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## **New Evidence on the Early Saka Horse Harness from Eastern Kazakhstan\***

*Owing to its geographic position Eastern Kazakhstan has long been a cultural crossroads. During the Scytho-Siberian Age, it was a place where the cultures of southern Siberia, Sayan-Altai, Northern and Central Kazakhstan, Zhetysu, etc. interacted, as evidenced by the “Scythian triad”—weapons, horse harness, and animal style. Here we address one of its key elements, the horse harness, specifically, new finds from Gerasimovka in the Ulan District of Eastern Kazakhstan. They are relevant to certain aspects of the early nomadic material culture in the eastern fringes of the Scytho-Saka-Siberian world. These items show significant variation, sometimes within the same cemetery. Parallels to the Gerasimovka find suggest that it is contemporaneous with the Arzhan stage of the early Scythian culture, and that during that time Eastern Kazakhstan played a major role in migration processes. Recent findings relating to early Scytho-Siberian cultures indicate the critical importance of chronology and cultural ties for reconstructing ethno-cultural processes in Early Iron Age Eurasia.*

**Keywords:** Eastern Kazakhstan, early Saka period, Scythians, Saka, Siberia, horse harness.

### **Introduction**

Field studies show that elements of horse harnesses are some of the most frequent items occurring in material complexes of the early nomads. Burials of horses in full harness, and also separate harness-sets and elements have been found in burial grounds and hoards over a fairly significant chronological range covering most of the Scytho-Saka-Siberian area, including the territory of Eastern Kazakhstan. Elements of horse harnesses are widely used for establishing chronological scales, reconstructing migration processes in ancient

times, etc. In this regard, the role of new data, which give the opportunity to significantly supplement or correct the established views, becomes exceedingly important.

In the present study, we will analyze the elements of horse harnesses which go back to the early stage of the Scytho-Saka culture and originate from the destroyed burial mound in the territory of the village of Gerasimovka, Ulan District, Eastern Kazakhstan. These materials are being published for the first time\*.

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The destroyed site of historical and cultural heritage mentioned above is clearly a part of the Gerasimovka mound cemetery; however, it was not included in the previous surveys. We sequentially numbered it as burial mound No. 31. The cemetery is located on the northern outskirts of the village, at the end of the first terrace of the left bank of the Irtysh River, on the flat ground between the terrace and the highway Ust-Kamenogorsk–Tavriya. The southern part of the monument was destroyed by that road and forest plantations. Some weakly defined burial mounds can be seen among the trees. Apparently, the territory of the cemetery was actively used for farming in recent years, thus, the raised area from the majority of small burial mounds was plowed over. At the time of excavation, there were 30 raised areas in two groups of burial mounds, extending in chains along the NE–SW line. The first group consisted of 24 objects, whereas the second group included six objects (No. 25–30). Deep looting pits overgrown with bushes are found at the centers of most of the mounds; ditches 3–4 m wide and 0.3–0.5 m deep can also be seen around the mounds. The diameters of all burials of the cemetery vary in the range of 15–20 m; their heights range from 0.5 to 1.0 m. The largest burial mound No. 30 has a diameter of 40 m and a height of 1.5 m (Svod..., 2006: 218).

The first archaeological research at the Gerasimovka cemetery was carried out in 1998 by the expedition of the Sarsen Amanzholov East Kazakhstan State University under the supervision of A.A. Tkachev. Two burial mounds (No. 22 and 28) were studied. A set of a horse bridle from the early Scythian time, which will be mentioned below, was discovered during the excavation of burial mound No. 22 (Tkachev, Tkacheva, 1999: 141–142, fig. 3; Tkachev, Tishkin, 1999).

### Description of the finds

Elements of horse harnesses were found during earthworks in the northern part of the village of Gerasimovka. All items together with photographs were submitted to the East-Kazakhstan Regional Museum of History and Local History (Ust-Kamenogorsk) by the high school teacher E. Sansyzbayev. According to Report No. 10 of acceptance of the items for permanent storage dated March 31, 2005 (Archive of the East-Kazakhstan Regional Museum of History and Local History. D. 1-50, fol. 28–29), and the accounts of museum scholars who visited the place of the discovery, the site was partially robbed; stone slabs (probably the fragments of a stone box) and horse bones in anatomical order were found. Any evidence of human remains is absent.

*Elements of the bridle.* The horse was bridled with a two-partite bronze bit with stirrup-shaped endings

(Fig. 1, 1). The length of each part is 9.5 cm. Bronze cheek-pieces are straight with three holes which were made in the same plane. The length of the items is 11.5 cm; the width in the part with the holes reaches 1.5 cm. Visual analysis of cheek-pieces suggests that they were cast in the same mold. One cheek-piece is broken at the middle hole (Fig. 1, 2, 3).

The finds include bronze end-pieces: two of truncated conical shape from the head and shoulder straps, and one of conical shape from the chin strap (Fig. 1, 4–6). Two large end-pieces have cylindrical holes, while the small end-piece has a conical hole. The diameter of the first two end-pieces is 2.5 cm; the diameter of the third end-piece is 1.5 cm. The finds also include three fragments of bridle-strap distributors (Fig. 1, 7–9) that look like small cylinders (approximately  $1 \times 1$  cm at the base), somewhat flattened on four sides. This distinguishes them from relatively large breast and shoulder distributors. The finds include a fragment of a flat bronze object (Fig. 1, 10) measuring  $1.7 \times 1.0$  cm, which may have been a piece of a nose strap pendant. The acceptance report No. 10 does not mention this object.

*Elements of saddle straps.* A girth buckle with a pin and a block (Fig. 1, 11) have been found, arched in cross-section and having rectangular frames with protruding retainers. Dimensions of the buckle and the block are approx.  $8.5 \times 9.5$  cm. There is also a plaque-buckle of the right girth strap, measuring  $6.5 \times 7.0$  cm (Fig. 1, 12). In the acceptance record, the designations of some of the elements are listed incorrectly.

### Discussion

Relatively good archaeological knowledge of horse equipment of the 7th–6th centuries BC in Eastern Kazakhstan and the neighboring regions has allowed us to determine with great probability the purpose of each object from the destroyed burial mound No. 31 at the Gerasimovka cemetery and to outline the tentative chronological range of their functioning.

In the 7th–early 6th century BC, functionally improved types of bits emerged in Kazakhstan along with traditional forms of bits which had the three-hole cheek-pieces. Four basic ways of connecting these elements have been identified. The bridle set which was found in the destroyed burial mound belonged to the first, traditional, type where the outer endings of the bit were attached to the middle hole of three-hole cheek-pieces with a leather strap (Shulga, 2008: 74–75). Most scholars believe that this type was used in the 8th–6th centuries BC (Kadyrbaev, 1968: 30; Gryaznov, 1980: 58; Gorbunova, 2001: 193; Shulga, 2008: 54–56).

According to M.K. Kadyrbaev, stirrup-shaped bits with an additional hole appeared in the 8th century BC

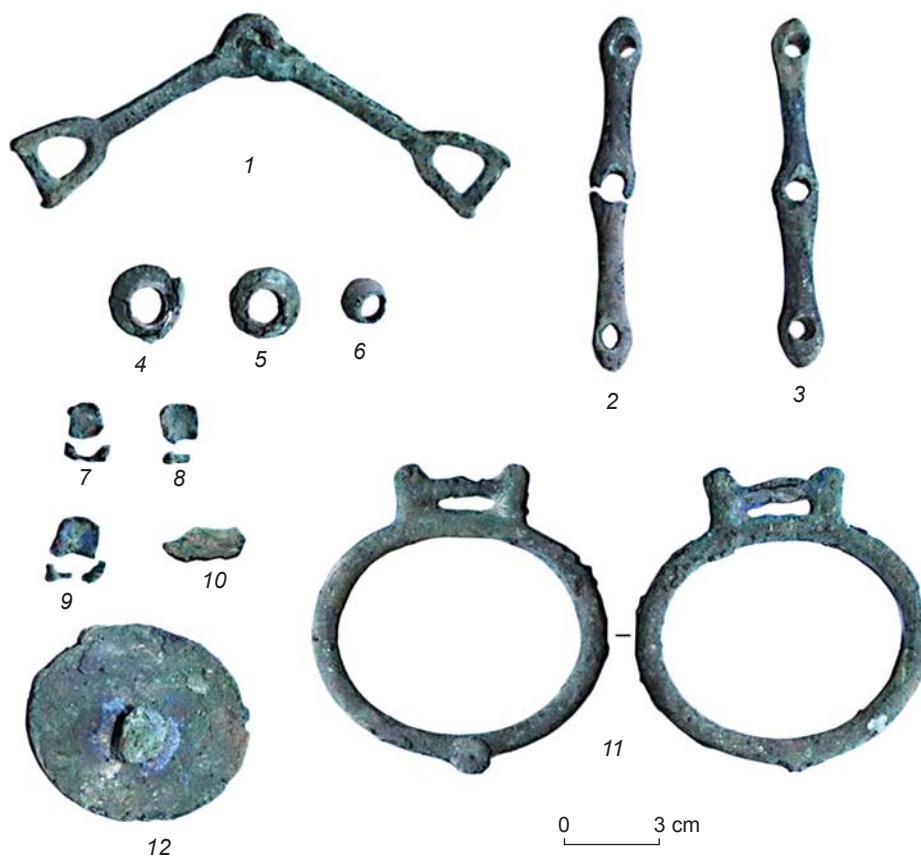


Fig. 1. Bronze elements of harness belonging to a riding horse from the burial mound No. 31 at the Gerasimovka cemetery (photograph by K.V. Chugunov).

1 – bit; 2, 3 – cheek-pieces; 4, 5 – end-pieces of head and shoulder straps; 6 – end-piece of chin strap; 7–9 – bridle-strap distributors; 10 – fragment of nose-strap pendant (?); 11 – girth buckle and block; 12 – girth plaque-buckle.

(1968: 30). It should be noted that the two types of stirrup-shaped bits (with the additional hole and without it), combined with three-hole cheek-pieces of various shapes made of horn or bronze, occur together in the burials of the 7th–6th centuries BC (Shulga, 2008: 68–74). Accordingly, we may assume that these types emerged simultaneously, or the second type resulted from the transformation of the first one in the process of enhancing the elements of horse control.

According to N.A. Bokovenko, stirrup-shaped bits without additional holes were widespread over almost the entire Scytho-Saka-Siberian world, but in conjunction with three-hole cheek-pieces they occur over a relatively small area (Kazakhstan, Altai, Tuva) (1979: 68–69). In any case, the majority of scholars consider bronze cheek-pieces with three holes and a stirrup-shaped bit with or without the additional hole to be the earliest (8th–7th centuries BC) elements of horse harness in the Scytho-Saka area (Vishnevskaya, Itina, 1971: 201–203; Gryaznov, 1980: 58; Gorbunova, 2001: 193).

The Gerasimovka bits which have stirrup-shaped endings (Fig. 2, 1) containing sides that are somewhat

curved outwards, are close to the seventh type according to the classification of P.I. Shulga (2008: Fig. 56). Similar bits with cheek-pieces are often found at the sites of Eastern (Arslanova, 1972: 255), Central (Kadyrbaev, 1966: 316, fig. 7), and Northern Kazakhstan (Gryaznov, 1956: 12, fig. 3), the Sayan-Altai (Chlenova, 1967: 218–219), Tuva (Gryaznov, 1980, fig. 30), and Xinjiang (Shao Hueitsyu, 2005: 100, fig. 2; Shulga, 2010: 222, fig. 76), and are dated to the 8th–6th centuries BC.

It should be noted that the Gerasimovka cheek-pieces (Fig. 2, 2, 3) show some similarities to the pointed Arzhan cheek-pieces from chamber No. 26 of the Arzhan-1 burial mound (Gryaznov, 1980: 37, fig. 23). The difference is the loop-like extension from the middle hole owing to a protrusion on one side. This feature can be attributed to the earlier period. A similar cheek-piece was found in chamber No. 13 of the Arzhan-1 burial mound; it also shows some features of cheek-pieces of the Arzhan type (Ibid.: 48, fig. 30, 18). Cheek-pieces found in other chambers of this burial mound had a somewhat different form (Chugunov, 2005: 106,

fig. 1). According to the most recent studies, Arzhan-1 is dated to the late 9th century BC (Evraziya..., 2005: 68). However, insufficient knowledge of the Kurtu-Mayemir stage in Eastern Kazakhstan creates significant difficulties for reconstructing ethnic and cultural ties in the Scytho-Saka area.

Shulga identified four well-differentiated types of end-pieces widespread over this territory (2008: 85). The large end-pieces of head and shoulder straps (Fig. 2, 4, 5) described above can be attributed to the first type of the most massive end-pieces, while the small end-piece connecting the chin straps (Fig. 2, 6) can be ascribed to the third type (Ibid.: 251, fig. 59). Their parallels are known from Mayemir burial mound No. 2. A bridle in the form of fragments of straps with bronze accessories was relatively well preserved *in situ* in the burial pit. The location of bronze pieces makes it possible to specify the location and functional purpose of similar components from other sites (Promezhutochnyi otchet..., 2009: 25, phot. 52, 53; Samašev, Ongar, 2013: 558, fig. 3). Similar end-pieces of bridle straps were found in the Arzhan-2 burial mound

(Čugunov, Parzinger, Nagler, 2010: 158, Abb. 138, 6, Taf. 28, 4, 5). It is worth noting that end-pieces cannot serve as the main indicator for establishing a relatively precise chronology, since they were used throughout the entire Scythian period, and not only in horse harnesses, but also in military belts.

Three fragments of cylindrical bridle-strap distributors (Fig. 2, 7–9) belong to the first of the two types identified by Shulga, the “high cylindrical” type (2008: 81). They were intended to secure two straps at their intersections, and also served as decoration of the harness. In Eastern Kazakhstan, similar bridle distributors have been found in the Kamyshin assemblage (Arslanova, 1972: 255, fig. 1), and in the Kondratyevsky burial mound No. 21 (Alekhin, Shulga, 2003: 62–63, fig. 2). The analysis of the available analogs suggests that they may have appeared in the Mayemir period; however, according to Shulga, the presence of such objects in the Zevakino assemblage (Arslanova, 1974: 57, pl. 3, 24) may indicate an earlier origin of this kind of bridle distributor (Shulga, 2008: 82).

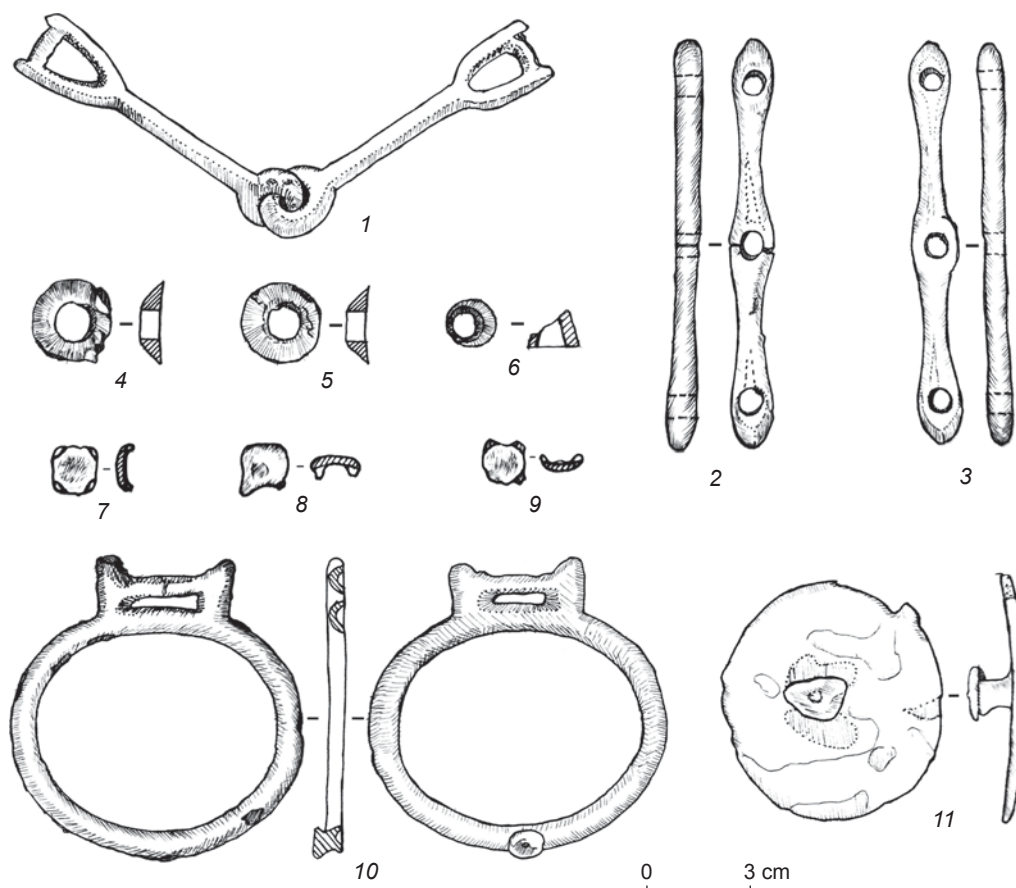


Fig. 2. Drawing of bronze elements of horse harness from the burial mound No. 31 at the Gerasimovka cemetery (drawing by E. Pechenegova).

1 – bit with stirrup-shaped endings; 2, 3 – cheek-pieces with three holes; 4, 5 – end-pieces of head and shoulder straps; 6 – end-piece of chin strap; 7–9 – bridle-strap distributors; 10 – girth buckle and block; 11 – girth plaque-buckle.



The elements of saddle straps and the saddle itself were analyzed in some detail by Shulga (Ibid.: 93–103). The girth buckle with a pin and block (Fig. 2, 10) originating from the destroyed burial mound in Gerasimovka can be attributed to the first of the seven types identified by Shulga (Ibid.: 96–97), with the block arched in cross-section and a segment-shaped buckle. Notably, the pin was not made in the form of a hoof; it has a simple head slightly bent outwardly. Such a shape may come from a somewhat earlier time. Parallels in Eastern Kazakhstan have been found in the Kamyshin assemblage (Arslanova, 1972: 255, fig. 1), and in the Kondratiyevsky burial mound No. 21 (Alekhin, Shulga, 2003: 62–63, fig. 1). As it is known, girth buckle-fasteners and blocks are among the most common elements in bronze harness sets of the early 7th century BC in the Sayan-Altai and Kazakhstan (Shulga, 2008: 97). In many classifications and reconstructions, girth buckles with pins are mostly considered together with blocks: the left end of the girth strap is passed through the block, while the buckle with the pin acts as a retainer of the required tension of the girth. Buckles and blocks of this type were widely used throughout the entire Scytho-Saka-Siberian area in the 8th–6th centuries BC (Ibid.: 254, fig. 62; Ermolayeva, 2012: 188, fig. 58).

The plaque-buckle (Fig. 2, 11) can be attributed to the second variant of the first type according to the classification of Shulga (2008: 97). In Eastern Kazakhstan, such plaque-buckles are rare, maybe because they could have been replaced by a strap joint (Ibid.: 254, fig. 62). A similar buckle was found in 1911 in Eastern Kazakhstan by A.V. Adrianov (1916: 58). Such plaque-buckles were located on the right side of the horse according to the materials from the Gilevo-10 cemetery, where the remains of a saddle were found with relatively well-preserved fragments of leather girth straps showing traces of fastening to the plaque-buckle on the right side (Shulga, 2008: 97, fig. 66). Such buckles were used in the 7th–6th centuries BC (Kadyrbaev, 1966: 330–332, fig. 24, 26; Vishnevskaya, 1973: 137, pl. 5). Given the design of our bridle set, it can be argued that the plaque-buckle from the Gerasimovka burial mound belongs to the early examples. The rest of the elements of horse harness are missing from the present assemblage because of robbers or the earthworks which led to the discovery of the site.

Let us briefly turn our attention to burial mound No. 22 at the Gerasimovka cemetery. During its investigation, a bit and cheek-pieces were found in a special compartment in the northern corner of a stone box. Presumably, a ritual of *pars pro toto* was performed there, that is replacement of the accompanying burial of the horse by the burial of a part of the harness. Cheek-pieces, belonging to the category of peg-in-hole

objects with a T-shaped protrusion for connection with the bit, differed from other cheek-pieces of this type by their shape (Tkachev, Tkacheva, 1999: 141–142, fig. 3). The authors note the identical form of the paired cheek-pieces and emphasize that they were cast in one mold or after the same model. According to them, such production shows the limited nature of this series. Tkachev, who identified the site and the elements of horse harness, dated them to the mid-7th century BC (Tkachev, Tishkin, 1999: 198).

All circumstances of the discovery of the destroyed Gerasimovka burial mound make it impossible to offer a complete reconstruction of its burial structures. The comparison of individual components of the burial ritual, such as the accompanying burial of the horse and the set of grave goods, point to fairly significant differences between these and the mounds at the same cemetery which were examined by Tkachev. This, firstly, indicates that there is little hope for reconstructing the burial structures, burial rite, and other components of the destroyed burial mound on the basis of other mounds which have been previously studied at the Gerasimovka cemetery, to which it undoubtedly belongs. Secondly, it may indicate that this cemetery was used by a syncretic population. To some extent, this is manifested by its materials with parallels found over the vast territory of the Scytho-Saka-Siberian area. Having recognized the extremely weak factual basis, we, however, may propose that in the initial stage of the early nomadic period, this region was a contact zone of communities with different ethnic and cultural features on the eastern periphery of the Scytho-Saka-Siberian world. At the same time, differences in burial rites and goods might have been caused by social and wealth stratification of the society. For example, self-sufficient people in terms of property, or people with relatively high social status (warriors) were buried together with their horses in full harness, while the members of the lower status and ordinary people supplied their deceased only with some elements of harness.

Another hypothetical explanation for the presence of elements of horse harnesses with various features in the same cemetery can possibly be processes of modernization of the harness set, which in turn, may indicate the emergence of the cemetery during the transitional phase in the dynamic development of horse harnesses.

## Conclusions

Until today, in spite of a large number of investigated burial grounds, the southern regions of Eastern Kazakhstan have not been studied well enough to provide ample

information about the culture of the early nomads. The emergence of new materials and new comprehensive approaches to their analysis will lead to significant progress in this direction. The elements of harness found in the destroyed Gerasimovka mound represent a classic example of horse trappings at the initial stage of the early nomadic period. Summarizing all the above chronological indicators, we can date this assemblage to the second half of the 7th–6th centuries BC.

Eastern Kazakhstan was a center for the various cultures of the Scytho-Saka-Siberian world. In this region, we may speak about political consolidation of large leading cultural regions that were very closely related. Determining the chronology of burial sites as well as identifying cultural links between the contemporaneous ethnic groups may provide insight into the key aspects of Scytho-Saka cultures. Nevertheless, the problem associated with the origins of the early stage of the “Saka-Scythian triad” and its development in the whole of the Eurasian cultural continuum is very complex and requires careful comparative analysis of all materials. It should be noted that the emergence of individual elements of material culture in the early Saka period resulted from an extensive cultural exchange over the vast territory of the Eurasian steppe belt in the beginning of the first millennium BC.

All of the above will be confirmed or refuted in the course of the works planned for the nearest future on the territory of the Gerasimovka cemetery. They are crucial owing to extremely poor knowledge of this area and the entire region. We should emphasize the particular importance of new published materials that undoubtedly will contribute to reconstructing a number of important aspects of the life of the population living in the eastern regions of the Scytho-Saka world at the initial stage of the early nomadic period.

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