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THE XIONGNU ARISTOCRATIC TOMBS: STRUCTURE, ARTIFACTS, CHRONOLOGY AND EVOLUTION

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Almost 100 years have passed since the first excavations of the Xiongnu noble tombs by the expedition of P.K. Kozlov in the Noin-Ula Mountains. Since then, 13 archaeological sites of the Xiongnu elites have been discovered and in 4 places excavations have not yet been carried out, such as Borbulag, Khyalganat, Ovoono Khar and Orgoiton, and in the rest, research work was carried out. At present, a total of 28 Xiongnu elite tombs have been excavated in Mongolia, Baikal and Tuva. Research work is also being carried out in 4 places, such as Noin-Ula, Duurlig Nars, Gol mod-II and Belkhin am. This article discusses the structural features of the tombs and the relationship of the discovered artifacts, the results of radiocarbon analysis, the date range of the tombs and the circumstances of the creation of large square-shaped tombs for the Xiongnu elites. In other words, this article is intended to raise the question of the evolution of large tombs of the highest rank of the Xiongnu.

Keywords: Xiongnu, large elite tombs, rectangular tombs with dromus.

ХУННСКИЕ ЗНАТНЫЕ КУРГАНЫ: СТРУКТУРА, АРТЕФАКТЫ, ХРОНОЛОГИЯ И ЭВОЛЮЦИЯ

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Прошло почти 100 лет со времени первых раскопок хуннских знатных курганов экспедицией П.К. Козлова в горах Ноин-Улы. С тех пор было обнаружено 13 археологических памятников хуннских элитов, в 4 местах, таких как Борбулаг, Хялганат, Овооно хар и Оргоитон, еще не проводились раскопки, а в остальных велись исследовательские работы. На данный момент в Монголии, Забайкале и Туве раскопано в общей сложности 28 хуннских знатных курганов. Также исследовательские работы ведутся в 4 местах, таких как Ноин-Ула, Дуурлиг Нарс, Гол мод-II и Бэлхийн ам. В данной статье рассмотрены особенности строения курганов и взаимосвязь обнаруженных артефактов, результаты радиоуглеродного анализа, датовый диапазон могилы и обстоятельства создания больших курганов квадратной формы для хуннских элитов. Иными словами, данная статья призвана поднять вопрос об эволюции крупных захоронений высшего сословия хуннов.

Ключевые слова: Хунну, большие знатные курганы, курганы прямоугольная форма с дромусом.

Introduction

In the past, archaeological sites related to the Xiongnu—such as ruins of settlements, tombs and funerary sites, and rock and parietal art—have been discovered and studied in various places. These studies provided a sizable amount of information on their lives and lifestyles. Among these, the artifacts and findings discovered from tombs and funerary sites are counted as important tools in the study of the Xiongnu's material culture.

Currently, more than 15,000 burial and funerary sites have been identified in the widespread regions of Mongolia, the Republics of Buryatia and Tuva of the Russian Federation, the Inner Mongolian Autonomous Region of the People's Republic of China (PRC), the Xinjiang Uygur Autonomous Region of the PRC, and the Qinghai Province in the PRC. These tomb sites can be generally categorized into those of nobility (aristocratic) and common small-sized ones. The tombs of nobility and the aristocratic notably differ from the small circular common burials as they are much larger, with visible soil mounds protruding from the ground, a rectangular complex at the edges made of stone fencing, and a long trapezoidal dromos at the south side.

There are ten funerary sites of the nobility and the Aristocratic in the Mongolian region, including the Noyon Uul, Gol Mod, Gol Mod-II, Duurlig Nars, Bor Bulgiin Am, Takhiltiin Khotgor, Selbiin Am, Khyalgant, Yamaan us, and Ovoono Khar sites. In contrast, three aristocratic funerary sites—Ilmiin Am (Suuj), Tsaram, and Orgoiton—have been discovered and studied in the Southern Baikal Region in the Republic of Buryatia; the Bai Dag-II site has been discovered and studied in the Republic of Tuva.

This paper aims to use the latest research results to present the author's hypothesis on the composition of Xiongnu aristocratic tombs, the interrelationship of the artifacts found within Xiongnu tombs, the relevant dates associated with the tombs and artifacts, the dates associated with the evolution of the rectangular-shaped tombs, and the conditions that permeated the development of such rectangular shaped tombs.

The Features of the Form and Structures of the Xiongnu Aristocratic Tomb

In terms of external and internal form, the majority of the Xiongnu aristocratic tombs discovered in Mongolia, as well as the Southern Baikal and Tuvan regions, exhibit significantly homogenous. Externally, they feature low rectangular-shaped mounds called "ovoolgoi" protruding from the topsoil, surrounded by a stone fence-like dam, and a long trapezoidal-shaped dromos at the front. The internal structure, or underground section, similarly shows uniform characteristics. These tombs descend in level, with the circumference decreasing as they descend. At the lowest point or base, the tombs feature a fenced area made from large logs, within which intricate wooden caskets hold the deceased. Moreover, the accompanying funerary items are placed within the casket following set funerary customs.

In the following section, this paper aims to further elucidate the external and internal features of Xiongnu aristocratic tombs.

External Structure. The Xiongnu aristocratic tombs mentioned above feature a protruding external stone cover structure atop undisturbed topsoil. These 'ovoolgoi' mounds are constructed directly over the centre of the pit. The external structures consist of two sections: the 'ovoolgoi' cover stones and the dromos to the south that connect it. If the main cover stone section is rectangular in shape, the dromos widens towards the northern section and narrows towards the southern section in a trapezoidal shape. Stones dams are laid out in a border formation around the main "ovoolgoi" stone cover section and the dromos. It is also interesting to note that certain tomb sites mimic the layout and structure of the Tomb 20 of the Gol Mod site wherein additional straight intersecting almost columnal stone dams are laid and piled out across and around the dromos from north-south (Yerööl-Erdene, Gantulga, 2008, p. 150). Similar stone dams are found within the internal structure (burial pits) of the majority of Xiongnu aristocratic tombs with certain tombs creating these layouts using wood instead of stone. Thus, we can presume that these stone dam pilings were made during the construction of the tombs, especially the levels, thus they connect to the internal structure rather than being created specifically as an external structure and formation. The fact that these stone dams are occasionally seen visible atop the tomb and sometimes not can thus be connected to this.

Based on observations during archaeological excavations, the main section of rectangular-shaped tombs with dromuses typically measures 5-8 meters for smaller tombs, 10-20 meters for average or medium-sized tombs, and over 30 meters for larger tombs. However, large tombs are infrequent among the Xiongnu aristocratic tomb sites we are aware of, so a comprehensive statistical understanding of them may be incomplete. mong the larger tombs we have studied, notable examples include Tomb 1 of the Gol Mod-II site (Main Structure: 48×42 meters, Dromos: 37.5 meters), Tomb 160 of the Duurlig Nars site (Total length including the Dromos: 88 meters), and Tomb 61 of the Gol Mod site where conservation and cleaning efforts were conducted.

Internal Structure. The internal structure, or the tomb pit, comprises and is divided into two: the tomb pit and the tomb chamber.

Xiongnu aristocratic tombs are unique for their exceptionally deep pits. If the shallowest of the known tombs, Tomb 64 of Takhiltiin Khotgor measures 5.5. meters in depth (Bayarsaikhan, Egiimaa, 2008, 188), of the Duurlig Nars site, Tomb 5 measures 7 meters in depth, Tomb 2 measures 8 meters in depth, and Tomb 1 measures 15 meters in-depth, of the Tsaram site, Tomb 7 measures 17 meters in-depth, of the Noyon Uul site, Tomb 20 measures 18 meters in-depth, of the Gol Mod site, Tomb 20 measures 18.3 meters in depth, and of the Gol Mod-II site, Tomb 1 measures 22 meters in depth which is currently the deepest depth known to us (Eregzen et al, 2011, 2015; Miniaev, Shakharovskaia, 2006, p. 49, Tseveendorj et all, 2007, p. 290, Yerööl-Erdene 2015, 50, Erdenebaatar et al, 2015, p. 33). Thus, it was imperative to carve such depths carefully and systematically in a well-planned manner. Tombs such as 20 and 24 of the Noyon Uul site and 1, 2, and 5 of the Duurlig Nars site are clear examples of the Xiongnu using levels and creating the depths of the tombs carefully and

systematically where they began from the surface digging in rectangular increments that descended in downwards in a terrace. For example, the 2nd Tomb of the Duurlig Nars site excavated between 2006-2007 by the joint Mongolian-Korean "Mon-Sol" project revealed the tomb to have a depth of 8 meters and that the tomb depth was made in several levels (referred to as levels of the tomb or lot(s)). Below surface level, the first lot of this tomb measured 10×8 meters at 2 meters deep, the second lot measured 9×7 meters at 2 meters deep, the third lot measured 8×6 meters at 1.5 meters deep and the fourth lot measured 7×5 meters at 2.5 meters deep. Each lot was divided into levels with a 0.5-meter width. Moreover, the 3 stone border dams along the outermost section of the external structure were laid out along and parallel to the first lot of the tomb pit (Eregzen et al, 2008, 158). The dromos was built in a manner that it slanted and began from the southern edge of the tomb side and steepened as it encroached and descended towards the main section of the tomb pit. The dromos typically extended towards the topmost section of the tomb's wooden structure. Additionally, excavation processes have proved them to have a practical purpose wherein they served to assist in the removal of earth and soil as the tomb was constructed and dug towards deeper depths. They seem to also have served the purpose of helping move funerary items into the main site during the funerals of the Xiongnu aristocratic.

The tomb chamber, especially the base and lowermost point of the tomb pit features fenced areas made and designated out of large and thick logs. These wooden (log) fences are made either in singular or double layers. Of these, the single wooden (log) fencing resembles a box that surrounds the casket. They feature 4 walls and are rather small in terms of size. Smaller Xiongnu aristocratic tombs, such as Tomb 1 and 2 of the Takhiltiin Khotgor site (Navaan 1999), Tomb 64 (Bayarsaikhan, Egiimaa 2008), Tomb 2 and 5 of the Duurlig Nars site (Eregzen et al 2008; 2009) all feature these single wooden (log) fences. To specify, the fencing of Tomb 61 of the Takhiltiin Khotgor site measures 2.6×1.2 meters, Tomb 2 of the Duurlig Nars site measures 3.6×1.9 meters, and Tomb 1 of the Takhiltiin Khotgor site measures 4×1.8 meters.

Table 1. Measurements of the Internal and External Structures of the Tombs of the Xiongnu

№	Tomb Site / Number	External Structure Measurements					Fencing Measurement		Burial Pit Depth
		Length	Width	Height	Dromos				
					Length	Width	External	Internal	
1	Gol Mod-II, Tomb-1	48	42	3.7	37.5	22×8	8×5	-	22
2	Noyon Uul, Ballod	35	35	3.5	9.4	10.8×8	5.87×3.8	4.27×2.14	-
3	Gol Mod, Tomb-20	34	31.5	1	23	14×4	4.4×2.94	3.45×2.1	18.3
4	Gol Mod, Tomb-1	34	26	1.6	36	15×6	5.4×4.4	-	16
5	Tsaram, Tomb-7	32	32	1	20	-	6.1×4.2	4.1×2.4	17
6	Noyon Uul, Kondratyev's Tomb	26	26	1.3	17.5	-	5.32×3.71	3.75×2	-
7	Noyon Uul, Tomb-6	24.5	24.5	1.95	22.5	9.2×	5.34×3.99	3.31×2.23	-11.03
8	Duurlig Nars, Tomb-1	23.5	22	1.5	32	14×3	4.7×3.2	3.4×2.6	15
9	Noyon Uul, Tomb-1	21.9	21.9	1.73	21	9×4.5	4.61×2.9	3×1.55	-10.1
10	Noyon Uul, Tomb-20	19	18	1	17	9×3	4.8×3.2	-	18.35
11	Ilmiin Am, Tomb-54	19	18	1.5	14	8×2	3.9×2.2	-	8.5
12	Noyon Uul, Tomb-23	19	17	1.4	17.5	8.2×5	4.31×3	2.98×2	-10.2
13	Noyon Uul, Simukov's Tomb	17	15	-	14	5×	-	-	
14	Noyon Uul, Tomb-24	16	14	1.5	12	5×	4.1×2.7	3.16×1.65	9/-7/
15	Takhilt, Tomb-1	16	13	-	-	-	4×1.8	single	12-
16	Takhilt, Tomb 2	16	13	-	8	-	3.4×1.5	single	11-
17	Noyon Uul, Dorjsuren's Tomb	14	14	1.1	10	8×3	-	single	-7
18	Gol Mod, Tomb-79	12	10	0.4	8	4×2.5	3×1.7	single	7
19	Duurlig Nars, Tomb-2	11	9	0.4	15		3.6×1.9		8
20	Duurlig Nars, Tomb-5								
21	Takhilt, Tomb-64	8.27	7.8	0.4	7.1	3.3×1.75	2.6×1.2	single	5.5

Beyond the single (log) fence that surrounds the casket, double (log) fences denote the presence of a second layer of wooden rectangular walls beyond the first that is likewise covered with wood. If we use Tomb 6 of the Noyon Uul site as an example, the eastern and western sections of the double (log) fence layer measure 5.35 meters in length and the northern and southern section's measure 4 meters in length. The walls were erected using 7 thick logs and as a result it stretched 1.98 meters in height. The second layer of the wooden (log) fence comprises over 20 logs placed horizontally, covering the casket. The first wooden (log) fence layer measures 3.31 meters in length, 2.23 meters in width and 1.66 meters in height and likewise has its own cover. As the second wooden (log) fence layer was erected directly parallel to the first layer, a narrow crevice a person can fit was created between the two (along the wester, eastern, and northern sides). This crevice measures 0.98 meters along the northern side and 0.64-0.75 meters in width along the eastern and western sides (Rudenko, 1962, 19).

These double wooden (log) layers are most commonly found within large tombs where the external structure's walls measure 20 meters or more in length. Large tombs that feature an external structure that measures 30 meters or more include Tomb 1 of the Gol Mod-11 site (Erdenebaatar et al, 2015, 35), the Ballod Tomb of the Noyon Uul site (Dorjsuren 1961; Rudenko 1962), Tomb 1 and 20 of the Gol Mod site (Erdenebaatar, Yerööl-Erdene 2001; Yerööl-Erdene 2015, 51), and Tomb 7 of the Tsaram site (Miniaev, Sakharovskaia 2006). Moreover, these sites feature double wooden (log) fences that measure over 5 meters. However, tombs with external structure walls that measure 16 meters but are rather small in terms of size, include Tomb 24 of the Noyon Uul site (Dorjsuren 1961). This tomb's double wooden (log) fence is rather small, measuring 4.1×2.7 meters.

Artifacts Discovered within the Tombs of the Xiongnu Aristocratic

All the tombs of the Xiongnu aristocratic that have been excavated thus far have all been looted at one time or another, thus most of their valuable artifacts have been lost, with the majority of the tombs significantly damaged. However, regardless of this fact, artifacts are found either left behind or remain intact unseen by the looters. Using these artifacts, it is possible to reconstruct and comprehend the organization and layout of the casket and burial areas. The items and artifacts found within Xiongnu aristocratic tombs are largely homogenous in terms of make, shape, and use. This fact is not only visibly discernible but evident from their placement within the tombs which likewise are extremely similar to one another. For example, discovered placed on top of the wooden tomb fencing cover of the Takhiltiin Tomb 64 and the Duurlig Nars Tomb 5, which are considered to be the smaller size of Xiongnu aristocratic tombs, were horse chariots made in the Han style as well as the remains of horses placed to the north of chariots. Xiongnu aristocratic tombs often contain 1 chariot as well as their associated parts and sections. However, the excavation and research process of Tomb 1 of the Gol Mod-II site revealed that the chariot sections and parts discovered within it belonged to approximately 15–17 chariots (Erdenebaatar et al, 2015, p. 116). The chariots discovered within Xiongnu aristocratic tombs are most commonly painted with black and red qi lacquer paint, crafted with intricate designs, and had two wheels making them most likely the remnants of ceremonial chariots. Currently, the existence of a chariot with four wheels has been discovered in the tombs of the Xiongnu aristocratic excavated from the site called Chikhertiin Zoo (Eregzen et al, 2020).

Within the wooden fencing of the internal structure of the tomb site, we often find wooden caskets adorned and inlaid with gold, silver, and bronze where the deceased is interred. The casket is placed either in the centre of the wooden fence or pushed along to one of the sides. Intricate necklaces and necklace sections are often found inside the casket within the vicinity of the deceased, regardless of their gender. This indicates that leaving accompanying jewellery and ornaments was part of Xiongnu funerary customs. Gold and gilt bronze ornaments with images of horses used to adorn clothing are also frequently found within the vicinity of the casket. Round disc-shaped jade as well as square, crescent shaped and fan-shaped jade were discovered within the Noyon Uul Tomb No1, the Duurlig Nars Tomb No2, and the Gol Mod Tomb No1. The presence of these items, which are widespread amongst the funerary goods of Eastern cultures proves that the Xiongnu also held similar worship beliefs and practised similar funerary customs wherein they used jade to fill

and cover the deceased's orifices and placed disc-shaped jade on top of the deceased chests which symbolized their soul reaching heaven. Of all the jade items discovered within Xiongnu aristocratic tombs, the disc-shaped jape with the images of horned mythical creatures (Erdenebaatar et al, 2015, p. 149), the only one of its kinds, which was found within the Gol Mod-II Tomb No1, is the most intricately crafted and in turn the most famous.

One of the most significant artifacts discovered within a Xiongnu aristocratic tomb is the felt carpet discovered from the Noyon Uul Tomb 6. This woollen carpet, trimmed with twilled silk, depicts a pair of applique predatory animals engaged in a fight. The carpet lined with silk and felt further features embroidered and applique images and patterns and was discovered well preserved within the Noyon Uul Tomb 6. Moreover, the presence of images of human likenesses and horse-mounted warriors is quite like the tomb murals and paintings found widespread among contemporary Chinese and Korean cultures. As a result, it is presumed that this carpet was similarly used within the interior of the wooden fencing. In other words, this carpet was most likely spread across the interior wall of the wooden fencing to resemble the tomb murals and paintings created within stone tombs. Moreover, the images created using applique and embroidery present on this carpet may have been featured to specifically denote and chronicle the deceased person's past and awaiting life (Eregzen, 2004). In 2006, during the excavation of the Noyon Uul Tomb 20, a woven felt fragment was discovered. This fragment featured the embroidered images of mounted hunters shooting arrows at fleeing deer and game. Similar images are found widespread amongst the "hunting" scenes on the murals of the stone tombs of Goguryeo and Northeastern Chinese cultures which further corroborates our suppositions of these images.

A variety of vessels, vases, and containers such as vessels filled with ceremonial and worship foods and drinks, clay vases, containers with qi lacquer paint, and plates are found in spaces such as the northern section of the casket and the crevice between the two wooden (log) fences. The clay vessels are generally similar to those found in smaller tombs. They often feature thin necks, and furling openings that are either open or sealed and hollow. Clay vessels not typical in smaller tombs include especially large vessels that measure 1 meter in height and feature holes above the base that have circumferences a human finger can comfortably fit. The almost guaranteed presence of such clay vessels in larger tombs is unique. The large clay vessel found within the Duurlig Nars Tomb 2 was discovered with a well-preserved wooden stopper still intact within the hole above the base (Duurlig Nars, 2009, p. 64). The containers within Xiongnu aristocratic tombs that contained lacquer paint were all made in Han styles with the majority having two "ears" (handles). Several well-preserved two "eared" bowls have been found within the Noyon Uul Tombs 5, 6, and 20. These bowls were made in a present-day Sichuan province production section that operated under the direct purview of the Han emperor and featured images of a pair of birds sitting facing one another and Chinese characters on the base. Moreover, a similar bowl, adorned with patterns and floral images was found within the Noyon Uul Tomb 23 (Dorjsuren 1961, p. 65; Chistyakova, 2009, p. 65). A circular container with animal images containing qi lacquer paint was further found within the Noyon Uul Tomb 25 (Umehara, 1960, p. 33) and a square-shaped container with black patterns featured on a red surface likewise containing qi lacquer paint was found within the Duurlig Nars Tomb 2. While rare and unique qi lacquer paint was found within these vessels, unfortunately in terms of their condition, the containers were poorly preserved.

In addition to vessels and containers that contain worship and offering foods and drinks, a variety of vessels, cauldrons, platters, teapots, and bronze mirrors are found within the tomb sites purposefully left broken and shattered. For example, a bronze circular platter, an intricately made bronze teapot, and a "TLV" shaped bronze mirror were found purposefully broken and shattered within the Duurlig Nars Tomb 2, outside the south section of the wooden (log) fence. In addition to being shattered and broken, melted bronze remnants have been found alongside them, indicating they were burned in the fire. As there were no signs of a fire being lit near the southern section of the wooden (log) fence, it can be presumed that they were broken, shattered, and burned in a fire outside the tomb pit before their placement within the tomb (Eregzen, 2009, p. 227). Other Xiongnu aristocratic tombs also feature signs of similar funerary customs being observed and carried out. For example, shattered fragments of a bronze mirror and a cauldron

base were found within the Noyon Uul Tomb 6, shattered fragments of a bronze mirror were found within the Noyon Uul Tomb 25 (Rudenko, 1962, p. 65), shattered fragments of a bronze platter, a bronze teapot's nozzle, and a bronze mirror was found within the Gol Mod Tomb 1 (Erdenebaatar, Yerööl-Erdene 2001), shattered fragments of a bronze teapot's main body and nozzle, sections of the square metal platter, fragments of a bronze mirror, and fragments from a bronze cauldron's side section was found within the Gol Mol Burial 20 (Yerööl-Erdene, Gantulga, 2008, p. 159), and shattered fragments of an intricate bronze teapot was found within the Takhiltiin Khotgor Burial 2 (Navaan, 1999, p. 27).

Artifacts found most abundantly from Xiongnu aristocratic tombs are equine equipment and their parts. Of the known excavated and studied Xiongnu aristocratic tombs, only the Noyon Uul Tomb 24 and the Takhiltiin Khotgor Tomb 62 did not contain equine equipment and related artifacts which is most likely due to the fact the tombs belonged to women. Within tombs that contain double wooden (log) fences, equine equipment and related artifacts are found within the crevice between the two fences, whereas within tombs that only contain a single wooden (log) fence, they are found either outside the eastern or northern walls of the casket. The equine equipment found within Xiongnu aristocratic tombs can generally be divided into two categories, the mouthpieces and the saddle pieces. The mouthpieces comprise the bit, bridle, "zuuzai" bit rings, "tovruu" (knobs), the circle strap connectors, buckles and forehead cover (browbands). The saddle pieces comprise the saddle, the girth strap, and the crupper. The horse mouth bits found within Xiongnu aristocratic tombs are mainly made from thin metal and are plain in terms of design. Horse bits found in Xiongnu aristocratic tombs are no different than those found in tombs belonging to common people, the only distinguishing aspect being more numbers of bits being found within the aristocratic tombs. However, the bridles found within the aristocratic tombs, along with their "tovruu", buckles, and forehead covers (browbands) are much more intricate and come in different forms and styles. For example, the bit rings found within the aristocratic tombs are axe-shaped on the two ends and made from layered metal. Such bit rings are not found within the common people's tombs, but rather bit rings that are circular shaped on the two ends. The metal bit rings found within the Ilmiin Am Tomb 54 were made with circular ends in terms of shape and were coated with gold (Konovalov 2008, 33). The "Tovruu" knobs found within the aristocratic tombs are most often made from gilt bronze with instances of even gilt metal "tovruus" being found. The forehead covers (browband covers) are typically only found within aristocratic tombs and come in two types, those made from bronze and those made from metal. If a patternless boat-shaped gilt bronze forehead cover was found from the Noyon Uul Tomb 25 (Umehara, 1960, 79), a perforated patterned gilt metal forehead cover was found from the Noyon Uul Tomb 20 (Tseveedorj et al, 2007, p. 303), a thin gold coated metal forehead cover was found from the Ilmiin Am Tomb 54 (Konovalov, 2008, p. 34), and a plain metal forehead cover was found from the Duurlig Nars 2 Tomb (Duurlig Nars, 2009, p. 38).

Thus far, physical saddle sections have only been found from the Noyon Uul Tomb 6. However, saddle pieces, such as silver crupper and girth strap ornaments have been found in the larger Xiongnu aristocratic tombs. These silver crupper and girth strap ornaments are extremely fine and intricate. They are generally circular, or petal (leaf) shaped and were affixed onto the leather straps of the crupper and girth straps. These silver ornaments also often feature embossed images of prosperity, such as antelope, yak, ibex, deer, and dragons. Silver ornaments with images of symbolic antelope were found from the Gol Mod Tomb 20 (Yerööl-Erdene, 2007, p. 249), silver ornaments with images of symbolic antelope, ibex, and dragons were found from the Noyon Uul Tomb 20 (Tseveendorj et al, 2007, p. 293), silver ornaments with images of yak and deer were found from the Noyon Uul Tomb 6 (Rudenko, 1962, p. 36, 37), and silver ornaments with images of ibex were found from the Tsaram Tomb 7 (Miniaev, Sakharovskaia, 2007, p. 53). Discovered from the Gol Mod-II sites Tomb 1 was a bridle with images of symbolic antelopes, 4 silver girth strap ornaments, a crupper with the image of a single-horned mythical animal, and 2 golden girth strap ornaments (Erdenebaatar et al, 2015, p. 140). These artifacts are regarded as remarkable and unrepeatable in terms of their make and aesthetics.

One of the more unique artifacts found within Xiongnu aristocratic tombs are lamp (candle) bases. They are categorized according to the material they were made from, either as clay or

bronze lamp bases. The clay lamp bases have flat bases and plate-like shapes with slanted walls. Such lamp bases have been found in the Takhiltiin Khotgor Tomb 1 (Navaan, 1999, p. 22) and Tomb 64 (Bayarsaikhan, Egiimaa, 2008, p. 189) as well as the Ilmiin Am Tomb 54 (Konovalov 2008, 39). The bronze lamp bases have a circular-shaped main body, long handles on the sides, and 3 small legs. Such lamp bases have been found in the Duurlig Nars Tomb 2 (Duurlig Nars, 2009, p. 79) and the Noyon Uul Tomb 25 (Rudenko, 1962, p. 7).

In addition to the aforementioned artifacts, rare and unique artifacts are also frequently found in Xiongnu aristocratic tombs. These include clothing made from silk and different textiles, such as 2 types of deels, pants, and hats which have been found in the Noyon Uul Tomb 6 (Rudenko, 1962, p. 10–11, 15–17), a funeral doll made from the skull bones of an infant which was found from the Tsaram Tomb 7 (Miniaev, Sakharovskaia 2007, p. 51–52), and a boat toy which was been found from the Gol Mod Tombx 20 (Yerööl-Erdene, 2007, p. 1).

The Structure of the Xiongnu Aristocratic Tomb and Comparisons of the Findings

The aforementioned Xiongnu elite's tombs feature wooden (log) fences (tombs) situated in the main tomb area. These fences are erected in two types, either in single or double layers. Tombs with single wooden (log) fences have thus far been discovered within the Takhiltiin Khotgor site's Tombs 1, 2, and 64, the Gol Mod site's Tomb 79, and the Duurlig Nars site's Tombs 2 and 5. Of these tombs, the Takhiltiin Khotgor Tomb 1 has the largest single wooden (log) fence which measures 5 meters in length and 1.8 meters in width. Whereas the single wooden (log) fence within the Takhiltiin Khotgor Tomb 2 measures 3.4 meters in length and 1.5 meters in width (Navaan 1999, 17, 24), the one in the Duurlig Nars Tomb 2 measures 3.6 meters in length and 1.9 meters in width (Eregzen et al, 2008, p. 159), the one on the Duurlig Nars Tomb 5 measures 3.5 meters in length and 1.5 meters in width (Eregzen et al, 2009), and the one on the Gol Mod Tomb 79 measures 3 meters in length and 1.7 meters in width (Erdenebaatar, Yerööl-Erdene, 2001). Of these sites, the smallest single wooden (log) fence has thus far been discovered in the Takhiltiin Khotgor Tomb 64, measuring 2.6 meters in length and 1.2 meters in width (Bayarsaikhan, Egiimaa 2008, p. 188). If the Takhiltiin Khotgor site's Tombs 1 and 2 have pits that have depths of 11–12 meters, the average depth of Tombs 2 and 5 of the Duurlig Nars site, Tomb 79 of the Gol Mod site, and the Noyon Uul tomb excavated by Dorjsuren measure 7 to 8 meters in depth. Moreover, the Takhiltiin Khotgor site's Tomb 64 has a single wooden (log) fence that measures 2.6 meters in length and 1.2 meters in width while the pit measures 5.2 meters in depth. Such statistics indicate how when the size of the wooden (log) fence increases, the size of the tomb pit increases in correlation. Additionally, even the size of the external structure and stone dam is seen to be congruous with the size and depth of the tomb pit. For example, the external structure of the Takhiltiin Khotgor site's Tomb 1 and 2 measures 16×13 meters, the external structure of the Duurlig Nars site's Tomb 2 measures 11×9 meters, the external structure of the Gol Mod site's Tomb 79 measures 12×10 meters and the Takhiltiin Khotgor site's Tomb 64 measures 8.27×7.8 meters.

Xiongnu aristocratic tombs with double wooden (log) fences have thus far been discovered within the Noyon Uul's sites Tombs 1, 6, 20, 22, 31, 23, 24, and 25 as well as Ballod's Tomb, Kondratiev's Tomb, and Simukov's Tomb (Rudenko, 1962; Dorjsuren, 1961; Tseveendorj et al, 2007). They have also been found within the Gol Mod site's Tombs 1 and 20 (Erdenebaatar, Yerööl-Erdene, 2001; Yerööl-Erdene, Gantulga 2008), the Tsaram site's Tomb 7 (Miniaev, Sakharovskaia, 2006), and the Ilmiin Am's Tomb 54 (Konovalov, 2008). Of these tombs, the largest include the Gol Mod-II site's Tomb 1, the Tomb excavated by Ballod in the Noyon Uul site, Tomb 7 excavated in the Tsaram site, and Tombs 1 and 20 of the Gol Mol site. These tombs not only have dromuses and external structures as large as 35 meters but also have tomb pits that measure 16-22 meters in depth. The tombs that come after the aforementioned tombs in terms of size are located in the Noyon Uul site. They include the tomb excavated by Kondratiev and Tomb 6. The tomb excavated by Kondratiev has an external structure of 26×26 meters while Tomb 6 has an external structure that measures 24.5×24.5 meters and a pit that measures 11.3 meters in depth. Tomb 54 of the Ilmiin Am site and Tombs 1, 23, and Simukov's Tomb of the Noyon Uul site come next in terms of size. They have external structures that measure 21.9–17 meters in length and 21.9–15 meters in width with a tob pit measuring 10 meters in depth. However, the

smallest tomb with a double wooden (log) fence is the Noyon Uul site's Tomb 24. This tomb has an external structure that measures 16×14 meters and a tomb pit that measures 9 meters in depth. Based on these statistics, we can see that Xiongnu aristocratic tombs with the presence of double wooden (log) fences likewise directly dictate the size of the tomb. As the double wooden (log) fences increase in size, so does the size of the tomb's external structure and pit.

To reiterate, the size of the Tomb's double wooden (log) fence directly correlates with the size of the tomb's external structure and pit depth. For example, the double (log) wooden fence of the Ballod Tomb measured 5.87×3.8 meters, the double (log) wooden fence of the Gol Mod Tomb 1 measured 5.4×4.4 meters, the double (log) wooden fence of the tomb excavated by Kondratiev at the Noyon Uul site measured 5.32×3.71 meters, the double wooden (log) fence of the Noyon Uul Tomb 1 measured 4.61×2.9 meters, and the external wooden (log) fence of the Noyon Uul Tomb 23 measured 4.31×3 meters. From these tombs, the smallest double wooden (log) fence was found within Tomb 24 of the Noyon Uul site and measured 4.1×2.7 meters.

From all the statistics inputted in the table that reflect the tombs of the Xiongnu aristocratic, we can see that the size of the wooden (log) fence that surrounds the casket, the depth of the tomb pit, and the size of the external structures are all congruous with one another. In addition to this, one interesting detail we have observed is the fact that the relatively smaller tombs of the Xiongnu aristocratic, those that measure up to 16 meters in length in terms of their external stone dams, are always discovered to have caskets surrounded by single wooden (log) fences. Whereas, toms that have external stone dams larger than 16 meters in length always unearth caskets surrounded by double wooden (log) fences. Additionally, if the tombs were discovered to have external structures that measured over 10 meters, their single wooden (log) fences would measure over 3 meters in length. Furthermore, if toms were discovered to have external structures that measured lower than 10 meters, their single wooden (log) fences would likewise measure lower than 3 meters in length. Similarly, if we use the length measurements of the tombs that contain double wooden (log) fences, we can categorize them into two, (1) tombs with double wooden (log) fences that measure 4-5 meters and (2) tombs with double wooden (log) fences that measure over 5 meters. Tombs with smaller 4-5 meter double wooden (log) fences are found within tombs that have external structures that measure 16-23 meters while tombs with over 5 meter double wooden (log) fences are found within tombs that have large external structures that measure 24-35 meters.

The tombs of the Xiongnu aristocratic, in addition to sharing analogous similarities in terms of their external and internal structures, it is observable that they also share similarities through the artifacts discovered within, especially in regards to how they affect the size of the tombs. In other words, it is discernible that larger tombs unearth the highest number of artifacts which are the most intricate and valuable, while smaller tombs unearth fewer numbers of artifacts that are of lower quality and value. The biggest corroboration of this is the metal ornaments that adorn the exterior panels of the casket. For example, the casket of the Takhiltiin Khotgor Tomb 64, which is considered the smallest of the Xiongnu aristocratic tombs excavated thus far, features a metal strip, which measures 1–1.5 cm in width, affixed onto the exterior walls of the casket. Affixed within each eyelet are floral ornaments with 3–4 petals (Bayarsaikhan, Egiimaa, 2008, p. 188-189, Figure 8). Tombs that are larger than the Takhiltiin Khotgor Tomb 64, such as the Duurlig Nars Tomb 5, have unearthed the same floral casket ornament but made from gilt bronze (Eregzen et al, 2009). Within the Gol Mod Tomb 79, which is larger than the aforementioned tombs, the casket has a silver strip that measures 1 cm in width and golden 4-petaled floral ornaments affixed onto the strip's eyelets (Erdenebaatar, Yeröөl-Erdene, 2001). The casket ornaments of Tomb 2 of the Duurlig Nars are all made from thin gold (Eregzen et al, 2008, p. 159). Such ornaments found within the Tomb with double wooden (log) fences are all made from gold. However, they become more fine and intricate, featuring embossed patterns and inlays of stone. For example, the gold casket ornaments found within the Noyon Uul Tomb 6 feature patterns created through embossing and a wooden base (Rudenko, 1962, p. 34) while the golden floral-shaped casket ornaments found within the Gol Mod Tomb 20 feature embossed patterns, a very intricate base, and inlays of turquoise between the patterns (Yeröөl-Erdene, Gantulga, 2008, p. 162).

Similar conclusions on the size of Xiongnu tombs and their correlations can also be drawn from other artifacts. For example, if smaller aristocratic tombs such as Tomb 64 of the Takhiltiin Khotgor site and Tomb 5 of the Duurlig Nars site are not accompanied by chariots, tombs larger than them do. However, the quality and make of chariots placed in accompanying tombs change as the tomb sizes progress. For example, the chariot found within Tomb 1 of the Gol Mod-II site features intricate cloud patterns made using red, white, and black paint, gilt ornaments, and 15-17 accompanying sections deliberately broken apart and placed within the tomb (Erdenebaatar et al, 2015, p. 116). The chariots found in the tombs of the aristocratic with main structures measuring over 20 meters, such as the Noyon Uul site's Kondratiev's Tomb and Tombs 20 and 25, the Gol Mod site's Tomb 20, and the Tsaram site's Tomb 7, have bronze umbrella end ornaments with fine details such as embossed patterns and a lower section that adjoins to the ends that bear the shape of a hook. Even the body features bronze ornaments, some patterned. Their wheel covers are likewise made from bronze and gilt with gold. However, Chariots discovered in tombs with main structures measuring up to 20 meters, such as the Duurlig Nars Tomb No2 and the Takhiltiin Khotgor Tomb No1, have plain, patternless bronze umbrella end ornaments and bronze ornaments on the body. Moreover, they have wheels covered only with metal. Such examples show how chariots found within tombs with double wooden (log) fences are more intricate in terms of making and larger than those found within tombs with single wooden (log) fences.

Based on all the aforementioned, the tombs of the Xiongnu aristocratic share many similarities in terms of structure, composition, and shape. Even the accompanying artifacts found within the tombs are similar in terms of type and shape. This attests to how the size of the tomb was determined by changes within the internal structure, the number of artifacts placed inside, and make.

The Associated Chronology of the Xiongnu Aristocratic Tomb

Many artifacts which were crucial to date the tombs were found from the excavations of the Xiongnu aristocratic Tombs in Mongolia, and the Southern Baikal area of the Russian Federation. This included lacquered objects of southern origins with inscriptions that could indicate their place of origin, creator and associated chronology, a bronze mirror of which the time of production could be determined by comparing to the above visual designs and silks and textiles adorned with hanzi characters. For example, from the edge of Tomb 6 at Noyon Uul, a lacquered cup with two ear-like handles or 'wings' was found. The two hanzi characters "上林" were found carved with a sharp pointed object into the underside of the cup. The 17 characters of "建平五年九月 工王 潭經 畫工獲壺 天武省" are also inscribed around the outer perimeter of the foot of the cup. Additionally, a lacquered cup inscribed with the 67 characters, "建平五年 蜀郡西工,....", was also excavated by Simukov from the same site. Judging from these inscriptions the two cups were made during the 5th year of the Tsianping (II BCE). Based on the inscription, N.W. Bernshtam interpreted the cup found in Tomb 6 as a gift to Wuzhuliuruodi Chanyu when he visited the Shanglinyuan Palace of the Emperor of the Han Dynasty and considered the burial to be the tomb of said Chanyu who died in XIII CE. On the other hand, Ts. Dorjsuren, taking into account other historical facts, explained that Tomb 6 should be dated from the I BCE to the I CE (Dorjsuren, 1961, p. 59-62). From Tomb 20 of Noyon Uul, which was excavated in 2006, three lacquered cups were found and the base of one of the cups had a 46-character inscription. The four characters in the middle of this inscription, "元延四年", clearly indicate this cup was made in IX BCE (Chistyakova, 2009, p. 65). These objects indicatee that the aforementioned three tombs were made not earlier than IX BCE and II BCE. The base of the lacquered wooden plate found from Tomb 20 of Gol Mod features 30 hanzi characters. Based on these characteristics the plate can be dated to XVI BCE (Yeröөl-Erdene 2015, p. 118). Researchers who have deciphered the inscriptions on the lacquered cup found from Tomb 7 of the Tsaram site have determined it to be dated between VIII BCE-IV CE.

Several silk fragments with the hanzi characters, "新神靈廣成壽萬年", were found in Tomb 1 and 6 at the Noyon Uul site. These silk fragments date back to the reign of Wang Man, who briefly overthrew Han and reigned at the end of the Western Khan Dynasty. Thus, seeing as the dates of these silks and lacquered objects generally overlap, there is a high probability that these tombs were made circa the I CE.

Table 2. Objects found from the tombs of the Xiongnu aristocratic used to determine the associated chronology

№	Tomb Number	Lacquered Objects	Bronze Mirror	Radiocarbon Dating	Estimated Date
1	Tomb 6, Noyon Uul	II BCE			I CE
2	Simukov's Tomb, Noyon Uul	II BCE			I CE
3	Tomb 25, Noyon Uul		I BCE-I CE		I CE
4	Tomb 20, Noyon Uul	IX BCE			I CE
5	Tomb 1, Gol Mod		I CE	78-81 CE	I CE
6	Tomb 20, Gol Mod	XVI BCE	I CE		I CE
7	Tomb 79, Gol Mod			82 CE	I CE
8	Tomb 2, Duurlig Nars		I CE		I CE
9	Tomb 54, Ilmiin Am			30 BCE- 50 CE	I CE
10	Tomb 6, Tsaram	VIII BCE-IV CE	I BCE-I CE	30-120 CE	I CE

Fragments of bronze mirrors were found from Tomb 25 of Noyon Uul, Tomb 1 and 20 of Gol Mod, Tomb 2 of Duurlig Nars and Tomb 7 of Tsaram. From the above images, it can be seen that the bronze mirrors which were found in Tomb 20 of Gol Mod and Tomb 2 of Duurlig Nars, are of the "TLV(規矩鏡, Guī jǔ jìng)" shape, renowned amongst researchers, the ones found from Tomb No25 of Noyon Uul and Tomb No7 of Tsaram were of the "四乳四神鏡 (Sì rǔ sì shén jìng)" and the ones from tomb one of Gol Mod were fragments of "雲雷連弧文鏡 (Yún léi lián hú wén jìng)". Based on the study of Han Dynasty mirrors, the TLV mirrors are categorized into 四神規矩鏡 (Sì shén guī jǔ jìng), 鳥獸規矩鏡 (Niǎo shòu guī jǔ jìng), 幾何文規矩鏡 (Jǐ hé wén guī jǔ jìng) and 簡化規矩鏡 (Jiǎn huà guī jǔ jìng) (孔祥星, 劉一曼 2003, 156-170). The mirror fragments found from Tomb 2 of Duurlig Nars and Tomb No20 of Gol Mod can be categorized as 鳥獸規矩鏡 (Niǎo shòu guī jǔ jìng). The 鳥獸規矩鏡 (Niǎo shòu guījǔ jìng) mittot can be dated to the early Eastern Han Dynasty. The two similar mirrors found from Tomb No25 of Noyon Uul and Tomb No7 of Tsaram are both of the 四乳四神鏡 (Sì rǔ sì shén jìng) variety and can generally be dated to the end of the Western Han Dynasty and the early Eastern Han Dynasty (Eregzen 2009, 185). French researchers compared the mirror found in Tomb No1 of Gol Mod to objects of Chinese origins and have dated it to the I CE (Le premier…2003, 257). According to these findings, the five tombs where bronze mirrors were found can also be dated to the I CE.

In recent years, samples have been taken from the organic materials, such as wood and bone, of the tombs of the Xiongnu aristocratic and have been dated using radiocarbon dating. In particular, radiocarbon dating has been conducted on samples from the tombs of the Xiongnu aristocratic and other accompanying tombs from numerous sites including Duurlig Nars, Gol Mod, Gol Mod-II, Noyon Uul, Takhiltiin Khotgor, Ilmiin Am and Tsaram. In 2015 Ch. Yeröol-Erdene published a compilation of the results of radio-carbon dating studies made on a total of 32 tombs. The resulting dates of these studies mostly ranged between the I BCE to the I CE (Yeröol-Erdene, 2015, p. 122).

The objects with determinable chronology such as the Han style lacquered objects, bronze mirrors and the results of radio-carbon dating studies made on samples of wood and bone all in general date to similar periods. Thus it is possible to surmise that most of the tombs of the Xiongnu aristocratic spread through the Mongolian and Southern Baikal Region were created during the I CE.

The Conditions in which the Rectangular Tombs with Dromuses of the Xiongnu Aristocratic were Created and their Potential Associated Chronology

The term "the Xiongnu aristocratic tombs" mentioned in this article refers to the tomb structure with a surrounding rectangular stone complex upon the topsoil, a pit dug in the ground gradually decreasing in size and at its base the deceased laid in a wooden casket surrounded by single and double layered wooden fences. This particular structure is seen commonly amongst tombs at sites excavated several hundreds to several thousands of kilometres apart. For instance, the Duurlig Narse site is located in the eastern region of Mongolia whereas the Noyon Uul and Belkhiin Am sites are located in the

central region of Mongolia near Ulaanbaatar city. The Gol Mod and Gol Mod-II sites are also located in the central region of Mongolia about 500 km to the west of Ulaanbaatar. However, the sites of Takhiltiin Khotgor and Ovoono Khar are located in the western region of Mongolia, over 1000 km away from the capital city. Therefore there are about 2000 km between Duurlig Nars in the east and Takhiltiin Khotgor in the west. Although these sites are far from each other, the external form, inner structure, and accompanying objects all being similar and all also being dated to similar periods show that there was a unified form and fixed customs for the burial of the aristocratic during the Xiongnu period.

According to Chinese sources and documents the Xiongnu Empire reigned for over 300 years, from the III BCE to the I CE. The Xiongnu were very powerful during the first part of the empire, or the 70 years between the reigns of Modu Chanyu and Junchen Chanyu. During this time they levied tributes from their southern neighbour, the Han Dynasty, kept the city-states following the oasis of today's Xinjiang region under their control and gained much profit from the trade route connecting east and west. After this, after Emperor Wudi of the Han Dynasty ascended to the throne, the Xiongnu entered a 40-year-long battle with their southern neighbour and with their power depleting, during the I BCE they were greatly weakened due to internal struggles. Further, around 30 BCE, the Xiongnu reached the point where Huhanye Chanyu had to receive help from the Han Dynasty. Even when the Xiongnu regained power, taking advantage of the Han Dynasty's state crisis, from around the year 40 of the I CE they split into factions of north and south and were on the road to their downfall.

When compared to the chronology recorded in historical sources, it is clear that the Tombs of the aristocratic we are considering belong to the end of the Xiongnu Empire. It can be observed that the way the pits are dug in these rectangular tombs with dromuses of the Aristocracy are similar in some ways to the Tombs of the Han Dynasty and the previous Qin Dynasty. Thus researchers believe that some cultural influences of the Han Dynasty exist in the tombs of the Xiongnu aristocratic and use a large number of artifacts of Chinese origins including the lacquered utensils, bronze mirrors and lacquered chariot as evidence for this. However, when observing in detail the contents and composition of the rectangular tombs with dromuses of the aristocratic it can be seen from the inner structure, or the form of the wooden fences, that the traces of the funerary rites have preserved traits that are more similar to the traditions of the previous period. The way the tomb pits have been dug does seem to showcase influences of the Han Dynasty but the external structure seems to have been a completely new occurrence. Even in terms of findings and artifacts it cannot be said that they are all of Chinese origin as many of the tombs included objects of foreign origins from places such as Central Asia, Greco-Bactria, Rome and Egypt in addition to the objects of their make and culture make it a multifaceted matter. These occurrences exhibit that the Xiongnu aristocratic had extensive relations with the major nations of the world at that time, were able to obtain and utilize objects of foreign origins and created and developed their culture upon the crossroads of many others.

One of the most noteworthy issues related to the large rectangular tombs with dromuses is the matter of why they were created during the end of the Xiongnu Empire and the circumstances in which this form of tomb was created in the first place. According to developmental patterns, tombs this large are usually made during the period of most power. There are several sources which could elucidate this matter. As of now, amongst the tombs of the Xiongnu aristocratic which have been excavated, there is not a single one which was not subject to the past destruction of looters. Besides this, it can be determined from the outside of un-excavated graves whether they have been looted and destroyed in the past. In the "Book of Han" there are records of the tombs of the Xiongnu Chanyus being looted by the Wuhuan. This occurrence happened after the period in which the Chanyu's residence was moved to the north of the Gobi so in the first half of the I BCE (Eregzen, 2009). Thus, the looting and destruction of the tombs of the aristocratic had become a pressing issue for the Xiongnu and led them to look for preventative measures against the looters. The excavations revealed that the tombs of Xiongnu aristocratic had very deep pits, which was a method to ward off looters. In addition, when filling the tomb pits, many layers of stone barriers were used, seemingly as another preventative measure against looters. The tomb with the deepest pit known so far is Tomb 1, excavated at the Gol Mod-II site, the depth of

which reached 22 meters. At the Gol Mod site, Tomb 20's pit measures 18 meters and at Noyon Uul, Tomb 20's pit measures 18.3 meters. When digging a pit of such depths many factors had to be taken into account, including the possibility of soil collapse and the conditions in which to move such amounts of earth and stone. In other words, engineering calculations would be needed. In terms of the Xiongnu, they would often employ sedentary peoples such as the Chinese, who either entered their service by way of capture or submission, to undergo the building of buildings or earthwork. Thus, there is a high possibility that they were also used in the making of the tombs. This may be the reason why, as mentioned above, the form of the tomb pits of the Xiongnu aristocratic and the methods used to dig the pits echo those of the Chinese Qin and Han Dynasties.

Another notable matter is that the rectangular tombs with dromuses of the aristocratic are mostly located in places with sandy soil. Only the Noyon Uul and Belkhiin Am sites are located in places with hard, rocky soil. Another feature is that the tombs of the sandy soil are located on the flat land to the north of the mountains, while the tombs of Noyon Uul and Belkhiin Am are located on the southern slopes of the mountains. The small circular Xiongnu tombs have all been found on the southern slopes of mountains and thus it can be surmised that the tombs of the aristocratic at Noyon Uul and Belkhiin am have preserved the more traditional placements of tombs.

Excavations have been conducted this year at the Belkhiin Am site and as of right now, the results of detailed dating studies have yet to come out. In contrast, the chronology of the tombs at the Noyon Uul site has become clearer. The artifacts which could be dated that were found from the Noyon Uul site such as the Han-style lacquered utensils, silks and textiles can be dated to the end of the I BCE and the first half of the I CE. Radiocarbon dating studies further indicate this timeframe. Judging from these results, among the rectangular tombs with dromuses of the aristocratic, the tombs at Noyon Uul can be considered some of the earliest. In terms of the selection of tomb locations, these large tombs with dromuses were most likely initially made at places like Noyon Uul and Belkhiin Am. This fact becomes more probable with further observations from excavations and studies. The soil at Noyon Uul and Belkhiin Am is quite hard and rocky, making it quite difficult to dig deep at these locations. In comparison, the soil at sites such as Duurlig Nars, Gol Mod and Gol Mod-II are located at places with sandy soil and judging from the characteristics of the soil, it is much less difficult to dig deep in. From this it seems that the rectangular tombs with dromuses and deep pits of the Xiongnu were initially made in places such as Noyon Uul and Belkhiin Am, at the southern slopes of mountains, to keep in line with the location selection tradition. However, it seems that because the southern slopes of the mountains have more rocks and hard soil, later on, places with flat ground to the north of the mountains with sandy soil began to be chosen. This seems to align with the chronology of the sites as well.

From when the Noyon Uul site was first discovered it has been considered the tomb of Huhanye Chanyu based on the inscriptions found on the Han-style lacquered artifacts, silks and textiles. There are many sources which document that Huhanye Chanyu visited the Han Dynasty in 33 BCE signed a treaty to become a vassal state and received the hand of a lady of the Emperor of the Han Dynasty's court. The Chanyus of his lineage until the reign of Wang Mang, also visited the Han Dynasty and received Chinese princesses and large amounts of imperial gifts. It is clear that from this period the influence of the Han Dynasty on the Xiongnu Empire increased and the probability that this also influenced the structure and form of tombs and funerary practices is quite high. Since the tombs of Noyon Uul are found to be the earliest instance of rectangular tombs with dromuses, it is assumed that the Xiongnu began to build rectangular tombs with dromuses during the reign of Huhanye Chanyu.

If this is, in fact, the case, the question of what shape and structure the tombs of the Xiongnu took before the rectangular tombs with dromuses can be raised. We recently conducted an excavation which could answer this question. In 2016-2017, the Mongolia-Korea joint expedition conducted excavations at the Chikhertiin Zoo site in Bayantsagaan soum, Töv Province, Mongolia. The Chikhertiin Zoo site is located at the border between the Gobi and the steppe, in the central region of Mongolia. Over 300 tombs are spread throughout this site. In terms of the external structure, the tombs are characterized by circular stone structures, which have come to be considered the norm for smaller Xiongnu Tombs but these are comparatively larger. The largest stone structure measures 50 meters in diameter and there are

many other larger ones with an average diameter of 20 meters. The aforementioned research unit excavated three tombs at this site and the remains of a large wooden fence and a four-wheeled chariot were found placed atop it buried at a depth of 12 meters in a 20-meter diameter circular tombs excavated in 2017. To the east of this tomb are two surrounding smaller tombs. The bronze arrowheads found from the two surrounding tombs are similar in shape to those found from early Iron Age sites, thus dating these tombs to an earlier period. Although the 20-meter diameter tomb was looted and destroyed to a great degree, judging from the size of the wooden fence in addition to the accompanying lacquered four-wheeled chariot, it can be determined as the tomb of nobility. A sample taken from this tomb was determined to be dated to the end of the II BCE and the first half of the I BCE (Eregzen, et al., 2020, p. 382-383).

The Chikhertiin Zoo site has the earliest dating Xiongnu tombs excavated in Mongolia thus far. It also contributed significantly to research as it indicated that the external structure of the tomb of the Xiongnu aristocratic can be in a circular formation. Besides this, the structure of the large wooden fence at Chikhertiin Zoo shows similar traits to those of the burials of the Pazyryk Culture. Moreover, the fact that a four-wheeled chariot was buried in tandem shows that the practices of the early Iron Age burials of the steppe were preserved, making this a traditional form of burial.

Based on the above, it is possible to gain a general understanding of the developmental patterns of the tombs of the Xiongnu aristocratic. In particular, the earlier tombs of the Xiongnu aristocratic had a circular external stone structure similar to that of common smaller tombs and they had large wooden panel enclosures or chambers buried in deep pits. From the reign of Huhanye Chanyu, the method of digging the tomb pits changed and with the pits for the tombs becoming rectangular, very deep and graduated, the external structures also changed accordingly. However, the inner structure of the tombs has remained following traditional forms. The earlier tombs with dromuses followed tradition and were placed on the southern slopes of mountains with lots of sunlight. It can be assumed that the area north of the mountains with sandy soil was chosen for the tombs later on in consideration of the ease of digging the deep pits. In terms of the tombs of the aristocratic, as of now they can be classified into three periods, the first being before middle of the I BCE (the Chikhertiin Zoo site), the middle being from the end of the I BCE to the first half of the I CE (the Noyon Uul site) and the last period being from the middle to the end of the I CE (sites such as Duurlig Nars, Gol Mod, Gol Mod-II). This hypothesis can be further confirmed by in-depth research made to determine the exact dating of the tombs investigated in the future.

Conclusion

According to the above, the Tombs of the Xiongnu aristocratic are located in places quite far in distance but share many features including having their external structures being built on the topsoil, having tomb chambers similar in composition buried deep in the ground and even the accompanying objects and artifacts share a great many similarities. These instances show that the Xiongnu had fixed practices and funerary rites when burying their aristocratic and these were followed whether they were in the centre part of the empire or at the border regions. In other words, the tombs of the Gol Mod and Noyon Uul sites in the Arkhangai and Töv Provinces and the Takhiltiin Khotgor, Duurlig Nars, Ilmiin Am and Tsaram sites were found quite a distance away in the Altai and Khentii Mountain Ranges and the Southern Baikal Region, all share similarities in terms of structure, composition and accompanying objects. This evinces that these tombs all followed and enacted the same funerary rites.

The tomb chambers buried in the depths of the ground have two variations, having single or double-layered fences. The pits of the tombs with single-layered fences are relatively shallow and the external structures are smaller whereas the ones with double-layered fences have very deep pits and the external structures are rather large. Moreover, it has been observed that as the size of the tombs increases, the accompanying artifacts become more varied and their quality improves, ranging from bronze to silver to gold. All the excavated tombs were built in the same time range, and there are no local differences between the tombs, so it is possible to conclude that the size of the tombs of the Xiongnu aristocratic is related to the position in society and the rank of the deceased.

The excavated rectangular tombs with dromuses of the Xiongnu aristocratic have been dated to the latter half of the I BCE to the I CE

through the associated chronology of the artifacts and radio-carbon dating studies. However, taking into account the geographic location and traits of the surrounding environment of the rectangular tombs with dromuses, they can be divided into two periods. In particular, the Noyon Uul and Belkhiin Am sites can be considered to have preserved tradition and are located on the southern slopes of the mountains whereas the Duurlig Nars, Gol Mod and Gol Mod-II sites are located to the north of the mountains in places with sandy soil. When considering the associated chronology, it can be observed that the earlier tombs fell in line with the location selection traditions of choosing places to the southern slopes of the mountains to place the tombs of the aristocratic and this later changes to placing the tombs to the flatter areas to the north of the mountains with sandy soil for the ease in digging deeper pits.

According to historical sources, from the reign of the Huhanye Chanyu, the Xiongnu had fostered close relations with the Han Dynasty and the following Xiongnu Chanyus made visits to the Han Dynasty. During this period the Xiongnu were given gifts of lacquered utensils, silks and decorative items made exclusively for the Han Dynasty royalty and nobility. Gifts of this kind were found from the Noyon Uul site and this is further supported by the inscriptions on the lacquered objects. Thus it has come to be assumed that the Noyon Uul site contains the tombs of nobles descended from Huhanye Chanyu.

The Noyon Uul site can be considered the earliest of the rectangular tombs with dromuses of the aristocratic studied so far through the selection of its location, chronology of the found artifacts and radio-carbon dating studies.

Just a few years ago the large Chikhertiin Zoo site was found in the central Mongolian region. The tomb that was excavated at this site has a circular stone external structure similar to those that have been considered smaller and common tombs. However, this tomb was that of nobility as it is larger, and has a very large wooden tomb chamber and a four-wheeled chariot buried in accompaniment. Some of the artifacts discovered at the Chikhertiin Zoo site share traits with those of the early Iron Age and the results of radio-carbon dating studies date this tomb to the end of the II BCE to the first half of the I BCE. Therefore the Chikhertiin Zoo site shows that the earlier form of the tombs of the Xiongnu aristocratic were similar to that of the smaller tombs with circular stone external structures.

Based on the above, it is possible to approximate the development pattern of the tombs of the Xiongnu aristocratic. The author proposes to categorize the tombs of the Xiongnu aristocratic into three periods based on the structure, chronology and location selection. The first stage would be before the middle of the I BCE (the Chikhertiin Zoo site), the middle being from the end of the I BCE to the first half of the I CE (the Noyon Uul site) and the last being from the middle to the end of the I CE (sites such as Duurlig Nars, Gol Mod, GolMod-II).

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