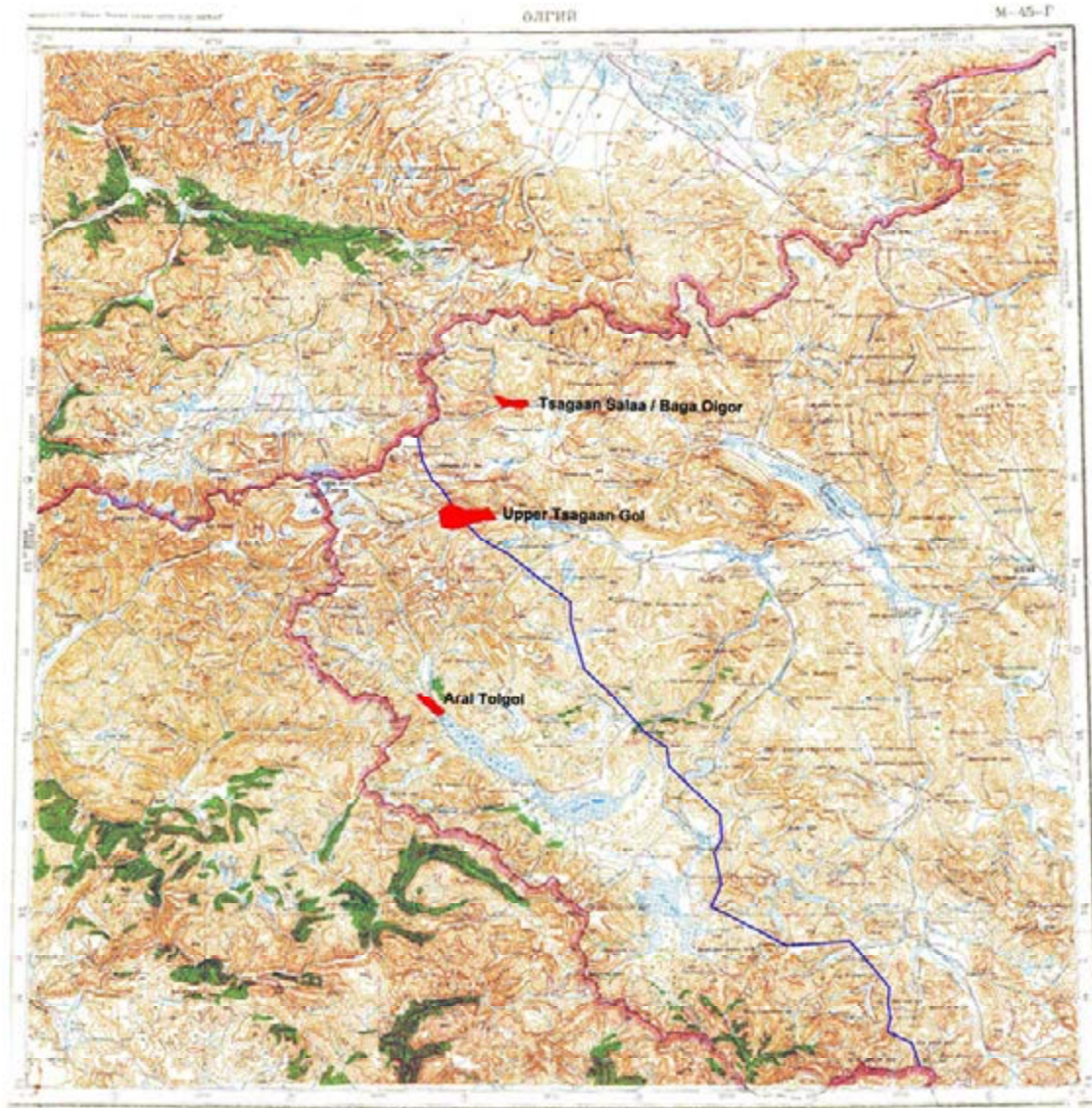
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I. Introduction

1.1 Location

Ulaankhus soum and Tsengel soum, Bayan-Ulgii province, Mongolia

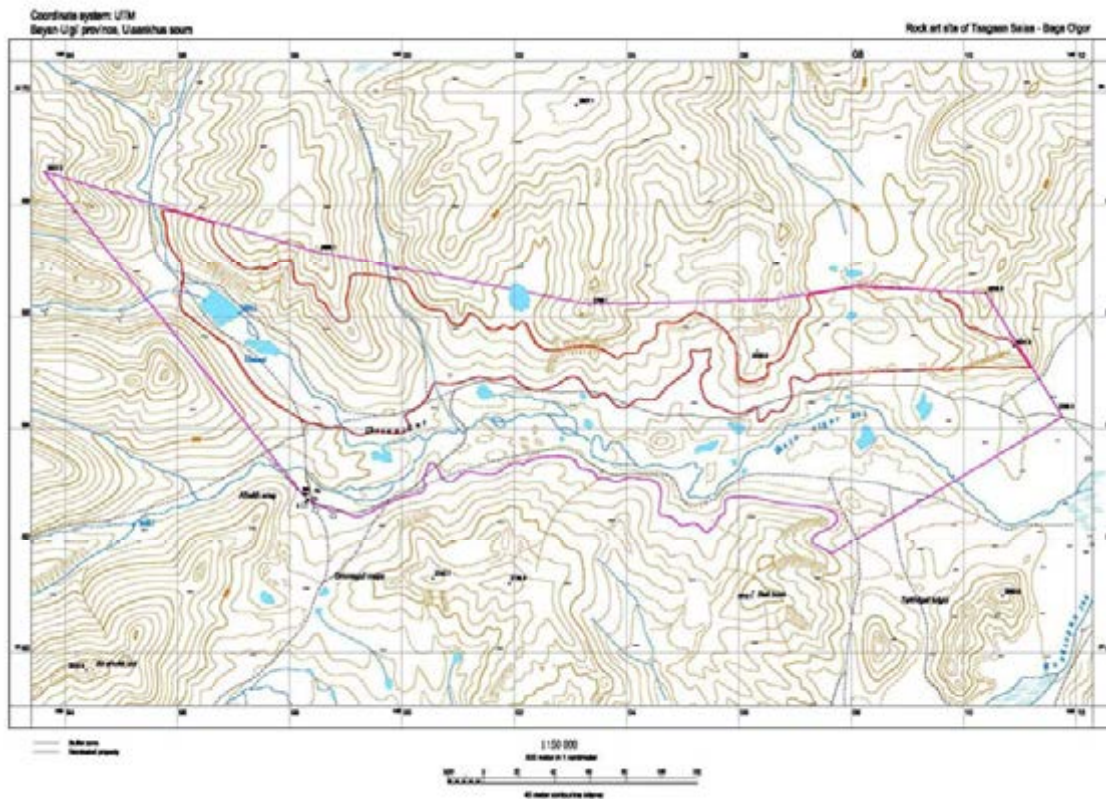


Map 1: Location of the three sites within the territory of Mongolia

1.2 Geographical coordinates and area of nominated properties

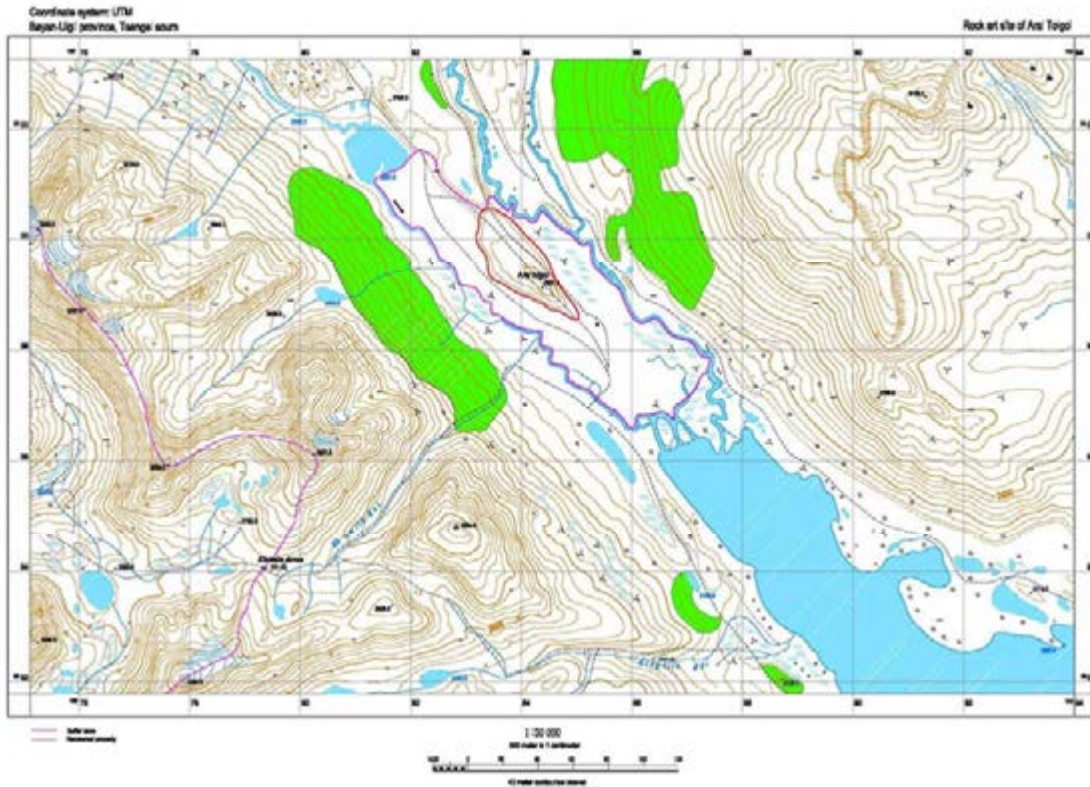
Property name	Region	Coordinates	Area/ha	Buffer/ha	Total/ha
Tsagaan Salaa/Baga Oigor (BO I)	Ulaankhus soum	N 49° 20' 02.28" E 88° 23' 43.38"	2,100	3,600	5,700
Upper Tsagaan Gol (SK0903)	Tsengel soum	N 49° 05' 41.76" E 88° 15' 19.74"	9,000	6,300	15,300
Aral Tolgoi (AT0905)	Tsengel soum	N 48° 44' 20.22" E 88° 08' 58.74"	200	800	1,000

Map 2: Rock art site of Tsagaan Salaa/BagaOigor





Map 3: Rock art site of Upper Tsagaan Gol



Map 4: Rock art site of Aral Tolgoi

1.3 Description



General view of Shiveet Khairkhan Mountain

Located in the Altai Mountains of western Mongolia, the three properties included in this Serial Nomination—Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol, and Aral Tolgoi—are appropriately joined together as extraordinary repositories of petroglyphic rock art. As a group, they also function as cultural landscapes in which rock art, surface monuments, and the larger physical context are deliberately and expressively integrated. Historically and culturally, the three properties complement and extend each other; together they represent the most complete and undamaged representational documentation of the ancient cultures associated with a large region at the intersection of Central and North Asia. In these respects, the properties together are of outstanding universal value.

The properties are located in the same geographic zone and at similarly high elevations. All were shaped by the same Late Pleistocene glacial advance and retreat that left behind smoothed and polished rock outcrops. The faunal imagery at these three properties reflects the biological prehistory of this region and its economic consequences: the transition from a cold steppe environment in the Late Pleistocene to the forestation of the Early-Middle Holocene, and, finally, the return to the characteristic mountain steppe environment of this region. The human imagery reflects, in turn, the economic consequences of that long environmental change: the most ancient dependence on hunting of large animals, a gradually increasing dependence on the herding of large and

small animals, the appearance of transhumance as herding demanded expanded pastures, and the final appearance of horse-dependent nomadism—the quintessential economic character of the Eurasian steppe zone.

Expressed in terms of subjects and styles, of individual images and compositions of a narrative complexity, the rock art here reflects cultural traditions that must have deeply valued pictorial representation and expressive pictorial style. Comparative consideration of the rock art in these properties suggests that at least from the Bronze Age through the Turkic Period, northwestern Mongolia was a kind of cultural center in North Asia, with extensions of representational traditions to the north into the Yenisei Valley; to the west and southwest, into present-day Russian Altai, northern China and Kazakhstan; and even deep into the southeast, into Inner Mongolia. Images of elegant, stylized deer dated to the Late Bronze Age indicate, also, the extension into the Altai Mountains of a powerful pictorial tradition centered in northern Mongolia.



Large stylized cervid (Early Iron Age) pecked over scene of a deer hunt (Bronze Age)

In terms of expressive style, techniques of execution, and the purposeful exploitation of unusually beautiful rock surfaces, the quality of the rock art found in these properties is outstanding; but quality is not the only distinguishing characteristic. Two of the properties (Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol) represent the most extensive such complexes yet recorded in North Asia; and the third, Aral Tolgoi, is unquestionably the largest and best preserved concentration of open-air rock art from the Late Pleistocene and Early Holocene yet identified within North Asia (see 3.c, below). Considered within their high mountain context, these three properties tell the story of human culture in this harsh and magnificent region, over a period of more than 12,000 thousand years.

By virtue of their isolated settings, their location within a long border zone, and their partial inclusion in a national protected area, these properties have suffered relatively

little human impact over the years. In this respect, the rock art and surface monuments in these properties are in an excellent state of preservation in comparison to all other major, known North Asian rock art sites.

1.4 Criteria under which property is nominated

iii. Represents a masterpiece of human creative genius. This criterion applies to all three properties. The quality of the rock art included here, its extent, and its relatively un-impacted character are unsurpassed within known rock art sites of North Asia (See 3.c, below).

iv. Exhibits an important interchange of human values over a significant span of time.

This criterion applies to the TS-BO and to the Upper Tsagaan Gol properties. Imagery in both properties vividly describes the character of early hunting traditions; the appearance of herding as a major economic base; the appearance of horse and camel riding in the Late Bronze Age and the exploitation of riding in hunting and herding activities; and the transition, finally, to full horse dependency in the Early Iron Age. The impact of that cultural development—ultimately the basis of the expansion of steppe empires after 400 B.C.E.—is vividly reflected in Turkic imagery from the Upper Tsagaan Gol. An important and ubiquitous motif in both properties is that of the wheeled vehicle which seems to have come into North Asia from the west during the Bronze Age. The adoption of this vehicle, together with the domestication of yak as beasts of burden, profoundly affected the emergence of transhumance and herding dependency not only within the Altai Nuruu but also across the Eurasian steppe.

iii. Bears a unique or at least exceptional testimony to a cultural tradition or to a civilization that has disappeared.

This criterion applies specifically to Aral Tolgoi and TS-BO. While a few other sites in North Asia include imagery from a period considerably earlier than the Bronze Age, none have the number of images or the integrity of imagery to compare with these two sites (see 3.c, below). The images of mammoths (TS-BO), rhinoceros (AT), and ostriches (AT), refer to a geological period in the Late Pleistocene that has been identified with the “mammoth steppe”: a period when North Asia was significantly colder, drier, covered by rough grasses and forbs rather than forest, when it supported a very different fauna (Guthrie 1982). Archaic images of aurochs, ibex, horses, and argali may well belong to that period, also. At both sites, images of elk executed in a typically archaic style reflect the transition to a more forested environment in the Early Holocene. This is the period that appears to be documented, also, in the earliest imagery of the Upper Tsagaan Gol.

1.5 Authenticity and Integrity of the Properties

i. Authenticity

With reference to all three properties in this Serial Nomination, there has been no action ever taken or human process ever applied that impinges on the authenticity of the rock art images in question.

ii. Integrity

With regard to each of the properties in question, no action has ever been taken to detract from the expression of outstanding universal value: no significant part of the whole has been moved, destroyed, or damaged in such a way as to diminish the whole. Impacts such as modern inscriptions are limited; but the potential problem they present must be addressed in the management plan.

In all three sites, there are instances where later artists (e.g., from the Late Bronze Age or Turkic Period) pecked their own images over those of an earlier period. Although this unusual practice may seem to negatively impact the property as a whole, in fact it offers the kind of overlay of subject and style that facilitates the understanding of the development of surface patina and the dating of imagery. For that reason, it would be inappropriate to consider such actions as representing a diminishment of the properties' integrity.

With only one exception, none of the properties have hitherto been damaged by development of any kind; the exception to that statement refers to the road built around the base of TS II in the construction of which several pecked surfaces may have been lost.

The consideration of neglect does not properly apply to these remotely situated properties.

II. Key issues for the management

2.1 Ownership

1. 5700 hectares of rock art site of the Tsagaan Salaa-Baga Oigor shall be owned by Ulaan Khus soum, Bayan-Ulgii aimag.
2. 15300 hectares of rock art site of Upper Tsagaan Gol shall be owned by Tsengel soum, Bayan-Ulgii aimag.
3. 1000 of rock art site of Aral Tolgoi shall be owned by Tsengel soum, Bayan-Ulgii aimag.

The three properties are located in areas traditionally used by herding communities; the herders have a vital interest in the sites. Thus, relevant review and verification must take their interests into consideration.

2.2 Protective designation

- Constitution of Mongolia, 1992

According to the article 7, “The historical, cultural, scientific and intellectual heritage of the Mongolian people shall be under the state protection”.

- Law on Protecting Cultural Heritage of Mongolia, 2001
(full text is annexed)
- List of historical and cultural immovable properties under the province and city protection, 2008

Rock arts of Tsagaan Salaa-Baga Oigor of Ulaan Khus soum and Upper Tsagaan Gol (Rock arts of Shiveet mountain) and Aral Tolgoi of Tsengel soum of Bayan-Ulgii are included on the list of historical and cultural properties under the state protection.

- Mongolian Law on Special Protected Areas, 1994

Whole of Aral Tolgoi and half of the Upper Tsagaan Gol Complex are included within the Altai Tavan Bogd National Park.

2.3 Present state for the conservation

Tsagaan Salaa-Baga Oigor [TS-BO] In contrast to the other two properties, TS-BO is not included in any protected zone. Mineral extraction in the upper valley (see 2.b, above) created an indirect threat to the rock art, particularly that of TS II. This occurred through the creation of an improved road at the base of that section and the resulting vibrations created by heavy truck traffic. The major impact from that mining has now ended and presumably will not be duplicated by the individual mining activities of local herders.



Baga Oigor III: Laden bulls panel

Grazing activities over the outcrops with rock art is not a problem here, since the major pasture area is closer to the valley floor or above the rocky outcrops.

The nature of the landscape, here, ensures that roads tend to stay down along the valley floor; as a result, vehicles are not able to drive up among the rocky outcrops. Recent examination (July 2009) of particularly accessible and sensitive areas across the complex indicates that there have been no meaningful negative impacts from tourists. Moreover, there is little sign of new inscriptions, either pecked or painted, since the completion of the documentation of this complex.

A more serious threat to the integrity of TS-BO lies in the construction of animal shelters and winter dwellings along the terraces over the valley floor. In at least two cases (BO I, BO III), rock seems to have been taken from nearby decorated cliffs and boulders for use in the construction of walls. It is probable that, as a result, at least one outstanding panel has disappeared.

Upper Tsagaan Gol. Natural forces, including freezing and thawing, are endemic to this region as they are to all high mountain areas, and they play a role in the constant transformation of rock outcrops. The cracking, chipping, and exfoliation of surfaces can result in the loss of images; but these are natural processes and can be expected. (Careless walking or driving over such surfaces significantly hastens that process, however.) Within the valley, overgrazing is a problem here, as it is throughout Mongolia. For the most part, however, within this property, the small animals do not move up and over the rocky outcrops on which imagery can be found.



Hunting scene-Wild goats, archers. Turkic period

Before the extensive documentation of this complex (1995-2004), modern names had been pecked into surfaces at the most frequently visited area known as Khar Chuluut, in the Tsagaan Gol section of the complex. Names were also found on other panels within

the Shiviit Khairkhan section. This activity seems, however, to have come to an end by 1995. Recent observations (July 2009) indicate almost no new inscriptions either at Khar Chuluut or elsewhere. There is, however, one significant and egregious exception to this statement. A large panel in the Shiviit Khairkhan section, including approximately 740 images from the Bronze, Early Iron, and Turkic periods, has been severely damaged by more than a number of new, painted and pecked inscriptions, one including the date of “May 22, 2006.” Since the painted inscriptions are written in Tuvin, Kazakh, English, and Chinese, it is likely the work of visitors rather than of valley residents. The same or other individuals have also added crude pecked elements and have over-scratched several older images. This panel is perhaps the most visited in the complex; the management plan will need to consider how to limit such damage in the future.



Riders dueling with lances, archer. Turkic or Mongol period

The construction of stone animal shelters beside winter dwellings found throughout these valleys is a potential source of destruction of rock art, since the stone used in the shelters comes from adjoining cliffs and outcrops. In the case of the Upper Tsagaan Gol Complex, since 2005 one new winter dwelling and its shelters have been constructed but not in an area to impact rock art. Elsewhere, enlarged animal shelters, also, do not seem to have impacted nearby rock art (observations, July 2009). In at least two cases in the Shiviit Khairkhan section, winter shelters have been built up against protective cliffs on which can be found abundant imagery. It is probable that stone from the image-covered cliffs has been used in the construction of those shelters; in one case, recent examination indicated that a certain panel was missing. On the other hand, the gradual collapse of those cliffs—quite visible and measurable—may be more related to the slate nature of the rock and the deterioration caused by freezing and thawing than to their use in nearby constructions.

Rough roads, or tracks, up both sides of the river have made the upper valley accessible to many more tourists. There is no indication, however, that these roads have in any way impacted the rock art or the surface monuments (observations, July 2009);

and since the rock art tends to be primarily on high outcrops, it is unlikely to be affected by roads in the future.

There are no plans for mineral extraction in the upper Tsagaan Gol valley.

Tourism is the biggest potential threat to the Upper Tsagaan Gol Complex. If they were given an opportunity to understand how to look at rock art, the vast majority of visitors would enjoy the pecked images and not harm them. However, it will require a serious program of education and information dissemination to encourage local visitors, foreign tourists, and even specialists to observe the following rules: do not drive on or walk on the imagery; do not mark it in any way, under any circumstances; do not clean it in any but the most superficial way; do not use any kind of ink rubbing to copy the imagery; but do photograph it.

Half of the Upper Tsagaan Gol Complex is included within the Altai Tavan Bogd National Park (see regional map). At present, there are no measures in place to ensure that the rules of the park are followed nor is there any existing signage except at one place on the left bank of Tsagaan Salaa. Given the sensitivity of the natural environment here and the beauty of the rock art, this lack of conservation measures should be addressed in the management plan.

Aral Tolgoi. The most obvious source of conservation concerns at this property is the most natural: the simple deterioration of surfaces caused by the original passage of glaciers over the hill. In addition, the moist climate in this part of Bayan Ulgii has resulted in the spread of an extensive layer of lichen over many of the surfaces. The freezing and thawing of seasonal moisture also accelerates the crumbling of surfaces. Considered against the apparent age of the images, however, these natural factors may not be an appropriate source of concern. Moreover, it is certain that any attempt to remove the lichen would destroy the outcrop surfaces.

The impact of small animals grazing regularly over the hill is of greater concern. Although they tend to stay on grassy areas, the sheep and goats often cross over the rock outcrops, unquestionably hastening the crumbling of some of the surfaces. Because these flocks belong to families in the Border Guard Station at the foot of Aral Tolgoi, it is possible that the question of continued grazing on the hill can be addressed in the Serial Nomination management plan.



Wild sheep. Pre-Bronze Age

The most significant factors affecting the preservation of this property are those caused by humans. Recent observation (July 2009) indicates that there is one new pecked inscription (dated 2006) on top of outcrop #21 and next to several archaic images; and a new inscription (2009) has been added in green paint near the southeast end of the property. Given the absence of tourists here, it is most likely that the inscriptions are the work of by people serving at the Border Guard Station.

The most serious impacts at Aral Tolgoi have occurred at the very top of the hill, on the outcrop (#22) including the most important of the oldest images. These impacts include the small guard station and the concrete marker mentioned earlier. While the concrete marker can probably not be taken out without radically damaging the surrounding panels, the hut could probably be dismantled or moved a bit to the west, where there are no pecked outcroppings.

Aral Tolgoi is wholly within the Altai Tavan Bogd National Park (see map of region) and also within a sensitive border zone. At present, there are no conservation measures at the property other than those created indirectly by its isolation from winter dwellings, tourism, and mineral extraction.

2.4 Summary of factors affecting the conservation of the properties

Mineral extraction appears to have receded as a threat to all the properties in this serial nomination, but unplanned roading (such as is found throughout Mongolia), could create problems, particularly within the Upper Tsagaan Gol Complex. Some form of educational effort or legal regulations need to be put into place in order to discourage the indiscriminate use of decorated rock in the construction of animal shelters.

Aside from issues of overgrazing which are now affecting all parts of Mongolia, the problem of animal impact on decorated rock surfaces is only significant in the case of Aral Tolgoi. Given the fact that the flocks involved all come from the nearby Border Guard Station, this situation should be controllable.

Although harsh mountain conditions found in the case of all three properties invariably affect the preservation of rock surfaces, they also discourage casual tourism. Similarly, the extreme 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 local residents not to destroy decorated surfaces when they construct their shelters and not to mark decorated surfaces in any way. Given the extremely limited populations in all these valleys, the existence of the Park and its educational and informational infrastructure, such educational efforts should be quite feasible. The appointment of local guardians within each complex might help, also, to avoid the kind of egregious destruction visible on the Large Panel in the Upper Tsagaan Gol Complex. At the same time it should be realized that any attempt to set up signs or fences at any of these properties would be futile: the history of such efforts in this region indicates that all metal rapidly disappears, recycled into other, more practical uses.

None of the factors negatively impacting these properties are un-resolvable. The painted inscriptions can be removed or disguised by experts in rock restoration. The use of the Park's educational and informational resources would be appropriate to a

preservation effort. Educational programs—even modest ones—at the Museum in Ulgii and in schools around the aimag could have a double purpose: to increase awareness and preservation of antiquities, including rock art and surface monuments; and to offer local residents and their children added resources for understanding their historical and cultural past. New or clearer regulations on the aimag and national level would help to control the destruction of grazing lands and cultural artifacts.

2.4.1 Development pressures

- Tsagaan Salaa - Baga Oigor. More and more herders build their winter- and 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 intensify desertification. Due to climate change/global warming, some parts of Tsagaan Salaa's area has been affected by erosion and the size of permafrost layers have been shrinking. Currently, these rock painting sites have not been inhabited with populations and affected by crop-farming or mining activities. However, there are potentials of such intentions and threats. Thus, inscribing these rock painting sites in the World heritage List will allow limit potential negative impacts and protect the historical and archeological properties.
- Upper Tsagaan Gol. In 1992, local tuva people established a bagh, the smallest administrative unit, which was named 4th bagh of Tsengel soum, as known as Shiveet Khairkhan bagh. Heritage sites are located in mountaineous areas and thus not favorable for settlement or crop-farming activities, except few wintercamps owned by local winter-camps exist there. Currently, as there are not mineral deposits discovered here, the sites will not be affected by mining activities. Tuva people worship Shiveet Khairkhan Mountain which dwells 135 ibexes and 5 snow leopards, as revealed in research results (Table). Since tuva people worship the mountains, they never hunt anything. Yet, there are improper human actions occurring, such as drawing nuisances and names, carving duplications of paintings and using carved rocks to build winter-camps. Even some herders build wintercamps just next to carved rocks of Shiveet Khairkhan Mountain.
- Aral Tolgoi. Aral Tolgoi is the most protected of the three properties, for several reasons. It lies wholly within the Altai Tavan Bogd Protected Zone; it is, further, within a border zone and is therefore inaccessible (theoretically) to tourists. The presence of a border guard station at its eastern base helps to enforce the no-pass regulation. Furthermore, the very remoteness of the property and the inhospitality of the roads leading to it, on the north and south shores of Khoton Nuur, do not encourage casual tourism. There has been no mining in this border region nor is any now contemplated. The very sensitivity of this last forested region in Mongolia's high Altai would probably militate against any mineral extraction or further roading around or west of the property. Although there are summer inhabitants to the west of the property, there are none allowed on the hill itself.

2.4.2 Environmental pressures

Rock art sites of Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol and Aral Tolgoi are located in mountaineous zones of Mongolia. Upper Tsagaan Gol and Tsagaan Salaa-Baga Oigor rivers are humid and cool, yet freezing cold in winter too. Due to climate change phenomena, potential threats are evident and immense that some petroglyphs have faded away and carved rocks are cracked and broken down.

2.4.3 Natural disasters and risk preparedness

Tsagaan Salaa-Baga Oigor, Upper Tsagaan Gol and Aral Tolgoi are located within active seismic and earthquake zones. Rock art of Tsagaan Salaa-Baga Oigor and Upper Tsagaan Gol are carved on big rocks scattered around open space of mountain slope and along the river banks so that they are not vulnerable to any earthquake 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 rock arts looks its less vulnerability to fire and different from other archeological sites, such as towns and buildings which have high risks of fire. Nevertheless, fire can cause risks to affect integrity rock arts 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. Harshly saying, rock arts are left alone without any management in many respects.

2.4.4 Visitor/ tourism pressures

Currently, tourism lacks effective management and monitoring. Any individuals can/may take and guide tourists to show rock arts 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.

Tourists heading to Tavan Bogd Mountain pass only the valley of Baga Oigor River. More information about rock arts of Tsagaan Salaa-Baga Oigor is disseminated to the outside world, more tourists and amateur archeologists might be attracted to come to the areas. Many of rock arts are carved 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 away parts from big carved rocks 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.

2.5 Means of Implementing Protective Measures

- The Government of Mongolia shall create the relevant legal framework for safeguarding and maintaining nominated properties in compliance with the principles of World Heritage;
- Management of the safeguarding and maintaining of the nominated properties shall be regulated under applicable laws and regulations of Mongolia in line with the Convention of World Nature and Cultural Heritage;
- The Government of Mongolia shall pass and implement national policy, program and strategy plan for safeguarding and maintaining nominated 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 Education, Culture and Science, the administration/ management office of rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi in Bayan-Ulgii aimag shall implement the management plan;
- The Mongolian National Commission of World Heritage shall provide technical assistance and guidelines to the Management office.
- MECS 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 rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi, and issue subsequent due diligence statements within the deadlines stated in procedural rule of World Heritage Committee.

III. Management plan on the protection and preservation

3.1 Background

Within the framework of the nomination of the “Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape” for inclusion in the World Heritage List, this document was developed as the first Management Plan jointly by the Ministry of Education, Culture and Science, the Mongolian National Commission for UNESCO, the Mongolian National Committee for World Heritage, and the Institute of Archaeology of the Mongolian Academy of Sciences. This document outlines the Government strategy of Mongolia on the protection and preservation of the Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape. Moreover, experts from UNESCO have visited and looked over the proposed properties and have met with local authorities and herders as well as made appropriate evaluations. The results of the meetings and research findings are reflected in the Management Plan. The Management Plan has been considered in thorough discussions among all the relevant entities of Government, such

as Ministries, Authorities, Departments, and Local administrations, as well as the NGOs and certain entities to be in charge of the management issues are designated. One of the main objectives of this nomination is to establish the Management Authority to implement and supervise the Management Plan for Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape. The Management Plan consists of two parts:

1. Long-term objectives (2010-2020)
2. Mid-term objectives to support the implementation of the long-term objectives (2010-2015)

In accordance with eligibility criteria required for nominating heritage elements to be inscribed in the World heritage List, the following goals have been set forth to manage activities to safeguard and maintain rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi:

3.1.1 Strengthening legal framework for the protection and maintenance

Based on Law on protecting cultural heritage of Mongolia, Law on Special protected areas and Law on Buffer zones of protected areas have been demarcated. TS-BO is located within the territory of Ulaankhus soum, Bayan-Ulgii aimag and Upper Tsagaan Gol and Aral Tolgoi –in Tsengel soum, Bayan-Ulgii aimag, respectively. The Government is responsible for limiting activities causing potential negative impacts and encouraging efforts in using heritage properties positively and efficiently, based on the legal framework of above laws and regulations. Rock art sites of Tsagaan Salaa and Baga Oigor have been listed in the list of areas subject to the state protection, in accordance with Article 17 of Law on Protecting cultural heritage, and Government Resulution #233. Boundaries of the proposed properties have been demarcated and maintained.

3.1.2 Natural disaster management

The risks and threats of natural disasters appear relatively low in the valleys of Tsagaan Salaa and Baga Oigor. In terms of the rock arts of the upper Tsagaan Gol and Aral Tolgoi, vulnerability to natural disasters are assumed relatively minor. Rock arts and other archeological sites at these areas are located along the river banks so that floods might affect the integrity of decorated rocks.

3.1.3 Safeguarding and maintaining rock arts and other heritage

In addition to rock art, surface structures have been found at the proposed properties. At this time, research studies have focused primarily on rock art, while the other heritage properties have been studied relatively less. In some cases, these heritage sites have been negatively affected due to problems such as population growth, unorganized tourism, and

lack of protection management within the region. However, many heritage properties—such as sacred mountains, ovoos (shamanistic shrine – piles of stones), ancient graves and image stones—have been preserved relatively intact and in good condition. It is crucial to take urgent measures to conduct comprehensive archaeological research studies, include in tourism routes and improve existing protection management and tools.

3.1.4 Information and public awareness campaign

Inscribing the properties in the World Heritage List will attract many tourists interested in world heritage networks. Tourism companies running tours within the Mongolian Altai mountainous region should be encouraged to include the rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi. In doing so, information about heritage sites will be disseminated through their advertisements and introduction materials. Tourism brochures should include information on what role the region plays in world history, in addition to nomadic civilization and traditions. Currently, the rock art of TS-BO, Upper Tsagaan Gol and Aral Tolgoi have specifically-appointed guides, but it is essential to provide special routes/paths and road signs on site. Moreover, information and brochures currently available for tourists are out-dated, limited and vague, while excluding focused information. There are no effective ways to distribute Heritage related information. These several issues indicate that it is crucial to advertise the properties attractive tourist destinations coupled with relevant services, and to provide tourists with sufficient information.

3.1.5 Education and trainings

It appears that no educational curricula included information about the proposed properties, including rock art sites, archeological research and history at all levels. Similarly, there is no information included in the curricula or syllabi of local schools or kindergartens of Bayan-Ulgii aimag where these rock art sites are located. In recent years, UNESCO “World heritage in young hands” program has been considering relevant measures to implement in this regard. The management plan should include consideration of the expansion of the Socio-Economic Research Center located in Bayan-Ulgii aimag into a Regional Training and Research Center which should address issues such as establishing an academic research division to study rock art sites; develop and include information about the cultural heritage of Mongolia within the general education curriculum; and organize national and international conferences and seminars for the training of researchers, guides and other relevant specialists, in order to develop rock art sites on a sustainable bases in the long-term future.

3.1.6 Health

It is important to provide health services, general and specialized, for individuals and herders in Tsengel and Ulaankhus soums, Bayan-Ulgii aimag. In relation to intense development of tourism industry in Bayan-Ulgii aimag in recent years, capacity of health

services should be strengthened to deliver relevant services both to local people and visitors.

3.1.7 Research and development

The rock art complex of Baga Oigor and Tsagaan Salaa was first discovered by D. Tseveendorj (archeologist) in 1979 and later studied under the Joint Mongolian-Russian-American project ‘Altai’ beginning in 1994. Until then (1994), there was no information or data recorded about the complex, nor had there been any reference to the complex in scientific publications. The Joint Mongolian-American-Russian Altai project was launched in 1994 and continued for ten years, until 2004. During that period, the Joint MAR Project completed its documentation of Tsagaan Salaa-Baga Oigor; it also undertook and completed the documentation of the equally large complex in the upper Tsagaan Gol, centered around the mountain, Shiveet Khairkhan and the small but unique site of Aral Tolgoi.

Full reports of the documentation of all three rock art complexes have been published (7.e): original publications of Tsagaan Salaa-Baga Oigor (Paris, 2001), Upper Tsagaan Gol (Paris, 2006), and Aral Tolgoi (Ulaanbaatar, 2005); and a secondary publication of Tsagaan Salaa-Baga Oigor (Novosibirsk, 2005).

3.1.8 Museums and culture centers

It is important to consider the possibility in establishing an open-air natural and historical museum based on proposed properties, and creating guide and curators’ services in place.

3.1.9 Development of tourism industry

The rock art sites of TS-BO, Upper Tsagaan Gol and Aral Tolgoi offer an unusual opportunity to present the natural, historical, and cultural heritage of Mongolia. They also offer opportunities for tourism, including but also have tourism-providing resources to organize horse- and yak-trekking, sports fishing, camping, hiking and so on. However, compared to international best practices, the infrastructure to support these activities is significantly underdeveloped. These are all issues that must be addressed in developing a management plan.

3.1.10 Pastoral nomadism

In addition to rock art and the cultural landscape, the areas of TS-BO, Upper Tsagaan Gol and Aral Tolgoi have maintained pastoral nomadic traditions more fully than in most parts of Mongolia. Because this way of life is, in itself, a disappearing tradition, it is crucial to preserve the traditional practices found in this mountainous region.

3.1.11 Crop-farming

The proposed properties are located in high mountainous areas of the Mongolian Altai so that it is not convenient to run crop-farming activities. Nevertheless, it is possible to plant

trees, bushes and grass at places that would not affect the integrity of surrounding nature and archeological sites, in order to prevent soil erosion and combat desertification.

3.2 Long-term objectives (2010-2020)

The long-term objectives of the management plan will be developed over a period of five 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 great world heritage will be preserved for following generations. It is intended that this management plan could serve as a model for rock art sites across Central and North Asia and particularly within high-mountain, relatively isolated regions.

- Develop legal frameworks for the protection of the petroglyphic complexes of the Mongolian Altai and their associated cultural landscapes in order bring them into conformity with international World Heritage standards of protection and appropriate utilization. Take consequent measures for the sustainability of the environment:
 - The preservation and stabilization of adjacent forests, grazing lands, soil and water.
 - Development of recommendations relating to desertification and soil erosion as they affect the nominated 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 (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 rock art sites.
- Safeguard and develop the region's herding life-style, and its unique traditions, customs, and religions, perfected for centuries and reflected in the rock art of the nominated properties.
 - ⊖ Establish guidelines for the sustainability of the traditional nomadic life style and its utilization of modern technology in ways that will not adversely affect the nominated properties.
- Develop education and health services that will support the local herding populations so as to help ensure the continuity of their traditional life styles.
- Develop educational and infrastructure services for tourism.
 - Work with existing tourist organizations and their professional groups in order to develop recommendations appropriate to use of rock art sites as tourist attractions.

- Develop recommended routes for tourists and clear instructions to tourists and tour leaders regarding the appropriate ways of enjoying the rock art sites.

Recommend and enforce appropriate routes within the sites, camping areas, and development of comfort facilities for tourists and tour leaders.

3.3 Mid-term objectives (2010-2015)

3.3.1 Protection and Preservation

№	Activity	Responsible institution	Period
1	Elaborate and implement legal frameworks for the petroglyph sites that meet the standards and criterions of conservation of the World heritage	MECS, MET, MNCWH	2010-2011
2	Establish the Management Authority of the Petroglyphic Complexes of the Mongolian Altai in charge of the management on protection, preservation, restoration, research, information, propagation, and utilization of the petroglyph sites nominated for inclusion in the World heritage list in the town of Ulgii in Bayan-Ulgii aimag	MECS	2011
3	Ensure the readiness of civil defense unit in emergency situations, and process and implement the measures to be taken in emergency cases	MECS, Soum (county) administration	2010-2012
4	Combat desertification and sand movement in the zones of the properties	MECS, MET, Soum administration, Aimag (province) administration	2010-2015
5	Develop legislative framework to prohibit the agricultural activities for manufacturing purposes; soil excavation; mineral exploration; extraction; and mining activities in the properties	MET, MJIA, Aimag administration	2010-2012
6	Elaborate strategy for the protection and conservation, utilization and restoration of the cultural properties and implement the strategy with special plans	MET, Soum administration, Aimag administration	2010-2012
7	Conduct thorough research on the grazing capacity of the valley of the TS-BO, Upper Tsagaan Gol and Aral Tolgoi and take measures to manage livestock location and density	MFALI, Aimag administration, Soum administration	2010-2012
8	Plan and implement urgent steps on the research and prevention of the soil erosion and washout of the properties	MET, MFALI	2010-2012
9	Operate academic expedition to identify, discover and carry out researches and create detailed	MECS, MAS, MNCWH	2010-2012

	mapping		
10	Elaborate and implement plan on the protection, preservation and restoration of the other historical and cultural properties, on the basis of the research findings and results	MECS, MAS	2010-2012
11	Encourage and promote the safeguarding and development of the traditional craftsmanship in the petroglyph sites and organize exhibitions and fairs constantly	MECS, MNC for UNESCO, Soum administration	2010-2030
12	Carry out research on the sacred and other worshipped sites in the petroglyph landscape and restore and promote local customs, manners and rites to worship, respect and protect them	MET, MNC for UNESCO, HU, Soum administration	2010-2015

3.3.2 Education, Training and Information

№	Activity	Responsible institution	Period
1	Organize and/or host local, national and international conferences, academic seminars constantly on the management issues of the petroglyph sites with the involvement of various stakeholders, such as, foreign and domestic scholars, experts, policy makers, governmental and non-governmental organizations, other relevant entities, private sectors and individuals.	MNCWH, MAS, HU	2010-2015
2	Integrate World heritage education, particularly relating to World heritage properties in Mongolia in all-levels of academic curricula and publish manuals, textbooks, brochures and compilations of relevant materials.	MECS, MNCWH, MAS	2010-2012
3	Implement UNESCO Program ‘World heritage in young hand’ in the aimags’ schools in the territory of petroglyph sites	MNC for UNESCO, MNCWH	2010-2015
4	Establish petroglyph site database by compiling results of scientific researches; develop and maintain special website.	MNCWH, HU	2010-2011
5	Create an academic base of the Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape by expanding the Tureg Studies Center in the town of Ulgee, Bayan-Ulgii aimag as the branch institute of the Institute of Archaeology of MAS	MAS, MNCWH, HU	2010-2015
6	Develop favorable condition for the national and international scholars, experts, researches, fellow, teachers to live and work at the petroglyph sites	MECS, MAS, HU	2010-2012

7	Provide local people in the petroglyph sites with World heritage education through the elaboration and implementation of special curriculum	MECS, MNC for UNESCO, HU	2010-2015
8	Host, assess and propagate the national contest on the audiovisual material and documentary production and publicity about petroglyph sites	MNCWH, MNC for UNESCO	2010-2015
9	Regularly publish Mongolian and English versions of developed materials on the sites.	MNCWH, HU	Since 2007
10	Regularly publicize and educate about the petroglyph sites through mass media	MECS, MNCWH	Since 2010
11	Organize regular activities to raise awareness of local people on their responsibilities in the protection of World heritage and disseminate laws and regulations related to cultural heritage	Soum administration, HU	Since 2010
12	Publish and print book series and reference books about the petroglyph sites	MNCWH, MNC for UNESCO, HU	Since 2010
13	Link the petroglyph sites to the World heritage regional network and maintain the website 'The Petroglyphic Complexes of the Mongolian Altai: Rock Art and Cultural Landscape'	MNCWH, MNC for UNESCO, HU	Since 2010
14	Establish open-museum for petroglyph in the sites	MECS, MNCWH	2010-2020

3.3.3. Presentation and tourism

№	Activity	Responsible institution	Period
1	Develop and implement legal frameworks for the establishment of the nationally identical tourist camps and hotels that meet the international service standards and petroglyph sites protection requirements	MET	2010-2012
2	Elaborate tourism service standards and accreditation regulations to improve the qualities	MET	Since 2010
3	Establish information and service center for the tourists in the petroglyph sites	MECS, MET	2010-2015
4	Designate network of tourist itinerary in the petroglyph sites and enforce the observation	MECS, MET, MRTAUD, MNCWH	2009-2010
5	Conduct constant trainings of World heritage education to the guides, staffs and specialists operate tourism activities in the petroglyph zone	MECS, MET, MNC for UNESCO	Since 2010
6	Signpost the main roads and improve the quality of signage in accordance with the plans	MRTAUD	2010-2010
7	Improve the local roads to the petroglyph sites to strengthen the tourist access and build up bridges on the Tsagaan gol river and other rivers	MRTAUD	2010-2030

8	Create modern information, communication and networking means in the petroglyph sites such as, internet, local, national and international telephone, fax, etc.,	ICTA	2006-2007
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IV. Resources

4.1 Staff

Specialists in education and representatives from the cultural departments of the province, environmental and cultural heritage inspectors of each soum will take part in the Management Authority responsible for the properties. They will be expected to attend regularly the courses on improvement of their professional and technical knowledge organized by the Ministry of Education, Culture and Science of Mongolia, the Mongolian National Commission for UNESCO and the Institute of Archaeology, Mongolian Academy of Science. The Management Authority will also be able to take advantage of international experts to advance its educational programs.

4.2 Budget

Because two of the nominated properties are so large and so distant from population centers; and because preservation issues relating to the third site, Aral Tolgoi (within a closed border zone), are really issues of management strategy vis-a-vis Border Guard Station #1, it is probable that funding necessary to support preservation issues will be considerably less than might be required for a petroglyphic site which is easily accessible and small enough to be fenced and trailed (e.g., Tamgaly, Kazakhstan).

Taking these issues into consideration, it is proposed that safeguarding, maintaining and restoring activities will be financed from the following sources:

National and local government budgets.

Fees assessed from tour operators running tourism businesses within the nominated areas.

Donations from international organizations and foreign countries.

Fees assessed from individuals wishing to study the rock art of the nominated 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 nominated properties for scientific and educational purposes.

Donations from international organizations and foreign countries.

National and local government budgets.

Internships:

The importance of the nominated properties is such that we believe it would be possible to establish a program of national and international unpaid internships for study of, preservation of, and education about the rock art of these sites. It is possible, for example, that individuals working for organizations such as the Peace Corps could be assigned responsibilities for developing an educational program within the public schools, just as they have taught language and served as resources within the Altai Tavan Bogd Protected Area.

Abbreviation:

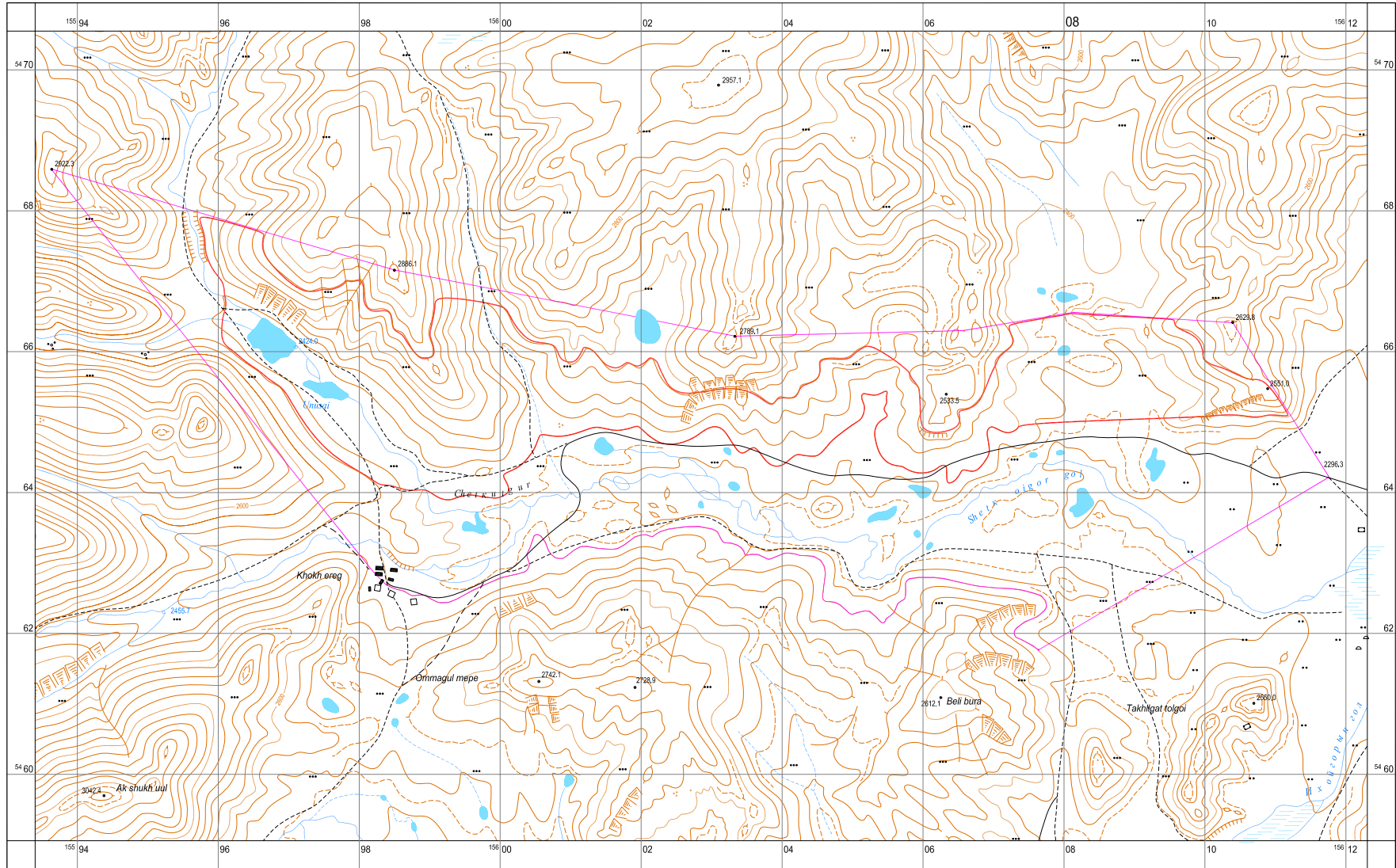
HU	Humanitarian University of Mongolia
IA	Institute of Archaeology
ICTA	Information Communication Technology Agency
MAS	Mongolian Academy of Sciences
MECS	Ministry of Education, Culture and Science
MET	Ministry of Environment and Tourism
MFALI	Ministry of Food, Agriculture and Light Industry
MH	Ministry of Health
MME	Ministry of Minerals and Energy
MNC for UNESCO	Mongolian National Commission for UNESCO
MNCWH	Mongolian National Committee for World Heritage
MRTCUD	Ministry of Roads, Transportation, Construction and Urban Development
MSWL	Ministry of Social Welfare and Labour
TS-BO	Tsagaan Salaa-Baga Oigor
Aimag administration	
Soum administration	

Institutions engaged in the elaboration of the program:

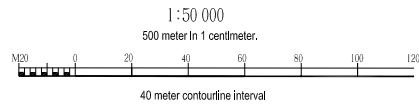
Ministry of Education, Culture and Science
Ministry of Environment and Tourism
Mongolian National Commission for UNESCO
Mongolian National Committee for World Heritage
Institute of Archaeology of the Mongolian Academy of Sciences

Coordinate system: UTM
Bayan-Ulgii province, Ulaankhus soum

Rock art site of Tsagaan Salaa - Baga Olgor

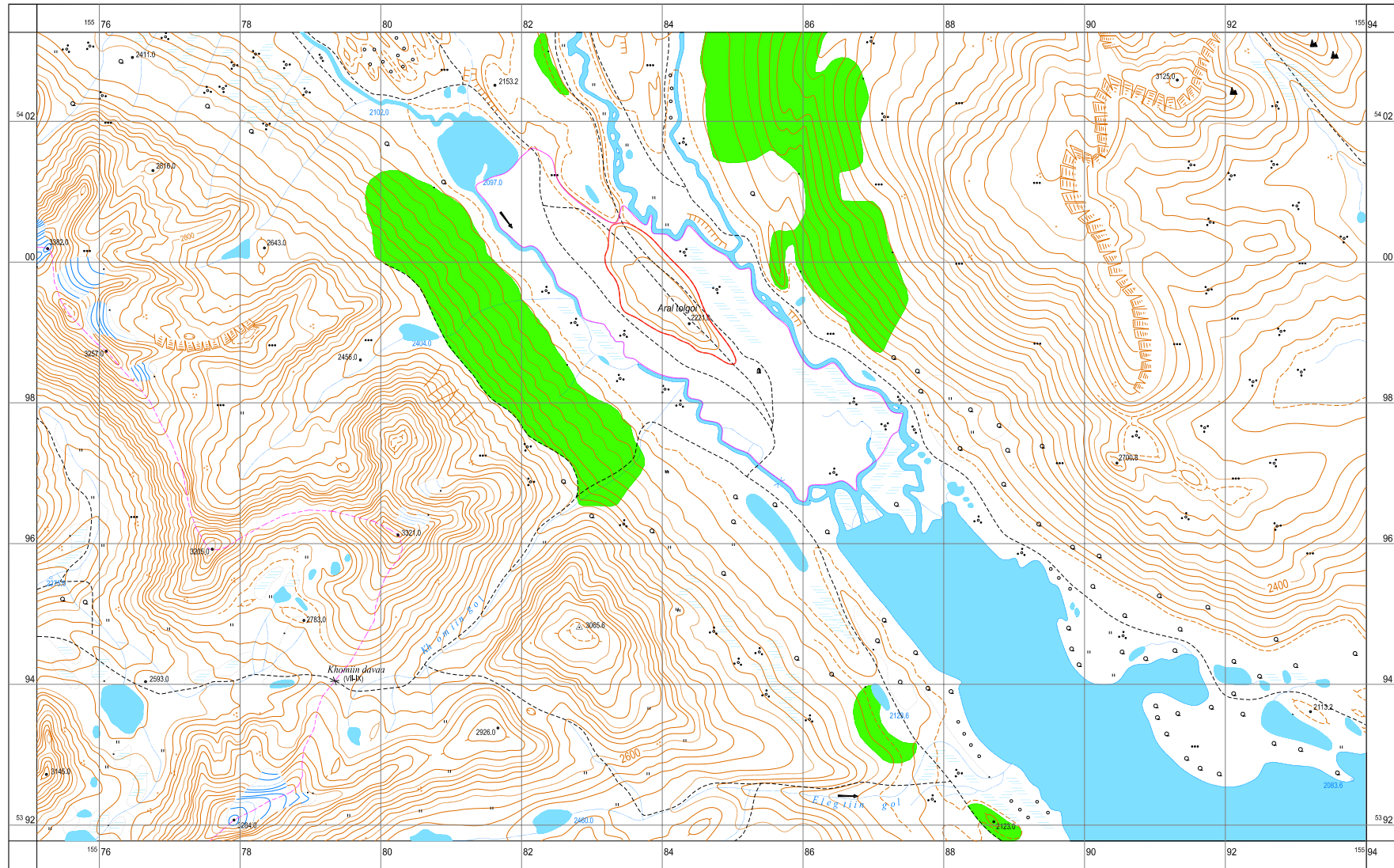


— Buffer zone
— Nominated property

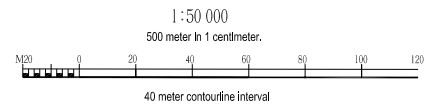


Coordinate system: UTM
Bayan-Ulgii province, Tsengel soum

Rock art site of Aral Tolgoi

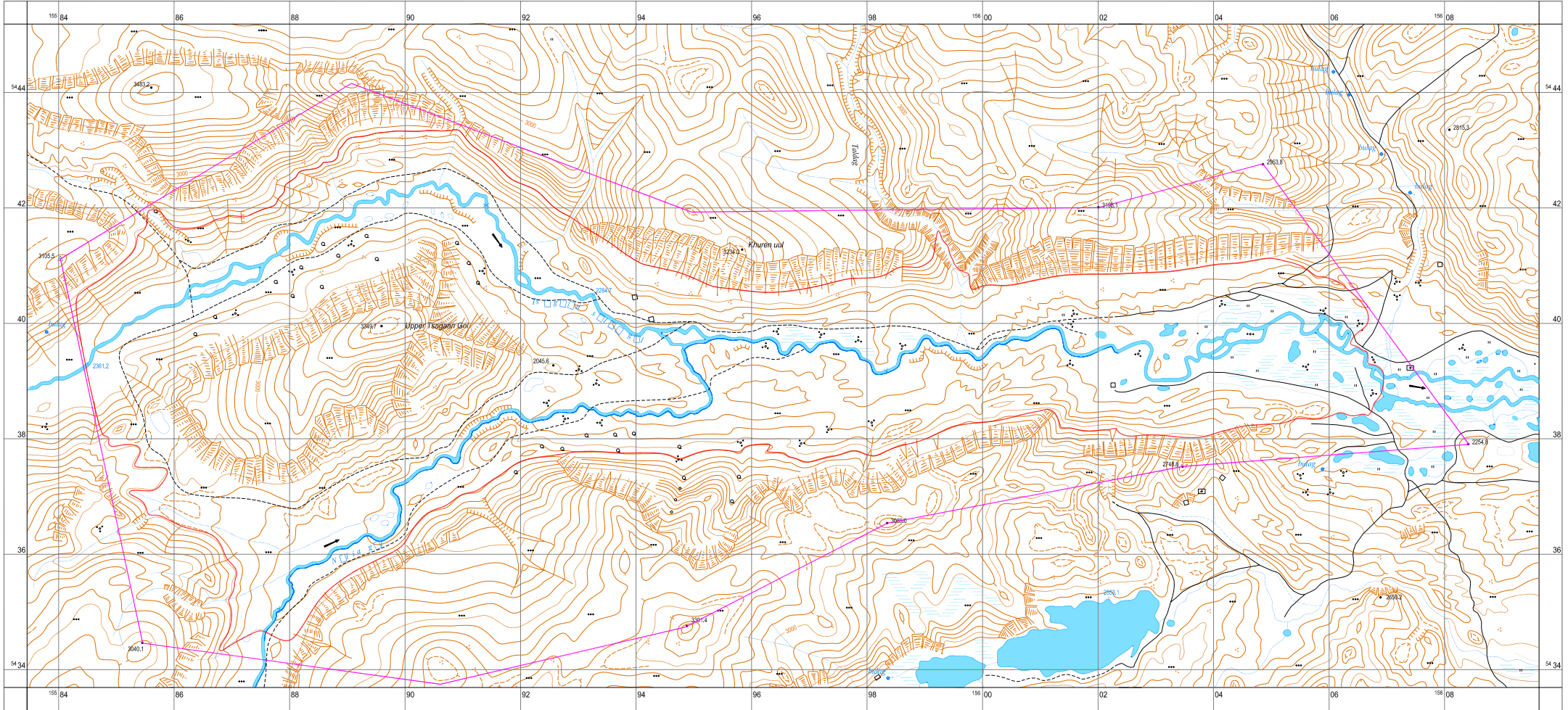


— Buffer zone
— Nominated property



Coordinate system: UTM
Bayan-Ulgii province, Tsengel soum

Rock art site of Upper Tsagaan Gol



— Buffer zone
— Nominated property

