

G.V. Kubarev and V.D. Kubarev

*Institute of Archaeology and Ethnography, Siberian Branch,
Russian Academy of Sciences,
Akademika Lavrentieva, 17, Novosibirsk, 630090, Russia
E-mail: gvkubarev@online.nsk.su
vd@online.nsk.su*

NOBLE TURK GRAVE IN BALYK-SOOK (CENTRAL ALTAI)

Introduction

During the Middle Ages, the Altai tribes were consolidated into political union under the rule of the powerful Turkic Khaganate (AD 6–8). This large union of tribes was in essence the first Eurasian Empire stretching from Mongolia to Eastern Europe and from South Siberia to China. The annexation of the Altai by this huge nomadic empire provided the Altai population with access to the spiritual and material values of other peoples activating the creative potential of the Turkic-speaking tribes of the ancient Altai, which has made its own contribution to universal cultural heritage.

There are several legends about the origin of the Ancient Turks. The myth about the cohabitation of a young man with a she-wolf is most widely known. The story holds that warriors of a neighboring tribe killed the Turkic ancestors leaving only one survivor, a ten-year old boy. His arms and legs had been severed but he was rescued from the enemies by a she-wolf who brought him up and became his wife. According to the legend, the she-wolf gave birth in a cave to ten sons who became the chiefs of Turkic clans. One of them, Ashina, moved to the Altai where he founded a tribal unity denoted 'Turk'. Unexpectedly, this Turkic legend is supported by a rock carving in the Mongolian steppe. The carving shows a she-wolf and a human figure with no arms or legs depicted under her belly.

The Turks main military strength lay in their cavalry armed with bows, arrows and steel weapons. "The strength of the Tyukyu* lies in their

horsemanship and proficiency in archery. Finding themselves in a beneficial position, they move forward; in case of danger they retreat immediately. They make war without stable battle formations and behave like storm and lightning. Bows and arrows are their teeth and claws and chain-armor and helmets are their everyday clothes" (Liu Mau-tsai, 1958: 130).

The Turks buried men with horses and weapons. Many graves have yielded human skeletons demonstrating clear signs of death in battle. The skulls and bones bear signs of deadly wounds caused by arrows and swords. Burials containing decapitated human skeletons are not unique.

Of the more than 250 burials of the Ancient Turk period that have been investigated currently in South Siberia, only a few tombs can be regarded as those of high-ranking individuals. Many of these tombs were plundered in the past. However, the graves that remained intact have yielded rich archaeological material including imported goods, jewelry, precious weapons, etc. Such burial sites are of great interest, as the recovered grave goods convey important information. The list of rare finds includes pieces of portable art, coins, artifacts bearing runic inscriptions, details of armor, etc. Burial mound – kurgan 11 – at the Balyk-Sook I cemetery in the Ongudai administrative region of the Altai Republic (Fig. 1) can be regarded as one such rare burial of a noble Ancient Turk. The cemetery has been located in the Balyk-Sook area in the Ursul Valley, in the vicinity of the confluence of the Kurota and the Ursul Rivers (Fig. 2). Kurgan 11 together with a few other Ancient Turk burials is situated to the east of a chain

* Tyukyu – the name of the Turks in Chinese sources.



Fig. 1. Map of the Altai Republic.

of huge burial mounds belonging to the Pazyryk Culture stretching along the North-South line (Fig. 3)*.

Description of the grave

The ellipse-shaped pile of stones (12 × 8 m) 0.5 m high forms the surface burial construction (Fig. 4). The grave pit, 350 cm in diameter, gradually narrows towards the bottom (Fig. 5). The filling of the pit shows signs of a manhole made when the grave was plundered. At the depth of 70 – 120 cm below the surface, amongst

*At the same cemetery, two unique kurgans containing “diagonal” burials, 5th – 4th centuries BC, have been investigated (see (Kubarev V.D., 2002)).



Fig. 2. The Balyk-Sook burial site.

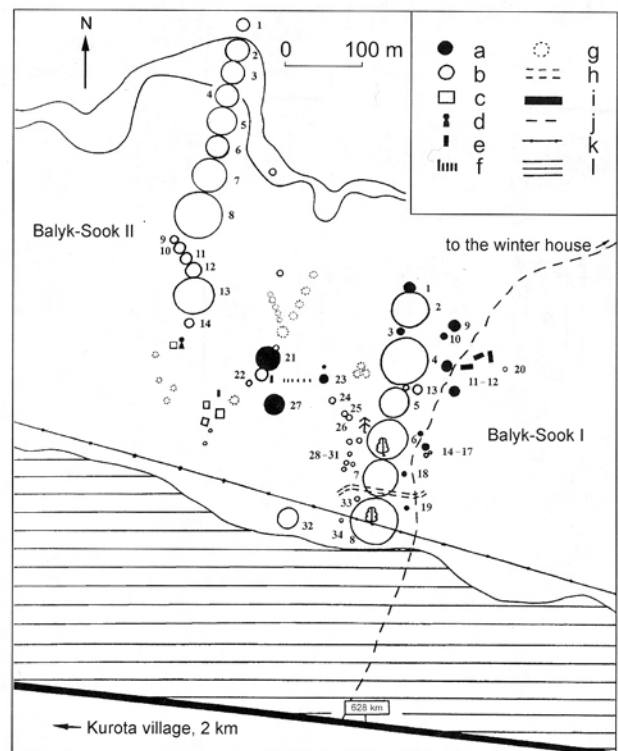


Fig. 3. Plan showing the location of archaeological sites in the Balyk-Sook area.

a – excavated kurgans; b – non-investigated sites; c – Ancient Turkic ritual enclosures; d – stone figurine; e – stone steles; f – stone balbals; g – post-funeral ritual constructions; h – remains of an ancient irrigation channel; i – the Chuya main road; j – country road to a winter hut; k – telephone line; l – ploughed land.



Fig. 4. The eastern view on kurgan 11 at Balyk-Sook I.



Fig. 5. Excavation process.

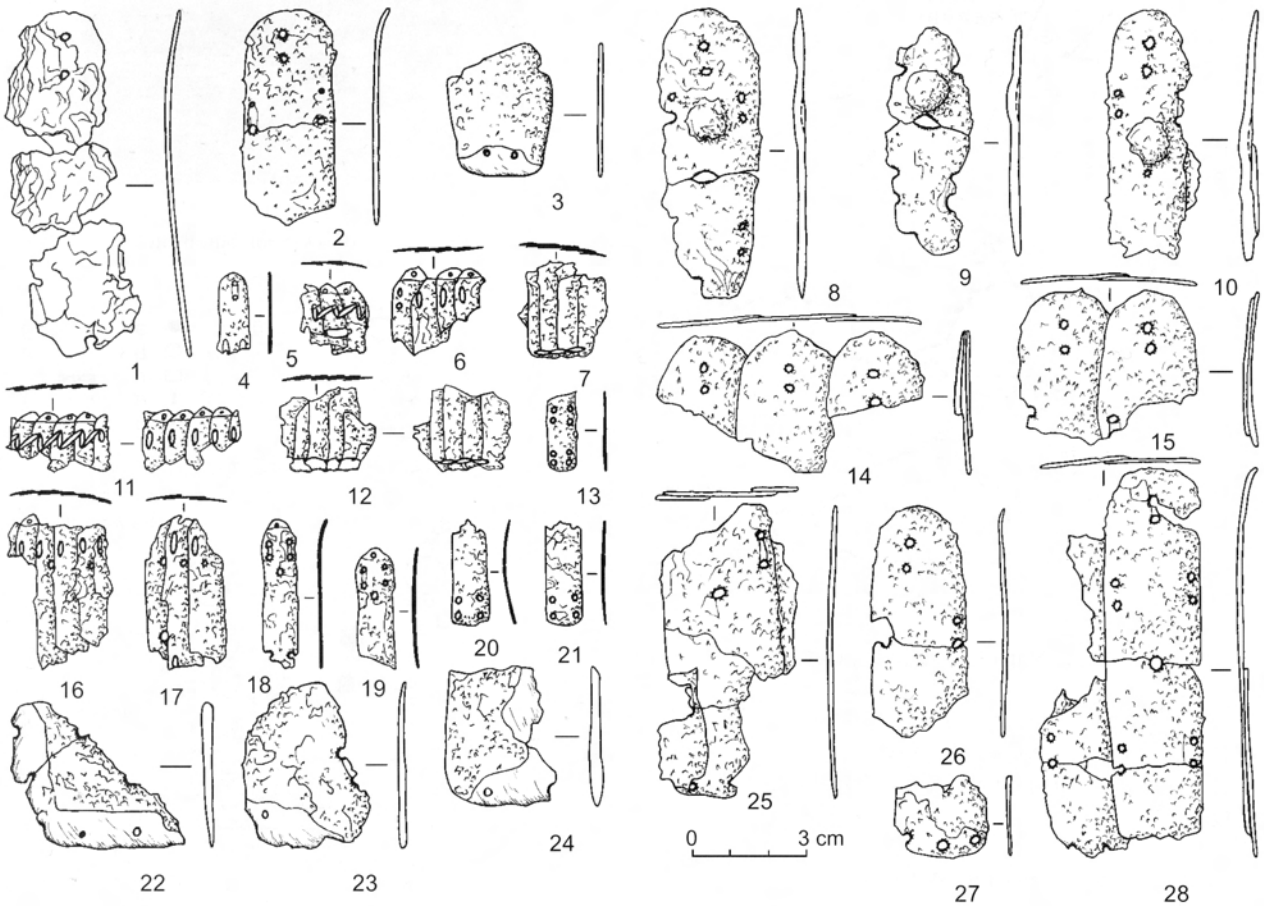


Fig. 6. Various types of armor lamellas.

the large stones, numerous fragments of iron armor lamellas (Fig. 6, 7) were found close to the western wall of the grave. In the center of the pit, two pairs of horn on-laid bow-plates (Fig. 8, 4 – 7), a horn terminal and a handle of a lash (Fig. 9, 16, 18) were found.

At the depth of 140 – 155 cm below the surface (Fig. 10), a whole set of finds was located in the

central portion of the pit, including an iron adze-axe (see Fig. 9, 13), stirrups (Fig. 11, 14), pieces of harness: silver plates, decorative end pieces attached to belt tips, buckles, various types of clips for fastening harness joints, a triplet-allocator for joints (see Fig. 9, 1 – 12; 12) and an iron spear head (see Fig. 8, 8). Around this set of goods lay a concentration of fragments of iron

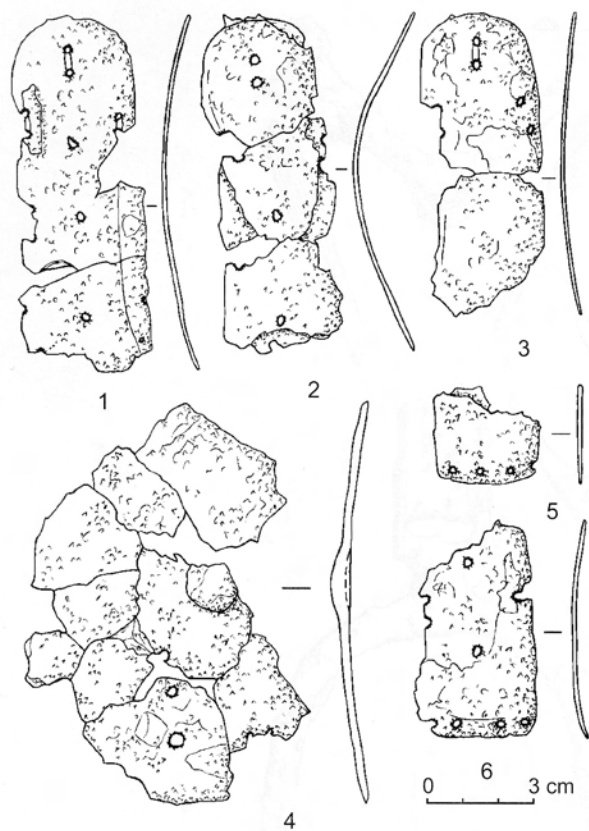


Fig. 7. Helmet parts.

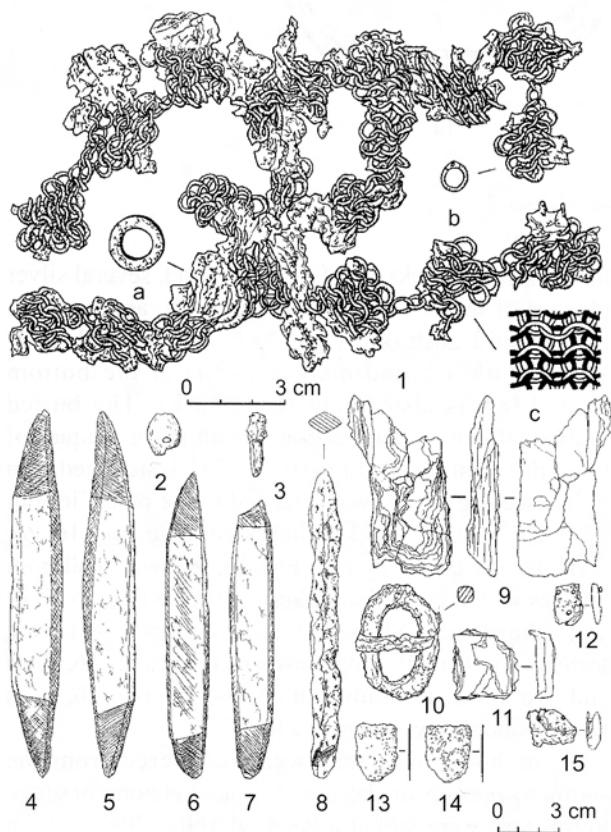


Fig. 8. Items of weaponry.

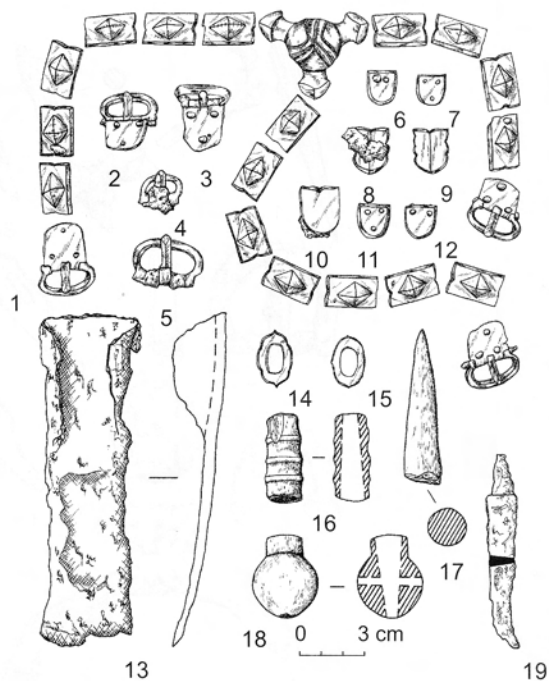


Fig. 9. Bridle set and household items.

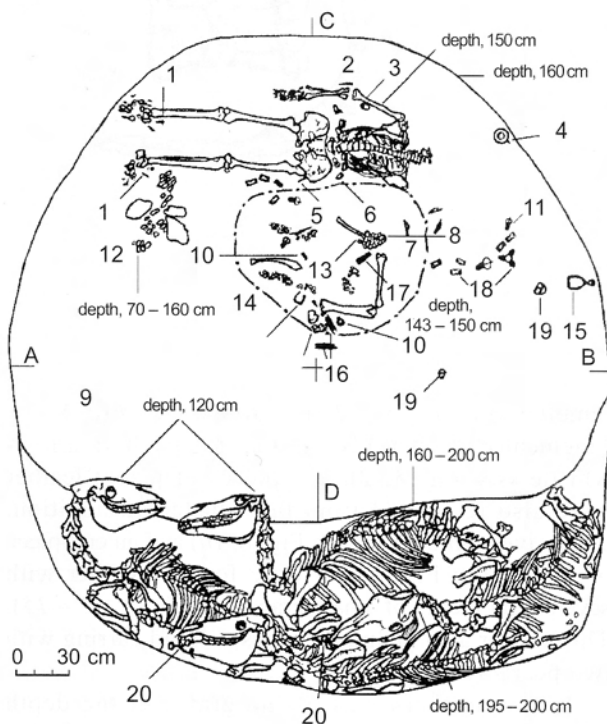


Fig. 10. Plan of the grave.

1 – boot silver hasps and strap tips; 2 – *kochedyk*, a bone implement for loosening knots; 3 – iron for fire striking, flint, and two horn plaques; 4 – silver vessel; 5 – iron knife; 6 – belt decoration set; 7 – horn hasps of horse-locks; 8 – gold earring; 9 – iron spear head; 10 – horn terminal and haft of riding crop; 11 – silver buckles; 12 – iron armor lamellas; 13 – mail fragments, horn arrow whistle, an arrowhead fragment; 14 – iron belt-tip, buckle, and iron points; 15 – iron stirrups; 16 – horn on-laid parts of a bow; 17 – iron adze-axe; 18 – harness set (silver plates, buckles, and a triplet-allocator); 19 – iron girth buckles; 20 – iron curb bits and horn cheek pieces.

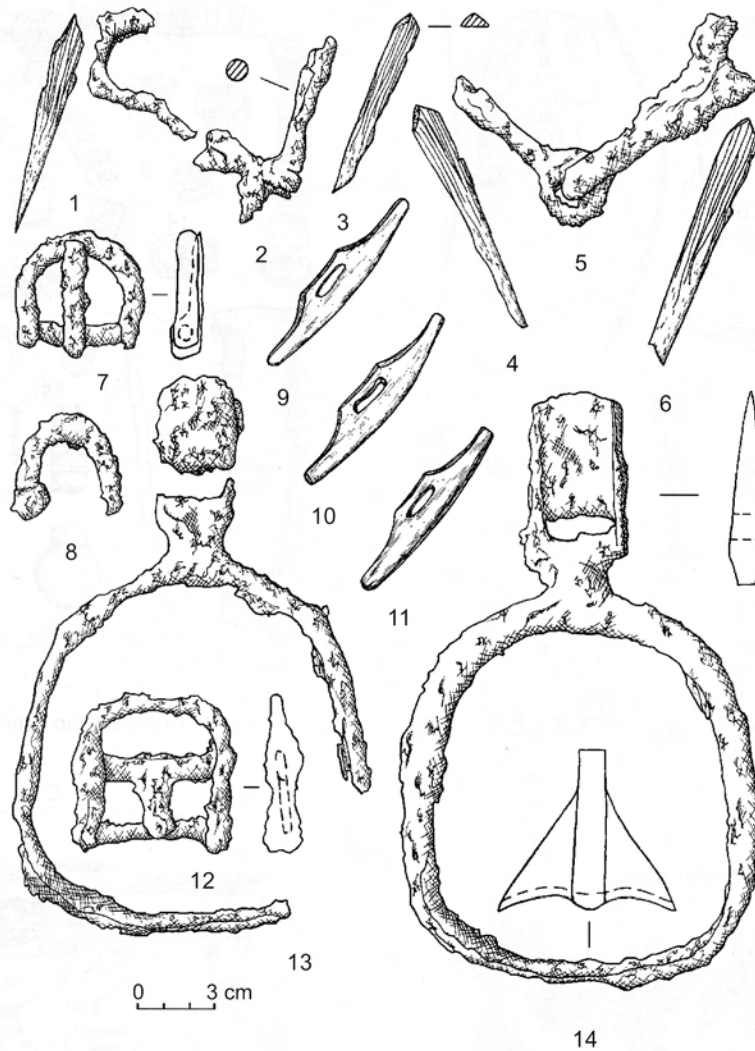


Fig. 11. Horse harness set.

lamellar (Fig. 6, 7) and ring armor (see Fig. 8, 1). Fragmented arrowheads (see Fig. 8, 3), a horn arrow-whistle (see Fig. 8, 2), and pieces of patent leather were also recovered from this cluster. In addition, a massive iron buckle (see Fig. 8, 10) and an end-piece of a belt (see Fig. 8, 11) were found together with several end-pieces of small straps (see Fig. 8, 12 – 15). This cluster also includes a massive gold earring with two pearls (Fig. 13).

In the northern part of the grave, at the depth of 150 cm below the surface a human skeleton extended in a supine position was located; the upper part of the body was oriented towards the east-southeast (see Fig. 10, 14). The cranium was missing and bones of the left arm, shifted to the center of the grave when the plundering manhole was made were found in the anatomical order. In the head portion of the grave, close to the eastern wall, parts of a saddle and harness were uncovered: an iron stirrup (see Fig. 11, 13), three horn

hasps of horse-locks (see Fig. 11, 9 – 11), several silver plaques of the same type (see Fig. 9, 1) and two iron buckles of a girth (see Fig. 11, 7, 12). A small silver vessel with a brand-mark (*tamga*) at the bottom (Fig. 15) was also found in this area. The buried individual wore a belt decorated with silver plaques of three different types (Fig. 16, 5; 17). A stemmed iron knife (see Fig. 9, 19) was attached to the belt. Close to the right hand, a fire kindling steel (see Fig. 16, 6), a chunk of chalcedony (see Fig. 16, 9), two small horn plaques with a cross decoration motif (see Fig. 16, 7, 8) and a horn conic-shaped stem (see Fig. 9, 17) were located. Two small silver hasps (see Fig. 12; 16, 3, 4) and two silver decorative strap-tips (see Fig. 16, 1, 2) were found at the skeleton's feet.

Four horse skeletons were recovered from the southern portion of the grave. The skeletons oriented to the west were laid at a depth of 160 – 200 cm from the surface (see Fig. 10, 14, 18). The furthest to the



Fig. 12. Silver bridle set.



Fig. 13. Gold earring with pearls.



Fig. 14. Burial chamber after cleaning.



Fig. 15. Silver vessel.

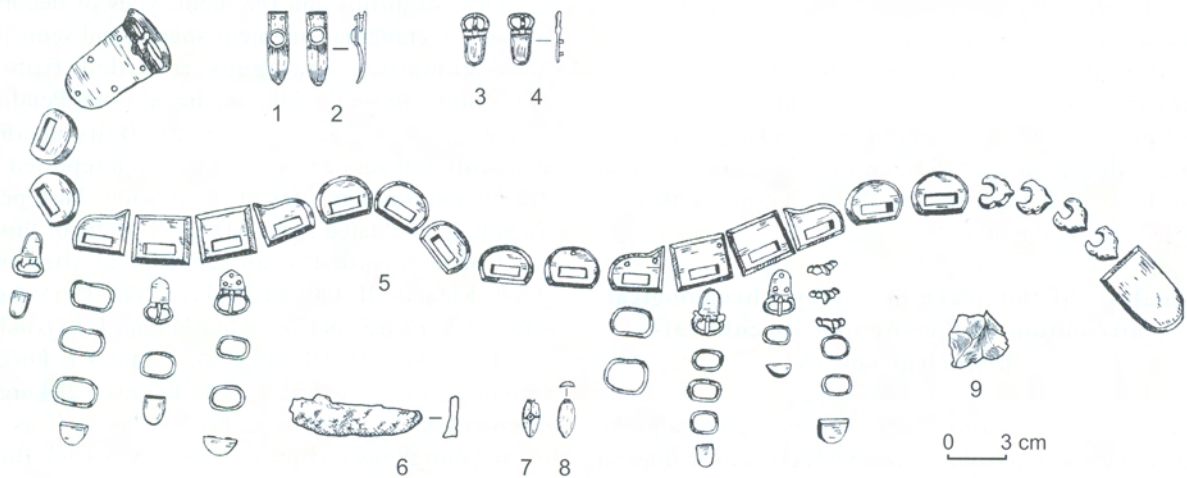


Fig. 16. Grave goods from kurgan 11 at Balyk-Sook I.

left horse was originally placed on its belly slightly tumbling down on its right side with its head intentionally turned to the left towards the human body. Judging by

the position of the horse skeletons, this horse was placed into the grave first. Two other horses were placed next to horse 1 in the same position. Horse 4



Fig. 17. Silver belt decoration set.

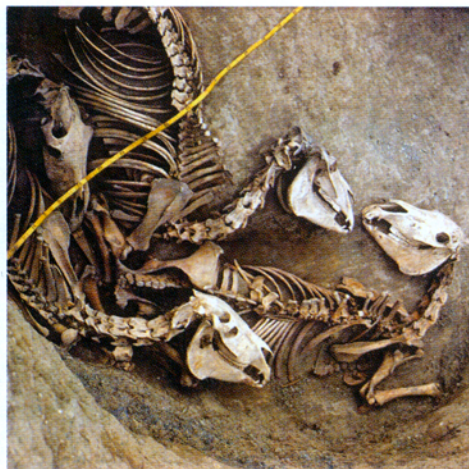


Fig. 18. Horse burials.

demonstrated a similar position, but its head was placed over horses 2 and 3 (Fig. 18). Horses 3 and 4 were bridled with curb bits and horn cheek pieces (see Fig. 11, 1 – 6). Many Ancient Turkic graves have been reported to contain one or two, but rarely three horses. The grave under discussion has yielded four horse skeletons – a unique case in the Sayan-Altai Mountain massif. This fact together with a correspondingly rich grave inventory including a nearly complete armor set, attests to the exceptionally high rank and wealth of the deceased. It is worth noting that the grave was plundered soon after burial. This supposition is supported by the fact that the bones of the left hand were found in the plundering manhole in anatomical order. It is likely that the grave was profaned rather than plundered because the valuables were not removed. It is difficult to judge but possible that the main aim of perhaps enemies of the deceased was to open the grave and to steal the head of a high-ranked Turk (as an apotropaic object or war trophy?).

Analysis of the grave inventory, chronological attribution of the site and its cultural-historical context

The distinctive set of grave goods recovered from the site allows us to provide a fairly precise chronological assessment of the time of execution of the interment in Balyk-Sook. The presence of such valuables as a gold earring decorated with pearls, a silver vessel, footwear with silver hasps and strap-tips decorated with in-laid gem-stones attests to the high social rank and wealth of the deceased. Such belongings as the lamellar armor and the belt decorated with a set of silver plaques represent typical pieces of attire

of a noble Turk and can be regarded as additional evidence of his high social rank. In addition to the placement of four thoroughbred horses into the grave, a unique bridle set decorated with silver plaques adds to the wealth of the grave.

A description of the most characteristic and diagnostic items of the grave paraphernalia allows for the chronological attribution of the site.

Belt. The belt is composed of silver plaques of various shapes: rectangular, segment-shaped and semi-lunar; four plaques demonstrate the shape transitional from rectangular to segment (see Fig. 16, 5; 17). At least five straps with fastening clips and small cordiform pendants were attached to the belt. Buckles, strap-tips and the main types of decorative plaques: rectangular, segment-shaped and semi-lunar, have numerous analogues recorded from the 8th century stratum of the medieval town Pendjikent (Raspopova, 1979: fig. 1, 3, 5). Belts decorated with a similar set of plaques have been reported from Turkic and Sogdian sites of the Ancient Turk period. Such belts are dated from AD 7 – 9. Belts of this sort have been recorded at archaeological sites in the Altai: Katanda II, kurgan 5 (Gavrilova, 1965: fig. 7), Kurai II, kurgan 3, and Tuyakhta, kurgan 4 (Evtyukhova, Kiselev, 1941: pl. III, fig. 15); Uzuntal I, kurgan 2 (Savinov, 1982: fig. 5, 17), Barburgazy 2, kurgan 9 (Kubarev G.V., 1997: fig. 1), etc., as well as from many contiguous territories: in the Kuznetsk Basin – the Sapogovo cemetery, kurgans 12 – 14 (Iliushin et al., 1992: fig. 34, 35, 38), and in the Eastern Turkestan – Yarkhoto (Litvinski, 1995: pl. 32). Such rectangular, cordiform, and semi-lunar plaques are most often depicted on Ancient Turkic stone sculptures. An ornamentation pattern combining three main types of decorative plaques is most typical for various Ancient Turkic collections. The presence of

plaques of transitional shapes differentiates this belt from others. A direct analogue to the Balyk-Sook combination of plaques was recorded on a belt recovered from Tuyakhtha, kurgan 4 (Evtyukhova, Kiselev, 1941: pl. III, fig. 15).

Gold earring (see Fig. 13). This is a beautiful jewelry piece of filigree art. It is a thick and at the same time very delicate item. On the long stem of the earring there is a large well-preserved pearl. Another smaller pearl is attached to the upper portion of the stem. In the middle portion of the stem there is a faceted gold "bead". Four gold rings with on-laid granules are hafted above and below the bead and freely rotate. An additional thin "rib" bearing golden granules is soldered to the main stem as an enforcement to the construction.

Two paired earrings recovered from the burial of a female from kurgan 2 of the Yustyd XIV cemetery (V.D. Kubarev's unpublished materials) represent a direct analogue to this earring. However, unlike the Balyk-Sook earring, this pair of earrings was made of gilded bronze, while the faceted bead and simulation of a pearl were made of bone. An earring with pendants in the form of rings with metal granules recovered from a Turkic burial of kurgan 16 at Katanda-3 (Mamadakov, Gorbunov, 1997: fig. VII, 6 – 8) is also worth mentioning. However, earrings decorated with metal granules are rare in the Altai compared with Tuva, Mongolia, and Khakassia. Two such gold objects with pendants decorated with globe-shaped silver beads and small rings with metal granules were recovered from kurgan 11 at the Shelekhmet II cemetery located in Samarskaya Luka in the Volga River basin (Lifanov, 2001: fig. 1, 2). This rich human burial accompanied by a horse was dated to AD 7 – 8 and reasonably interpreted as belonging to the Turkic or Turkic-Khazar cultures. Implements of this type are usually attributed to AD 8 – 9 (Evtyukhova, 1957: 208; Ovchinnikova, 1990: 46). Earrings of this kind are typical of the Saltovskaya culture and named after it. They were widely used in the steppe zone of Eurasia in AD 7 – 9. Such earrings might have originated from South Siberia and Central Asia and been distributed over such a vast territory due to the establishment of the First Turkic Khaganate.

Silver vessel. This vessel represents another valuable item in the set of grave objects worthy of particular attention. The vessel demonstrates a satisfactory state of preservation. Dents noted on the walls of the vessel and the base partially separating from the body suggest long usage. The vessel is shaped as a medium-sized mug with a rimmed base, 9.5 cm high, with a body diameter of 10 cm and base diameter of 7 cm (see Fig. 15). The handle is formed from a chain of beads soldered together and is attached to the body with the aid of a cross-shaped plate. The bottom of the mug shows a finely incised brand mark (*tamga*).

To date, a few similar vessels have been recorded in the Altai: at Katanda (Smirnov, 1909: pl. XCII), Tuyakhtha (Evtyukhova, Kiselev, 1941: pl. II, fig. 2), Yustyd (Kubarev V.D., 1979: 142 – 143, fig. 7 – 9), and Bertek (Savinov, 1994: 148). A vessel reported from the Kurai burial as well as the upper portion of a vessel from the Yustyd ritual stone enclosure have different proportions and belong to a different type. Mugs analogous to the one found at Balyk-Sook have also been recorded from Ancient Turkic barrows in Tuva: from Kalbak-Shat (Mannai-ool, 1963) and Mongun-Taiga (Grach, 1960a: fig. 88). A fragment and two complete silver vessels have been recovered from the Sapogovo cemetery in the Kuznetsk Basin (Iliushin et al., 1992: 97, 110). Silver vessels of this type were used in the Sayan-Altai Mountains in AD 8 – 10 (Savinov, 1994: 148), although we believe some items of this sort may be dated to as early as AD 7.

Along with the above analogues from the Turkic sites, mugs and jugs of similar shapes and characteristic features have been recorded in Eastern (Pereshepinski hoard (Zalesskaya et al., 1997: N 69 – 71)) and Central (Avar burials of high-ranked people (Toth, Horvath, 1992: Abb. 69)) Europe. Jug handles in the form of chains of beads attached to the body with a cross-shaped plate represent the most widely spread feature of Ancient Turkic materials (Evtyukhova, Kiselev, 1941: fig. 1, 2; Iliushin et al., 1992: fig. 44, 1; Zalesskaya et al., 1997: 311 – 314). For instance, Turkic vessels of the Pereshepinski hoard demonstrate characteristic handles in the form of a ring composed of small beads. If we agree with the proposed age of the last quarter of the 7th century (Zalesskaya et al., 1997: 99), then the Pereshepinski silver vessels are older than the Sayan-Altai silver mugs of the Ancient Turkic affinity which are dated from AD 8 – 9. As has been stated, the occurrences of such silver vessels in graves attest to the high rank of their owner in the Ancient Turkic community.

Bridle decoration set. This set comprises rectangular plaques with diamond-shaped high relieves in the center and peculiarly cut-out narrow sides (see Fig. 9, 1 – 12; 12). Similar plaques have been reported from the Kuznetsk Basin: kurgans 10, 11, 13 and 17 of the Sapogovo cemetery (Iliushin et al., 1992: fig. 32, 35), dating from the second half of the 8th to the first half of the 9th centuries AD. Such pieces are also typical of the Chaatas Culture in the Minusinsk Basin of the same period (Kyzlasov, 1981: fig. 28, 47). The decoration pattern in the form of a knot in the center of a triple-allocator (see Fig. 9, 1) can be interpreted as a rudiment genuinely used to bind bridle straps together.

Stirrups. The stirrups bear distinctive loops, the upper portion of which is shaped as a flat rectangular

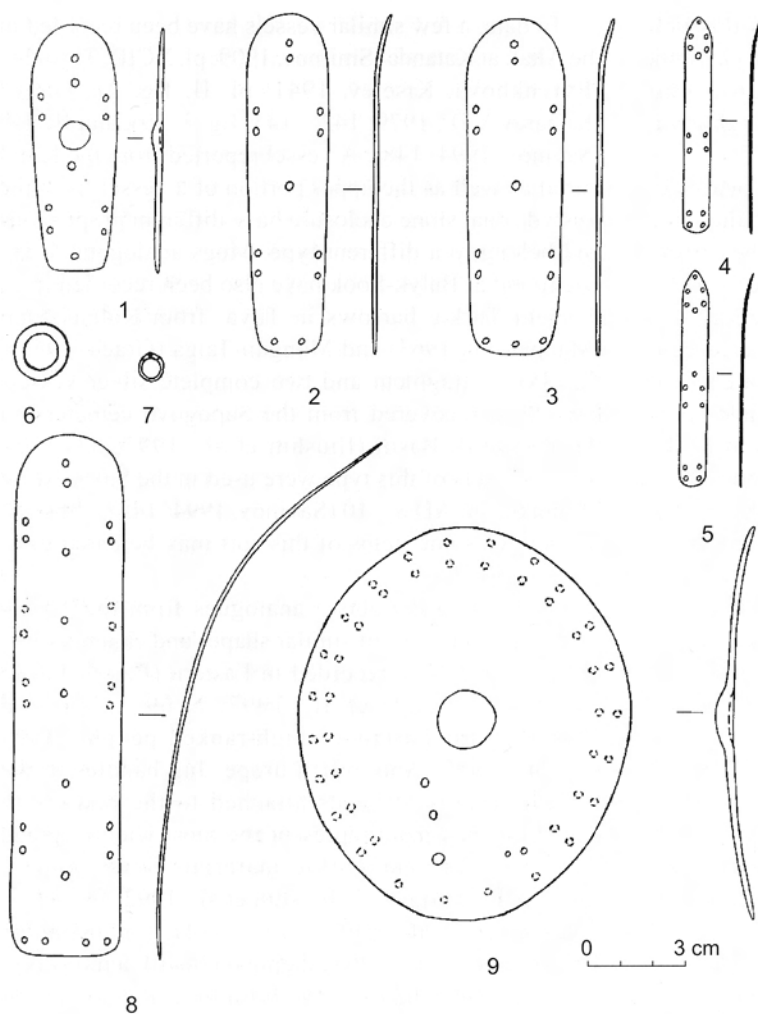


Fig. 19. Reconstructions of armor lamellas and helmet top.

1 – lamella of type 1; 2 – lamella of type 2, sub-type a; 3 – lamella of type 2, sub-type b; 4 – lamella of type 3, sub-type a; 5 – lamella of type 3, sub-type b; 6 – iron ring of mail; 7 – bronze ring of mail; 8 – lamella of type 4; 9 – helmet top.

plate (see Fig. 11, 13, 14). These items are identical to the stirrups of the same type of the Kyrgyz population of the Yenisei (Evtuykhova, 1948: fig. 60, 65, 96, 102, 135). They were in use throughout AD 8–10, being most widely spread in AD 8–9. We agree with the opinions of Ovchinnikova (1990: 112) and Neverov (1998: 149) that the thickness of such stirrups with plates pointed to the high rank of their owner. Special decorative elements have been noted on a few such items, such as a thick silver leaf coating and slits in the step-bearing parts of the stirrups, which are again facts supporting the expressed supposition. Such stirrups imitate other similar items, e.g., a stirrup from the Chaatas in Uibat decorated with encrusted patterns in the form of birds and vegetative motifs, and which is as a true work of art (Evtuykhova, 1948: fig. 23). Similar stirrups were recovered from rich Avar burials (Garam, 1992:

Taf. 12, 24); silver stirrups were reported from the Pereshepinski hoard (Zaleskaya et al., 1997: 235, N 120) and from Northern Iran (Werner, 1974: Abb. 5–7).

Armor. Beyond doubt, the armor set is among the most interesting of the grave objects. The construction of the armor cannot be restored on the basis of its original disposition in the grave. Furthermore, not a single complete lamellas has been recovered. However, in the course of restoration certain details have been gathered and a few lamellas of the armor have been reconstructed.

Armor lamellas can be classified into four types according to the shape, size and number of apertures. Some types include several sub-types.

Type 1. Lamellas with rounded upper and sub-rectangular lower contours (see Fig. 6, 8–10; 19, 1). The specimens are from 7 to 7.5 cm long, 2 to 2.7 cm wide, and 0.1 to 0.3 cm thick. The lamellas narrow slightly at the bottom. In the upper part there are semi-spherical embossments. Specimens of this type are quite thick and have twelve apertures. In total, 46 fragments of not less than 34 lamellas were identified, of which one complete specimen has been restored.

Type 2. Lamellas with rounded upper and sub-rectangular lower contours (see Fig. 6, 1–3, 14, 15, 25–28; 19, 2, 3). The specimens are from 9.5 to 10 cm long, 2.3 to 3 cm wide, and 0.1 to 0.2 cm thick. The upper part is slightly curved. Two sub-types can be identified (a) with 13 apertures (see Fig. 19, 2); (b) with 14 apertures (additional aperture at the bottom) (see Fig. 19, 3). A total of 151 fragments have been recovered belonging to not less than 39 lamellas, of which two specimens have been restored.

Certain lamella fragments of types 1 and 2 were recovered in cohesion demonstrating lamellas overlapping one another to 4–5 mm both from left to right and vice versa (see Fig. 6, 14, 15, 25, 28).

Type 3. Lamellas with rounded, slightly pointed upper and sub-rectangular lower contours (see Fig. 6, 4–7, 11–13, 16–21; 19, 4, 5). Size: presumed length, 6.5–7 cm, width, from 0.7–1 cm, thickness, 0.1 to 0.2 cm. Slightly concave upper portions have been noted on some specimens. Two sub-types have been identified: (a) with 14 apertures (see Fig. 19, 4) and

(b) with 15 apertures (additional aperture in the center of the lamella (see Fig. 19, 5)). There are also lamella fragments with either a different pattern of aperture location or total length (see Fig. 6, 4, 13), which possibly represent another sub-type. However, the full size of such lamellas and the number of apertures cannot be identified. A total of 702 fragments has been recovered belonging to no less than 172 lamellas. Not a single complete specimen has been restored. Lamella fragments have been recovered in cohesion. On certain fragments construction elements such as fabric edging on the upper edge of each band of lamellas and the lower edge of the lowermost band as well as lacing lamellas together with the help of cords are clearly discernible (see Fig. 6, 4 – 7, 11, 12, 16, 17).

Type 4. Lamellas with rounded upper and sub-rectangular lower contours (see Fig. 7, 1 – 3, 5, 6; 19, 8). The supposed length of these curved lamellas is 18 cm (the original height of curved fragments is 15.5 – 16 cm), the width is from 3 – 3.7 cm and thickness 0.2 to 0.3 cm. These lamellas are notably curved and bear the greatest number of apertures – about 27. In total, 102 fragments have been recovered from not less than 18 lamellas. Not a single lamella has been completely restored. The lamellas overlap one another from left to right over 8 – 9 mm. The lower ends show leather edging 5 mm wide.

In addition 107 small and medium-sized lamella fragments can be classed as type 1, 2 or 4.

A set of 14 iron fragments has been identified as not belonging to any of the specified types. They differ from the rest of the lamella fragments in greater thickness (3 – 4 mm) and abundant traces of organic matter on their surface (see Fig. 6, 22 – 24). They possibly represent parts of two large plaques. However, their shape and system of apertures cannot be restored. These specimens bear a great number of apertures along the edges and traces of organic matters 1 cm wide. Several apertures have been noted in the central portions.

Another set of iron fragments allows for the restoration of the circular top portion of a helmet (see Fig. 7, 4; 19, 9). This piece is 0.3 cm thick. Its original dimensions can be estimated as 12 × 10 cm. The helmet top is slightly convex and in its center there is a semi-spherical embossment. This piece might have had apertures along the edges for attaching lamellas.

Chain armor. This armor is made of small bronze and large iron rings. Large disconnected fragments of bronze chain with decomposed iron chains have been recovered (see Fig. 8, 1). Chains of iron rings (see Fig. 8, 1, a) are alternated with chains of bronze rings (see Fig. 8, 1, b), but the exact pattern of their arrangement cannot be determined. Provisionally, the size of the chain armor was 490 sq. cm (20 × 24.5 cm). The bronze rings are 0.7 – 0.8 cm in diameter, 0.1 cm wide and 0.07 cm thick.

The interlacing pattern is four rings in one (see Fig. 8, 1, c). The four rings attached to the central one were additionally soldered to one another. The iron rings are 1.6 – 1.7 cm in diameter, 0.3 – 0.4 cm wide and 0.2 cm thick. Apparently they were interlaced in the same way. Organic remains and fragments of patterned Chinese silk serving as edging to the lowermost chain and lining were traced on the surface of the chain armor.

A few small belt-tip decorations made of iron (see Fig. 8, 12 – 15), a massive buckle (see Fig. 8, 10) and a large belt-tip decoration piece (see Fig. 8, 11) were found in the same area as the mass of armor lamellas. One peculiar object of unknown purpose (see Fig. 8, 9) has been reconstructed from iron fragments. The recovery of these objects in such close proximity to the armor lamellas and the identity of material suggest their attribution to the armor set.

Other **items of weaponry** have been uncovered including two pairs of horn on-laid parts, which were originally attached to the central portions of bows (see Fig. 8, 4 – 7), remnants of arrowheads (see Fig. 8, 2, 3) and an iron spearhead (see Fig. 8, 8). The bow on-laid parts are trapeze-shaped, the large ones being 18 cm long, the shorter items being 15 cm long. The spearhead wing is 13.5 cm long. The spearhead is rhomboid in cross-section. The stem is missing, but judging by the available complete specimens (including the one recovered from another Ancient Turkic kurgan at Balyk-Sook I) it would have been about the same length as the wing.

To sum up, the noted correlations of the grave goods recovered from the burial of a high-rank Turkic warrior in Balyk-Sook suggest its chronological attribution to the 8th and early 9th century AD.

Reconstruction of the armor

The large number of recovered armor lamellas suggests that a complete armor set was placed in the grave. It was apparently laid in the immediate vicinity of the human body, in the center of the grave. Unfortunately, the armor was intentionally decomposed when the grave was disturbed and some parts of it were found in the “plunderer’s” manhole. Left intact, the coat of mail would have represented a monolithic cohesion of metal pieces. A possible reconstruction of the Balyk-Sook coat of mail can be suggested on the basis of data relating to the forms and sizes of the armor lamellas, the patterns of apertures and available archaeological and art evidence*.

* The authors acknowledge valuable consultations and practical help provided in the course of reconstruction of the coat of mail by V.V. Gorbunov, head of the Altai State University Museum in Barnaul.

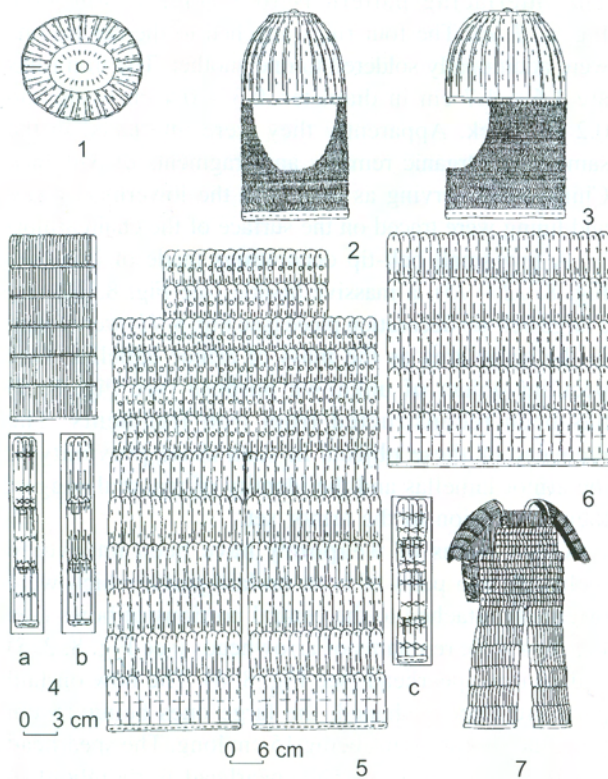


Fig. 20. Reconstruction of helmet and armor coat.

Drawing by V.V. Gorbunov.

1 – pattern of joining lamellas with the top; 2, 3 – helmet with attached mail part; 4 – shoulder piece: a – reverse side, b – obverse side; 5 – breast piece with a skirt (c – reverse side); 6 – back piece; 7 – general view of the armor coat.

The noted pattern of apertures on armor lamellas attests to the attribution of the Balyk-Sook coat of mails to the lamellar type of armor, i.e., separate lamellas were bound together with straps. In such armor coats, long lamellas are placed vertically. Apertures along the long sides were used for fastening lamellas together in order to form horizontal bands. Central holes served for attaching horizontal bands to one another. The most probable pattern of arrangement of lamellas is: the lower lamella overlaps the upper one, i.e., the semi-circular upper ends on top. However, the reverse direction of semi-circular ends, the “scale” pattern, is also possible. Lamellar “scale” armor coats were used in China and Korea during the earlier period (AD 4 – 5) (Gorelik, 1993: 157). On the basis of general tendencies in the development of weaponry during the second half of the 1st millennium AD that are reflected in the art of contiguous territories (Ibid.: fig. 5 – 8) as well as in the Altai petroglyphs, we suggest the following construction of the armor. The Balyk-Sook armor consists of a “corset-cuirass” with two upper pieces covering



Fig. 21. An Ancient Turkic warrior of AD 8 – 9 in full armor.

Drawing by D.V. Pozdnyakov.

the breast and back, a knee-long skirt of two pieces, shoulder pieces, helmet and a neck piece of chain mail (Fig. 20, 21).

The breast piece was composed of type 1 lamellas (see Fig. 20, 5) because smaller and massive lamellas formed a denser and thicker protection, necessary for that part of armor. These lamellas bear decorative semi-spherical embossments, which form the design of this most visible part of the armor. The approximate number of lamellas necessary for such a breast piece for a man of medium build would be about 150 pieces. The skirt was made of type 2 lamellas (see Fig. 20, 5), approximately 160 pieces. The hem of the skirt was edged with textile or leather. The back piece was also made of approximately 110 type 2 lamellas, (see Fig. 20, 6). The breast and back pieces were bound with straps on the shoulders and sides. Iron decorative tips of the straps were also found in the grave (see Fig. 8, 12 – 15). Armor pieces protecting the shoulders and upper arms were composed of type 3 lamellas, which are narrower and ensure flexibility (see Fig. 20, 4). Judging by traces

of organic matter on the armor surface, separate lamellas were bound with long straps to form a band and separate bands were tied together with numerous short straps (see Fig. 20, 4, *a, b*). The lower portions of the shoulder and arm pieces were edged with textile as was the upper portion of each band. The approximate number of lamellas in these pieces is 310 items.

Helmet. The top and lamellas (type 4) of the helmet have been partially restored. The original size of the helmet top has been estimated at 12 × 10 cm. In the center there is a semi-spherical embossment (see Fig. 19, 9). Although no single helmet lamella has been completely restored, the proposed reconstruction seems reliable. Given the approximate dimensions of other specimens of military headwear (the total height is 17 cm, the size of the ellipse-shaped bottom of the helmet crown is 19 × 22, the circumference length is 65 cm), the estimated height of the curved helmet lamellas is 16 cm, the length is 18 cm. Such lamellas had about 27 apertures (see Fig. 19, 8).

The crown of the helmet is composed of 23 long curved lamellas fastened to one another. The helmet lamellas were attached to one another through lateral paired apertures and through central apertures. Such a pattern secured safe attachment. Paired apertures in the upper portions of the lamella served for attaching the helmet top (see Fig. 20, 1). The top piece should also have 23 pairs of holes. The slightly curved lamellas and convex top form the semi-global shape of the helmet (see Fig. 20, 2, 3).

The chain mail is not particularly large and must have been used to protect the neck and shoulders (see Fig. 21). Chains of bronze and iron rings were attached alternately. This piece was edged at the lower end and lined with silk.

The Balyk-Sook armor had additional details: shoulder pieces (?) in the form of two massive lamellas coated with leather or textile. Their original shape cannot be restored. As mentioned above, some parts of the armor were edged with Chinese patterned silk and black patent leather. Massive iron decorations of the belt and its tip represent parts of a leather "warrior" belt, to which a quiver and a bow case could be attached.

Cross-cultural correlations of the Balyk-Sook armor

The lamellas of the armor similar to the specimens of types 1 and 2 identified in the present work were broadly used in the steppe zone of Eurasia throughout the entire 1st millennium AD. Armor of the 1st millennium AD followed the development trend of the preceding period of the late 1st millennium BC (Gorelik, 1993: 161). The analogues chronologically

and territorially closest to the lamellas of type 1 and 2 are suggested by similar finds reported from many sites located in contiguous regions, e.g., in the Altai: Berel, kurgan 3 (Gavrilova, 1965: 55), Kudyrge, enclosure 13 (Ibid.: 16, pl. 5), Uzuntal I, kurgan 2 (Savinov, 1982: 107, fig. 8), Borotal I, kurgan 6 (Kubarev V.D., 1985: 138, fig. 2), Katanda-3, kurgan 21 (Mamadakov, Gorbunov, 1997: 117, fig. VIII, 14), Balchikova-3, kurgan 7 (Shulga, Gorbunov, 2002); in Tuva: Mongun-Taiga 58-IV (Grach, 1960a: 130), Bai-Taiga 59-5 (Grach, 1966: 103), Aimirlyg III, II-6 (Ovchinnikova, 1981: 141), Ulug-Khorum, secondary burial 2 (Grach, 1982: 158), Tora-Tal-Arty CX-59-17, CX-59-4 (Nechaeva, 1966: 114, 135), Khemchik I (Grach, Nechaeva, 1960: 191), etc.; in Mongolia: Nahiugiin-Mankhan (Hudiakov, Bayar, 1992: 38 – 41); in the Kuznetsk Basin: the Sapogovo cemetery, kurgans 1, 8, 11, 12, 14, 17, 19 (Iliushin et al., 1992: 23); in Kazakhstan: in the vicinity of the Alatau Village (Kurmankulov, 1980: 195), Djartas, kurgan 80 (Trifonov, 1987: 128), Issyk (Grigoriev, Zagorodnyi, 1995: fig. 2).

Decorative semi-spherical embossments on type 1 lamellas have also been recorded from the Kenkol archaeological culture in Central Asia in AD 1 – 5 (Kozhombardiev, Hudiakov, 1987: 95) and from the parietal art of Pendjikent (Belenitski, 1973: pl. 23). The closest analogue in cultural, chronological and territorial aspects is a fragment of armor coat recovered from kurgan 7 of the Balchikova-3 site (Shulga, Gorbunov, 2002). Another similar object is the complete armor recovered in cohesion from the Bek-Bike area in Western Kazakhstan (Sinitsyn, 1950: fig. 32, 33; 1956: 103 – 104). It is noteworthy that this armor coat was made of lamellas of the same form (circular upper edge, rectangular lower edge) with an analogous pattern of apertures and with the same semi-spherical embossments in the center. The armor was composed of 25 bands of lamellas, bound together with straps, providing additional support to the fact that such plates were used in lamellar armor coats. The circular ends of the lamellas overlapped the lower edges of the upper band. The site has been dated to a wide chronological range of AD 8 – 12 (Sinitsyn, 1950: 109). The tradition of decorating lamellas with semi-spherical embossments dispersed far to the west – to Novgorod in the northern part of European Russia (Medvedev A.F., 1959: 125).

The narrow lamellas of type 3 are unusual and rare. The only analogue that has been recorded lies in details of an armor coat uncovered in Quijianchi, Xian, China (Gorelik, 1993: fig. 12, 11), dating from AD 7 – 9. Lamellas corresponding to types 2 and 3 were found in a single set. The lightly curved profile of most such lamellas (in the upper portion of the Balyk-Sook lamellas) has been interpreted by certain researchers

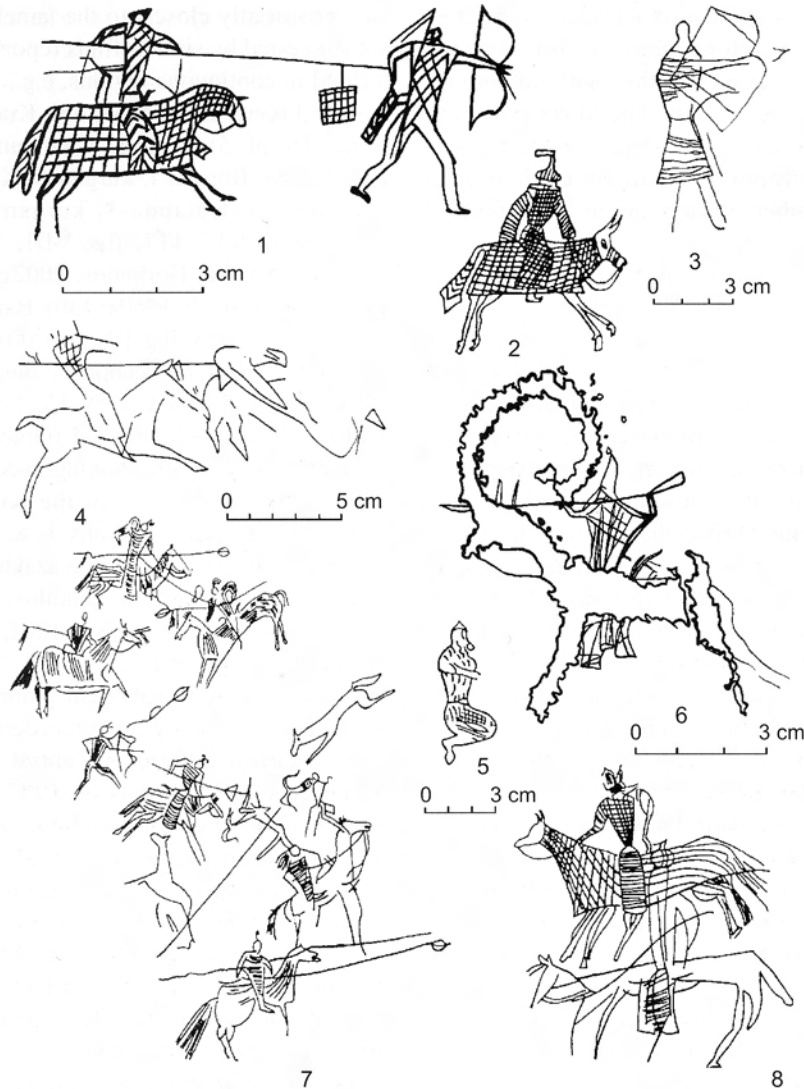


Fig. 22. Images of heavy cavalymen and warriors in full armor from the Altai graffiti. 1, 2, 5 – Zhalgyz-Tobe; 3 – Bichiktu-Bom; 4 – Yustyd, ritual enclosure; 6 – Kudyрге; 7, 8 – Kara-Oyuk.

(Medvedev A.F., 1959: 126) as the method allowing better parry and mitigation of spear blows, armor-piercing arrowheads, etc. Curved armor lamellas creating a “springing” effect have been noted in various lamellar types of armor from different periods.

Helmet parts represent a unique find in Ancient Turkic burials in the Sayan-Altai. Quite a few specimens dating from AD 8 – 10 have been reported from contiguous regions. For instance, helmet fragments were recovered from kurgan 15 of the Sapogovo cemetery in the Kuznetsk Basin (Iliushin et al., 1992: 106). This helmet was provisionally identified as spherical-conical and dated to the second half of the 8th and first part of the 9th centuries. Another sample of military headwear was uncovered from kurgan 2 of the Roelka cemetery in the middle Ob basin (Chindina, 1977: 32). This headwear demonstrates a spherical-

conical shape composed of eight bands connected through rivets and has a hooped rim and a top piece. In addition, a secondary burial of cremated remains of a Kyrgyz warrior dating from AD 9 – 12 (Ulug-Khorum, burial 2 in South Tuva) yielded a large number of armor lamellas including several long (17 – 18 cm) specimens (Grach, 1982: 158). Judging by the data provided in the publication, it can be supposed that these long lamellas might have formed the crown of a helmet. The headwear of one of the images of heavy cavalymen (warriors in heavy armor) recorded in the corpus of Altai graffiti (Fig. 22, 2) can also be interpreted as a depiction of a helmet made of separate lamellas.

Helmets from Roelka and Sapogovo demonstrate considerably different shape and construction compared to the Balyk-Sook specimen. The method of making helmet crowns of long and curved lamellas

originated in the early 1st millennium. Helmets of such construction but differing in methods of connecting lamellas and in resulting shapes of the crowns are known from many places in Eurasia from Central Europe to Japan (Gorelik, 1993: 161). Such helmets were still in use in some regions as late as in the late Middle Ages (Medvedev V.E., 1981: 179). Helmets with a semi-global shaped crown were widely used in Central Asia, China and Japan in AD 3 – 6 (Gorelik, 1993: 163). It is interesting to note that wall paintings at Penjikent provide evidence that lamellar helmets were used in Central Asia even later, in the second part of the 1st millennium (Raspopova, 1980: 84). The closest similarity to the Balyk-Sook headwear is demonstrated by a helmet of the same construction and shape, attributed to the Koguryo period in China, that has been placed in the Shenyang Museum, Liaonin Province (Cho Y.J., 1993: fig. 20). Apparently, semi-global lamellar helmets were used in the late 1st millennium along with other types of military headgear: items forged or made of separate lamellas connected with rivets of conical and spherical-conical shape.

The chain mail represents a rare find in the Early Medieval burials in Central Asia and South Siberia. Small fragments of chain mails have been reported from burial sites, e.g., in the Altai: Kudyrge, kurgan 22 (Gavrilova, 1965: pl. XXIV); Cis-Baikal: Kurkut I (Aseyev, 1980: 21); Kuznetsk Basin: Sapogovo, kurgans 15 and 17 (Iliushin et al., 1992: 23); the middle Ob Basin: Reolka, kurgan 5 (Chindina, 1977: 33). These finds usually represent small fragments of mail, some of which might have been reused for other purposes. The Balyk-Sook mail was undoubtedly used as part of an armor set. The noteworthy construction feature of this mail is a combination of large iron and small bronze rings in one piece. Such a combination of chains of bronze (brass) and iron rings was typical for the oriental tradition of mail production (Winkler, 1992: 255). Inclusion of chains of brass rings in iron mails has been recorded in Old Russ (Kirpichnikov, 1971: 9). Bronze chains were mostly used for decorative purposes, although their functional suitability has not been doubted. It is believed that mails from nomadic burials were manufactured in Central Asia or Iran (Gavrilova, 1965: 31; Gorelik, 1993: 164). Mails were also produced in Central Asia and proved to be popular. Whether such mails were produced by nomads is still under question. The technology of mail manufacture, i.e., connecting bronze rings, consists in the alternation of welding and riveting techniques; four riveted rings being connected to one welded ring. This technology is typical of the pre-Mongolian period of Old Russ (Kirpichnikov, 1971: 9).

It is possible that the Balyk-Sook lamellar armor may have been manufactured in the Altai. According to

Chinese written sources, the Altai was regarded as the iron production and processing center of South Siberia and Central Asia. The Ancient Turks were famous for their iron smelting tradition (Bichurin, 1950: 228). This inference is supported by available materials from burial and ferrous metal smelting sites. More than 30 such sites have been investigated mostly in the South Altai (Ziniakov, 1983: 6). The period AD 8 – 10 is characterized by a high level of metal object manufacturing and the wide distribution of weapons made of tempered steel (Ibid.: 16). The Altai population was without doubt known for its ability to produce armor and this fact is reflected in the Altai toponyms. One of the large iron-producing centers in the Altai is located at the confluence of the Chuya and Kuyakhtanar Rivers. Kuyakhtanare (Kuiak-Tanar) means 'armor attaching, binding' (Molchanova, 1979: 238).

The Balyk-Sook armor set demonstrates certain peculiarities both in construction and decoration but mostly in the usage of mail as a part of the armor and various forms of lamellas, which are not typical for the end of the 1st millennium AD. Such features as narrow shoulder lamellas, decoration of lamellas with semi-spherical embossments, additional decoration of parts of the armor with patent leather and Chinese patterned silk and a helmet made of lamellas are characteristic of this armor set. These characteristic features have found parallels in armor that was in use in Central Asia and either suggest the widespread popularity of the Sogdian style, or manufacture to order of this particular armor by a Sogdian artisan to a high-rank Turkic warrior.

Sogdians colonized South Siberia and traded with nomads: "Enterprising Sogdian artisans and merchants settled in regions located far from their motherland: in China, Tuva and Mongolia" (Raspopova, 1970: 91). Many items, such as belt decoration sets, silver vessels, jewelry, etc., cannot be regarded as ethnically diagnostic. It is difficult to distinguish between the objects produced by nomads and those made to order by Sogdian artisans. As far as weaponry is concerned, "products of Sogdian armorers were famous outside Sogd" (Raspopova, 1980: 107). Several burial sites of the Ancient Turk period yielded pieces of armor, which were possibly made by Sogdian artisans (Kubarev V.D., 1992: 34). On the other hand, development of Sogdian weaponry and armor in AD 7 – 8 did not take place without the influence of the Turkic weapon and armor complex (Raspopova, 1980: 107).

Written records and petroglyphs on the war art of the Ancient Turks

Written records can be listed among other important sources on the war art of the Ancient Turks. For the

period of the First and the Second Turkic Khaganats, the major and most informative records are the Chinese dynastic chronicles (Bichurin, 1950), while for the period of AD 8 – 10 (the Uigur and Kyrgyz Khaganates), Arab written sources prove more significant. Correlations of written data with archaeological materials allow us to make certain inferences on battle tactics. In this respect, *The Message to Fatkh Khakan* by al-Jahiz of AD 9 is interesting (Mandelstam, 1956). This source concerns the western Turkic groups, but is nonetheless considered a reliable source as the western and eastern Turks bore a single cultural tradition. It is highly significant that the Balyk-Sook kurgan yielded a set of armor and a spearhead. Spearheads are not rare in Ancient Turkic burials and have been recovered from such Altai sites as Balyk-Sook I, kurgan 23, Ulandryk I, kurgan 10, Barburgazy I, kurgan 20 (V.D. Kubarev's unpublished materials), Katanda I, kurgans 7 and 8 (Gavrilova, 1965: 55), Yakonur, grave 5 (Griaznov, 1940: 19). Spears were designed for fighting with enemies wearing strong armor. The employment of armor and spears determine a specific war tactic reported in written records: an attack through a close order resembling a hit with a ram; "the initial onslaught was so strong, that the Turks attained success..." (Mandelstam, 1956: 228). Such an attack might win the battle. Wall pictures at Pendjikent show a battle between two cavalry troops (Raspopova, 1980: fig. 50, 1). For instance, the Jurgen formed the advance-guard with mounted warriors with spears in formations called the strong army, or *in*, 'staunch' (Kychanov, 1976: 277). Men and horses wore armor. The task of the heavy cavalry of the Turks, the *tu-ki* 'breaking through', was to disorder the ranks of the enemy. Sometimes, such attacks were undertaken several times during a battle. Apparently, the majority of the troops wore less armor (i.e., did not have horse-covers) and was formed of lightly armed mounted formations. Turkic troops were subdivided into heavily and lightly armed mounted formations. The war tactics were based on interactions between these divisions. Lightly armed archers supported the attacks of heavily armed divisions, severely damaging the enemy. In the case of an unsuccessful attack, the lightly armed divisions covered the retreat of cavalymen in order to arrange a new attack. In their turn, heavy cavalry supported the raids into the ranks of the enemy performed by lightly armed horsemen. Such battle waging tactics have been well known at least since the beginning of the Common Era. For instance, they were used by the Parthians (Nikonorov, 1995). These tactics emerged with the appearance of heavily armed mounted troops and, beyond doubt, were invented by nomads. During the Early Medieval period, such war tactics along with the further development and improvement of armor were

widely used by many nomadic populations of Central Asia. The ancient Turks were among the first tribes to use such tactics. Apparently, settled agricultural populations, such as the Chinese and Sogdians, also used the same military tactics.

During the battle, commands were given with the help of banners. Runic inscriptions often hold that noble warriors and heads of clans possessed their own war banners (Vasiliev, 1995: 259). War banners are also often shown on graffiti dating from the medieval period (Mariashev et al., 1979: fig. 4 – 6) and their existence is reported of in written records (Bichurin, 1950: 300).

Arab written records hold that the "Turkic spears are short and hollow [i.e., having a bush]. Such short, hollow spears are light and cause more damage" (Mandelstam, 1956: 233). The Turks are considered exceptional not only for their spear wielding, but also for the accuracy and speed of their archers. The Balyk-Sook kurgan yielded two sets of bow plates that correspond well to the depiction of a Turkic warrior: mounted warriors used to bear two or three bows (Ibid.: 231). The Arab written records describe the equipment of a Turkic warrior: the Turks used to wear armor (*al-djavshan*), a coat of mail (*dir*), a shield and a helmet (*baida*) (see Yunusov, 1990: 98). The Turks were exceptionally good at waging wars: "no warriors other than the Turks filled the Arab troops with fear" (Mandelstam, 1956: 243).

During AD 8 – 10, South Siberia and Central Asia was an area of intensive migrations and frequent wars. This is reflected in written records and in archaeological evidence provided by the mixed interment rite and grave goods as well as by numerous cenotaphs. Such periods are characterized by an increased necessity for armor and armor sets were probably standardized. Protective armor tended to develop in "reduced" mode; the written records of the end of the first millennium seldom report mounted warriors wearing iron armor covering them from top to bottom (see Yunusov, 1990: 101).

Grffiti from the Altai provide other valuable evidence on the usage of protective armor in the Ancient Turkic period (Fig. 22 – 24). Suffice it to mention the depictions of heavily armed horsemen and warriors at Zhalgyz-Tobe (Fig. 22, 1, 2, 5; 23), Bichiktu-Bom (Fig. 22, 3), Yustyd (Fig. 22, 4), Kara-Oyuk (Fig. 22, 7, 8) (Okladnikova, 1988: fig.4), and on the Kudurge boulder (Fig. 22, 6) (Gavrilova, 1965: pl. VI). Despite the sketchy characteristics of these rock images, the major parts of the armor can be identified clearly: a helmet, a breast piece and pieces covering the arms and legs. Protective covering is also depicted on the horses. The spear is a necessary item in the weaponry set of a heavy cavalryman warrior. Certain rock pictures show battle scenes, in which mounted warriors in full armor are



Fig. 23. Images of heavy cavalrymen from Zhalgyz-Tobe, the Russian Altai.



Fig. 24. Images of heavy cavalrymen from Khar-Salaa, the Mongolian Altai.

portrayed together with archers on foot (Fig. 22, 7; 24). We think that a dense concentration of images of heavy cavalrymen in the Chuya Basin compared to other regions of the Altai is not accidental. The Chuya Basin is a deserted steppe zone with environmental conditions similar to those of the Mongolian steppes. Such an environment is favorable for close orders of heavily armed horsemen. Elsewhere in the Altai, where the landscapes are broken with narrow valleys, such war tactics cannot be employed.

The Altai, especially its central area, can be regarded as a natural fortress. In narrow mountain passes, a few warriors could contain the advancement of a whole army. This might be the reason why no fortified settlements of the Ancient Turkic period have been discovered in the Altai unlike the contiguous territories of Tuva. However, it cannot be excluded that a fortified settlement in the Katun River basin, in the vicinity of the Bolshoi Yaloman River, located at a strategically important place, is attributable to the Ancient Turkic period. The constructional elements of some Ancient Turkic stone enclosures such as ditches and ramparts allow us to hypothesize that Ancient Turks were familiar with fortification.

Archaeological evidence, written records, art images and developed metallurgy suggest the wide usage of armor and a high degree of development of the art of war among Ancient Turks in AD 8 – 10. We could hardly agree with the opinion that the Turks formed military divisions consisting only of lightly armed mounted archers, which served as additional mounted formations in the armies of the Uigur and Kyrgyz Khaganates, and that only high-rank warriors wore lamellar armor (Hudiakov, 1986: 150, 159). Grave goods do not provide full information on the whole complex of weapon and armor that was in use. There are categories of weapon that were not included in sets of grave artifacts or that are rarely represented there

such as swords, sabers and broadswords. However, the fact that such things are rarely found in graves does not mean that they were not used. Parts of protecting armor represent rare archaeological finds, while complete sets of armor are unique and were recovered particularly from graves of high-rank warriors (Medvedev A.F., 1959: 119; Kirpichnikov, 1971: 43). Usually, burial sites yield only separate lamellas of armor, a fact suggestive of burial rite traditions. Separate armor lamellas substituting complete armor, which are not less frequently found in the Ancient Turkic ritual stone enclosures, provide additional evidence for this tradition. Such findings have been recovered from Kudyrge, enclosure XIII in the Altai (Gavrilova, 1965: 16), Hemchik I in Tuva (Grach, Nechaeva, 1960: 191), and Issyk in Kazakhstan (Grigoriev, Zagorodnyi, 1995: fig. 2). On the contrary, the categories of weapon such as complete armor, sword and broadsword, unlike items of mass production – bows, arrows, etc. – were regarded as valuable; they were used by several generations and often were taken as loot by the enemies.

Conclusion

During the period of the rule of the Uigur and Kyrgyz Khaganates, the Altai Turks retained considerable independence, their subordination was only nominal. The period of AD 8 – 9 saw a flourishing of the material and spiritual culture of the Turks in the Altai (the so-called Kurai archaeological culture). The overwhelming majority of Ancient Turkic burials that have been investigated to date have been attributed to this period. A few burials of high-ranked Turks in the Altai have also been dated to this period. The proper Uigur burials have not yet been discovered in the Altai, while the Kyrgyz burials by rite of cremation are very few and are considerably less frequent in the Altai

compared with the neighboring Tuva territory. The Kyrgyz population of the Altai was considerably smaller than that of Tuva, which held a whole theatre of war operations between the Kyrgyz and Uigur troops and served as headquarters for the Kyrgyz Khagane (Kyzlasov, 1984: 77). The relative isolation and remoteness of the Altai seems to have been the reason for this. Several researchers have argued that a possible alliance existed between the Turks and Kyrgyzes in the Uigur-Kyrgyz wars (Hudiakov, 1983: 15; Kyzlasov, 1984: 49). Apparently, even upon the defeat of the Second Turkic Khaganate, the Altai Turks retained their high political and military status.

In the period stretching from the second half of the 7th century to the 10th century, the art of war of the Ancient Turks in the Altai reached a high level of development. Despite the loss of the Altai Turk statehood in the middle of the eighth century, general tendencies towards the development and improvement of armor and weaponry can be noted. Such tendencies have been noted in all nomadic communities of Central Asia at the end of the 1st millennium AD (development of armor, enlarging the range of various types of armor piercing, flat, trihedral arrows, improvement of bow construction, etc.).

The Balyk-Sook armor as well as the burial itself is unique. It is the only nearly complete set of armor that has been recovered from Ancient Turkic burial mounds in the Sayan-Altai Mountains. This find provides new information on the development of protective armor and war art in South Siberia and in Central Asia at the end of the 1st millennium AD. These new data add to our knowledge of the past social and economic processes, political history, migrations and state borders existing during the Middle Ages.

References

- Aseyev I.V. 1980**
Pribaikale v srednie veka. Novosibirsk: Nauka.
- Belenitski A.M. 1973**
Monumentalnoe iskusstvo Pendjikenta. Moscow: Nauka.
- Bichurin N.J. (Iakinf). 1950**
Sobranie svedenii o narodakh, obitavshikh v Srednei Azii v drevnie vremena, vol. 1. Moscow, Leningrad: Izd. AN SSSR.
- Chindina L.A. 1977**
Mogilnik Roelka na srednei Obi. Tomsk: Izd. Tomsk. Gos. Univ.
- Cho Y.J. 1993**
Ruins of Kogurye in Ji-An, the Jilin Province. *The Journal of Early Ancient History of Korea* (Seoul), N 14: 305 – 310, (in Korean).
- Evtyukhova L.A. 1948**
Arkheologicheskie pamiatniki eniseiskikh kyrgyzov (hakasov). Abakan: HNIIYLI.
- Evtyukhova L.A. 1957**
O plemenah Tsentralnoi Mongolii v IX v. *Sovetskaya arkheologiya*, N 2: 205 – 227.
- Evtyukhova L.A., Kiselev S.V. 1941**
Otchet o rabote Sayano-Altayskoi arkheologicheskoi ekspeditsii v 1935 g. *Trudy Gos. Istoricheskogo Muzeya* (Moscow), iss. 16: 75 – 117.
- Garam E. 1992**
Die münzdatieren Gräber der Awarenzeit. In *Awarenforschungen. Archaeologie Austriaca. Monographien. Studien zur Archäologie der Awaren 4*, Bd. 1. Wien: Institut für Ur- und Frühgeschichte der Universität Wien, pp. 135 – 250.
- Gavrilova A.A. 1965**
Mogilnik Kudyrga kak istochnik po istorii altayskikh plemen. Moscow, Leningrad: Nauka.
- Gorelik M.V. 1993**
Zashitnoe vooruzhenie stepnoi zony Evrazii i primykaiuschikh k nei territorii v I tys. n.e. In *Voennoe delo naseleniya yuga Sibiri i Dalnego Vostoka*. Novosibirsk: Nauka, pp. 149 – 179.
- Grach A.D. 1960a**
Arkheologicheskie issledovaniya v Kara-Hole i Mongun-Taige. *Trudy TKAEE* (Moscow, Leningrad), vol. 1: 73 – 150.
- Grach A.D. 1960b**
Arkheologicheskie raskopki v Mongun-Taige i issledovaniya v Tsentralnoi Tuve. *Trudy TKAEE* (Moscow, Leningrad), vol. 1: 7 – 72.
- Grach A.D. 1966**
Arkheologicheskie raskopki v Sut-Hole i Bai-Taige. *Trudy TKAEE* (Moscow, Leningrad), vol. 2: 81 – 108.
- Grach A.D. 1982**
Srednevekoveye vpusknye pogrebenia iz kurgana-hrama Ulug-Horum v Yuzhnoi Tuve. In *Arkheologiya Severnoi Azii*. Novosibirsk: Nauka, pp. 156 – 168.
- Grach A.D., Nechaeva L.G. 1960**
Kratkie itogi issledovaniya pervoi gruppy arheologicheskogo otryada TKEIE. *Uchenye zapiski TNIYLI*, iss. 8: 185 – 192.
- Griaznov M.P. 1940**
Raskopki na Altae. *Sbornik Gosudarstvennogo Ermitazha*, iss. 1: 17 – 21.
- Grigorev F.P., Zagorodnyi A.S. 1995**
Srednevekoveye pominalnye ogradki mogilnika Issyk. In *Sokhranenie i izuchenie kulturnogo naslediya Altayskogo kraya*, iss. 5, pt. 2. Barnaul: Izd. Altai. Gos. Univ., pp. 176 – 181.
- Hudiakov Y.S. 1983**
Vooruzhenie drevnih tyurok Gornogo Altaia. In *Arkheologicheskie issledovaniya v Gornom Altae v 1980 – 1982 godah*. Gorno-Altaysk: GANIIYLI, pp. 3 – 27.
- Hudiakov Y.S. 1986**
Vooruzhenie srednevekovykh kochevnikov Yuzhnoi Sibiri i Tsentralnoi Azii. Novosibirsk: Nauka.
- Hudiakov Y.S., Bayar D. 1992**
Srednevekoviye pamyatniki v mestnosti Nahuiugin-Manhan v pustynne Mongol Els. In *Severnaya Aziya i sosednie territorii v srednie veka*. Novosibirsk: Nauka, pp. 36 – 44.
- Iliushin A.M., Suleimenov M.G., Guz V.B., Starodubtsev A.G. 1992.**
Mogilnik Sapogovo – pamiatnik drevnetyurkskoi epohi v Kuznetskoi kotlovine. Novosibirsk: Izd. Novosib. Gos. Univ.
- Kirpichnikov A.N. 1971**
Drevnerusskoe oruzhie. Moscow: Nauka. (Svod arkheologicheskikh istochnikov; iss. E1-36, N 3).

- Kozhombardiev I.K., Hudiakov Y.S. 1987**
Kompleks vooruzheniya kenkolskogo voina. In *Voennoe delo drevnego naseleniya Severnoi Azii*. Novosibirsk: Nauka, pp. 75 – 107.
- Kubarev G.V. 1997**
Novaya runicheskaya nadpis s Altaya. In *Problemy arkheologii, etnografii, antropologii Sibiri i sopredelnykh territorii*, vol. 3. Novosibirsk: Izd. IAE SO RAN, pp. 208 – 212.
- Kubarev V.D. 1979**
Novye svedeniya o drevnetyurkskikh ogradkah Vostochnogo Altaya. In *Novoe v arkheologii Sibiri i Dalnego Vostoka*. Novosibirsk: Nauka, pp. 135 – 161.
- Kubarev V.D. 1985**
Drevnetyurkskie kenotafy Borotala. In *Drevnie kultury Mongolii*. Novosibirsk: Nauka, pp. 136 – 148.
- Kubarev V.D. 1992**
Palash s sogdiiskoi nadpisiyu iz drevnetyurkskogo pogrebeniya na Altae. In *Severnaya Aziya i sosednie territorii v srednie veka*. Novosibirsk: Nauka, pp. 25 – 36.
- Kubarev V.D. 2002**
The “Savromats” in the Altai. *Archaeology, Ethnology and Anthropology of Eurasia*, N 2 (10): 127 – 139.
- Kurmankulov Z. 1980**
Pogrebenie voina rannetyurkskogo vremeni. In *Arkheologicheskie issledovaniya drevnego i srednevekovogo Kazakhstana*. Alma-Ata: Nauka KazSSR, pp. 191 – 197.
- Kychanov E.I. 1976**
Jurcheni v XI v. In *Sibirskii arheologicheskii sbornik*. Novosibirsk: Nauka, pp. 269 – 281.
- Kyzlasov L.R. 1981**
Drevnehakasskaya kultura chaatas VI–IX vv. In *Stepi Evrazii v epokhu srednevekovya*. Moscow: Nauka, pp. 46 – 52.
- Kyzlasov L.R. 1984**
Istoria Yuzhnoi Sibiri v srednie veka. Moscow: Izd. Mosk. Gos. Univ.
- Lifanov N.A. 2001**
Novye formy ukrasheniia novinkovskogo naseleniya. In *Kultury evraziiskikh stepei vtoroi poloviny I tysiacheletia n.e. (iz istorii kostyuma)*, vol. 2. Samara: Samar. obl. ist.-kraeved. muzei, pp. 166 – 169.
- Litvinskii B.A. 1995**
Bytovoi inventar. In *Vostochnyi Turkestan v drevnosti i rannem srednevekovye*. Moscow: Vostochnaya literatura, pp. 106 – 255.
- Liu Mau-tsai. 1958**
Die chinesischen Nachrichten zur Geschichte der Ost-Türken (T'u-Küe), Bd. 1. Wiesbaden: Otto Harrassowitz.
- Mamadakov Yu.T., Gorbunov V.V. 1997**
Drevnetiurkskie kurgany mogilnika Katanda-3. In *Izvestiya Laboratorii arkheologii*, N 2. Gorno-Altaiisk: Izd. Gorno-Altaiisk. Gos. Univ., pp. 115 – 129.
- Mandelstam A.M. 1956**
Kharakteristika tyurok IX v. v “Poslanii fathu b. Hakanu” al-Djahiza. *Trudy IIAE AN KazSSR*, vol. 1: 227 – 253.
- Mannai-ool M.H. 1963**
Itogi arheologicheskikh issledovaniia TNIIYLI v 1961 g. In *Uchenye zapiski TNIIYLI*, iss. 10: 238 – 246.
- Mariashv A.N., Ermolaeva A.S., Motov Y.A. 1979**
Novye petroglify urochischa Tamgaly. *Vestnik AN KazSSR (Alma-Ata)*, N 5: 50 – 54.
- Medvedev A.F. 1959**
K istorii plastinchatogo dospeha na Rusi. *Sovetskaya arkheologiya*, N 2: 119 – 134.
- Medvedev V.E. 1981**
O shleme srednevekovogo amurskogo voina (tainik s ostatkami dospeha v Korsakovskom mogilnike). In *Voennoe delo drevnih plemen Sibiri i Tsentralnoi Azii*. Novosibirsk: Nauka, pp. 172 – 184.
- Molchanova O.T. 1979**
Toponimicheskii slovar Gornogo Altaia. Gorno-Altaiisk: Gorno-Alt. Otd. Alt. kn. izd.
- Nechaeva L.G. 1966**
Pogrebeniya s truposozhzheniem mogilnika Tora-Tal-Arty. *Trudy TKAEE*, vol. 2: 108 – 143.
- Neverov S.V. 1998**
Stremena Verhnego Priobja v VII – XII vv. (klassifikatsia i tipologiya). In *Snyazhenie verkhovogo konya na Altae v rannem zheleznom veke i srednevekovie*. Barnaul: Izd. Altai. Gos. Univ., pp. 129 – 151.
- Nikonov V.P. 1995**
K voprosu o parfianskoi taktike (na primere bitvy pri Karrah). In *Voennoe delo i srednevekovaya arkheologiya Tsentralnoi Azii*. Kemerovo: Kuzbassvuzizdat, pp. 53 – 61.
- Okladnikova E.A. 1988**
Graffiti Kara-Oyuka, Vostochnyi Altai. *Sbornik MAE*, vol. 42: pp. 140 – 158.
- Ovchinnikova B.B. 1981**
K voprosu o vooruzhenii kochevnikov srednevekovoi Tuvy (po materialam mogilnika Aimyrlyg). In *Voennoe delo drevnih plemen Sibiri i Tsentralnoi Azii*. Novosibirsk: Nauka, pp. 132 – 146.
- Ovchinnikova B.B. 1990**
Tyurkskie drevnosti Sayano-Altaiia v VI – X vv. Sverdlovsk: Izd. Ural. Gos. Univ.
- Raspopova V.I. 1970**
Sogdiiskii gorod i kochevaya step v VII – VIII vv. *KSIA*, iss. 122: 86 – 91.
- Raspopova V.I. 1979**
Osnovaniya dlya datirovki metallicheskih izdelii iz Pendjikenta. *KSIA*, iss. 158: 106 – 113.
- Raspopova V.I. 1980**
Metallicheskie izdeliya rannesrednevekovogo Sogda. Leningrad: Nauka.
- Savinov D.G. 1982**
Drevnetyurkskie kurgany Uzuntala (k voprosu o vydelenii kuraiskoi kultury). In *Arkheologiya Severnoi Azii*. Novosibirsk: Nauka, pp. 102 – 121.
- Savinov D.G. 1994**
Drevnetyurkskoe vremia. In *Drevnie kultury Bertekskoi doliny*. Novosibirsk: Nauka, pp. 146 – 152.
- Shulga P.I., Gorbunov V.V. 2002**
Fragment dospeha iz tyurkskogo kenotafa v doline r. Sentelek. In *Materialy po voennoi arkheologii Altaya i sopredelnykh territorii*. Barnaul: Izd. Altai. Gos. Univ., pp. 112 – 130.
- Sinitsyn I.V. 1950**
Arkheologicheskie pamiatniki po reke Malyi Uzen (Saratovskaya oblast i Zapadnyi Kazahstan). *KSIMK*, N 32: 101 – 112.
- Sinitsyn I.V. 1956**
Arkheologicheskie issledovaniya v Zapadnom Kazahstane. *Trudy IIAE AN KazSSR*, vol. 1: 87 – 140.

Smirnov Y.I. 1909

Vostochnoe srebro. St. Petersburg.

Toth E., Horvath A. 1992

Kunbabony: Das Grab eines Awarenkhagans. Kecskemet: Museum des Komitats Bacs-Kiskun.

Trifonov Y.I. 1987

Dzhartas. In *Arkheologicheskie pamyatniki v zone zatopleniya Shulbinskoi GES*. Alma-Ata: Nauka KazSSR, pp. 115 – 129.

Vasilev D.D. 1995

Personalii drevnetyurkskih epitafii: vozmozhnosti istochnikovedcheskogo analiza. In *Vostochnoe istoricheskoe istochnikovedenie i specialnye istoricheskie discipliny*, iss. 3. Moscow: Vostochnaya literatura, pp. 256 – 267.

Werner J. 1974

Nomadische Gürtel bei Persern, Byzantinern und Langobarden. In *La civiltà dei longobardi in Europa*. Roma: Accademia nazionale dei Lincei, pp. 109 – 139.

Winkler P. 1992

Oruzhie. Moscow: Soft-Master.

Yunusov A.S. 1990

Voennoe delo tyurok v VII – X vv. (po arabskim istochnikam). In *Voennoe delo drevnego i srednevekovogo naseleniya Severnoi i Tsentralnoi Azii*. Novosibirsk: Poligraf, pp. 97 – 106.

Zalesskaya V.N., Lvova Z.A.,**Marshak B.I., Sokolova I.V.,****Foniakova N.A. 1997**

Sokrovischa khana Kubrata: Pereshepinski klad. St. Petersburg: Slaviya.

Zinyakov N.M. 1983

Chernaya metallurgiya i kuznechnoe remeslo altaiskih plemen VI – X vv. Cand. Sc. (History) Dissertation. Kemerovo.

Received 5 June, 2003.