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KEYWORDS: Mongol burials, confluence of Orkhon and Selenge, Talqun Aral, Buuralyn Ovoo hill, human skeleton found from gully

ABSTRACT: In 2012, during the archaeological survey in the area of confluence of the rivers Orkhon and Selenge, North Central Mongolia, the author discovered a human skeleton from a gully. There also 11 burials were found at the terrace edge, the surveyed place. By the number, shape, size and external structure, these burials can be dated to 11th-13th cc. Furthermore, the human bones found from a gully are most likely remains of a burial, like the burials at the terrace edge, as some important burial artifacts such as fragments of ceramic vessel and domestic animal bones were found along with human remains. In this paper, data about the human skeletal remains and ceramic fragments are presented for the first time.

A licensed site of brickyard of the company "Uran Selenge" is located in the territory of Shaamar soum, Selenge aimag, 3 km to the north from the 49th station of Ulaanbaatar railway, 1.2 km to the east from the river Orkhon and 2 km to the west from the hill named Buuralyn Ovoo which is 800.6 m high above the sea level (Munkhtulga, 2012: 17) (*Fig. 1*).

Since 1920s, the clay of Buuralyn Ovoo mine is used for the production of building materials such as brick and roof tile.

A terrace in the north and along the center of the site is a part of an old terrace of the Orkhon river and is known as the place of the earliest fauna of the Late Pliocene Epoch (3.5-1.8 million years ago) in the Transbaikalia region (Pozdnij, 1989: 19).

In the late 1970s, Mongolian-Soviet Joint Paleontological Expedition discovered a bone of *Presbytis Eohanuman Borisoglebskaja*, a marmoset-like ape from the terrace located to the west of Buuralyn Ovoo. It was the only case of the discovery of the Late Pliocene primate in the

Transbaikalia region (Kalmykov). Consequently, some archaeologists tried to find fossil remain of human ancestor in the North Central Mongolia.

In August 2010, a team of the Institute of Archaeology, Mongolian Academy of Sciences led by professor D.Tseveendorj carried out an archaeological survey along the terrace to the west of the hill Buuralyn Ovoo. Although any finding of the fossil hominid was revealed by the survey, two burials of unclear shape were discovered at the edge of the terrace, the northwestern corner of the licensed site of the brickyard (Munkhtulga, 2012: 17).

Between the 2nd and 4th of October 2012, the author undertook an archaeological field-walking survey in the site. 9 burials and some remains of a burial were found by the survey besides the 2 burials found in 2010 (Munkhtulga, 2012: 17).

Burials

The monumental site at the terrace edge is relatively flat and looks to the sun-rising

direction. Surrounding sights, especially the views of a famous sacred mountain named *Dulaankhan* in the south and the river *Orkhon* in the south-west are seen unusually beautiful from this side of the terrace and it would had been certain circumstance of choice for early people to bury their ancestors. The size of the burial area is approximately 40x40 m (*Figs. 2-4*).

There are at least 11 burials by the edge of the terrace, including some stones which might be the remnants of burial mound covered with sand. Some seven monuments were identifiable to be as burials and were preliminarily documented (Figs. 5-11). There is no place nearby with the stones similar to ones of the burials. In the wall of the mining hole it was clear that the terrace is 40 m high and consists of geological stratas of sand, clay and pebble. Therefore, we assume a few large stones around the burials were placed by human. Some rocks in the bottom of the terrace were located 120 m to the south-west from the burials. Builders of the burials perhaps, removed stones from the rocks and used for the burial mounds (Fig. 4). The burials look severely damaged by natural and human activities. Most of them are covered with sand due to sloping surface. Stones of some burials nearby the edge were removed down the terrace by soil erosion. However, two types of burial mound were identifiable at the site. The first one is mound of large stones used as a fence, and the second is a flat mound made of smaller stones. The size of the burials is not big, 1-3.5 m in length and 0.6-3.1 m in width. The shape and orientation of the burials are hard to determine. The burial 7 is oval and is oriented to the north (Fig. 11).

Ancient ceramic fragments were spread around the burials in the southern area, probably evidencing that some of the burials were looted (*Fig. 12*).

Remains from the burial in the gully

In a hole of a gully oriented from the northeast to the south-west in about 60 m to the northeast from the burials and a human mandible with tooth was accidently found (*Fig. 14*). Distance between the terrace edge and the gully hole is 24

m. A flowing rainwater eroded soil under the tree in the gully and produced a hole 2.7 m deep from the ground surface (*Figs. 13 and 14a*). There also human rib and phalanges in about 3 m to the south-east from the mandible, a left femur in about 6.4 m to south from the rib and phalanges were found in the runway of rainwater (*Fig. 13a*).

A small-scale excavation was carried out in the area to the south from the hole, along the runway of rainwater in the gully. The excavation trench was 10 m long, 0.4-1.4 m wide and 0.1-0.3 m deep (Fig. 17). By the excavation, an almost complete human skull and ribs were revealed from fallen soil of the east wall of the gully (Fig. 15). A leg bone of domestic animal was also found (Fig. 21) Three fragments of a ceramic vessel were recovered in 3.2-4.1 m to the south from the point where mandible was found. An unusual ornament on one of the ceramic fragments show its relevance to the Medieval Age (Figs. 20 a and c). A right femur, two human ribs and a fragment of ceramic vessel were found in 4.5 m to the south from the mandible (Fig. 16). No artifact was found after the human rib was revealed at 7 m south from the mandible.

The pieces of burial goods and domestic animal bones confirm existence of a burial near the terrace edge, which was damaged and removed by gully water.

Findings

Ceramic fragments found near the burials. 26 fragments of ceramic vessel were found at the front area of the burials (Fig. 12). During the laboratory documentation process it became clear that the fragments come from more than ten technically different vessels. Thickness of the fragments is 0.3-1.2 cm. The quality of burn is relatively good (Fig. 18 and Table 1).

Human skeleton from gully. Although the most part of the skeleton is missing, the important subjects for anthropological measurement such as skull and complete long bones were revealed (Fig. 19). Preservation of the bones is relatively good. The skull was deformed probably due to the soil pressure in burial pit. Colour of the bones which were under

the soil is brownish-red, but the bones exposed upon the ground surface weathered to white colour and became shorter.

The results of human bone measurements show the following characteristics: the individual was a male, mongoloid; age-at-death was 50 ± 5 ; the height-at-death was 164 ± 7 cm (Standards, 1994). It should be mentioned that incompleteness of skeletal materials limited the results of the determination (*Table 3*).

Ceramic fragments found with the human skeleton. Four fragments of ceramic with 6-9 mm in thickness were unearthed along with the human skeletal remains. They look belonged to the same ceramic vessel. An exceptional ornament on one of them is the important feature to identify the date of the ceramic fragments and the burial (Fig. 20 and Table 2).

Animal bones found with the human skeleton. Four leg bones of domestic animals were revealed with the human bones (Fig. 21). We assume the findings were burial artifacts. Putting flesh in ceramic, wooden and metal vessel or pot, and burying them with deceased was one of the significant features of the mortuary practices of the inhabitants of Inner Asia from the Bronze Age to the Early Modern Age (Tseveendorj et al., 2008).

Conclusion

The number, shape, size and external structure of the burials revealed at the western terrace of the hill Buuralyn Ovoo are very similar to those of the medieval Mongol burials found not only in the territory of Mongolia but also the Transbaikalia region of Russia (Turbat and Batsaikhan, 1997: 140-145). Particularly, the two types of burial mound at the the site are much the same style as those in burials of the Mongol period (11th-14th cc. AD). For example, during the years between 1980 and 1984 at the site of Buural Uul, located in 100 km to the south from the Buuralyn Ovoo, Mongolian archaeologists excavated twenty Mongol burials, most of which was 250x150 cm in size. Burial mounds were the above-mentioned 2 common types (Lhagvasuren, 1989: 140; Tseveendorj, 1999: 193). Burial goods from the burials of Buural Uul were dated to 11th-13th cc. AD (Erdenebat, 2009: 102).

There is a peninsula Tsagaan Aral formed by the confluence of the rivers Orkhon and Selenge in 10-20 km to the north from the site of Buuralyn Ovoo. According to "The Secret History of the Mongols", Tsagaan Aral was named as Talgun Aral during 12th-13th cc. (Perlee, 2012 (1948): 50; Perlee, 2012 (1958): 237) and an encampment of Dayir Usun, a chief of a wing of the Merkit tribe was there. The Merkit tribe was a powerful enemy of Temujin or later Chinggis Khan and partially defeated by Temujin's allied force in 1182 (Rachewiltz, 2004: 411). After the foundation of the Mongol Empire this area was given to Sorgan Sira (Natsagdorj, 1978: 55) who was a veteran from Suldus tribe (Rashiduddin, 1998: 94).

The archaeological evidence is one of the important sources for the studies on ethnocultural process, especially in the North Central Mongolia, in the area of confluence of the rivers *Orkhon* and *Selenge*, as the population inhabited this area during the Mongol period has not been studied well.

Regarding the *Buuralyn Ovoo*, *which* is located in 2 km to the east from the monumental site, the toponym *Buuralyn Ovoo* (translated as *'Sacrificial mound for the grey-headed person'*, R.M.) was likely related to the custom of the Medieval Mongols to give the places for their ancestors' burials such a name (Mostaert, 2009: 97).

We hope that the history of the local clay use and ceramic production in *Buuralyn Ovoo* will be possible to be dated back much earlier than 600 years ago, if the chemical composition of the ceramic fragments found at the site and the clay from the *Buuralyn Ovoo* are same.

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ТОВЧЛОЛ

Р.МӨНХТУЛГА

ТӨВ МОНГОЛЫН УМАРД ХЭСГЭЭС ШИНЭЭР ИЛЭРСЭН ДУНДАД ҮЕИЙН ХЭДЭН БУЛШ

2012 оны 10-р сард Сэлэнгэ аймгийн Шаамар сумын Бууралын Овоо (Энэ газрыг бас Бааюун тохой гэдэг. Гэвч энэ нь сүүлд өгсөн нэр байх. Р.М.)-ны тоосгоны үйлдвэрийн ашиглалтын талбайн арын эргийн ирмэгээс илэрсэн 11 булш нь хэлбэр, төрх, гадаад бүтцийн хувьд XI-XIII зууны үеийн монгол булшны төрөлд хамаарч болохоор байна. Түүнчлэн мөн булшнуудаас холгүй жалган дотроос санамсаргүй олдсон хүний яс нь жалгын ирмэгт тэдгээрийн адил нэгэн булш байгаад үерийн усанд эвдрэн урсахад үлдсэн зүйл бололтой. Жалган дотроос хүний ясны хамт дундад үеийн ваар савны хэлтэрхий, бог малын яс сэлт гарсан нь үүний баталгаа болно.

Table 1. Description of the ceramic fragments found near the burials

№	Size	ize Colour		Thickness	Which	Quality of	Surf	face	Body clay pebble		Notes
JNO	(mm)	Exterior	Interior	(mm)	part of vessel	oi firing	Exterior	Interior	Size	Density	Notes
1	35x24			5			Horizontal narrow				-
2	24x24						strokes of smoothing				Pieces of the No. 1
3	21x16			4-5				Long horizontal narrow strokes of	Small	Low	-
4	17x11	Gr	ey		Unclear		-	finger pressure	Siliali	Low	Pieces of the No. 3
5	43x30			6-7			Smooth; horizontal narrow strokes of smoothing				
6	15x13			3-7	Good		Flat	Rough	No pebble		
7	44x27			9-12	Shoulder (?)		Horizontal glued pattern	Long sloping strokes of finger pressure			
8	36x26	Yellowi	sh-grey		Rim		2 mm wide horizontal groove on the upper edge of the rim that made with shaping of the rim; horizontal narrow strokes of smoothing.	1 mm wide horizontal groove made in process of making the rim; horizontal narrow lines of smoothing.	Medium	Low	-
9	22x20			6	Unclear		Flat	Rough. Pebbles are invisible	Large	Medium	
10	22x14			6			Same as of the No. 8	-	Large	Medium	Similar to the No. 8
11	17x16	-		8	-	-	-		Small	High	
12	16x12			10-11			Horizontal narrow strosides; on one side, 1 horizontal grooves; sparis 3 mm	mm wide 2 straight	mm wide 2 straight		-
13	23x20	Yellowi	sh-grey	6			Fairly smooth	Visible pebbles			Maybe some

Table 1. Description of the ceramic fragments found near the burials (*Continued*)

3.0	Size	Col	lour	Thickness	Which	Quality of	Surface		Body clay pebble		N
№	(mm)	Exterior	Interior	(mm)	part of vessel		Exterior	Interior	Size	Density	Notes
14	22x19	Similar to but fairly da	the No. 13,								pieces of the same pottery
15	24x21	Yellowish-g	grey	-			-	Horizontal narrow strokes of smoothing	Small	Low	Similar to the No. 13 and 14
16	26x18	Yellowish-g Reddish-yel on the body	low spots	11	-	-	-	-	Large	Medium	
17	28x22	Yellowish-g	grey	7			Visible pebbles	Hollows	Medium		
18	28x26	Tawny		7			Quite rough, visible pebbles	Fairly smooth	Large	High	
19	26x21	Tawny	Grey	8-9			Fairly smooth; horizontal traces of smoothing.	-	-		-
20	21x15		Yellowish -grey	7			Visible p	pebbles	Medium	High	
21	19x17	Brownish- grey and reddish- yellow	Brownish- grey	7-8			-	Small	Small	Medium	
22	19x11	Reddish- yellow	Reddish- yellow, brownish- grey	7	-	-	Visible p	pebbles			-
23	27x21	Black	Grey	9			Shiny	-	Medium		Reddish- yellow under the body surface
24	16x15	Black	Dark-grey	7-8				-			
25	27x21	Light- yellow	Black	9			Fairly smooth	Burnt. Visible pebbles	-	-	-
26	19x11	Reddish- yellow	Diack	7			-	Burnt	-	-	

Table 2. Description of the ceramic fragments found with human bones

No	Size	Colour		Thickness	Which		Body surface		Size of the body	Pebble	Notes
745	(mm)	Outside	Inside	(mm)	part of vessel	firing	Outside	Inside	clay pebble	density	Notes
1	45x28	Grey	Yellowish- grey	8-9	Shoulder (?)	Good	Decorated with rhombic ornament by wooden rubbing tool. 2 conical clay decoration measuring 13 mm in diameter and 5 mm in length which have been glued on the body. Those are connected to each other with a 2 mm wide direct groove. Space between the conical decorations is 12 mm.	Quite rough. Visible pebbles	Large	High	-
2	43x26	Yellowish- grey	Dark-grey	6-8	Unclear	Good	_	Burnt	Medium	Low Pieces of	Pieces of the
3	28x23	Dark-grey	Black	6-7		2300		_ = 5/110	Small	Low	same pottery

Table 3. Measurements of the human skeleton

	Measured part	Size (mm)
	Skull	
1	Gonion-Opisthocranion	16.9
2	Euryon-Euryon	15
3	Zygion-Zygion	13.2
4	Ectomolare-Ectomolar	7
5	Prosthion-Alveolon	5.3
6	Auriculare-Auriculare	12.1
7	Nasion-Prosthion	7.2
8	Frontoureller Transporter Engagement Transpor	10
9 10	Frontomalare Temporale-Frontomalare Temporale	10.5 5.1
10	Nasion-Nasospinale Alare-Alare	2.4
12	Dacryon-Ectoconchion	4.4
13	Ectoconchion-Ectoconchion	10.6-10.6
14	Nasomalare Frontale-Nasomalare Frontale	1
15	Zygoorbitale-Zygoorbitale	4.9
16	Nasoalare-Nasoalare	1.7
17	Jugale-Jugale	11.6
18	Krotaphion-Krotaphion	12
19	Asterion-Asterion	11.1
20	Zygomaxillare-Zygomaxillare	10.5
21	Orbital Height	3.5
22	Dacryon-Dacryon	2.4
23	Nasyon-Bregma	10.5
24	Bregma-Lambda	10.1
25	Nasyon-Rhinion	2.7
26	Infradentale-Gnathion	3.5
27	Height of the Mandibular Body	3.1
28	Gonion-Gonion	11.1
29	Condilyon Laterale-Condilyon Laterale	12.2
30	Maximum Ramus Breadth	4.2
31	Mandibular Length	3.5
2.2	Left Humerus	
32	Maximum Length	33
33	Epicondylar Breadth	5.6
2.4	Left Femur	40.6
34	Maximum Length Ricandylar Length	40.6
35 36	Bicondylar Length Epicondylar Breadth	7.8
37	Epiconayiar Breaain Maximum Head Diameter	15
38	Medial-Lateral (Transverse) Subtrochanteric Diameter	8.5
20	Right Femur	0.3
39	Maximum Length	41.7
40	Bicondylar Length	42.6
41	Epicondylar Breadth	8
42	Maximum Head Diameter	14.9



Fig. 1.O - Location of the Buuralyn Ovoo site

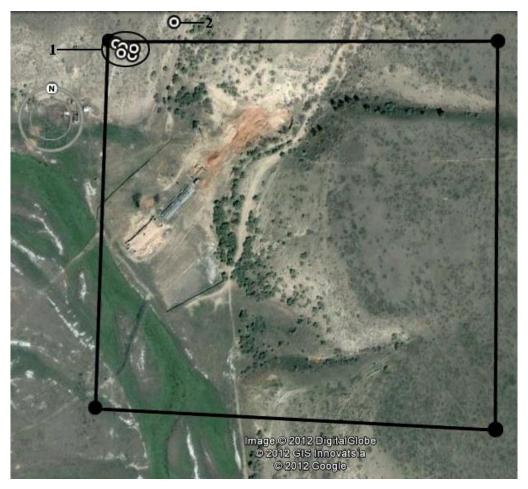


Fig. 2. Licensed site of a brickyard of Buuralyn Ovoo and monuments: 1 - burials; 2 - remains of a burial found from gully



Fig. 3. Buuralyn Ovoo monumental site. View from the south. — - burials, O - remains of a burial.



Fig. 4. Buuralyn Ovoo monumental site. View from the south-east.

— burials, ○ - remains of a burial, □ - rocks



Fig. 5. Buuralyn Ovoo monumental site. Burial 1.



Fig. 6. Buuralyn Ovoo monumental site. Burial 2.



Fig. 7. Buuralyn Ovoo monumental site. Burial 3.



Fig. 8. Buuralyn Ovoo monumental site. Burial 4.



Fig. 9. Buuralyn Ovoo monumental site. Burial 5. View from the south.



Fig. 10. Buuralyn Ovoo monumental site. Burial 6. View from the east.



Fig. 11. Buuralyn Ovoo monumental site. Burial 7. View from the east.



Fig. 12. Ceramic fragments found near the burials.

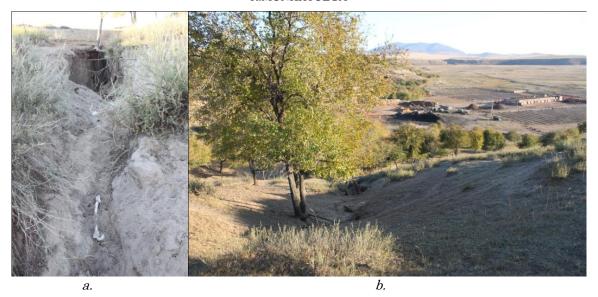


Fig. 13. Gully where burial remains are found. a. View from the south-east. Human left femur is seen; b. View from the north-east.

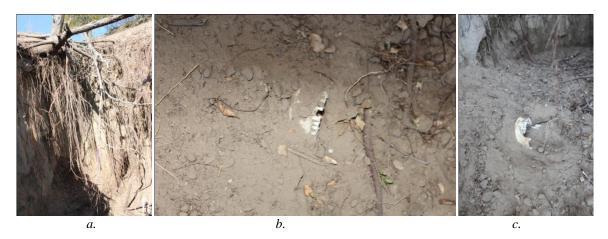


Fig. 14. Gully hole where human mandible was found. a. View from the south-east; b and c. Human mandible.



Fig. 15. Skull and ribs. a. View from the south-east; b. View from the south-west.



Fig. 16. Human right femur and ceramic fragment. View from the south-east.



Fig. 17. Excavation trench along the runway of rainwater in the gully.





Fig. 18. Outer and inner sides of ceramic fragments found near the burials.

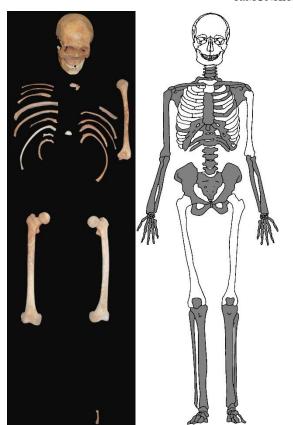
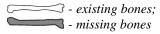


Fig. 19. Human skeleton found from gully.



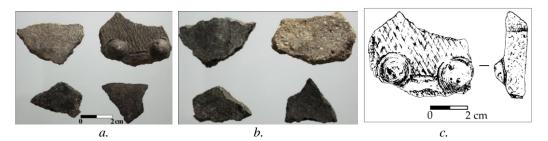


Fig. 20. Ceramic fragments found along with human bones. a and c. outer side; b. inner side.



Fig. 21. Leg bones of domestic animals found from gully along with human skeleton.