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A Mortuary Complex with Animal Skulls at Khankarinsky Dol, a Scythian Age Cemetery in the Northwestern Altai

This article presents a description of Khankarinsky Dol mound 34 on the left bank of the Inya River, 1–1.5 km southeast of Chineta, Krasnoshchekovsky District, Altai Territory. Excavations revealed a cist with a supine burial of a male, whose head was oriented to the east. Beyond the eastern wall of the cist, a horse cranium and three crania of sheep were placed. Features of the burial rite suggest that the burial belongs to the Korgantass type, which is distributed over the Altai-Sayan and Kazakhstan, with certain parallels in northern China. Principal categories of offerings are analyzed, including those associated with the horse. On their basis, the horse harness is reconstructed. On the basis of the typology of artifacts and radiocarbon analysis, the burial was dated to the 5th to 4th centuries BC (possibly late 5th to early 4th centuries BC). The Korgantass burials at Khankarinsky Dol and elsewhere in the Altai Mountains indicate a migration from the eastern part of the nomadic world, apparently from northern China or the Trans-Baikal region.

Keywords: *Altai, burial rite, artifacts, horse harness, Scythian-Saka period, Korgantass-type burials.*

Introduction

For twenty years, the Krasnoshchekovo archaeological expedition of the Altai State University under the leadership of the author of this article has been studying sites of the Chineta archaeological area located in the vicinity of the village of Chineta, in the Krasnoshchekovsky District of the Altai Territory (Northwestern Altai). Sites from the Upper Paleolithic to the Middle Ages have been discovered. Special research has been conducted on burials at the Khankarinsky Dol cemetery, located on the eastern part of the second terrace above the floodplain, on the left bank of the Inya River (a left tributary of the Charysh River), 1.0–1.5 km southeast of Chineta (Fig. 1). Currently, over thirty artifacts of the Scythian-Saka period have been studied there. This article

describes the results of cultural and chronological attribution of artifacts and reconstruction of the horse harness on the basis of the results of excavations performed in 2019 at mound 34 at the Khankarinsky Dol cemetery.

Description of the burial rite

Burial mound 34 is located in the northern part of the cemetery. The mound had an unusual sub-square shape with sides of 4.5 m (Fig. 2). The structure was oriented to the cardinal points and was made of small and medium-sized stones in one or two layers. Its height reached 0.45 m; with the soil layer it reached 0.65 m. A subrectangular grave with rounded corners oriented along the NW-SE axis was discovered under the mound.



Fig. 1. Location of the Khankarinsky Dol cemetery.

Its size at the level of the ancient horizon was $2.40 \times 1.45 \times 1.84$ m (depth from the zero benchmark). A stone cist was discovered in the grave (Fig. 3). Two large (78 and 90 cm long, 8–18 cm wide) and two small (30 and 38 cm long, 5–10 cm wide) stone slabs were placed on their edge along the southern wall; two large stone slabs (96 and 62 cm long, 5–11 cm wide) and three medium-sized stones in the northwestern corner were set along the northern wall, and one medium-sized stone slab (40 and 50 cm long, 7–9 cm wide) was placed along each of the eastern and western walls. On top, at a depth of 1.24–1.38 m, the cist was covered with eleven cut stone slabs and stones from 40 to 90 cm long and up to 37 cm wide. Three steles, probably of the Early Scythian period, served as cover slabs, that is, in this case, earlier stone items were reused. Similar steles, with a distinctive slanted cut in the upper part, have also been found at the sites of Chineta II and Inskoy Dol, although Early Scythian mounds have not yet been identified within the Chineta archaeological area.

The burial turned out to have been plundered. Skeletal bones were in a chaotic state in the stone cist at a depth of 1.70–1.84 m. Only the tibia and two fibula survived in their original position. The deceased was probably buried in an extended position, with his head towards the east (Fig. 3). In the middle part of the southern wall of the cist, at a depth of 1.67 m, a bronze quiver hook (Fig. 4, 4) was found; 0.35 m to the west of the hook, in the area where two slabs joined, there was a bone arrowhead. A second bone arrowhead was found 0.4 m to the northeast at the opposite, northern, wall of the stone cist (Fig. 4, 6, 7).

The skull of a horse and three skulls of sheep, oriented eastward, lay at a depth of 1.26–1.35 m,



Fig. 2. Burial mound 34 after unearthing the tumulus.



Fig. 3. Grave in mound 34.

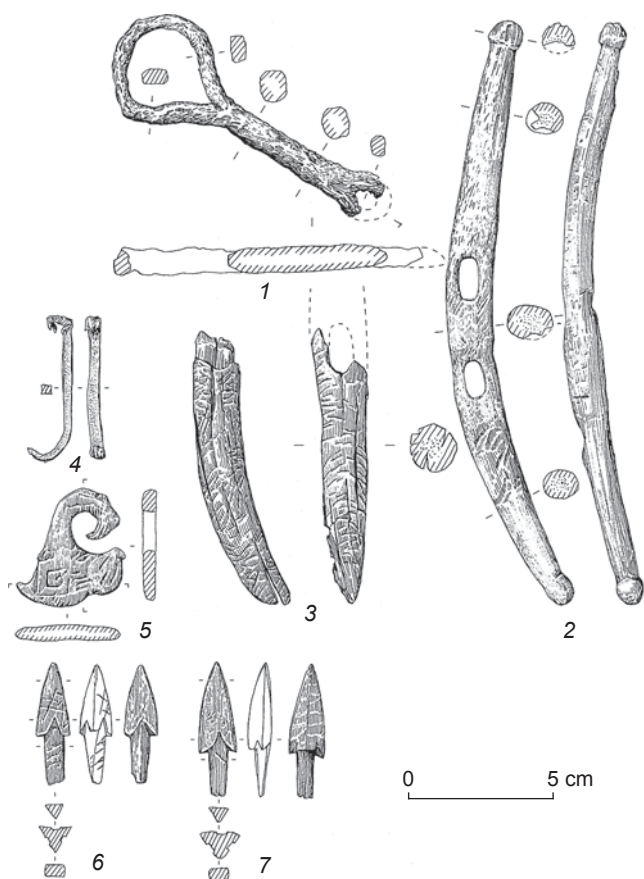


Fig. 4. Inventory of the burial.

1 – fragment of an iron bit; 2, 3 – horn cheekpieces; 4 – bronze hook; 5 – bone pendant; 6, 7 – bone arrowheads.

behind the eastern wall of the stone cist, parallel to it, on a ledge of the sterile soil. Elements of a horse harness were found with the horse skull, including browband and noseband bone plaques (Fig. 5, 7, 8), eight bone doublers in the form of a figure-eight (Fig. 5, 1–6), three bone terrets each with five holes (Fig. 5, 10–12), a halter unit (Fig. 5, 9), the link of an iron bit (see Fig. 4, 1), as well as a bone pendant in the form of a stylized bird (see Fig. 4, 5).

Cultural and chronological attribution of the burial

Burial goods from mound 34 at Khankarinsky Dol included various types of items. The finds included a bronze hook 5 cm long, with a maximum width of 0.5 cm in the upper part (see Fig. 4, 4). According to the classification of such items proposed by Y.F. Kiryushin and N.F. Stepanova (2004: 68), it belongs to section 2, type 1, variant 1. A hook of this type was made from a bar, sub-rectangular in cross-section, one end of which was bent into a ring or loop. The ring of the item from mound 34 was not closed. It might have been unbent (or not fully bent) still in ancient times. Hooks of that type generally have a wide number of parallels among the evidence from the sites of the Pazyryk period in the Altai. For example, similar bronze hooks, only with a closed loop, have been found at the burial grounds of Saldam (mound 5), Tytkesken VI (mound 6, 48/2), and Kaindu (mound 5) (Ibid.: Fig. 28, 4, 9, 10; 29, 19). A quiver hook with similar morphological features (a ring not completely bent on top), although two times longer than the hook under consideration, was found in burial 4 at the Obskiye Plesy II cemetery. That site belongs to the Staroaleyskoye culture of the Upper Ob region, and was dated to the 5th to early 4th centuries BC (Vedyanin, Kungurov, 1996: 104, 114, fig. 16, 2).

Another category of inventory includes two bone, tanged, trihedral arrowheads with spikes (barbs) and triangular cutouts at the bases (see

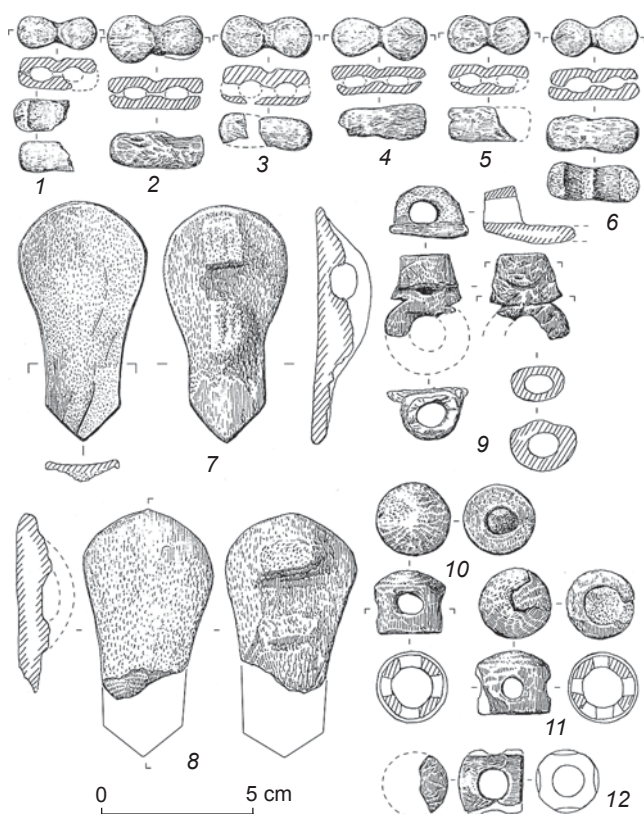


Fig. 5. Elements of horse harness.

1–6 – doublers; 7, 8 – browband and noseband plaques; 9 – halter unit; 10–12 – terrets.

Fig. 4, 6, 7). Their lengths are 4.2 and 4.6 cm. In the Altai region, bone trihedral arrowheads with spikes have been known since the Late Bronze Age, although the main period of their existence was the 7th–3rd centuries BC. They widely appear in the Pazyryk burial mounds (Kiryushin, Stepanova, 2004: 64). Tanged, trihedral arrowheads have also been found in the Bystryanka, Staroaleyskoye, and Kamenka cultures of the Upper Ob region (Zavitukhina, 1966: 63, Fig. 2, 24, 25; Vedyanin, Kungurov, 1996: Fig. 17, 18; Kiryushin, Kungurov, 1996; Ivanov, 1987: 13; Mogilnikov, 1997: 55–57, fig. 46, 23; and others), the Tagar culture of the Minusinsk Basin (Kulemzin, 1976: Fig. 10, 2, 9), as well as the Aldy-Bel and Sagly (Uyuk) cultures of Tuva (Grach, 1980: Fig. 32, 14–16). They show fairly broad parallels outside the Altai-Sayan (Stepnaya polosa..., 1992: Pl. 119, 33; 122, 68). Gradual decrease in length has been observed in tanged, trihedral arrowheads with spikes found in the Altai Mountains over the Scythian period. For example, the typical length was 7–8 cm in the 7th–5th centuries BC, and 4.5–5.5 cm in the 4th–3rd centuries BC (Kiryushin, Stepanova, 2004: 64–65; Shulga, 2002: 56; and others).

Despite the fact that the burial was plundered, the burial rite revealed during the excavation of mound 34 at Khankarinsky Dol is of interest. The deceased was oriented with his head towards the east, which is typical for the sites of the Pazyryk culture. However, he was probably buried in an extended supine position, which is atypical for the Pazyryk culture; although Pazyryk burials where the deceased were placed in such a manner are known from the middle reaches of the Katun River (Kiryushin, Stepanova, 2004: 127–128; Tishkin, Dashkovskiy, 2003: 165) and in the northwestern Altai, including the neighboring burial ground of Chineta II (Dashkovskiy, 2017). Although burial structures in the form of a stone cist were not predominant in the Pazyryk culture, they occurred relatively often, especially in the central Altai (Surazakov, 1989: 124–130; Tishkin, Dashkovskiy, 2003: 159–168). Notably, mound 34 was located in the northern part of the Khankarinsky Dol cemetery, at some distance from the chain of mounds of the Pazyryk culture.

A rather interesting feature of the funeral rite is the presence of horse and sheep skulls behind the eastern wall of the stone cist. This feature has been observed at several cemeteries in the central and southeastern Altai, including Elangash, mound 2 (Kubarev, Grebenshchikov, 1979: 70), Ker-Kechu, mound 9 (Mogilnikov, 1988: 68), and Kyzyl-Tash, mounds 20–22a, and 25 (Soenov, Ebel, 1998). The

tradition of placing the heads of animals in a human burial has been known from sites in Tuva, Mongolia, and Kazakhstan synchronous to the Pazyryk culture, which has allowed scholars to distinguish the so-called Korgantass type of burials (Poltoratskaya, 1966: 83; Kushakova, Chugunov, 2010; Aseev, 1975: 183–184; Beisenov, 1995: 225; Tairov, 2006; Kubarev, Shulga, 2007: 17–18; and others). This custom was also widespread in northern China in the Scythian period. In particular, it occurs in the burials of the 5th–3rd centuries BC at the cemeteries of Maoqinggou, Taohongbala, Gangsuhao, and Xigoupan (Polosmak, 1990; Minyaev, 1991: 124; and others). In addition, the results of the studies carried out in recent decades indicate that this tradition existed in northern China starting in the Early Scythian period (Shulga, 2015a: 34–35; fig. 36, A). Subsequently, it became widespread among the Xiongnu of the Trans-Baikal region (Konovalov, 1976: 161–162).

The problem of the appearance of burials with this distinctive feature of the burial rite in the Altai Mountains has been repeatedly addressed by scholars. For example, V.A. Mogilnikov noted that the tradition of placing the heads of animals in the compartment for ritual food, appearing in the Late Pazyryk mound 2 at the Elangash cemetery, was associated with the influence of the Xiongnu (1988: 73–74). A.S. Surazakov also associated that burial with the influence of some other culture (1989: 123). N.V. Polosmak came to the conclusion that mound 2 at Elangash was similar to the sites of the Scythian period in northern China, and to the burials of the Xiongnu in the Trans-Baikal region. She associated the appearance of burials with animal skulls in the Altai with migrations of the carriers of the Tasmola culture from Kazakhstan (Polosmak, 1990: 104–106, fig. 3, 5, 6). A little later, Polosmak clarified that this was associated with infiltration of the Ordos population, which was close to the Pazyryk people “in their way of life and culture” (1994a: 143).

The idea about the penetration of population groups from northern China into the Altai in the Late Pazyryk period was further elaborated after the study of five burials of the late 4th–early 3rd centuries BC at the Kyzyl-Tash cemetery, where the skulls of horses and small ruminants were found (Soenov, Ebel, 1998: 92). In addition, discussing the Korgantass-type sites in the Altai Mountains, A.D. Tairov made a conclusion about two waves of migration from northern and northwestern China: in the second half of the 5th–4th centuries BC, which was reflected in the burials of the Sibirka I and Ker-Kechu cemeteries, and in the

3rd century BC, which led to the appearance of burials with animal skulls at the Altai cemeteries of Elangash and Ak-Alakha I, as well as Korgantass-type sites in central Kazakhstan (2006: 188, 193–194). According to G.Y. Peresvetov, the emergence of these burials was associated with migration of some population groups in the 4th century BC not from northern China, but from Mongolia and the Trans-Baikal region (2006: 205–206).

P.I. Shulga drew attention to the fact that burials with such a feature of the burial rite were typical of the eastern historical and cultural community of the Mongoloids, whose representatives moved from the China or Trans-Baikal region in small groups to the west. The earliest burials of the Korgantass type (second half of the 6th century BC) have been found in Tuva. In the 5th–4th centuries BC, similar burials appeared in the Altai Mountains and Kazakhstan (Kubarev, Shulga, 2007: 17–18; Shulga, 2015a: 14).

The results of studying mound 34 at Khankarinsky Dol, where a human burial in a stone cist with the skulls of horse and sheep was discovered, additionally testifies to possible penetration of a specific group of population from northern China or the Trans-Baikal region to the Altai during the Pazyryk period. It is also important to keep in mind that interaction of the nomads of the Altai Mountains and the population of China at that time was relatively stable. Among other things, this is manifested by Chinese imported objects found first in “royal” burial mounds of nomads in central Altai, and in recent years by the study of the sites of the Pazyryk culture in the northwestern Altai, including mounds 21 and 31 at Chineta II (Dashkovskiy, Novikova, 2017) and mound 30 at Khankarinsky Dol. These finds come from burial mounds dated to the second half of the 4th–3rd centuries BC. There is information about discovering a lacquer item in the Kolgantasa-type burial in mound 1 at the Sibirka cemetery (Polosmak, 1990: Fig. 3, 11), which additionally indicates cultural and historical interaction with China in the Scythian period.

Radiocarbon dating

A ^{14}C -date of 2413 ± 170 BP was obtained from the human bone found in mound 34 at Khankarinsky Dol, at the Analytical Center for Isotope Research at the Institute of Monitoring of Climatic and Ecological Systems of the Siberian Branch of the Russian Academy of Sciences (Tomsk). The intervals of the calibrated calendar age of 797–372 BC according to 1σ (68 %) and 898–55 BC according to 2σ (95 %), with an

average probability value of 527 BC, were established using the CALIB REV 8.2 software by G.V. Simonova.

These results indicate a rather early date within the chronology of the sites of the Scythian period in the Altai Mountains, and supplement the available evidence of radiocarbon dating of mounds at Khankarinsky Dol and Chineta II in the Chineta archaeological area (Dashkovskiy, 2018, 2020; and others). Taking into account all the results of comprehensive dating, Khankarinsky Dol mound 34 can be attributed to the second half of the 5th to 4th (probably, the early 4th) century BC.

Reconstruction of the horse harness

The set of horse harness found in mound 34 at Khankarinsky Dol includes the link of an iron, ringed bit (see Fig. 4, 1), two bone plaques from the noseband and browband (see Fig. 5, 7, 8), three terrets made of horn (see Fig. 5, 10–12), a halter unit (see Fig. 5, 9), a bone pendant in the form of a bird (see Fig. 4, 5), two cheekpieces of horn (see Fig. 4, 2, 3), and eight doublers in the form of a figure-eight made of bone (see Fig. 5, 1–6). These items make it possible to reconstruct the bridle (Fig. 6).

The iron bit was obviously a two-piece implement with one-ringed links. In the item under consideration, the end of the link corresponds rather to a loop than a ring (see Fig. 4, 1). The length of the surviving fragment is 10.1 cm; the diameter of the loop is 4 cm. Bits of this type have been found in fairly large quantities both at the Khankarinsky Dol and Chineta II cemeteries and at other Altai sites of the Pazyryk period (Dashkovskiy, 2016, 2017; Kubarev, 1991: 42–44; Kubarev, Shulga, 2007: 270, fig. 4, 11–18; Shulga, 2015b: 93–97; Kiryushin, Stepanova, 2004: 94; and others). In the Altai Mountains, they appeared in the 6th century BC and continued to be used throughout the entire period of the Pazyryk culture. Scholars have observed that bits with sub-quadrangular cross-section of the rod and loop-shaped end of the link dominated at a later stage, while the earlier bits had a round rod and ring-shaped outer end (Surazakov, 1989: 25; Kubarev, 1992: 32). However, bits with these features can be found in the burials of both early and late stages of the Pazyryk culture (Shulga, 2015b: 96).

Three out of four terrets made of horn were of the same type (see Fig. 5, 10–12); the fourth was a 1.6 cm high cylinder with annular end 2.5 cm in diameter with a hole on one side. No direct parallels

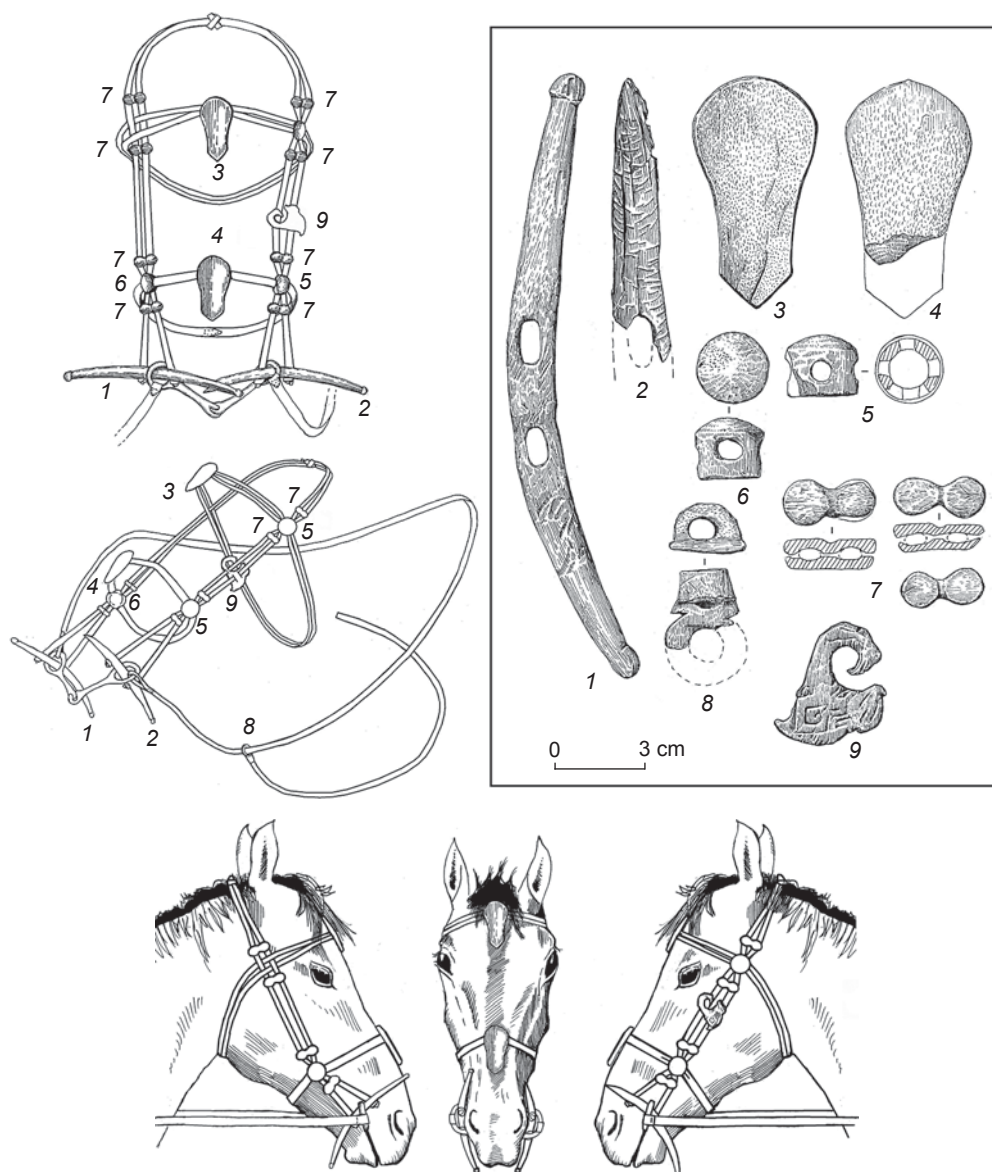


Fig. 6. Reconstruction of the bridle and location of its elements in the burial.

to the latter item are known so far. Three flattened cylindrical terrets with hemispherical shields had the height of 2 cm and diameter of 2.0–2.2 cm. Their parallel is a find from mound 5 at the Taldur I cemetery (Mogilnikov, Elin, 1982). Terrets of this type are more typical of the early stage of the Pazyryk culture (second half of the 6th–5th centuries BC) (Shulga, 2015b: 111, fig. 15, 3). Earlier, so-called low cylindrical horn terrets with overlapping holes were found at Khankarinsky Dol in mound 25, which was located next to mound 34. Taking into account various data, including the set of the horse harness, mound 25 was dated to the second half (possibly end) of the 6th to early 5th century BC (Dashkovskiy, 2020: 99). Two horn cylindrical terrets

from mound 9 at the Ker-Kechu cemetery (Mogilnikov, 1988) are also noteworthy. Such terrets are considered to be a separate type; their distinctive feature is equal height and diameter of the cylinder (2.5×2.5 cm) (Shulga, 2015b: 102, fig. 19, 8). This parallel is of particular importance, since such items come from a burial where animal skulls were also found near the eastern wall of the grave. Moreover, mound 9 at Ker-Kechu also belongs to sites dated to a time no later than the Bashadar period (about the second half of the 5th century BC) (Kubarev, Shulga, 2007: 17).

The two browband and noseband plaques of horn have the same elongated shape and measure 7.2 and 7.4 cm in length, respectively (see Fig. 5, 7, 8). One

end of them is pointed, 2.4 cm wide, and the other is rounded, 3.8 cm wide. The plaques were fastened one under the other on the browband and noseband in their middle parts. Wood and bone head plaques are well known from the evidence of elite burial mounds of the Pazyryk culture at the cemeteries of Pazyryk, Bashadar, Tuekta, etc. (Rudenko, 1953: 154–156; 1960: 125; Shulga, 2015b: 54, fig. 27, 1; 33, 1; and others). Two bone browband and noseband plaques were found in the Early Pazyryk mound 25 at Khankarinsky Dol (Dashkovskiy, 2020: 94, fig. 7, 2, 3). A head-plate made of gold foil attached to a wooden or leather base was found in mound 31 at Chineta II. These elements of the horse bridle were fastened with two thin straps. The same principle of fastening in most cases occurs in the complexes of horse harness from the elite burial mounds of various stages of the Pazyryk culture (Shulga, 2015b: 54, 64, fig. 33, 1).

Two cheekpieces with two holes each were made of deer antler prongs (see Fig. 4, 2, 3). Both are rounded in cross-section and have elongated holes. One cheekpiece is of a satisfactory degree of preservation, 19.5 cm long, with spherical pommels at the ends; the other is a 9.5 cm fragment with a pointed end. An item somewhat similar to the first cheekpiece was found in a burial in a stone cist at the Chemal-Karier I site. The cultural identity of that site is not entirely clear, but it was dated quite accurately to the Early Pazyryk period (the second half–late 6th to mid-5th century BC) (Ibid.: 29, 44, fig. 17, 1). That burial also contained two low cylindrical bone terrets, two doublers in the form of a figure-eight, and an arrowhead (Borodovsky, 2006: 6), that is, the same types of things as in Khankarinsky Dol mound 34. Spherical pommels appear on bronze and wooden cheekpieces from burial mounds dated to the Early Pazyryk period, for example, mound 5 at the Aragol cemetery (Marsadolov, 1997: 40, fig. 15; 1998: Fig. 1, 40), mound 82 at the Borotal I cemetery (Kubarev, Shulga, 2007: 34, fig. 36, 4, 5), and others. In addition, two cheekpieces, round in cross-section and made of deer antlers, were found in mound 1 at Sibirka I, which was re-dated to an earlier period of not later than the mid 6th century BC (Ibid.: 17). One end of them is pointed as in the second cheekpiece from Khankarinsky Dol mound 34.

Only six out of eight doublers in the form of a figure-eight have survived in satisfactory condition (see Fig. 5, 1–6). In shape, they resemble bronze and bone doublers in a form of a figure-eight known from the Pazyryk sites of the Altai, which were mainly dated to the second half of the 6th–5th centuries BC.

It is possible that in some cases they could have also been used in the late 4th century BC (Shulga, 2015b: 97–98, fig. 10; 20, 2). The bridle set usually had two doublers. In our case, eight such items were found. Double leather head straps were passed through them.

Another element of the horse harness is a bone pendant in the form of a stylized bird, possibly a swan. The use of hanging plates of various types, including those representing animals and birds, has been observed in a whole series of mounds of the Pazyryk period: Pazyryk, mound 1; Bashadar-2, mound 2; Kuturguntas mound; Ak-Alakha I, mounds 1 and 3; Berel, mound 11, etc. (Ibid.: 112–113; Rudenko, 1960: Pl. XXXV; Polosmak, 1994b: 87, fig. 108; Samashev, 2011: 145; and others). In addition to zoomorphic pendants, a pendant in the form of a cruciform symbol is known from mound 1 at the Pazyryk cemetery (Gryaznov, 1950: 56, fig. 21).

Conclusions

Analysis of the burial rite has revealed that mound 34 at the Khankarinsky Dol cemetery can be attributed to the so-called Korgantass type of sites. Human burials where animal skulls were found in the eastern part of the graves, appeared in the Altai Mountains in the 5th–4th centuries BC as a result of the penetration of some group of population from the eastern area of the nomadic world, probably from northern China or the Trans-Baikal region. Taking into account specific features of the burial rite and goods, primarily the elements of horse harness, as well as results of radiocarbon analysis of human bone samples, mound 34 at Khankarinsky Dol can be tentatively dated to the second half of the 5th–4th (possibly, the early 4th) century BC. The interaction of the nomads from the Altai Mountains and population of China was relatively stable in the Scythian period. Among other things, this is confirmed by the results of the study of mound 34 at Khankarinsky Dol and the presence of Chinese imported items in the burial mounds of the Pazyryk culture in central and northwestern Altai. Further research at the Khankarinsky Dol site will expand our understanding of cultural and historical processes in Central Asia in the Scythian period.

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