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Altai during the Period of the Xiongnu Empire

ALEXEY A. TISHKIN

ABSTRACT: For a long time, few archaeological sites of the Xiongnu period (2nd century BC – 1st century AD) were known in Altai. Only from the 1980s have a number of sites of this period been excavated. Among them an important one is Ust'-Edigan, whose name is used for the early phase of the Bulan-Koba culture. The investigation of Yaloman-II in the Central Altai makes it possible to characterize the mortuary rites and funeral goods, which in combination with other available archaeological, literary, and artistic sources, reflect the dominance of the Xiongnu Empire in Asia. The materials of the Ust'-Edigan phase of the Bulan-Koba culture is comprised of three groups. The first (the most numerous) can be attributed to the material culture of Xiongnu; the second to the conclusion of the preceding tradition of the Scythian-Saka time; the third apparently to the influence of cultures of the Sarmatian and Middle Asian (early Kushan) circle.

KEYWORDS: Altai, Xiongnu, Bulan-Koba Culture, Mortuary Rites, Material Culture

INTRODUCTION

The end of the 3rd century BC is considered to be a transitional time from the Pazyryk period to the Xiongnu period in the history of Altai. According to Chinese chronicles, in 203–202 BC the populations of Southern Siberia were conquered by the chief of the Xiongnu Empire Shanyu Maodun (Modu). As a result, Altai became a part of the nascent nomadic empire. A series of political events dramatically influenced the course of history of the pastoral tribes of Central Asia and neighbouring regions. A correlated study of the available written, visual, and archaeological data indicates that the radical change took place in a vast territory. All of them are related to the military operations of the Xiongnu Confederacy, during which the ethno-cultural picture became different from the previous (Scythian-Saka) period. However, the Xiongnu influence was manifested differently in the material culture of different regions of Central Asia.

The disappearance of the Pazyryk culture (second half of the 6th–3rd century BC) heralds the early phase of the Bulan-Koba community. There is, however, no continuity

1 Klyashtornyj and Sultanov 2004: 62
2 Tishkin and Gorbunov 2005a, 2009a; Tishkin and Gorbunov 2005b; Tishkin and Gorbunov 2006; Tishkin 2007a: 174–184
between them. This is evidenced by the regularly recurring mortuary rites as well as material culture that have been discovered so far. The massive looting of Pazyryk kurgans, most of which happened in the Xiongnu period, has already been discussed. These observations, along with the circumstances extrapolated below, marked the arrival of a new population in Altai, who was hostile to the local residents that had chosen to stay in their homeland.

HISTORICAL EVENTS

To date many research papers and monographs have been published about the Xiongnu in Russia. In the meantime chronicles of the Chinese origin have been translated into Russian, from which all historical narratives are derived, although they are mainly concerned with the relations between the Xiongnu Empire and the Han Empire of China. On the basis of these materials, Nikolai Kradin has sorted out four phases of the interactions, which have been refined, updated and presented in various monographs:

First, 209–133 BC, being the prime time of the Xiongnu Empire;
Second, 129–58 BC, witnessing active expansion of the Han Empire;
Third, 56 BC – 9 AD, featuring the internal war of the Xiongnu Empire and the absorption of a portion of Xiongnu elite into the Han Empire;
Fourth, 9–48 AD, due to a change in China’s foreign policy, the Xiongnu Empire was split into two confederations, “northern” and “southern”, and a new phase of history – the “Great Migration” – began.

It is necessary to name a number of historical dates related to the initial period of the Xiongnu dominance in Central Asia, which can help the interpretation of archaeological materials:

199 BC – A treaty of peace and marriage was concluded between the Xiongnu and Han;
174 BC – Death of Maodun (Modu) and the rise of his son Laoshan Shanyu to power;
165 BC – The final victory of the Xiongnu over the kingdom “Great Yuezhi”;

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4 E.g. Konovalov 1976; Mogil’nikov 1992; Minyaev 1998; Kradin 2001; Kovalev 2002; Gumilev 2003; Borovkova 2005; and many others
5 Materialy 1968; Materialy 1973
6 Kradin 2001: 234; Kradin, Danilov, and Konvalov 2004
7 The date 209 BC is now challenged by I. Borovkova (Borovkova 2005: 12–14), who considers it to be groundless. She believes that the Xiongnu Empire was founded by Maodun (Modu) only after the conquest of the northern tribes (263–202 BC) and the defeat of the army of the Han Empire in 201–200 BC.
8 Borovkova 2005: 16–21
162–126 BC – The rule of Junchen Shanyu who strengthened the power of the Xiongnu Empire;
123 BC – Relocating the headquarter of the Xiongnu to the north of modern Mongolia;
119 BC – The successful completion of the 15-year (133–119 BC) Han campaign over the Xiongnu.

In addition, we shall mention a number of other events, which can help to understand the change in the material culture of the Xiongnu:
36 BC – The Xiongnu invaded the territory of Central Asia, where they were defeated by the Chinese army;
48 AD – Separation of the Xiongnu into the “northern” and “southern” divisions;
93–94 AD – According to Chinese chronicles, the “northern” division of Xiongnu was destroyed by the Xianbei Confederacy.

To the above-mentioned list one may glean more dates and events from Chinese chronicles, which has been partially done by Russian and foreign researchers. However, they do not leave their mark in the sites of Altai. It is important to keep in mind the events taking place in Central Asia in the period of the Xiongnu Empire when we study archaeological materials that have been acquired in Southern Siberia and the surrounding regions. This approach has been employed by Russian scholars such as P. Konovalov, A. Davydova, V. Mogilnikov, S. Minyaev, and others.

**XIONGNU OR HUNNU?**

Before embarking on the above-mentioned subject, it is necessary to tackle another important issue. In the archaeological literature the Chinese term “Xiongnu” is now increasingly used at the expense of the European term “Huns”, although their distinction was already obvious. Some researchers have chosen the term “Huns”. The Buryat scholar P. Konovalov quite objectively reviewed the history of the usage of the terms “Xiongnu” and “Hunnu” in his monograph, based on which we shall justify the usage of the term “Xiongnu” in this paper.

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9 Mogilnikov 1992: 254
10 Klyashtornyi and Savinov 2005: 33
12 Klyashtornyi and Savinov 2005: 185
13 Inostantzhev 1926
14 E.g. Vorobiev 1994; Mandel'shtam and Stambul'nik 1992; Minyaev 1998
15 Konovalov 1976
In the research literature of the Soviet period, only the term “Huns” was used to designate the pastoral tribes of the above-mentioned period. But later names derived from Chinese chronicles — “Xiongnu” and “Hunnu” — began to be used. One of them is given in the southern Chinese pronunciation, and the other in the northern. In European research literature the term “Hunnu”, which the ancient Greek and Roman writers transcribed as “Hun”, “Hunnu”, “Huni”, was adopted in Russian as “Gun” “Guni”, although the pronunciation of the Southern Chinese Hunnu is more like Russian “ha”. Therefore, it is reasonable to use the term “Hunnu”, not excluding the option “Xiongnu”. The author is thus justified to use “Xiongnu”.

**THE BULAN-KOBA CULTURE**

The peoples who lived in the northern periphery of the vast Xiongnu Empire have not been studied well. Altai is no exception. Until the mid-1980s, no archaeological complexes dating to the 2nd century BC – 1st century AD had been discovered. This has left a blank spot in the history of the nomads in Altai in the Xiongnu period, invited several hypotheses regarding the cultural history of the Pazyryk tribes, and resulted in excessive prolongation of the upper chronological line. In the research literature a three-phase chronology was proposed for the transitional “Hun-Sarmatian” Period (the 2nd century BC – 5th century AD): early, developed, and late nomads of Altai.

A broad array of archaeological and anthropological materials of the Altai Mountains acquired in the latest 30 years provides a significant opportunity for the study of historical and cultural processes taking place in the early first millennium AD. The history of the “Hun-Sarmatian period” written by V. Soenov can now be complemented with the results of recent research. This situation, in combination with the increased number of sources, has given birth to numerous concepts of culture and chronology.

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16 Zasetskaya 1994
17 Konovalov 1976: 3
19 It should be mentioned that the “Hun-Sarmatian period”, which has been widely used in the scholarship, is not relevant to the history of Altai and Asia in general. In this regard, it would be logical to use a more appropriate term — “Xiongnu - Xianbei-Rouran period”, which consists of the names of the Central Asian Empires, that is Xiongnu, Xianbei, Rouran, which were actively involved in the political and cultural life in the 2nd century BC – the 5th century AD and left remarkable trace in the history of the vast region (Tishkin 2004: 296).
20 Gavrilova 1965; Tishkin and Matrenin 2007: 39
21 Tishkin 2009
22 Soenov 2003: 4–12
23 Tishkin 2007a: 167–172
To date over 75 mounds of the Xiongnu Period (2\textsuperscript{nd} century BC – 1\textsuperscript{st} century AD) have been excavated at the burial grounds of Ust-Edigan, Sary-Bel, Chendek (Eastern Group), Yaloman-II (Western group), and Pazyryk (mounds 23, 24, 42).\textsuperscript{24} Located in the northern, central and eastern parts of the Altai Mountains, they are referred to as the Bulan-Koba culture by the Barnaul scholar Y. Mamadakov,\textsuperscript{25} and ascribed to the Ust-Edigan phase,\textsuperscript{26} which was named after the synonymous site excavated by Y. Khudyakov.\textsuperscript{27} All the accumulated materials date back to the 2\textsuperscript{nd} century BC – 1\textsuperscript{st} century AD. This is confirmed by a full-range analysis of archaeological finds as well as radiocarbon dates of samples that were collected from Yaloman-II and tested in different laboratories in Russia and abroad.\textsuperscript{28}

The available data, the research results of our own and other scholars, allow us to present the main characteristics of the archaeological sites.

The burial grounds of the Bulan-Koba culture are typically located on high terraces in secluded places. Yaloman-II, in particular, is located in Central Altai on the fourth terrace above the Katun River in a small area at some distance from the previous Pazyryk kurgans.

The tombs of the early phase of Bulan-Koba culture are hardly visible on the present-day surface. It is apparently for this reason that the tombs ever found are not so numerous compared with the mortuary and memorial sites of the other early Iron Age cultures.

Among the known cases small stone and earthen round mounds (sometimes oval or sub-rectangular) are prevalent, and they are often marked with cairns of larger stones (Fig. 1). On the burial ground small mounds form some sort of tight chains. Men’s kurgans at Yaloman-II are usually marked with a low vertically installed stone on the southeastern side of the stone mound (Fig. 2). Under the mounds are dug burial pits, most of which were covered with massive slabs of stone. Wooden or composite (stone and wood) structures are less frequent.

\begin{footnotes}
\item[25] Mamadakov 1990
\item[26] Tishkin and Gorbunov 2005a: 160; Tishkin and Gorbunov 2006; Tishkin 2010a
\item[27] Khudyakov 1991; Khudyakov 1997a; Khudyakov 1997b; Khudyakov 1998a
\item[28] Tishkin 2007a: 264–275
\end{footnotes}
Figure 1  Above-ground mound at Yaloman-II. View after clearing grass and grove. Photo: © A.A. Tishkin 2003.

Figure 2  Vertical stone on the top of Kurgan 43 at Yaloman-II. Photo: © A.A. Tishkin 2007.
Among the tombs there are single burials accompanied by a riding horse or without it, and cenotaphs, also accompanied by a horse or without it (Fig. 3). The deceased were laid either on one side with legs slightly bent or stretched on the back. The deceased and the horses were oriented in two ways: head to the west or to the east (the latter predominates). The horse was placed on the roofs of the burial chambers, on one side with a characteristic shift “to the feet of a man”. Much less frequent such animal was laid in parallel to the body of the deceased on one side of the tomb pit.

The objects found in the tombs of the Ust-Edigan phase turn out to be very diverse; they have already been published and partially characterized.29

The objects, which are presented in three tables (Figs. 4, 5, 6), are supplemented by new finds obtained by the author during the excavation of Yaloman-II after 2006.30 It should be noted that the materials of this burial ground are well-studied with the extensive use of methods of natural science. In particular, almost all non-ferrous metals have been subjected to spectral analysis; wooden fibres to anatomical determination; Chinese lacquerwares to chemical analysis. Paleo-carpological data of several samples, radiocar-

29 Tishkin 2005a; Tishkin 2005b; Tishkin 2006a; Tishkin 2006b; Tishkin 2007a; Tishkin 2007b; Tishkin 2010b; Tishkin 2011a; Tishkin and Gorbunov 2002; Tishkin and Gorbunov 2003; Tishkin and Gorbunov 2004; Tishkin and Matrenin 2011

30 Tishkin 2010b; Tishkin 2011a
bon and dendrochronological dates of animal and human bones have been acquired; petrographic and X-ray fluorescence analyses were used for many stone and glass beads.\textsuperscript{31} The material culture of the population of the Ust-Edigan phase of the Bulan-Koba is expressed in the weapons, horse equipment, household items, tools, and jewellery.

\textsuperscript{31} Tishkin 2004; Tishkin 2010b; Tishkin 2011a; Tishkin and Khavrin 2004; Bykov et al. 2004; Bykov et al. 2005; Tishkin, Khavrin, and Frenkel 2007; Bykov, Slyusarenko, and Tishkin 2008; Tishkin and Luzgin 2009
Weapons (Fig. 4: 1–18) are comprised of short- and long-distance combat weapons, as well as warrior armours.\textsuperscript{32} Remaining fittings of composite bows have been found at sites of the Ust'-Edigan phase; more often have the horn laths been found, but in some cases remains of the wooden core have also been found. On two central staves from Kurgan 62 at Yaloman-II one can clearly see images of animals. The inner surface of the horn laths is decorated with incised lattice pattern, a feature that is associated with the process of gluing the wooden and horn parts of a composite bow.

Judging by the available data, early Bulan-Koba culture bows are of two types.\textsuperscript{33} One type consists of seven horn laths: two pairs of end piece, two laterals, and a medial midline piece. The other type consists of six laths: two pairs of end piece, and two medial pieces. The two types made their appearance in the Xiongnu culture in the 3rd century BC.\textsuperscript{34} Later in the 2nd century BC – 1st century AD, they were widely adopted by different peoples of Eurasia. Early Bulan-Koba bows are similar to Xiongnu bows,\textsuperscript{35} which allow us to date them to the time when Xiongnu bows were spread.\textsuperscript{36}

A wooden model of pick-axes, which were found at Yaloman-II (Fig. 4: 11), resembles the weapons of the previous period only to a certain extent. In the south of Western Siberia, the most recent actual objects were found at the site of the 3rd–2nd century BC, and they were attributed to the Kamen culture.\textsuperscript{37} This type of weapons was widely used by the populations of Altai and adjacent territories in the Pazyrk period.\textsuperscript{38}

Arrowheads from the burial grounds of Ust-Edigan, Sary-Bel, and Yaloman-II (Fig. 4: 3–8), are all made of iron, and ended with stems. In some tombs remains of shafts made of birch wood were found.\textsuperscript{39} The iron arrowheads excavated from the kurgans of Yaloman-II are preserved relatively well.\textsuperscript{40}

Among them there are three types of tri-lobed arrowheads of triangular, triangular spiked and hexagonal shapes, as well as one type of armour-tip arrowheads of square, triangular and diamond shapes.\textsuperscript{41} Tri-lobed arrowheads were widely used by many nomadic and sedentary peoples of Eurasia from the turn of the 4th–3rd century BC. Geographically speaking, the Bulan-Koba items can be associated with similar arrowheads of the

\textsuperscript{32} Tishkin and Gorbunov 2006; Gorbunov and Tishkin 2006
\textsuperscript{33} Tishkin and Gorbunov 2006: 32
\textsuperscript{34} Khudyakov 1993: 121–122
\textsuperscript{35} See Erdenebaatar, Turbat, and Khudyakov 2003
\textsuperscript{36} Tishkin and Gorbunov 2006: 32
\textsuperscript{37} Mogil'nikov 1997: Figure 42; Shul'ga, Uman'skiï, and Mogil'nikov 2009: Figure 109
\textsuperscript{38} Kocheev 1999
\textsuperscript{39} Anatomical analysis of wood found at the site of Yaloman-II was carried out by M. Kolosova of the State Hermitage Museum (St. Petersburg) and N. Bykov of the Altai State University (Barnaul).
\textsuperscript{40} Gorbunov and Tishkin 2006: 81–82
\textsuperscript{41} Tishkin and Gorbunov 2006: 32.
Kamen culture of the 3rd–2nd century BC in the Altai steppe, as well as with sites of the Tesin phase of the Tagar community of the 2nd–1st century BC in the Minusinsk Basin. Special attention has been drawn to the triangular spiked arrowheads that are identical to Xiongnu objects of the 2nd century BC—1st century AD. Later in the 1st century AD such arrowheads were practically dropped out of use in Central Asia. Hexagonal arrowheads are also known among the Xiongnu in Central Asia in the 2nd century BC—1st century AD, as well as among the Sarmatian in Eastern Europe in the 1st century BC—1st century AD. There are some Xiongnu arrowheads that are close to the armour-piercing tips.42

Daggers from the burial grounds of Ust-Edigan, Sary-Bel and Yaloman-II (Fig. 4: 9–10, 12–15), which have blades with lens cross-sections, fall into the following general types. The first type has a straight body with a crossbar and a helix pommel (Fig. 4: 14–15). These products are typologically traceable to the weapons of the Scythian-Saka period. The most accurate analogy of them can be found in Bactrian (Yuezhi-Kushan) sites of the 3rd century BC—1st/2nd century AD, as well as among the weapons of the 2nd–4th century AD from sites of the Sargat culture in Western Siberia. The second type is without a crossbar and a heap (Fig. 4: 9–10, 12–13). In the west it is known among the Sarmatian of Eastern Europe from the 1st century BC—1st century AD, and in the east of Central Asia—among the Xiongnu in the 2nd century BC—1st century AD.43

Iron armour plates have been discovered at Yaloman-II (Fig. 4: 17–18). They are the lamellar armour plates, featuring shortened proportions, oval and rectangular shapes, and six holes for mounting. Identical items have been found at Xiongnu sites from the end of the 3rd century BC—1st century AD, and are also known at sites of the tribes of the Amur and Xianbei in the 2nd–3rd century AD.44 Two armour plates from Yaloman-II have a bronze lining on the inside. An analysis of them revealed a foreign origin,45 indicating that the first Bulan–Koba armours were imported.

A fragment of a double-edged sword (Fig. 4: 16) was found at Ust-Edigan.46 Similar products can be found among the Sarmatian and Central Asian weapons of the 1st–4th century AD. They could have come to Central Asia in the 2nd century BC or even earlier, which is possibly confirmed by a fragment of double-edged blade and handle in the Dyrestu kurgans in the trans-Baikal region.47

Human equipment includes various sets of main and shooting belts as well as sword belts. Buckles are very diverse. There are, for instance, delicate copper buckles, each of

42 Gorbunov and Tishkin 2006: 82
43 Ibid.: 83
44 Ibid.: 83–84
45 Tishkin and Khavrin 2004: 305
46 Khudyakov 1997b: Figure 1: 14
47 Gorbunov and Tishkin 2006: 83
Figure 7  Belt buckles and buttons from Kurgan 60 at Yaloman-II: 1–2 – bronze, 3–5 – bronze, gold. Photo: © A.A. Tishkin 2004.
which has an image of a lizard biting its own tail (two copies found at Yaloman-II; Fig. 4: 19). Some details (especially its general form, zoomorphic style and functional parts) indicate that they are similar to the items of the 2\textsuperscript{nd} century BC—1\textsuperscript{st} century AD discovered in Southern Siberia and Trans-Baikal.\textsuperscript{48} The emergence of such products in this territory is associated with the influence of the Xiongnu culture.

The most numerous are frame buckles with movable tongues. There are items of rectangular shape, and some of them have concave frames (Fig. 4: 21). Round buckles tend to be bigger in size and they are usually a part of the waist and sword belt (Fig. 4: 25, 27). One of them has a crossbar for affixing the tongue. Similar buckles are known among the Xiongnu items. There are also items with round-rectangular frames, also typical of the Xiongnu culture, consisting of “8”-form frames with closed middle parts and sliding panel-clamps (Fig. 4: 31). Analogous items (without plate) can be found among the Xiongnu belt equipment. Actually, early Bulan-Koba belt buckles considerably differ from those of the Scythian-Saka time. The lower time border of them can be reliably placed at the turn of the 3\textsuperscript{rd}–2\textsuperscript{nd} century BC.\textsuperscript{49}

Belt tips, which are made of copper or iron, have oval-rectangular shapes, and fine slots over the entire surface (Fig. 4: 23) or only one hole for fastening the belts’ ends. These products are similar to samples from Xiongnu sites of Trans-Baikal.\textsuperscript{50} An openwork belt tip found in Kurgan 60 of Yaloman-II, which features the following parameters: 4.75 cm long, 1.7 cm wide, 0.2 cm thick (Fig. 4: 23; 7: 2), is one of the earliest varieties in Central Asia.\textsuperscript{51}

Spoon-like pendants have been found in many tombs of male occupants (Fig. 4: 32–39). Copper and bronze items are often decorated with ornaments and furnished with two bridges from inside. Similar products of iron or bone are not so sophisticated. These objects are abundantly present in sites of the 2\textsuperscript{nd} century BC–1\textsuperscript{st} century AD and their dates are self-evident.\textsuperscript{52} A series of spoon-like pendants have been found in a treasure hoard in Il'ussk, Khakassia.\textsuperscript{53}

Among the belt equipment there are various plaques. Gilded copper plaques for the bottom edge from Yaloman-II were made in the openwork manner with the images of

\textsuperscript{48} Devlet 1980: Figure 6: 1–2, 10–12, Table 20; Davydova 1995: Table 14: 9, Table 123: 13; Davydova 1996: Table 13: 13, Table 33: 9; Minyaev 1998: Table 67: 7, Table 81: 8, Table 103: 1–2, Table 118: 1; Borodovskii and Larichev 2013: 75–78, 92.
\textsuperscript{49} Tishkin and Gorbunov 2006: 33
\textsuperscript{50} Konovalov 1976: Table 14: 1–14.
\textsuperscript{51} Tishkin and Matrenin 2011: 163–164.
\textsuperscript{52} Tishkin and Gorbunov 2006: 33
\textsuperscript{53} Borodovskii and Larichev 2013
two feline predators (Fig. 4: 22; 7: 3–5). An identical item was found in Tomb 138 in the Ivolga cemetery in the Trans-Baikal region.

Circular copper plaque with a mounting bracket (Fig. 4: 24) can be referred to as a button. Similar items are known from Xiongnu sites in Mongolia and the Trans-Baikal region. Among iron plaques there are small round items (Fig. 4: 29) and a larger oval one (Fig. 4: 30). Analogous items are also known among the artefacts of Xiongnu.

It is worth mentioning a man’s belt found in Kurgan 43 at Yaloman-II. It was varnished and comprised of wooden buckles and gold plaques (Fig. 8). The nearest analogy of these items – “a gold buckle with the image of a satire” – was found in a Xiongnu tomb in Kurgan 7 at Tsaram in the Trans-Baikal region. These items make it possible to reconstruct one subject of the Nart Sagas.

Circular belt distributors (Fig. 4: 26, 28), by two or three items, have usually been found on the second (shooting) belt. They are usually a set of round buckles with movable tongues, which are in full compliance with sets of belts from Xiongnu sites in

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54 Tishkin and Matrenin 2011: 162–163
55 Davydova 1996: Table 39: 2
56 Tishkin and Gorbunov 2006: 33–34
57 Tishkin 2010b: 43–44
58 Minyaev and Sakharovskaya 2007
59 Shefer 2012
Mongolia and the Trans-Baikal region in the 2nd century BC – 1st century AD. These distributors can be rather large in size.  

Horse equipment is comprised of bridle and saddle items (Fig. 4: 40-54). Iron bits have ringed ends of round or square cross-section. They are combined with psalies, and sometimes with additional yokes for bridles. The psalies are horn and iron rods, furnished with rings and two holes. All these items are known in the Xiongnu sites of the 2nd century BC – 1st century AD. Among them iron rod psalies with flat ends are mostly remarkable. They have paddles or S-shapes (Fig. 4: 43) with trapezoidal or round extensions (Fig. 4: 41-42). Such items are not only present in Xiongnu tombs in Mongolia and Trans-Baikal, but also in the Xiongnu settlement of Ivolga.  

Iron bridle buckles have rectangular frames and movable tongues (Fig. 4: 48), which are consistent with belt items, but somewhat smaller. Belt distributors fall into two types: copper cross-shaped items (Fig. 4: 47), which are close to the Dyrestuy items; iron items of closed rings (Fig. 4: 46), which correspond to those of the Xiongnu bridles.  

Different bridle sets have also been discovered: a flat plaque with a hole (Fig. 4: 45), a heart-shaped plaque with a loop, a hand shield, and a bracket (Fig. 4: 50), as well as a round metal plate, attached to a bridle with a tongue (Fig. 4: 49). The latter resembles in function the ringing bells from the Dyrestuy cemetery, and in shape and proportion—plaques with umbos from it. On the whole, early Bulan-Koba bridle sets are very different from the Pazyryk counterparts and fully comparable with the Xiongnu ones.  

Saddle sets of the Ust-Edigan phase inherit the previous tradition. It is manifested in a girth buckle of rectangular shape, which has slots and protruding triangular tips (Fig. 4: 52-54). Such items have been found at sites of the 5th–3rd century BC in Altai and Tuva. It should be mentioned that buckles with protruding tips are known from the Xiongnu sites of the 2nd century BC – 1st century AD, but they are different in form and character of the slots for the belt buckles. Buckles (Fig. 4: 51) have prototypes among the Pazyryk objects.  

Household items are comprised of different categories of objects (Fig. 5).  

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60 Tishkin and Gorbunov 2006: 33  
61 Tishkin and Matrenin 2011: 165–166  
62 Tishkin and Gorbunov 2006: 34  
63 Tishkin and Matrenin 2011: 167, Figure 31  
64 Miyaev 1998: Table 1: 2  
65 Konowalow 1976: Table 12: 13; Miyaev 1998: Figure 15: 8  
66 Tishkin and Gorbunov 2006: 34  
67 Tishkin and Gorbunov 2005b: 327–333  
68 Tishkin and Matrenin 2011: 166  
69 Tishkin and Gorbunov 2006: 34
Among the utensils from sites of the Ust-Edigan phase, there are clay, bronze and wooden items. Among ceramic vessels, there are several types, including pots, jars, vases and cups.\textsuperscript{70}

Fragments of pottery wares of the Xiongnu culture have been discovered in south-eastern Altai during the excavation of Pazyryk Kurgan 2 at Uzuntal-I, which was looted in antiquity.\textsuperscript{71} Also in the course of investigation of the cemetery of Ulanyryk-V, pottery fragments have been found in the tomb pit of Kurgan I.\textsuperscript{72} In 1978–1979 V. Kubarev excavated a stationary ceramic production site in Zhalgz-Uryuk-Kehl on the river Yustyd. This site is interpreted as an outpost of the Xiongnu or a group of them, who controlled the whole territory of Altai.\textsuperscript{73}

In the process of field investigation under the leadership of Y. Khudyakov, a series of ceramic dishes of the Xiongnu period was acquired from the sites in the valley of Edigan (northern Altai). The investigation has come to the following conclusions:\textsuperscript{74}

- The ceramic production could have been developed under the indirect impact of the Xiongnu and other Sayan-Altai nomadic cultures;
- The Pazyryk tradition of ceramic production was not inherited;
- The use of ceramic tableware was significantly limited in the funeral rites;
- The addition of new traditions in the manufacture of ceramic tableware, the change of products and their ornaments could have happened in a short period after the subordination of the Altai population to the Xiongnu;
- The declining influence of the Xiongnu and other cultures of Central Asia led to the formation of the peculiar features of the Bulan-Koba culture, including the ceramic industry;
- The composition of ceramic tableware of Xiongnu sites exposes a significant influence of foreign elements on the Bulan-Koba culture (especially the influence of northern periphery of the Altai Mountains).

The materials obtained during the excavation of Yaloman-II (Figs. 5, 9, 10) not only augment the already accumulated information, but also present the characteristics that allow us to connect the settlement, cemetery, and manufacturing sites. The early site of Yaloman-II is important for understanding the genesis of the Bulan-Koba culture, as over 70% of the artefacts are derived from the Xiongnu influence, and ancient Chinese handicrafts have been found. It appears that the population was under the influence of

\textsuperscript{70} Tishkin 2005a; Tishkin and Godunov 2006: 35
\textsuperscript{71} Savinov 1978: 53, Figure 3; Savinov 1993: 6
\textsuperscript{72} Kubarev 1987: 192
\textsuperscript{73} Kubarev and Zhuravleva 1986
\textsuperscript{74} Khudyakov and Moroz 1992; Khudyakov 1998b
the Xiongnu tradition, which may reflect the complete dominance of the Xiongnu in the Altai territory.

Seven ceramic vessels have been found in Kurgans 47, 52, 53, 54, 60, 60a, 61 of Yaloman-II. Most of them embody the industry of the early Iron Age in the northern foothill of the Altai Mountains (Figs. 10, 11). Vases are similar to those found in Xiongnu sites of Trans-Baikal and Mongolia in ornamentation and produced with the same technology (Fig. 9). Their bottoms retain square stamps of the potter’s wheel (Fig. 5: 33–34). Such images, but with additional details, have been found on some vessels from the Ivolga settlement in Buryatia. It is obvious that the tradition of ceramic production came from Chinese craftsmen or imported ceramic items.

A copper cauldron discovered at Yaloman-II is equipped with two U-shaped handles and one tray with triangular cuts (Fig. 5: 38; 12). Very similar artefacts have been found

75 Tishkin and Gorbunov 2003b: 332; Tishkin 2007b
76 Tishkin 2005a
77 Tishkin and Matrenin 2011: 167–168
78 Davydova 1996: Table 179: 1–4, 9
at the cemeteries of Dyrestuy and Ivolga in the Trans-Baikal region. The origin of the cauldrons of the Xiongnu type has been repeatedly studied by the Japanese scholar Takahama Shu.\textsuperscript{79}

Wooden items consist of different mugs, bowls, cups with handles, and dishes (Fig. 5: 49–45). Such items are widely known among the finds of the Pazyryk culture, as well as the Türkic culture.\textsuperscript{80} A series of household products has been found at Yaloman-II in the kurgans of the early and late phases of the Bulan-Koba culture, which spans all the periods of Xiongnu, Xianbei, and Rouan.\textsuperscript{81}

The stone rectangular altar (incense burner) with four legs was found during the excavation at Yaloman-II (Fig. 5: 46: 13). Such items are not typical for the sites that have been investigated in the Altai Mountains, but they are quite often found in the kurgans of the Kamen culture in the Altai steppe (second half of the 1\textsuperscript{st} millennium BC).\textsuperscript{82}

\textsuperscript{79} Ibid.; Table 35: 4; Minyaev 1998: Table 21: 6
\textsuperscript{80} Takahama 2013
\textsuperscript{81} Tishkin and Gorbunov 2006: 35
\textsuperscript{82} Tishkin 2011b
\textsuperscript{83} Mogil'nikov 1997: 88–91; Shuf'ga, Umanskii, and Mogil'nikov 2009: 177–178
Figure 13 A stone altar from Kurgan 51 at Yaloman-II. Photo: © A.A. Tishkin 2004.

Metal mirrors have been found at the sites of Ust-Edigan, Chendek, and Yaloman-II (Fig. 5: 23–27). One group of them features a round knob-loop in the middle of the disc on the front, and embossed ornaments on the back. These mirrors are defined as Chinese before the Han period. The analysis of the metal mirrors from Yaloman-II has shown that four items (all fragments; Fig. 14) were imported from China, and one is a local copy. The appearance of such objects in Bulan-Koba sites places the bottom line of their chronology at the turn of the 3rd–2nd century BC. To the study of them was devoted an article, as well as a monograph, which was also published in Chinese. The fragments of mirrors have been found together with a set of peculiar objects and jewellery.

Another group is comprised of round mirrors with tips and raised rims (Fig. 5: 23). Similar products have been found among the items of the Sarmatian (the Volga River), the Sargat (the Irtysh River), and the Jetyasar (the Aral Sea) cultures.

Among the combs made of wood and horn, there is one complete piece (Fig. 5: 20–21) and several fragments (Fig. 5: 22). V. Soenov noticed their similarity with the objects of

84 Tishkin 2006b; Tishkin 2007b
85 Tishkin and Khavrin 2004
86 Tishkin 2006b
87 Tishkin and Seregin 2011
88 Tishjin and Xieiejin 2012
89 Khudyakov 1998a; Tishkin and Gorbunov 2006: 35
the Pazyryk culture. Next to the fragmentary comb was discovered a fragment of Chinese lacquer cup, which was made of rosewood. It was probably used for the decoration of this product.

Iron knives fall into two types. The first is represented by a small item with a slightly salient butt and a concave blade, which forms a ledge at the border between the blade and the butt (Fig. 5: 12). The second is characterized by a blade with a sharp tip, inclining shoulders, a long shaft, and a hook-like end (Fig. 5: 13). Similar items of both types have been found in Xiongnu sites in the Trans-Baikal region. At Yaloman-II a wooden imitation of knife was stuck into real funeral food.

Bone and horn arrowheads, which were probably intended for hunting, are quite diverse. By design, they can be divided into shaft hole (Fig. 5: 1–3) and stemmed types (Fig. 5: 4–11). The arrowheads of stem items have square (diamond-shaped), sometimes trihedral, section. They can be triangular or pentagonal in shape with a triangular base (Fig. 5: 1–2) as well as with a slightly protruding stem (Fig. 5: 3). Similar items have been found in the sites of the Pazyryk and Kamen cultures of the 5th–3rd century AD, as well as

90 Seenov 1998: 166
91 Tishkin, Khavin, and Novikova 2008: 196–197
92 Tishkin and Gorbunov 2006: 35
in the Xiongnu sites of the 2nd century BC – 1st century AD. All stemmed arrowheads have a diamond-shaped cross-section, which is sometimes expressed only near their tips. Most of them are triangular (Fig. 5: 5–7), pentagonal (Fig. 5: 4), and keeled (Fig. 5: 8–10) forms with spikes. What is rare are long diamond-shaped arrowheads (Fig. 5: 11). The arrowheads of this group significantly differ from the Pazyryk ones and mark the initial phase of the Bulan-Koba culture, possibly reflecting the connection with the forest-steppe population of Western Siberia.94

Bone and horn tubes (Fig. 5: 14–17) have been found in men’s tombs. In the publications they are commonly designated as “Pincushions”. But there are no pins in them. Because of this, it is possible to use another term for these objects. Similar tubes have been widely discovered in Xiongnu tombs of Central Asia from the 2nd century BC to the 1st century AD, and they were prevalent in Southern Siberia down to the 5th century AD. Heads of stacks (Fig. 5: 18–19) are structurally similar to the Turkic products, but Bulan-Koba items are smaller in size and their attribution is premature so far.95

Garment ornaments consist of articles attached directly to clothes or put on the bodies of the occupants (Fig. 6).

Gold and bronze diadems have been found at the cemeteries of Ust-Edigan and Yaloman-II. Made of thick foils, they have a rectangular or square shape with bent edges and holes for sewing to the backing. The surface of the diadems is decorated with embossed geometric patterns (Fig. 6: 1–4, 7). These objects are very unique elements of the early Bulan-Koba culture, without any direct analogy of this period.

In a set with the diadem there are phalar plaques made of non-ferrous metals with similar technologies. They have a round shape, and their surface is decorated with embossed “vortex” ornament (Fig. 6: 5–6, 8). The exact analogy of them has been found in a Dyrestuy tomb in Trans-Baikal where such a phalar plaque is attached to the central part of a necklace of beads.96 Bulan-Koba phalar plaques are similar to some ornaments of the Jetyasar culture (southern Kazakhstan).97

Numerous plaques made of gold, silver, copper, and bronze were used to decorate headdresses and upper clothes. They have been found in all archaeological sites of the Ust-Edigan phase (Fig. 6: 18–43, 48), but they are particularly abundant in kurgans of Yaloman-II. The following types have been found: hemispherical with an annular rim (some of them have “ears” for the holes); teardrop-shaped with a granular rim (Fig. 6: 26); rhombic smooth (Fig. 6: 27); square smooth (Fig. 6: 28) and embossed (Fig. 6:

93 Ibid.: 34–35
94 Mogil'nikov 1997: 56
95 Tishkin and Gorbunov 2006; 35
96 Minyaev 1998: Table 9: 2
97 Levina 1996: Figure 119
geometrically irregular smooth (Fig. 6: 43); and compound boss (Fig. 6: 48).98 Exact analogies to the hemispherical plaques with an annular rim have been found in the early Kushan tomb of the Tillia Tepe in Afghanistan. Plain hemispherical metal plates are present among the artefacts of the Jetyasar culture of the eastern Aral Sea in southern Kazakhstan, where similar teardrop-shaped plaques with a grain rim have also been found.99 The rest of the plaques are most extensively distributed.100 Products of a compound form resemble to some extent the ornaments of the Pazyryk and Kamen cultures, but differ from them in having thicker foils.

Gold, silver, and bronze earrings have been found in tombs of Ust-Edigan and Yaloman-II. In terms of design, they fall into several types: ringed earrings with overlapped ends, one of which has a bunch of grains, a spiral clip, a chain, and a stone pendant; 8-form earring with two hooks, the smaller of which has a twisted two-loop pendant filled with stones; 8-shaped earring with two unequal hooks (Fig. 6: 10, 12, 15), in one of which the smaller hook is soldered to the larger (Fig. 6: 11); large 8-shaped earring with two hooks, the lower of which is sometimes flattened (Fig. 6: 16–17); ringed earring with a flat spiral tip (Fig. 6: 14).101 The earrings of the first three types are similar to the products of the Scythian-Saka period. Large 8-form earrings are known among the materials in the Minusinsk Basin at the turn of the century and in the Sargat culture. Ringed earrings with a spiral tip have earlier prototypes in the Kamen sites in the Altai steppe in the 5th–3rd century BC.102 The products with a loop-hook were further developed. A gold earring from Kurgan 43 of Yaloman-II, in a man’s tomb, is a unique item.103

Torques have been found at the cemetery of Ust-Edigan. Comprised of a bronze or wooden base and a plate of gold or silver (Fig. 6: 46), these products are similar to torques of the Scythian-Saka period, but in the Xiongnu time they vanished later in the 1st century AD.104

Copper bells, according to their positions in tombs, were used as pendants of belts. One of them has an arched contour; the other has a trapezoidal contour (Fig. 6: 44–45). Similar items are present among the finds of the Xiongnu in the Trans-Baikal region.105

In Kurgan 51 Yaloman-II, along with the above-mentioned articles, a half of the lower headband made of fabric was found on the head of a dead young woman. Decorated

98 Tishkin and Gorbunov 2006: 36–37; Tishkin 2010b
99 Levina 1996: Figure 106, 110, 119
100 See Mordvinseva and Khabarova 2006
101 Tishkin and Gorbunov 2006: 37
102 Mogil’nikov 1997; Tishkin and Gorbunov 2006: 37; Shul’ga, Umanskii, and Mogil’nikov 2009
103 Tishkin 2010b
104 Teterin 2001: 109
105 Konovalov 1976: Table 7; Minyaev 1998: Table 5: 4, Table 6: 4, Table 10: 2
with ten gold plaques, \(^{106}\) the item is a product in the form of a bonnet or a cap. In the same tomb a leather belt is fairly well-preserved due to the fact that there are a number of bronze objects nearby. It is about 1.1 m long, 0.36 m wide, and was almost completely traced during the excavation. However, the lower part is much worse preserved. Nevertheless, we can almost completely reconstruct the item. \(^{107}\) The belt consists of several strips fastened together. The outer side, which had been varnished or coated with paint, was fixed on the edge of the leather strap with bronze pegs that were inserted in the holes punched and clenched to the effect of decoration. The belt was connected with an openwork bronze buckle in the form of a lizard biting its tail. To fix the dangling end of the belt a loop was placed on one side. Under the buckle a brown lining, which was very well-preserved, was sewn to the leather-base and used as an undercoat. The bronze item appears to be quite impressive on this specially created background. The other end of the main body has eight holes and has been specially cut from both sides to a width of 1.6 cm to pass through the buckle. Judging by the way the belt was fastened, the covering clothes extend up to about 80 cm wide. This suggests that the dead woman wore upper body clothes (fur coat or gown). To the left and to the right, next there are iron rings and one clamp, most likely from the additional strap or other device. In addition to these items, the bead and other things were found. \(^{108}\)

Beads constitute one of the numerous categories of finds in women’s tombs of the Ust-Edigan phase in Altai. A detailed study of them has just begun. \(^{109}\) Preliminary results indicate that the products were imported; a few of them were Chinese items, but “Western” glass beads dating to the 3rd–2nd century BC prevailed. In addition to glass beads there are stone ones.

It may be added that the study of Chinese lacquer found at the site of Yaloman-II is underway. \(^{110}\)

CONCLUSION

In general, assessing the material culture found at the sites of the Ust-Edigan phase of the Bulan-Koba culture, it is possible to diagnose a few cultural-historical groups of things. \(^{111}\)

The first group (the largest), which is entirely derived from the material culture of the Xiongnu, is comprised of composite bows, armour-piercing arrowheads, daggers with-

\(^{106}\) Tishkin 2005b: 196, Figure 1:1
\(^{107}\) Ibid.: 196–199, Figure 1: 2–4, Table 2: 8
\(^{108}\) Tishkin 2011b
\(^{109}\) Tishkin, Khavrin, and Frenkel 2007; Tishkin and Luzgin 2009
\(^{110}\) Tishkin, Khavrin, and Novikova 2008
\(^{111}\) Tishkin and Gorbunov 2006: 38; Tishkin 2007a: 176–177
out crossbar and pommel, armour plates, belt and bridle sets, household knives, tubes, ceramic vases, pots and bells. Most of these products began their development at the turn of the 3rd-2nd century BC, clearly marking the lower chronological border of the Ust-Edigan phase. Chinese mirrors (in fragments) and their copies can also be ascribed to this category. It should also be pointed out that a part of the objects was common in the present territory of Northern China, Mongolia, and Southern Siberia only during the Xiongnu period. Among them there are prestigious objects: openwork belt buckles, arrowheads, plaques, spoon-like pendants, and bridle ornaments. After the 1st century BC they were no longer used with the fall of the Xiongnu Empire.

The second group of the finding indicates the end of the tradition of the Scythian-Saka period. In the Altai Mountains and its foothills they are mainly the legacy of the Pazyryk and Kamen cultures. These include spiked arrowheads, model chisels, girth buckles, and plaques, hunting socket arrowheads, some ceramic vessels, a stone altar (for incense-burning), compound plaques, earrings, and torques. All these types, with a few exceptions, went out of use during the 2nd century BC – 1st century AD, which marks the upper chronological border of the Ust-Edigan phase.

The third group of objects probably reflects the influence of the material cultural traditions of the Sarmatian and Central Asian (Early Kushan) circle. These include daggers with crossbar and pommel (possibly a sword), mirrors with raised rims, hemispherical and teardrop-shaped plaques, and probably phalars. The appearance of these products fit into the chronological range of the 3rd–1st century BC.

One can with good reasons identify a few facts about the formation of the Ust-Edigan phase and the Bulan-Koba cultural tradition. It was expressed in the modification of the preceding and borrowed types of products, and was most clearly manifested in the clothes' jewellery that makes up an original and stable set. A certain assemblage of artefacts of the Ust-Edigan phase also denotes its uniqueness, allowing us to clearly distinguish Bulan-Koba material objects from synchronous neighbouring cultures.112

The identification of the groups of artefacts of the Ust-Edigan phase, compared with the data of funeral rites, reflect the participation of various components in the formation of the Bulan-Koba culture. One of them corresponds to the element of funeral rites as the positioning of the dead on his side with legs slightly bent and head oriented in the eastern sector, the positioning of the horse with the stomach facing the long wall of the structure, the construction of boxes. These traits may be of the remaining local artefacts after the defeat of the “Pazyryks”. Its proportion is not significant both in the household items and in the rites. Another group consists of the following funeral rites: a different plan of the burial grounds, new above-ground construction compared with

112 Tishkin and Gorbunov 2006: 37
that of Pazyryk, the stretched dead body on its back, oriented to the west, the positioning of the horse on its side on the roof of the burial chamber, the separate burial of horses, and unique cenotaphs. These traits denote foreign influence. In spite of the fact that the Xiongnu group of objects are dominant among the inventory, funerary structures, which characterize the actual Xiongnu sites in Mongolia and Baikal, these have not been discovered in Altai.

Funeral rites of the Bulan-Koba culture are distinguished from the Xiongnu rites. It is opined that the alien ethnic group, which was strongly influenced by the Xiongnu culture, could have come from Mongolia or Xinjiang. In addition, the formation of the Bulan-Koba culture was in cooperation with the population of the Kulazhurgin culture in Eastern Kazakhstan.\textsuperscript{113} Indeed, the Kulazhurgin funeral rites are analogous to those of the Bulan-Koba sites in many ways. It is likely that the Kushan-Sarmatian group of equipment was brought to the Altai Mountains across the Eastern Kazakhstan.

The ethno-cultural process of the formation of the new community in the Altai Mountains cannot be understood without considering the political and socio-economic situation in Central Asia. As it has already been mentioned, at the end of the 3\textsuperscript{rd} century BC, remarkable changes resulting from the creation of the powerful Xiongnu Empire took place. Its centre was originally located in the Ordos Plateau in the territory of southern Mongolia. By the year of 201 BC Shanyu Modu annexed the northern region, including the northern Mongolia, the southern part of the Trans-Baikal and South Siberia. By the middle of the 2\textsuperscript{nd} century BC (165 BC) the Xiongnu finally defeated the western lands of Central Asia, displacing their strongest opponents – the Yuezhi.

Thus, the beginning of the Ust-Edigan phase of the Bulan-Koba culture is synchronic with the military and political events of the end of the third-first half of the 2\textsuperscript{nd} century BC. Most likely, the northward campaign of Modu became crucial, when the Xiongnu dominance over the territory of Southern Siberia was in position. The elite of the Pazyryk culture was most likely annihilated. To consolidate the new lands the Xiongnu relocated some loyal tribes in the Altai territory. They could be the “Kulazhurgin”, who received material support for the consolidation of their rule. Having settled in a new place, they absorbed the traits of the local people. The Bulan-Koba culture could also have been formed of two foreign components, but this proposition is difficult to reconcile with data of the funeral rites.

The Bulan-Koba population of the Ust-Edigan phase was subordinate to the power of the Xiongnu. This vassalage was stronger or weaker due to the particular political and military situation. For example, after 123 BC, when the Xiongnu moved its headquarters to the Northern Mongolia, it could grow; after 56 BC and 48 AD, when the Xiongnu

\textsuperscript{113} Mamadakov 1990: 18
was split into the “northern” and “southern” divisions, it became formal. At the end of the 1st century AD, the northern Xiongnu were defeated by the Xianbei (93 AD) and lost their dominance in most regions of Central Asia. The influence of the new winners in the Altai territory marked the beginning of a new phase in the development of the Bulan-Koba culture.\textsuperscript{114}

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