Preliminary Report on Archaeological Investigations
in Mongolia
2003

By
The Permanent Archaeological Joint Mongolian and Japanese Mission

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1. Introduction

Mongolia is one of the key areas for the study of mounted nomads. In the period of early nomads there were people who lived a very similar life to the Scythians of the Black Sea region, the Sakians of Central Asia and so on. From the 3rd century B.C. it was the main territory of Xiongnu empire. Bronze Age sites and artifacts of Mongolia are also considered to have utmost importance for the research of the origin of mounted nomads of Eurasia. However, researches and archaeological excavations in this area have not been conducted enough to elucidate this problem.

When we set about the archaeological study in the origin of mounted nomads in 1999, we chose Ulaan Uushig I for our excavation site. It was because at Ulaan Uushig I two main types of archaeological remains of the Mongolian Bronze Age, khereksurs and deer stones, are found side by side, making it most fruitful site for the study in the relationship between the two cultures. In the North area we found 15 khereksurs, while deer stones are located in the South area, forming two groups.

In 1999 we made research of khereksur No.1 (Fig.1), which occupied northernmost place of the site. We did not dig the central mound but excavated the stone heaps constructed on its east and south sides. We dug down to the level on which stands stone heaps, and in some of them found horse skulls, their muzzles being oriented to the east. Neck bones and sometimes hoofs accompanied them.

In parallel to the above mentioned diggings, we made an excavation of stone circles around deer stone No.4 in the South area. There also we found horse skulls, neck bones and hoofs placed in exactly the same manner. Therefore we concluded that the two types of constructions are of the same period and that both khereksurs and deer stones were made by the same people.

Our research in this year is the continuation from that excavation four years ago. Our aim of this year was the excavation of the central mound to prove that it was a burial site of the Bronze Age people of this region.
2. Participants

Mongolians

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Japanese

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Fig. 1 Khereksur No. 1, Ulaan Uushig I (Kite photograph)
3. Process of the season’s work

We arrived at Mörön on 5th August and due to the rain on 6th, began working on 7th. We first made sure that the positions and the sea levels of several basic points of the khereksur matched those of the measured map made 4 years ago.

Since our aim of this season was the excavation of the central mound of the Khereksur No.1, we began the work first by dividing the mound into four quarters, that is, north-east, north-west, south-east, south-west, then by removing the soil between the surface stones of the south-eastern quarter. After this work was finished, we took photographs and went on to the south-western quarter.

On 12th August we began to remove the stones and the soil between them in the south-eastern quarter and at the same time tried to define the original edge of the mound.

On 13th August a deer stone was found just outside of the original edge of the khereksur at the south-eastern quarter. The deer stone does not have the figure of deer but belongs to the “common Eurasian type” with a small circle at a corner and a somewhat obscure bigger circle near it.

In parallel to those works, on 14th the excavation of the stone heaps east of the khereksur were started. Consequently on 15th August, already stone heaps Nos.2, 3, 4, 5, 7, 8 yielded horse skulls. Horse skulls were found and documented in stone heaps Nos.11, 13 on 18th, in Nos.4, 9, 12 on 19th, Nos.15, 16 on 21st and in No.14 on 23rd.

On 15 August we halted the stone removing of the south-eastern quarter midway to the ground level for documentation and began to repeat the same process in the south-western quarter, eventually to take the photograph of the entire southern half of the mound at the same level on 19th. The removing of the stones was again continued until 23rd, when we documented the stones of the first layer which were placed on the ground at the time of construction. The stones on the ground were then removed except the semi-circle which marks the original edge of the mound.

On 27th, the central part of the east-west section was examined to find if there was constructed a stone cist grave on the ground.

On 28th we ended the work of this season by covering the surface of the east-west section with plastic sheet and soil to keep it from possible damages.

After one day’s rest, we started the archaeological survey from Mörön to Ulaanbaatar on 30th August.
4. Some remarks on this season’s research

1. The central mound

In this season we removed the stones of the southern half of the mound and in the process documented the conditions of the mound in three stages: 1. when the soil between the surface stones is removed (Fig.2), 2. when the stones of the slope were removed halfway (Fig.3), 3. when the stones placed on the ground level were exposed (Fig.4)

At the third stage of the excavation, we could observe large stones were placed as if in a concentric circle (Fig.5). This condition might be connected with its construction process. The mound might be formed, for example, by putting on the stones around the core part, rather than placing the stones layer by layer from underneath. Majority of the stones on the ground were placed directly on the virgin soil, but in some places they were put on the soil layer above the virgin soil, probably according to the surface condition of the construction period.

Fig.2 First stage of the excavation
Fig.3 Second stage of the excavation
Fig.4 Third stage of the excavation
Fig.5 Third stage seen from the top
Fig.6 East-west section
Large stones were used in the center of the mound on the ground level (Fig.6). We examined if they might constitute the stone cist grave but could not find it in the southern part of the mound this year. It is still possible that some of the large stones seen in the east-west section might be part of the cist grave and we expect to find it in the next season.

Today the central mound of the khereksur No. 1 consists of stones of various sizes with soil between them. The soil is considered to have infiltrated during the period of nearly three thousands years after the construction. Some other khereksurs in other places, Ulaan Uushig III for example, do not include so much soil as our mound and their stones are generally of smaller size. The amount of soil perhaps depends on the micro-climatic and geographical condition of their places. What determined the size of the employed stones is not clear.

![Fig.7 The base of the eastern protrusion after the removing of stones]

We removed the stones at the base of the eastern antennae-like protrusion in order to know if it originally constituted a part of the mound or attached in later period (Fig.7). The result showed that the protrusion was placed on the same level as the mound itself and that it touched the edge stone of the mound. It was also observed that small stones belonging to the protrusion continued to above the edge stones of the mound. This means that the protrusion was attached to the mound but it does not necessarily follow that the protrusion is of later date.

![Fig.8 Deer stone found at the edge]  ![Fig.9 Newly found deer stone]
The most important find of the season was a deer stone found outside the edge stone of the mound at the south-eastern quarter (Fig.8, 9). It has an engraved circle at a corner and a larger circle below it. The sizes are 82x36x13 cm. It is made of crude stone and the surface is not polished. Although it does not have a figure of a deer, it is generally recognized that similar stones constitute a type of deer stones called “common Eurasian type”. Similar deer stones were found just outside of a khoreksur in Ukok plateau in Russian Altai in numbers (Polos’mak 1993). This find presented us a difficult problem concerning the classification and the date of deer stones.

Ulaan Uushig I is the archaeological site where khoreksurs and deer stones are situated very closely. Basically khoreksurs are found in the north and the deer stones are placed in the south. Our archaeological excavation in 1999 showed that the same combination of a horse skull and neck bones is found from both stone heaps around khoreksurs and stone circles around a deer stone. We considered that this situation proved that both types of construction were made by the same people in approximately the same period.

The deer stone we found in this season belongs to a different type from those located in the south of the site. Those deer stones are of the “Mongol-Zabaikl’e type” with characteristic deer, while the newly found one is of the type “common Eurasian type” with only circles as ornamentation on unpolished crude surface. Since the deer stone undoubtedly accompanied the khoreksur, if we follow the conclusion of 4 years ago, the deer stones of different types are to be considered contemporaneous. This problem is still open to discussion.

Another important discovery is the pottery fragments found in several places on top of the mound and in the mound (Fig.10). A bottom fragment was discovered even at the ground level under the mound but it was situated at the edge of a hole of an animal (tARBAGAN?). Most of the fragments are gray brown in color and not fired firmly enough. The body was beaten with a paddle engraved with ornamentation, then attached with two bands with incised decoration at the upper part of the body. The mouth also has incised
They seem to belong to one or two vessel and are similar to the pottery of the “Slab grave culture” of Buryatiya (Цыбиктаров 2001: Рис.29).

We consider the fragments are of the same age or later than Khereksur No.1. They present an important clue not only for the date of khereksur but for the relationship between those cultures.

Fig.11 Fragments of Xiongnu type pottery

Besides the above-mentioned pottery fragments, small fragments of Xiongnu type pottery were also found on the surface or in the mound (Fig.11). They are blackish in color and have no ornamentation. One of them was re-used as a circular tablet probably in later date.

Fragments of animal bones were found on the surface, in the mound and at the ground level under the mound.

2. Stone heaps

In this season 13 stone heaps were opened and all except one yielded horse skulls (Fig.12-15). They are stone heaps Nos. 2, 3, 4, 5, 7, 8, 9, 11, 13, 14, 15, 16. Stone Heap No.12 was excavated 4 years ago but this year uncovered again to yield a bone fragment.

Generally speaking, horse skulls are placed at the center or a little bit western side of the stone heaps so that the muzzles are directed to the east and the lines of the teeth horizontally.

Fig.12 Horse skull from Stone Heap No.3

Fig.13 Horse skull from Stone Heap No.4

Most of the horse skulls were accompanied by neck bones which were placed either south (Nos. 3, 4, 7, 9, 15), or north (Nos. 2, 11, 13) of the skulls. In some heaps hoofs were found together with skull and neck bone. Two hoofs were discovered in Nos.11, 13 and 16,
and three hoofs were found in No.15.

Horse skulls from Nos.3, 4, 14, 16 were considered as those of juvenile horses and those from Nos.9, 11, 15 were skulls of male horses.

Stone Heaps Nos.7 and 11 were cut in half in order to make clear the construction process (Fig.16, 17). Their vertical sections show different ways of construction: in No.11 the skull was simply put on the first soil layer above the virgin soil but in case of No.7 the skull was seen as if buried in the soil layer to be placed almost on the virgin soil. Probably, the skull of No.7 was placed in a small pit dug in the soil layer, the contour of which was not detected at the time of excavation. Also in case of No.11 it should have been necessary to dig a small hole for the mandible, if the line of the teeth was to be placed horizontally.
The construction process of the stone heaps is considered basically as below.

1. Put a horse skull on the ground. Sometimes dig a small hole for the mandible or a small pit for the entire skull and neck bones.
2. Put soil on the skull and neck bones.
3. Spread comparatively small stones on the area.
4. Place large stones in a circle.

3. Stone Circle No. 7 in the South Area

In 1999, in addition to the North Area with Khereksur No.1 we also made excavation in the South Area. In the process we found a horse skull in stone circle No.7 but we could not excavate it fully because of the schedule limit. This season we opened it again and found that the skull buried there was that of adult horse (Fig.18). That large skull was in a complete good condition with the neck bones to the north and accompanied with three hoofs.
4. Newly found deer stones

Dr. Erdenebaatar found two fragments of deer stones in the South Area. One is found near the deer stone No. 7 (Fig.19). It is made of white gray stone and figures of deer are visible. The sizes are: 61x35x17 cm. Another is situated near the deer stone No.6 and has been considered as a fragment of No.6. He points out that it cannot be its fragment because of the difference in sizes.

According to the first report by V. V. Volkov and E. A. Novgorodova, they found 15 deer stones in the South area of the Ушкийн Увэр site (our Ulaan Uushig I) (Волков, Новгородова 1975). However D. Tseveendorzh documented only 14 deer stones in his work in 1979 (Цэвээндорж 1979) and when we visited the site in 1997 we also only saw 14 deer stones and found deer stone No.15 was missing. It became clear that there should have been originally at least 17 deer stones in the South area. There might be found more deer stones when we excavate this area extensively.
Archaeological Survey Near Ulaan Uushig Uul in 2003
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10 Aug. (Sun.)
Buyantyn höndiy (Hövsgöl aymag, Arbulag sum; N49°52′03.3″; E99°46′52.1″)
In a stone circle of a hereksur we found two deer stones on the ground which were not published by Volkov: the first one (L: 113cm) [fig.1], the second (L: 73cm) [fig.2].

17 Aug. (Sun.)
Buyantyn höndiy (Hövsgöl aymag, Arbulag sum; N49°46′47.8″; E99°50′22.0″)
In a stone circle of a hereksur we found a deer stone on the ground which was not published by Volkov (L: 93cm) [fig.3].

24 Aug. (Sun.)
Ulaan Uushig V (Hövsgöl aymag, Bürentogtoh sum; N49°38′57.2″; E99°49′03.1″)
In a stone circle of the biggest hereksur of Ulaan Uushig I – X we found two deer stones on the ground which were not published by Volkov: the first deer stone (L: 72cm) [fig.4], the second (L: 50cm). This is the first discovery of deer stones in Ulaan Uushig II – X.
Archaeological Survey from Möörön to Ulaanbaatar in 2003
By Permanent Archaeological Joint Mongolian and Japanese Mission

30 Aug. (Sat.)
Baraa Tolgoy (Bulgan aimag, Bayan-Agt sum; N48°47′47.3″; E101°59′01.4″)
On the hill top there is a deer stone (L: 161cm) [fig.5]; not published by Volkov.

fig.5

fig.6

Shiveet Ulaan (Bulgan aimag, Bayan-Agt sum; N48°47′56.1″; E102°00′19.2″)
This site is identified as the memorial site of the founder of the Second Turkic Haganate by Voytov [1996: 30]. In 1997 the Bichees Expedition (Mongolian and Japanese Expedition lead by A. Ochir and Moriyasu T.) surveyed this site [Hayashi, Moriyasu 1999: 141, fig.5a-l]. We found one more statue of a lion [fig.6] under the southeastern foot of the stone mound which someone must have dug out recently. And we took kite photos of the site from a western hill [fig.7].

fig.7 Shiveet Ulaan site (by kite photo)
Ganden-zuu of Hayrhan sum (Arhangay aimag)

In the precincts of a temple there is the stele with tamgas inscription which might have stood in Shiveet Ulaan [Hayashi, Moriyasu 1999: 142] [fig.8].

fig.8

31 Aug. (Sun.)

Gol Mod (Arhangay aimag, Hayrhan sum: N48°19’37.3”; E101°54’52.4”) (fig.9)

This site is surveyed by Mongolian and French Archaeological Expedition, including D. Erdenebaatar, who guided us excavated and unexcavated tombs of the Xiongnu period.

Urtyn Shuduuny am (Arhangay aimag, Hayrhan sum)

Local people call the place name as mentioned above, although V. V. Volkov called “Hushuutiyn tal” [2002: 42-43] or V. E. Voytov called “Hushon-tal” [1996: 30]. There are hereksurs, several deer stones and a rectangular earthwork with a tortoise stone at a distance: the biggest deer stone (N48°21’22.1”; E101°50’42.8”) [Волков 2002: tabl. 23-1] [fig.10], the second one (N48°21’38.8”; E101°50’24.7”) [Волков 2002: tabl. 16-2] [fig.11]. Over a dagger and a deer head on the right side of the first deer stone, we can distinguish a bow and a quiver which are represented vaguely in the Volkov’s book [2002: tabl.23-1]. A rectangular earthwork with a tortoise stone (N48°21’44.6”; E101°51’10.3”) [fig.12] is identified to the memorial site of the founder of the Uigur Haganate by Voytov [1996:30].

fig.10

fig.11

fig.12
Cultural Center of Hayrhan sum (Arhangay aymag)
There are two stone animal statues (a lion and a sheep) in front of the Center, and an upper part of a human stone statue and an ellipsoid stone, maybe a leather bag, in the building of the Center, which were unearthed from Shiveet Ulaan.

Tsagaan Hashaa (Arhangay aymag, Hayrhan sum; N48°21'10.7"; E102°03'29.8")
There stands a human stone statue (H: 112cm; W: 39cm; D: 20cm) [fig.13] in a shallow hollow, facing to the south. Apart from the statue to the north there is a square stone enclosure (6x6m) with a row of balbal-stones in the length of about 300m to the east (N48°21'17.5"; E102°03'11.9"). The statue might have stood in front of the eastern side of this enclosure. The statue is probably unpublished.

01 Sept. (Mon.)
Ih Hanüy nuur (Arhangay aymag, Erdenemandar sum; N48°29'22.4"; E101°22'09.4")
There are two stone statues (male and female) and a stone sarcophag with a runic inscription in a rectangular earthwork [fig.14]. This site has been surveyed by various expeditions [Osawa 1999: 137-140].

Balgasny tal (Arhangay aymag, Erdenemandal sum; N48°28'30.2"; E101°19'38.8")
In the territory of the Harhul Haan Balgas there stands a deer stone [fig.15], published by Volkov [2002: tabl.107].

Erdene uul (Arhangay aymag, Erdenemandal sum; N48°22'33.1"; E101°14'08.6")
There is a deer stone (L: 398cm) [fig.16], not published in Volkov’s book.
Zhargalant (Arhangay aymag, Öndör-Ulaan sum; N48°10'10-30"; E101°05'34-35")
There are so many deer stones (fig.17, 18), stone heaps and a hereksur. In 1990 seven small stone heaps were excavated and a horse head facing to the east was discovered in each heap (with cervical vertebrae in some cases) [Волков 2002: 100]. This situation is quite similar to our hereksur of Ulaan Uushig I.

Urt Bulag (Arhangay aymag, Öndör-Ulaan sum; N48°05'34.8"; E101°03'24.6")
There is a biggest hereksur (fig.19) in Mongolia, now surveyed by Mongolian and American (Pittsburgh University) Expedition.

Gol Mod 2 (Arhangay aymag, Öndör-Ulaan sum; N48°00'23.2"; E101°12'27.1")
There is a cemetery of the Xiongnu period, now surveyed under the leadership of D. Erdenebaatar (fig.20).

02 Sept. (Mon.)
Bayan Tsagaan (Arhangay aymag, Ih Tamir sum; N47°45'37.0"; E101°23'10.1")
Near a big hereksur there are several deer stones [fig.21], published by Volkov [2002: tabl.10]. Local people call the place name as mentioned above, although Volkov called “Tsatsyn ereg.”

Nuramtyn üzüür (Arhangay aymag, Ih Tamir sum; N47°45'31.3"; E101°16'53.1")
There are several deer stones [fig.22], published by Volkov [2002: tabl.14-2]. Local people call the place name as mentioned above, although Volkov called “Shavartyn am.”
Bugut or Bugat (Arhangay aymag, Ih Tamir sum; N47°49’12.3”; E101°16’56.1”)  
There is a rectangular earthwork with a row of balbal-stones in the length of about 300m to the east. We can see fragments of roof tiles on the surface and in the midst of the section [fig.23] of an excavated trench [Boïrroa 1996: 27; Moriyasu, Hayashi 1999: 121]. There were found a tortoise stone and a stele with Sogdian and Brahmi inscription now kept in the aymag museum [Yoshida, Moriyasu 1999: 122-125].

Bayan Tsagaan höndiy (Arhangay aymag, Ih Tamir sum; N47°45’20.4”; E101°20’39.6”)  
There is a rectangular earthwork (56x35m) with a row of balbal-stones in the length of about 800m to the east [fig.24]. Voytov called this site as “Gindin-bulak” [1996: 27] and located “in 10-12km east-northeast from the Bugut site” [1996: 146], but local people call as mentioned above and is in fact located in the south-southeast from the Bugut.

03 Sept. (Tue.)

Cultural Center of Hotont sum (Arhangay aymag)  
Deer stone published by Volkov [2002: tabl.24-1].
04 Sept. (Wed.)
    Harhorin (Övörhangay aymag)
    We visited the site excavated by Mongolian and German (Bonn University) expedition [fig.25].

Tarnay gol (Övörhangay aymag, Burd sum; N47°17'06.6''; E103°37'45.9'')
    On the hill top there stands a human stone statue [fig.26], published by D. Bayar.

(fig.25)  (fig.26)

(HAYASHI Toshio)
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