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Tagar Artifacts at the Stavropol State Museum Reserve (G.N. Prozritelev's Collection)

This article introduces 16 bronze weapons and horse harness items representing the Tagar culture (a dagger, ten knives, bits, a cheekpiece, an axe, a celt, and a mirror) from the Minusinsk Region, collected by G.N. Prozritelev in the early 1900s. The objective of this study is to describe them and to assess their chronology. The dagger and the three knives exemplify the animal style of 500–300 BC. The cross-guard of the dagger is shaped like two oppositely facing bird heads separated by a spiral scroll. The pommels of the knives are decorated with figurines of a standing ram, a standing donkey, a ring, a roll, a drop-shaped slit, etc. The handles of two knives are decorated with a band consisting of oblique hatches, two rows of triangles, and a hoof sign. Based on the data, certain artifacts (the dagger, the knives, the cheekpiece, and the mirror) date to 600–300 BC. The axe, the celt, the bits, and possibly a massive knife with a bird's head at the junction of the handle and blade may date to 700–500 (possibly even 800–500) BC. A considerable scatter of dates suggests that the artifacts come from different sites. They may have been part of a single hoard whose separate items span a chronological range between 700 or even 800 to 400 BC.

Keywords: Collection, Tagar culture, animal style artifacts, bronze weapons, horse harness.

Introduction

In 1905–1906, the famous archaeologist and local historian G.N. Prozritelev organized the Stavropol Museum of the Northern Caucasus (Okhonko, 2005: 103). Its collections were assembled from excavation materials, donated items, and whole collections of artifacts purchased from dealers of antiquities. At that time, he was shown a collection of bronze items found in Minusinsky Uyezd of the Yenisei Governorate. The attention of the scholar was attracted by the excellent quality of bronze, craftsmanship of the casters, and animal style embodied in the decoration of the artifacts. So, the collection consisting of a dagger, ten knives, an axe, a celt, a set of bridle bits, a cheekpiece, and a mirror was acquired for the Museum. Since these items of the Tagar culture were found in an area rather remote from the Northern Caucasus, local archaeologists have not

turned to these artifacts as objects of research for almost a hundred years. The purpose of this article is to describe this collection. Currently, it is stored in the Prozritelev and Prave Stavropol State Historical, Cultural, and Natural Landscape Museum-Reserve (hereafter referred to as the Stavropol Museum)*.

Description of the collection

The collection includes sixteen items of weaponry, horse harness, and household utensils.

^{*}I thank the staff of the Archaeology Department of the Museum and its Director N.A. Okhonko for their assistance in the process of studying the collection of the Tagar items, and for their making it possible to publish a description of them.

1. A bronze dagger with sub-trapezoidal pommel, zoomorphically decorated cross-guard, and wedge-shaped blade with a rib (distinguished by a smoother transition in the tip area) (Fig. 1, *I*; 2), item No. 9466 / inv. No. 585*. The length of the dagger is 282 mm; the length of the blade is 176 mm; the width is 30 mm; the height in rhombic cross-section is 8 mm.

The handle is flat, oval in cross-section, with a height of 8.9 mm and a width of 19 mm. It is decorated with two grooves, asymmetrically shifted to the left.

The cross-guard of the dagger has the form of two oppositely facing bird (griffin?) heads separated by a spiral scroll (a common ear?). The bands in relief around large rounded eyes, the scroll between them, and upper parts of elongated beaks are arranged in a single line. The ceres of the birds are marked in relief. The beaks gradually expand. Their pointed ends are lower than the middle part of the cross-guard; the lower contour of the cross-guard is emphasized by two curved bands in opposite directions (see Fig. 1, 1; 3).

It should be mentioned that the cross-guard of the dagger from the Stavropol Museum has a form not typical of Tagar weaponry. The two griffin heads turned in opposite directions with beaks facing the tip are represented in the upper part of the cross-guard. This type does not appear in the typologies of the Tagar daggers proposed by S.V. Kiselev, N.L. Chlenova, A.M. Kulemzin, A.I. Martynov, Y.S. Hudiakov, or A.V. Subbotin (2014: 12–16, fig. 2–7). The dagger of type III of the pre-Scythian period (according to V.I. Kozenkova (1995: 46–47, fig. 5)) from Ciscaucasia, with a rectangular cross-guard and arcuate recess in the part facing the blade, is the closest parallel to the dagger described above.

2. Bronze knife No. 1 has a widened blade and arcuate back (using the terminology of S.V. Kiselev (1949: 208–213)) (see Fig. 1, 2), item No. 9466 / inv. No. 585. There is a small ledge between the blade and handle. The handle is slightly narrower than the blade, and is decorated with a three-dimensional image of a goat standing on a stand. The length of the item is 210 mm, the length of the blade is 121 mm, the width is 13 mm, and the width of the handle is 11 mm.

The front side is convex; the back side is flat. The handle on the front side is decorated along the bottom edge in a relief band with oblique convex notches. The blade is triangular in cross-section and forged.

The pommel has a three-dimensional figurine of a goat (sculpture in the round) in a stiff calm pose. The height of the figurine is 14 mm, width 18 mm, thickness 4 mm. The muzzle is elongated and beak-like. The double horn with protrusions in relief is twisted into a rounded loop. The upper part of the torso is straight. There are no through holes between the legs.

3. Bronze knife No. 2 has a widened blade and arcuate butt (see Fig. 1, 3), item No. 9466 / inv. No. 585. The tip of the blade is broken off. There is a small ledge between the blade and handle. The handle is slightly narrower than the blade; it is decorated with a three-dimensional image of an animal standing on a stand with long ears and lowered head (an onager?). The length of the remaining part of the artifact is 168 mm, the length of the blade is 83 mm, the width is 14 mm, and the width of the handle is 11 mm. The handle is convex on the front side and flat on the back side. The convex surface along the bottom edge is decorated with two parallel rows of triangles (the lower row consists of triangles in relief; the upper row consists of engraved triangles). A sign in the form of the upper part of a horse's hoof is depicted at the place where the handle reaches the blade. The blade is triangular in cross-section and forged.

The pommel represents a donkey-onager (?) figurine in the round, with slightly bent legs. Its height is 10 mm, width 17 mm, thickness 4 mm. The muzzle consists of two ovals. The eye and nostrils are marked by recesses. An elongated ear is pressed to the shoulder; the back is slightly curved. There are two through holes of subtriangular shape between the legs and head.

- 4. Bronze knife No. 3 has a blade slightly larger than the handle and a slightly curved arcuate butt (Fig. 4, 4), item No. 9466 / inv. No. 585. There is a small ledge between the blade and handle. The handle extends towards a triangular pommel. The length of the knife is 208 mm, the length of the blade is 108 mm, the width of the blade is 13.5 mm, and the width of the pommel is 21 mm. The butt part expands in the middle. A hole of sub-rectangular shape is located in the expanded part of the pommel.
- 5. Bronze knife No. 4 has a blade wider than the handle and a bent arcuate butt (Fig. 4, 5), item No. 9466 / inv. No. 585. The tip of the blade is broken off. There is a small ledge between the blade and handle. The length of the preserved part of the artifact is 199 mm, the length of the blade is 108 mm, the width of the blade is 17.5 mm, and the width of the handle is 17 mm. A band in relief is located on the narrow face of the handle. The edge of the blade was forged.
- 6. The massive bronze knife No. 5 has a blade wider than the handle, and arcuate butt (Fig. 5, *I*), item No. 9466 / inv. No. 585. The tip of the blade and the pommel are broken off. A small ledge decorated with a transverse image of the head of a bird of prey is between the blade and handle. The handle along the bottom edge is

^{*}Hereafter, the number before the inventory number indicates the initial designation of the items in the Stavropol Regional Museum of Local History, where the collection was transferred after uniting the Governorate Museum of the Northern Caucasus and the Prave City Museum of Visual Aids. All items of the collection had the same number apparently owing to their placement in one display since the 1920s.

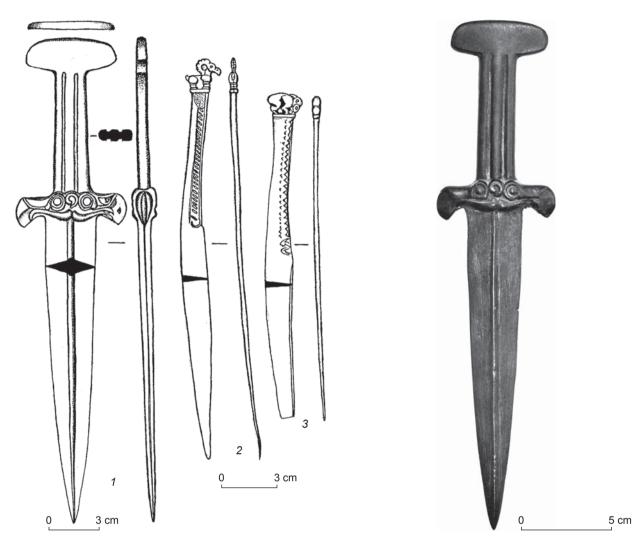


Fig. 1. Bronze dagger (1) and knives (2, 3) of the Tagar culture.

Fig. 2. Bronze dagger of the Tagar culture.

decorated with a narrow groove. A rounded notch (cavity?) appears on its surface in the first third closer to the butt. The length of the preserved part of the artifact is 190 mm, the width of the blade is 21 mm, and the width of the handle is 14 mm. The head of the bird of prey on the ledge between the blade and handle was made using the engraving technique. The length of the image is 12 mm, height 10 mm, and length of the eye 4 mm. The eye, encircled by a rim in relief, and curved beak are decorated with rounded recesses. The edge of the blade was pressed and forged.

7. Bronze knife No. 6 has a slightly arcuate butt and straight blade (see Fig. 4, 1), item No. 9466 / inv. No. 585. The handle is not distinct. The pommel is ring-shaped. The length of the surviving part of the artifact is 219 mm, the width of the blade is 13 mm, and the largest



Fig. 3. Fragment of the dagger's cross-guard.

width near the pommel is 12 mm. The pommel ring is asymmetric and oval.

8. Bronze knife No. 7 (see Fig. 4, 2) has an almost straight butt, straight handle, and narrowed blade, item No. 9466/inv. No. 585. The edge of the handle is decorated

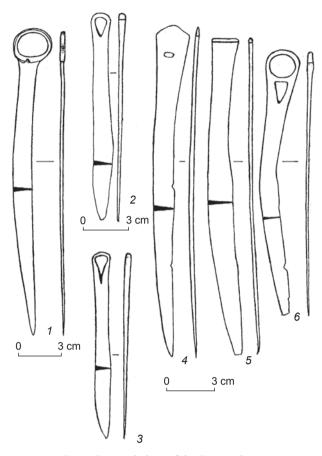


Fig. 4. Bronze knives of the Tagar culture.

with a drop-shaped slit. The length of the preserved part of the artifact is 129 mm, the width of the blade is 13 mm, and the largest width (near the pommel) is 13 mm.

- 9. Bronze knife No. 8 has an almost straight butt, straight handle, and slightly widened blade (see Fig. 4, 3), item No. 9466 / inv. No. 585. The handle expands smoothly towards the upper edge, and has a triangular hole. There is a small ledge between the blade and handle. The length of the preserved part of the artifact is 163 mm, the width of the blade is 12 mm, and the width of the handle (at the pommel) is 13 mm.
- 10. Bronze knife No. 9 has a straight butt and handle, and a narrowed blade (see Fig. 5, 3), item No. 9466 / inv. No. 585. The edge of the handle is decorated with a drop-shaped slit. The length of the preserved part of the artifact is 129 mm, the width of the blade is 13 mm, and the width of the handle near the pommel is 13 mm.
- 11. Bronze knife No. 10 is "elbow-shaped" in the terminology of N.L. Chlenova (1967: 187–188), or "with snake-like spine" according to A.I. Martynov (1979: 37, 71), with the handle expanding upwards; the end of the handle is rounded (see Fig. 4, 6), item No. 9466 / inv. No. 585. The tip of the blade is broken off. The handle is made in openwork. A drop-shaped loop-like hole is divided by a transverse bridge into one round and one

sub-triangular slit. The length of the preserved part of the artifact is 170 mm, the width of the blade is 13 mm, and the width of the handle is 22 mm.

- 12. A bronze two-hole C-shaped cheekpiece, arcuate according to P.I. Shulga (2013: 35, fig. 32, *1*–3, *5*–7; 33, *1*, *3*), is made of a rod rounded in cross-section, with rounded cone-like pommels at the ends (see Fig. 5, 2), item No. 9466 / inv. No. 585. At the holes, the rods expand to form a socket. The length of the artifact is 159 mm, the length of the rod is 7–8 mm, the width of the cones are 8 mm, and the length of the sockets are 13.5 mm.
- 13. Bronze cast two-piece bridle bits are with subtriangular ends and an additional hole, with smooth rod-mouthpieces (see Fig. 5, 4), item No. 9466 / inv. No. 585. The endings consist of a triangular frame and rounded hole located at its top, and belong to type 2 according to N.A. Bokovenko (1986: 11), or type 2, subtype 1, subvariant 2, and subtype 2 according to S.B. Valchak (2009: 36, fig. 32, 2, 6), or form 2 according to P.I. Shulga (2013: 26, fig. 17–22). The ending has the form of a triangle in link No. 1 (the length of the item is 95 mm; the length of the rod is 7 mm), and segment-like shape in link No. 2 (the length of the item is 101 mm; the length of the rod (deformed) is 5–7 mm).

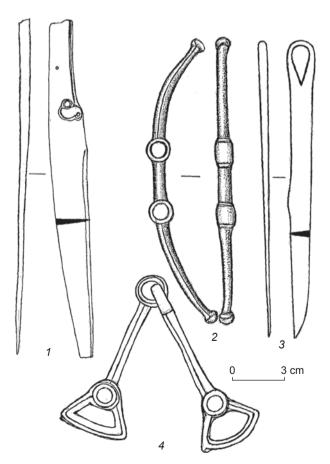


Fig. 5. Bronze knives (1, 3), cheekpiece (2), and bridle bits (4) of the Tagar culture.

Fig. 6. Bronze pole axe (1), celt axe (2), and mirror (3) of the Tagar culture.

14. A bronze pole axe is with a wedge-shaped striking part (the blade is slightly widened and arcuate), protruding butt, and high truncated-conical socket which is oval in cross-section (Fig. 6, 1; 7), item No. 9466 / inv. No. 585. The length of the artifact is 126 mm, the thickness is 18 mm, the width of the blade is 36 mm, the width of the butt is 29 mm, the height of the butt is 61.5 mm, the height of the socket is 31 mm, and the length of the socket is 2.1–3.7 mm. The central part of the body and butt are grooved. The sub-rectangular butt part at the top, bottom, and end is decorated with oval cap-shaped protrusions (the length of the item is 14–16 mm, length of the socket is 11 mm and 9–10 mm in the lower part). The angle between the striking part and socket is occupied by a segment of three overlaps made in relief. There are through holes in the socket and butt part.

15. A bronze wedge-shaped double-eyed celt is with a high oval socket (see Fig. 6, 2; 8), item No. 9466 / inv. No. 585. Lateral eyelets pass into lateral lens-shaped bands. The body of the artifact is decorated with six weakly distinguished longitudinal facets. A truncated-conical socket with oval base in cross-section is reinforced with three transverse bands. The length of the artifact is 101 mm, its width is 51 mm, the width of the blade is 41 mm, the length of the socket is 32–41 mm, the height of the eyelets is 10 mm, and their thickness is 4–5 mm. In its shape, the celt remotely resembles the items of type 4 according to the classification of M.P. Gryaznov (1941: 250-260), or type I according to A.I. Martynov, but is close in size to small lightweight celts of type 3 according to the classification of Martynov (1979: 43-44). However, western celts of variants II.2.18, II.2.19, II.2.20, and II.5.18, according to the classification of E. Ushurelu (2010: 28, 31, 39, 47), are the closest in shape to the celt described above.

16. A bronze mirror (see Fig. 6, 3), item No. 9466 / inv. No. 585, belongs to type I with a loop on the back, according to the classification of Chlenova (1967: 32), or disk-shaped and looped according to typology of Subbotin (2014: 52, pl. 27, 6), item No. 9466 / inv. No. 585. The diameter is 58 mm; the thickness of the disk is 1 mm. A sub-trapezoidal loop with a wide rectangular bar was soldered to the disk.

Discussion

Chronological analysis of morphological features of the dagger (see Fig. 2) is important for establishing

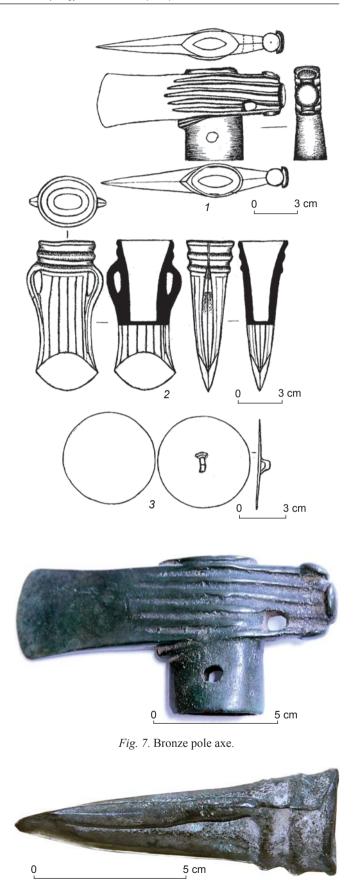


Fig. 8. Side view of the celt axe.

the age of the items described above. The Tagar culture is characterized by "wings" on a butterfly-shaped crossguard in the form of the mirrored representation of a pair of heads of various animals. Representations of the heads of birds of prey in relief emerged in the 7th century BC (Chlenova, 1967: 114). Images of doubled (mirrored) griffin heads in the area of the Tagar culture first appeared on the "undeveloped" crossguards of daggers of the "Krasnoyarsk" type. This group includes the dagger from the Verkhne-Metlyaevskaya hoard (Cis-Baikal region), with the image of two stylized bird heads not only on the cross-guard, but also on the pommel (two bird heads with one common eye, turned in opposite directions) (Maksimenkov, 1960: Fig. 2, 1). Notably, according to the observations of Chlenova, the motif of "double bird heads with one common eye" on the pommels of daggers appeared in the Minusinsk Basin in the 5th century BC (1967: 132). The Verkhne-Metlyaevskaya hoard was hidden in the 7th-5th centuries BC (Maksimenkov, 1960: 10; Savinov, 2002: 228). Several daggers (without cross-guards) with a similarly shaped transition zone from the handle to blade appear among the random finds from the Minusinsk Basin (Chlenova, 1967: 245, pl. 25, 15, 16).

Images of two bird (or griffin) heads either facing each other or turned in opposite directions became typical for the decoration of daggers from the Minusinsk Basin since the 5th century BC (dating by Chlenova). A new element (cere) appeared in the image of the bird on those daggers; it had not been depicted in the Minusinsk Basin in the earlier period (Ibid.: 121; Moor, 2015: 32).

Chlenova viewed such daggers in the context of daggers with pommels in the form of a pair of griffin heads. She mentioned the presence of daggers similar to the Tagar examples at the sites of the Ananyino culture, but believed that the decoration of the Minusinsk daggers made in the Altai animal style testifies to their Western Siberian origin (Chlenova, 1981: 8–10).

It is noteworthy that ten iron acinaci of the "Marychevka" type (from the 7th to first half of the 6th century BC), distinguished by a cross-guard in the form of mirrored representations of the heads of a bird of prey (Ismagilov, Skarbovenko, 1977; Ismagil, 2011: 13–15), have been discovered in the immediate vicinity of the area of the Ananyino culture (the Volga-Kama region), in the interfluve of the Volga and the Ural rivers, from Bogoruslan in the west to Sterlitamak in the east (Kunakbaevo, Tolmachevo), and from Orenburg in the south ("Kitaiskoye pole") to Tuymazy in the north.

According to N.N. Pogrebova, the emergence in the animal style of representations of the head of a bird of prey with the ear was associated with an imitation of griffin iconography (1948: 62, 66–67). A.R. Kantorovich believed that such heads corresponded not to griffins, but to birds. From his point of view, images of the "eared"

bird, including reduced representations, in the European part of the Scythian-Siberian world (Northern Black Sea region, Middle Dnieper region, Don region, and Northern Caucasus) were typical of the "Scythian classics" of the 5th–4th centuries BC, although they could have emerged in the Altai-Sayan region in the mid 6th century BC (Kantorovich, 2015: 120, 199–200).

Some bronze daggers with pommels in the form of two bird (griffin?) heads from the sites of the Urals and Western Siberia have cross-guards in the form of two heads of a bird of prey (similar in their pictorial solution to the swords of the "Marychevka" type), which resemble those on the artifacts from the Stavropol Museum. Daggers with a similar design of cross-guards with mirrored heads of a bird of prey are known from the Kama region (Yadrinsky Uyezd of the Kazan Governorate) and Western Siberia (Krasnoyarsky Uyezd of the Yenisei Governorate; Mariinsko-Achinsky District) (Chlenova, 1981: Fig. 4, 9, 14, 16). In terms of the cross-guard, Western Siberian daggers are the closest to the dagger from the Stavropol Museum. The upper contour of bird heads is also arranged in a straight line (see Fig. 3). These daggers are also similar in the grooved ("ribbed" according to Chlenova (1967: 16), "striated" according to Martynov (1979: 48), "fluted" according to Subbotin (2014: 49, 99, pl. 25)) design of the handle. Chlenova (1967: 16) attributed daggers with such handles from the Minusinsk Basin and Tuva to the 5th-4th centuries BC.

The use of a spiral scroll as the divider of the bird heads on the cross-guard of the dagger from the Stavropol Museum, as well as appearance of this motif in the Minusinsk Basin, might have been caused by the influence of the Ananyino culture. A bronze dagger with the handle decorated with spiral scrolls was discovered at the Ananyino cemetery. The scroll is located in the center of the cross-guard on that item (Chlenova, 1981: Fig. 3, 1).

The dagger with the cross-guard decorated with the representation of bird heads separated by a scroll from the Stavropol Museum may also be dated to the 5th–4th centuries BC. As was mentioned above, a cere is shown on this bird image. Its inclusion into representations of a bird of prey in the Minusinsk Basin in the 5th century BC was associated with the influence of the Altai animal style (Chlenova, 1967: 121). This date does not contradict the grooved handle with sub-trapezoidal pommel.

In the collection under discussion, three out of ten knives, like the dagger, were decorated in the animal style.

Knife No. 1 with a distinct handle and a pommel with standing goat figurine (see Fig. 1, 2) belongs to section I, class 1/8, according to the classification of Chlenova (Ibid.: 184). Chlenova believed that such knives appeared in the 5th century BC. A knife with a handle similarly decorated with a band of oblique hatches in relief and pommel representing a standing goat has been found in

Sargov Ulus, on the left bank of the Yenisei River (Ibid.: 184: pl. 39, 15). Notably, the statuette of the goat on the knife handle from the Stavropol Museum also shows the signs of the animal style of the 5th—4th centuries BC, such as the small diameter of the arc of horns, elongated beak-like pointed muzzle, and absence of a marked shoulder blade and through holes (Ibid.: 132–133).

Knife No. 2 with a distinct handle and a pommel of a hardly identifiable humpbacked donkey or onager figurine with muzzle bowed down, long ear pressed to the back, and slightly bent legs (see Fig. 1, 3) may also be dated to the 5th-4th centuries BC. According to Chlenova, the emergence of such motifs was associated with the spread of the Altai style in the art of the population living in the Minusinsk Basin in the 5th century BC. Notably, simplification and stylization of zoomorphic imagery (for example, the transformation of the images of wild boars), as well as employment of images of an ungulate with bent legs, also occurred in this period. Decoration of two parallel rows of triangles and a hoof-like sign which according to Chlenova was of Minusinsk origin, appeared in an earlier period, but was quite common in the 5th century BC (Ibid.: 134, 139, 184).

A knife similar in the design of its handle to the knife in question, with a similar pommel in the form of an animal figurine with slightly bent legs and long ear, was described by E.B. Vadetskaya (1986: 88–89, pl. VII, 12) among the knives of the Tagar culture.

Knife No. 3 with a distinct handle, slightly arcuate butt, and expanded angular pommel with a hole (see Fig. 4, 4) (trapezoidal triangular pommel with a hole, according to Subbotin (2014: 51, pl. 28)) resembles the knives that Chlenova attributed to the 5th–4th centuries BC. For example, an item with a similarly shaped pommel was found in kurgan 1 (5th century BC), at the Malaya Inya cemetery (Altai Republic) (Chlenova, 1967: 250, pl. 39, 23). A knife with similar shape of its pommel appears in the materials of the 4th–3rd centuries BC from kurgan 3 at the Kolok cemetery (Republic of Khakassia) (Pshenitsyna, Polyakov, 1989: 61, fig. 2, 21).

Knife No. 4 with a distinct handle, slightly arcuate butt, and pommel in the form of a simple band (see Fig. 4, 5) belongs to section 1, class 1/3, according to the typology of Chlenova (1967: 168). Such knives typically appear at the sites of the Tagar culture of the second half of the 6th century BC (Ibid.: 168). The weak curve of the butt and miniature size of the thin band may possibly be explained by the late origin of the item from the Stavropol Museum, which can be tentatively dated to the 5th century BC.

The specific type of the massive knife No. 5 with arcuately curved butt, a distinct handle, and decoration of the ledge between the handle and blade with the image of the head of a bird of prey (see Fig. 5, 1) is difficult to identify owing to the lack of the pommel. Similar

images of bird heads have been found on knives of the 7th–4th centuries BC. This artifact combines early (massiveness) and late (weakly marked ledge between the blade and handle) elements. Thus, the knife from the Stavropol Museum can be possibly dated to the 7th–5th centuries BC.

Knife No. 6 with a handle which is not distinct and a ring-like pommel (see Fig. 4, 1) belongs to section II, type II/19, according to the classification of Chlenova, who pointed out that such items typically appear at the complexes of the Tagar culture of the 5th–4th centuries BC (Lake Tagarskoye in the Minusinsky District of Krasnoyarsk Territory, the Torgashino hoard from the vicinity of the city of Krasnoyarsk, Korkino from the vicinity of the city of Krasnoyarsk, etc.) (Chlenova, 1967: 182: pl. 39, 18). Such knives commonly occur at the sites of the forest-steppe region in the area of the Tagar culture (Martynov, 1979: 156, pl. 2). Similar items have been found at the sites of the 5th century BC in Mongolia; for example, at the Ulangom cemetery (Novgorodova, 1989: 260, fig. 2). Bronze knives with ring-shaped pommels have also been discovered in the Upper Ob region (sites of the 7th-6th centuries BC); but in those knives, the blade was separated from the handle by a small ledge (Mogilnikov, 1997: 180, fig. 50, 8).

Knives No. 7–9 with a straight butt, a handle which is not distinct, and drop-shaped slit in the pommel belong to class II/2 (subclass II/2a), section II, according to the classification of Chlenova (1967: 168), or to group B (straight), type 12, according to Martynov (1979: 39–40), or to knives with a trapezoidal drop-shaped pommel according to Subbotin (2014: 51, No. 4911). According to Chlenova, loop-shaped artifacts similar to knife No. 8 appeared in the 5th century BC. Knives similar to items 7 and 9 were used from the 7th to the 4th century BC (Chlenova, 1967: 168, 170). Judging by the miniature size, the knives from the Stavropol Museum were most likely made in the 5th–4th centuries BC.

Elbow-shaped knives with a slotted openwork handle (trapezoidal oval pommel with a bar in the loop according to Subbotin (2014: 51, No. 4912)), similar to knife No. 10 (see Fig. 4, 6), have been identified by Chlenova as belonging to class I/17 of section I. Such items are typical of the 5th–3rd centuries BC (the cemeteries of Bateni—at the landing place at the left bank of the Yenisei River); grave 2, kurgan 2 in Malaya Inya in the Altai Republic; Chastoostrovskoye fortified settlement in the Krasnoyarsk Territory, etc.) (Chlenova, 1967: 188). Similar items have also been found at the sites of the Upper Ob region (Mogilnikov, 1997: 180, fig. 50, 14), Kemerovo Region, in the Kuznetsk Okrug, Kansk, and Trans-Baikal region (Chlenova, 1967: 188, pl. 39, 8, 13).

The bronze two-hole (coupling-like) cheekpiece (see Fig. 5, 2) is arcuate according to Chlenova (Ibid.: 73), or slightly curved—group 5, variant 1, according to

Shulga (2013: 35, 122–123, fig. 32, *1–3*, 5–7; 33, *1*, *3*). B.B. Besetaev (2015: 25) connected similar cheekpieces from the sites of Eastern Kazakhstan with the third stage in the development of the horse harness (late 6th–5th centuries BC). In the Minusinsk Basin, such harness elements came into use in the 6th century BC, but were most frequently used together with bridle bits with large oval or rounded rings in the 5th–4th centuries BC (Chlenova, 1967: 73; Shulga, 2013: 54–55).

The artifacts from the collection of the Stavropol Museum, as was mentioned above, include cast two-piece bridle bits with sub-triangular endings and smooth rod-mouthpieces (see Fig. 5, 4). The endings consist of a frame (one with straight base, and the other with oval) and a rounded hole located at its top. Similar sets of bridle bits with different endings appear in the assemblages of the Oznachennoye cemetery (Sayanogorsk, Republic of Khakassia) and the Abakan River valley (Chlenova, 1967: Pl. 16, 9, 10).

Chlenova dated similar bridle bits from the Tagar sites to the 7th century BC (Ibid.: 68; 1992: 215). According to Besetaev (2015: 25), stapediform bits with an additional hole from the assemblages of Eastern Kazakhstan belonged to the second stage of horse harness development—7th—6th centuries BC.

Individual similar items have been found at the sites in southeastern Europe. Two artifacts are random finds from Kharkov Region in the Ukraine (stored in the Kharkov Historical Museum). Another set was discovered at the Early Iron Age site near the village of Pesochin, in the vicinity of the city of Kharkov. The stapediform-ringed bits found in this region are considered to be evidence of contacts of the local population with the migrant population from Asia during the pre-Scythian period, especially in its final stage, apparently in the 8th to early 7th century BC (Valchak, 2009: 34, 36, fig. 34, 2, 4).

According to Shulga (2013: 54, 109; fig. 17–20), such bridle bits are typical of the Tagar horse harness of the 8th–7th centuries BC. Shulga pointed out that 83 bridle bits have been found in the Minusinsk Basin; seven bridle bits have been found in the Altai and the adjacent territory of Eastern Kazakhstan, while in Tuva, such bits have been found only in two bridles from the sites of Arzhan-1 and -2. In the Altai, Eastern Kazakhstan, Tuva, and other regions, similar bits have been found in the assemblages of the 8th–7th centuries BC (Shulga, 2008: Fig. 54; 2013: 24, fig. 47; 48, 1, 2). A set of similar bronze bits found at one of the Sargatka sites in the vicinity of Omsk belongs to the 5th–4th centuries BC (Mogilnikov, 1992: Pl. 121, 28).

A bronze pole axe with a wedge-shaped striking part, slightly widened arcuate blade, protruding butt (with three mushroom-shaped protrusions), and high truncated-conical socket, which is oval in cross-section (see Fig. 6, *1*; 7) does not find exact parallels among the Tagar items.

However, in terms of butt decoration, it is close to the pole axe from grave 17 in kurgan 1 of the Bateni cemetery (the left bank of the Yenisei River), in which the butt was decorated not with mushroom-shaped protrusions above and below, but by the heads of predators (Chlenova, 1967: Pl. 8, 5). According to Chlenova, the most of the Tagar pole axes can be dated to the 6th century BC (Ibid.: 30). The item from the Stavropol Museum may belong to the time when the Verkhne-Metlyaevskaya hoard (which included a pole axe with a grooved butt) was hidden, that is, the 7th–5th centuries BC (Maksimenkov, 1960: 10; Savinov, 2002: 228).

Small wedge-shaped celts, similar in size to the celt from the Stavropol Museum, typically appear at the sites in the area of the Tagar culture. They have been found in the vicinity of Krasnovarsk and in the territory east of it, around Kansk, and appear among the materials of the Verkhne-Metlyaevskaya hoard, etc. (Maksimenkov, 1960: 23, app. IX; Martynov, 1979: 44). According to the observations of Martynov, small wedge-shaped celts mostly appeared in the assemblages of the 5th-3rd centuries BC (1979: 44), which is consistent with the conclusions of Gryaznov (1941: 263-265) that such items belonged to the second half of the period of the Minusinsk Kurgan (Tagar) culture. However, small wedge-shaped celts are not complete parallels to the celt from the Stavropol Museum (see Fig. 8); there are no such items among the Tagar artifacts. The decoration on the part of the celt with three transverse convex bands, as is the case with the celt from the Stavropol Museum, appears on a few late eastern celts (for example, a celt without an eyelet from the Bystrovka-1 cemetery of the 3rd-2nd centuries BC (forest-steppe Ob region) was decorated in this manner (Troitskaya, Borodovsky, 1994: 36, 163, pl. XXXIII, 1)), which means that the celt from the Stavropol collection is of earlier origin. Western celts of variants II.2.18; II.2.19; II.2.20, and II.5.18 (according to the classification of E. Ushurelu) have a form that is the most similar to the Stavropol celt. Variants II.2.18; II.2.19, and II.2.20 include items with a socket raised above the eyelets and bordered by a rim and two (three) horizontal ribs (the lower one is connected with the eyelet) from the Northern Caucasus (random finds near the aul of Tauykhabl in the Republic of Adygea, etc.). The celts of variant II.5.18 (with a socket raised above the eyelets, encircled by three horizontal bands) are typical of the Middle Volga region (the hoard from Sabanchevo) and are dated to the 9th century BC (Ushurelu, 2010: 28, 31, 39, 47, fig. 4, 14–17; fig. 12, 11, 12).

Disk-shaped mirrors with an eyelet on the back, similar in size to the mirror from the Stavropol Museum (see Fig. 6, 3), correspond to the Tagar sites of the 6th–4th centuries BC (Chlenova, 1967: 82). Items close to the described mirror in terms of the trapezoidal shape of the eyelet

appear among the materials of the 4th–2nd centuries BC at the Nekrasovo II kurgan cemetery (Saveliev, German, 2015: 108, 112, fig. 3, *1–13*) and 4th–3rd centuries BC at kurgan 3 at the Kolok cemetery (Republic of Khakassia) (4th–3rd centuries BC) (Pshenitsyna, Polyakov, 1989: 61, fig. 2, 2). Similar mirrors have been discovered at the sites of the 5th–4th centuries BC in the Upper Lena region, Tomsk Region, Tuva, Northeastern Kazakhstan, and in other areas (Chlenova, 1967: 83). However, such mirrors have also been found in earlier complexes. For example, two similar items (one with a sub-trapezoidal eyelet) have been discovered at the Biyke site in the Altai. They belong to the final period of the Biyke culture, and were dated to the second half of the 7th to the second or third quarter of the 6th century BC (Tishkin, Seregin, 2011: 8, fig. 1, 3, 4).

Conclusions

Chronological analysis of the Tagar items from the collection of the Stavropol Museum makes it possible to attribute a part of them (the dagger, knives, cheekpiece, and mirror) to the 5th-4th centuries BC. The axe, celt, bridle bits, and probably the massive knife with the representation of a bird's head between the handle and blade should be dated to an earlier period of the (8th) 7th-6th centuries BC. The significant chronological range of the items under consideration indicates that the collection consists of finds from sites of different periods. G.N. Prozritelev might have received as a gift an assembled hoard of bronze items, which included artifacts of the (8th) 7th-5th centuries BC. Similar hoards are known: one of them is the Verkhne-Metlyaevskaya hoard, which consisted of bronze knives, an axe, celts, a dagger, etc.

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