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ARCHAEOLOGY

NOMADS OF ZERENDY AND SANDYKTAU AT THE TURN OF ERAS (NORTHERN KAZAKHSTAN)

Abstract: The article publishes archaeological excavation data from the Aydarly burial ground and archaeological reconnaissance conducted in the Zerendy and Sandyktau districts of the Akmola region of the Republic of Kazakhstan by the Ishim stationary archaeological expedition in 2010 and by the A.Kh. Margulan Institute of Archaeology in 2024–2025. The burial ground consisted of three structures: two barrows with undercut (catacomb) graves and one ritual structure. The barrows differ in the composition of the mound and the pit construction. Barrow No. 1 with a soil embankment has a standard undercut grave with the entrance of the burial chamber located below the bottom of the access pit. Under the stone and earth embankment of barrow No. 2, an undercut burial chamber with the entrance located above the bottom of the access pit was discovered. The accompanying inventory from the burial in barrow No. 1 included ceramic, iron arrowheads, a knife, and sacrificial animal bones. These grave goods combined with the ritual, allow us to date its construction to the second half of the 2nd–1st century BC or the turn of the era. The chamber type in barrow No. 2 and its southern orientation, determined by the in-situ calcaneus bones, allow it to be synchronized with barrow No. 1. Three statuary objects were discovered at the site during excavation. The first anthropomorphic slab was discovered beneath the mound of barrow No. 1. Two more statuary objects were recorded during excavations of barrow No. 2 – in the burial pit and as part of a ritual arrangement. The archaeological survey revealed archaeological sites with similar layouts and mound types. A stone slab with a tamga (sign) was discovered near one of them. Analysis of the burial rites, grave goods, sculptures, and tamgas of the Aydarly and Karagayly burial grounds, as well as the Sarkara burial ground explored last century, suggest that at the turn of the eras, Sarmatians penetrated the central part of the Kokshetau Upland from the Ilek River basin or from the Turgay region. Judging by four recorded tamgas, these communities interacted with populations from the southern regions of Central Asia.

Keywords: *Sarmatians, burial mound, burial ground, tamga, Zerendy, Sandyktau, Northern Kazakhstan.*

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INTRODUCTION

The study area is located in the central part of Kokshetau, an erosional-tectonic low-mountain upland in the northwest of the Central Kazakhstan Uplands. It consists of loosely connected massifs. In the east, these are the highest point of Burabay, Kokshe Peak (947 m), followed by Zheke-Batyr (826 m), and the lowest peak, the Makinskaya Upland (516 m). In the west are Zhaksy-Zhalgyztau (729 m), Imantau (621 m), and Aiyrtau (523 m). In the

center, on the main watershed, and to the south of it are the massifs of Zhylandy (654 m), Zerendy (587 m), Sandyktau (626 m), and Ulken-Tukty (596 m). A characteristic feature of the upland is the predominance of latitudinally extended ridges of small hills. In areas of granite intrusions, the relief is characterized by rounded hills with rocky outcrops on the summits, the absolute height of which does not exceed 400-700 m.

The region is dominated by two types of forest-steppe altitudinal belts. The central part of the upland, the region where the turn-of-the-era sites were studied, is a forest-steppe plain with small hills and rich forb-carrot-red feather-grass steppes.¹ This region, north of Saryarka, was attractive for pastoral and livestock farming at many periods, and mineral exploitation also constituted an important part of the economy. Numerous archaeological sites from the Bronze Age to the Modern Period—settlements, burial grounds, and ancient workings—serve as evidence.

Monuments that can be dated to the turn of the eras and associated with the Sarmatian tribes have also been recorded. The beginning of their study dates back to the activities of the North Kazakhstan Archaeological Expedition. In 1974, a separate team was organized within it to study monuments of the Early Iron Age, and by the end of the 1980s, about 250 burial mounds and five settlements of the Early Iron Age had been excavated. The results of field research were summarized in the dissertation and monograph of M.K. Khabdulina.² The obtained materials made it possible to identify monuments from the 2nd century BC to the 4th century AD. This chronological period received the conventional name “Hunno-Sarmatian”, which, in turn, was divided into two independent chronological groups: 1) the 2nd century BC–1st century AD; 2) the 2nd–4th centuries AD.³ In subsequent times, several burials from the turn of the eras were episodically or accidentally studied. The list includes a rich intrusive burial in the large Saka burial mound-sanctuary of Baikara (near the town of Sergeevka, Shal akyn district, North Kazakhstan region), an intrusive burial from the turn of the eras in the Bronze Age enclosure at the Ondryrs

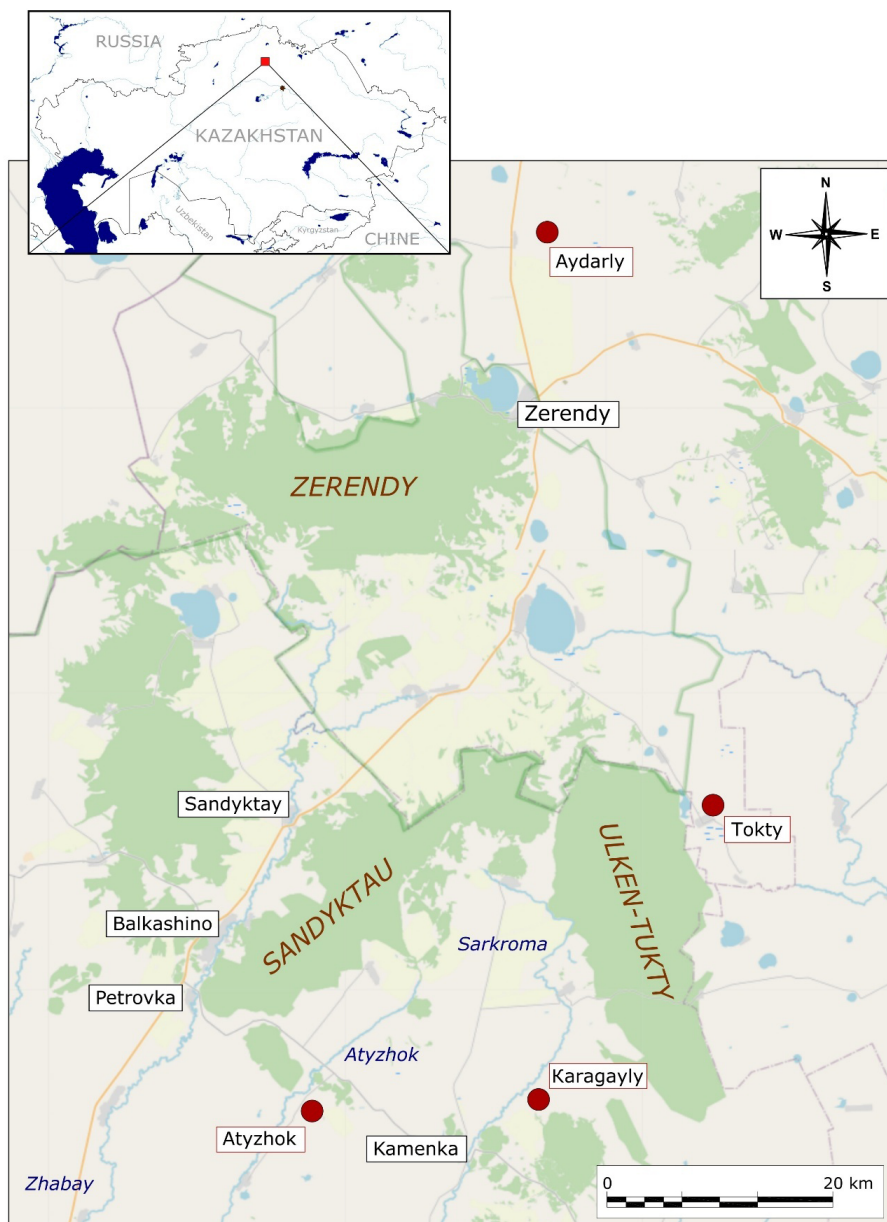


Fig. 1. Location of monuments.

burial ground, and a group burial in the Zhambyl mound (Astrakhan district, Akmola region).⁴

In 2024, the A.Kh. Margulan Institute of Archaeology resumed research on monuments from this period. The Aydarly burial ground was further explored, and reconnaissance was conducted to find other monuments from this period (Fig. 1).

MATERIALS AND METHODS

This publication presents research findings from three sites, two burial mounds and one ritual structure, at the Aydarly burial ground. It includes data on three statuary objects, two tamgas discovered during the burial ground's

¹ PERMITINA/BAYBULOV 2019.

² KHABDULINA 1994.

³ KHABDULINA 1994, 26–27, 57, 121–122.

⁴ SVIRIDOV/YARYGIN/SAKENOV 2014, 582–589; SVIRIDOV 2008; SAKENOV/SVIRIDOV/YARYGIN 2019, 378–384; YARYGIN 2023.



Fig. 2. Aydarly burial ground (based on Google Earth).

exploration in 2010 and 2024, and three burial grounds and a tamga recorded during surveys in the Sandyktau district of the Akmola region in 2024 and 2025.

Research methodology

The sites were studied using standard field methods, which are the primary form of scientific study of archaeological sites. During the archaeological excavations, a detailed visual and instrumental examination of the sites was conducted, along with topographic and planigraphic documentation. The sites were marked into sectors along the stratigraphic edges. During the study, the mounds were removed manually in 15-cm layers, in stages. The entire underlying space was examined. Instrumental recording, photography, and drawing documentation were used at all stages. The sites and the study process were filmed remotely using a DJI Mini 2 quadcopter. All recovered artifacts were processed in a laboratory, followed by a comparative historical analysis. Two anthropomorphic sculptures from barrow No. 2 were processed in the laboratory using EMB3D software, and 3D models were created.

The archaeological survey was conducted in accordance with the methodological principles adopted for scientific site surveys, with the aim of identifying and conducting initial fieldwork studies of new archaeological heritage sites, as well as obtaining up-to-date data on previously identified sites. Fieldwork was preceded by a review of literature on sites previously explored in this and adjacent regions and route planning. During fieldwork, the expedition's actual route

and all archaeological sites encountered along the way were marked on a map. The sites were photographed and plotted on a satellite map using a Garmin Etrex 10 PS336 GPS data collector.

Description of the material

The only studied site dating to the turn of the era in the center of the Kokshetau Upland is the Aydarly burial ground (Fig. 2).

The site is located 3 km east of the village of Aydarly (formerly Zaborovka) in the Zerendy district of the Akmola region, on the edge of an arable field on the left bank of the Koshkarbay River. The burial ground consisted of three burial mounds (Fig. 3). In 2010, the archaeological team of the Ishim Stationary Archaeological Expedition of the L.N. Gumilyov Eurasian National University excavated barrow No. 1. In 2024, the Zerendy team of the A.Kh. Margulan Institute of Archaeology investigated barrows No. 2 and 3.

The embankment of barrow No. 1 is earthen, 22 m in diameter, and 0.8 m high. It consists of three elements: a rampart around the burial pit, a central infill, and the remaining mound. An earthen rampart around the burial, made of light soil, formed by waste from the burial pit; its width is 2.4 m and their height is 0.25 m. The interior of the resulting space is filled with dark gray soil. The diameter of the resulting core is 9.6 m. The remainder of the mound is filled to the brim with dark, humus-rich soil (Fig. 4/1-2).

The lens of the grave spot was recorded at a depth of 0.2 m below the ancient surface. The spot measures 1.6 × 2.2 m and



Fig. 3. Aydarly burial ground: 1 – general view of the site; 2 – barrow No. 2 after clearing; 3 – ritual arrangement at barrow No. 2.

is oriented along the NE–SW axis. A stone slab measuring 0.2×0.3 m was discovered at this level in the southern part (Figs. 4/3, 5/1).

The burial was made in an undercut grave (catacomb chamber). The access pit is formed by a wide oval well, 2.1 m long along the NE–SW line and 1.6 m long along the NW–SE line. The depth of the access shaft from the ancient surface to the bottom is 1.65 m. The undercut chamber is located under the NW wall of the access pit and is parallel to it. The height of the undercut chamber from the bottom to the vault is 1.2 m, the width along the bottom is 0.8 m, and the depth of descent is 0.2 m. The bottom of the burial pit is rectangular in plan with rounded corners, elongated with its long axis along the SW–NE line. The edges of the undercut chamber and the access shaft are slightly offset relative to each other by 0.1 m along the SW axis. The vault of the chamber is spherical. The width of the bottom of the access well is 0.6 m. It was likely covered with organic matter,

as evidenced by the accumulation of decay traces across its entire surface. The deceased was lying on his back at the bottom of the chamber, with his head facing southwest. His arms were extended alongside his body, his hands resting on his pelvic bones (Fig. 4/3).

Household items, weapons, and jewelry were found in the burial (Fig. 5). A bronze ring, made of round wire, was discovered on the left side of the skull near the temporal bone (Fig. 5/2). The rod is 0.2 cm in diameter and the ring measures 2.3×1.8 cm. One end is pointed and the other has a spatula-shaped tip approximately 0.3 cm wide. During cleaning of the skeleton, two intact iron arrowheads and a heavily corroded one were found under the left hand. The arrowheads are three-bladed, socketed, with a total length of 4.1 and 4.2 cm, socket lengths of 1.6 and 1.8 cm, and blade width of 0.7 cm (Fig. 5/3). An 18.5 cm long, single-bladed iron knife with a plate handle lay along the left side of the buried person along the tibia (Fig. 5/4). The blade is

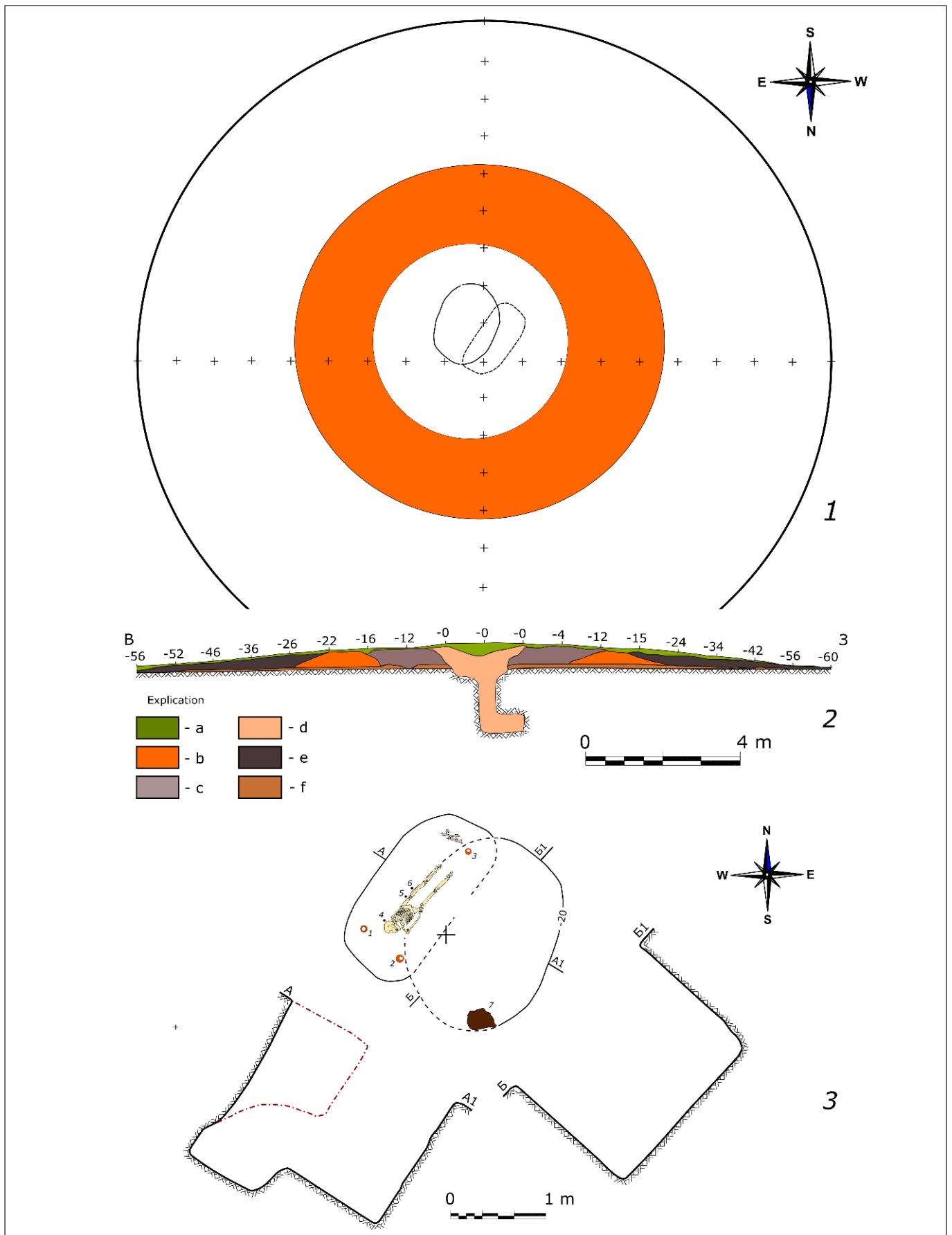


Fig. 4. Barrow No. 1 of the Aydarly burial ground (excavations in 2010): 1 – mound plan; 2 – mound stratigraphy. Legend: a – sod layer; b – light soil (rampart); c – dark gray soil; d – mixed fill of the burial pit; e – dark humus soil; f – ancient surface; 3 – burial plan: 1 – vessel No. 1; 2 – vessel No. 2; 3 – vessel No. 3; 4 – bronze ring; 5 – iron arrowheads; 6 – knife; 7 – stone slab (drawing by S.K. Sakenov).

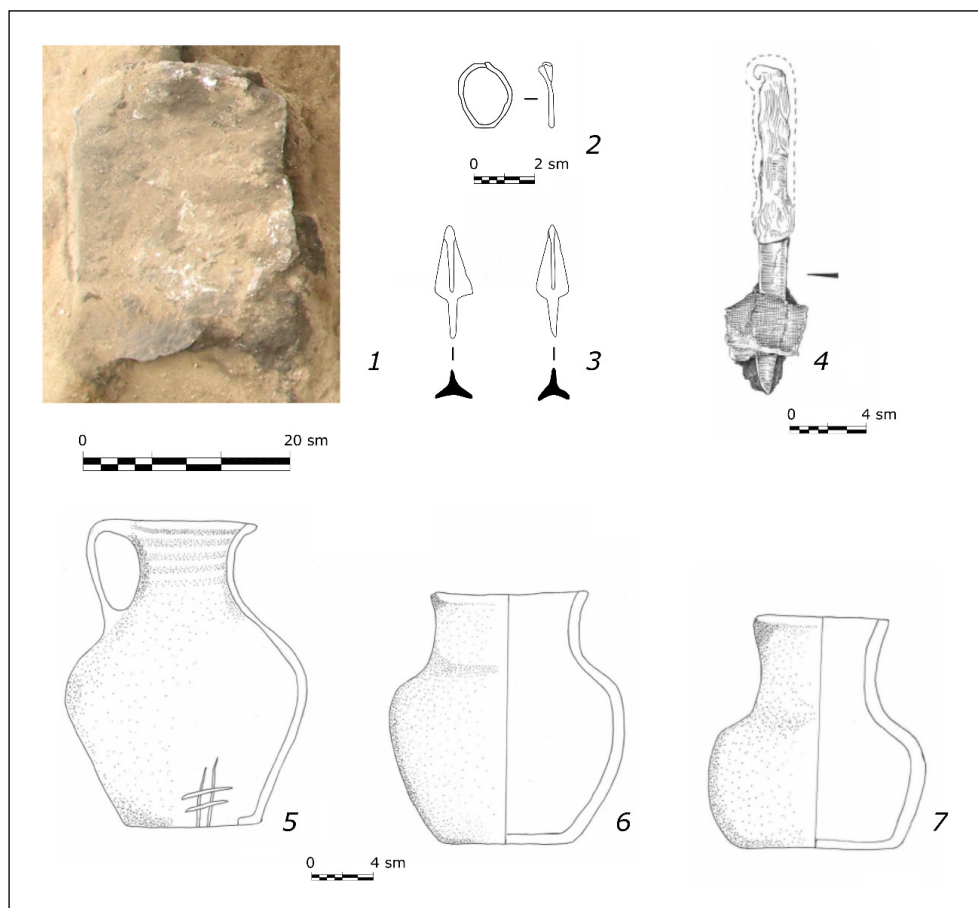


Fig. 5. Aydarly burial ground. Barrow No. 1: 1 – Stone slab over the access pit; 2 – bronze ring; 3 – iron arrowheads; 4 – iron knife; 5 – ceramic jug No. 1; 6 – ceramic vessel No. 2; 7 – ceramic vessel No. 3 (after SAKENOV/SVIRIDOV/YARYGIN 2019).

sharpened on one side, with a triangular tip. The back of the blade is 4 mm thick, and its maximum width is 1.8 cm. Judging by surviving wood fragments and wood debris, the knife had a slight extension/stop 2.5 cm wide. The pommel of the handle is designed in the form of an L-shaped hook, which is necessary for the secure attaching the wooden handle to the iron base. On the surface of the middle part of the blade, due to interaction with iron, a fragment of a fabric tape has been preserved. This suggests that the knife was tied with a tape to the leg of the trousers in the area of the left thigh. The tibia and pelvic bones of small cattle were found in the feet of the deceased, closer to the northern corner of the grave chamber.

The deceased was accompanied by three ceramic vessels, placed in the southern and western corners and at the feet of the deceased. The first vessel is a single-handled table jug with a spherical body. It has a high cylindrical neck and a wide bottom, the handle is connected to the rim. The neck diameter of the vessel is 4.7 cm, the rim diameter is 6.8 cm. The bottom diameter is 7 cm, the maximum diameter of the body is 14.5 cm. The height of the vessel from the bottom to the high edge of the neck is 18.5 cm. The width of the handle is 1.1 cm. On the bottom of the vessel has a sign in the form of paired intersecting lines, the dimensions of the sign are 2 × 1.5 cm (Fig. 5/5). The second vessel is molded with an asymmetrical body and a beveled mouth of the

neck, the rim is slightly bent outward. The color is dirty beige. The diameter of the vessel neck along the outer edge of the rim is 9 cm, the width of the rim is 0.4–0.5 cm. The diameter of the bottom is 8 cm, the maximum diameter of the body is 13.4 cm. The height of the vessel from the bottom to the high edge of the neck is 15.5 cm, the height from the bottom to the lowest part of the edge of the neck is 14.2 cm (Fig. 5/6). The third pottery vessel has a high neck, an inflated body and a wide bottom. The surface is bright red. The base of the rim, bent outward, is marked with a faint ridge. The diameter of the vessel neck along the outer edge of the rim is 7.5 cm, the width of the rim is 0.6 cm, the diameter of the bottom is 8.7 cm, the maximum diameter of the body is 12.3 cm. The height of the vessel is 12.2 cm, the height of the neck is 5.8 cm, the diameter of the neck is 6.1 cm (Fig. 5/7).

In 2024, due to the monument's dire condition,

a decision was made to further explore it. Archaeological excavations were conducted at barrows No. 2 and No. 3.

The mound of barrow No. 2 is a stone and earth mound, 14 m in diameter and 0.7 m high (Fig. 6/1). The excavation pit is 16 m in diameter, with a 1.5 m wide edge left in the center along the west-east axis. Clearing revealed that the outer part of the embankment consists of a shell, composed of one or two layers of jagged granite stones and boulders ranging from 0.2 × 0.2 × 0.3 m to 0.8 × 0.7 × 0.15 m. The base of the shell is heavily damaged and partially cut away during plowing. The earth core of the mound, 12 × 13 m in dimensions and up to 0.5 m high, is composed of dark gray humus loam. The discharge from the burial pit was recorded in the form of light blocks about 12 cm thick in the eastern part of the southern profile.

The lens of the burial pit was discovered in the southeastern part of the mound, closer to the center of the embankment. It measures 2.5 × 1.8 meters and is oriented west-northwest to east-southeast. The infill in the southern and eastern parts is composed of variegated mixed loam, while the northern and western parts are composed of dark gray humus loam. Stones were found within the infill. A stone sculpture was found within the infill along the eastern wall.

The burial pit can be classified as a chamber burial. Judging by the recorded details, it was a recess in the long southern wall with an opening above the bottom of the access pit. The

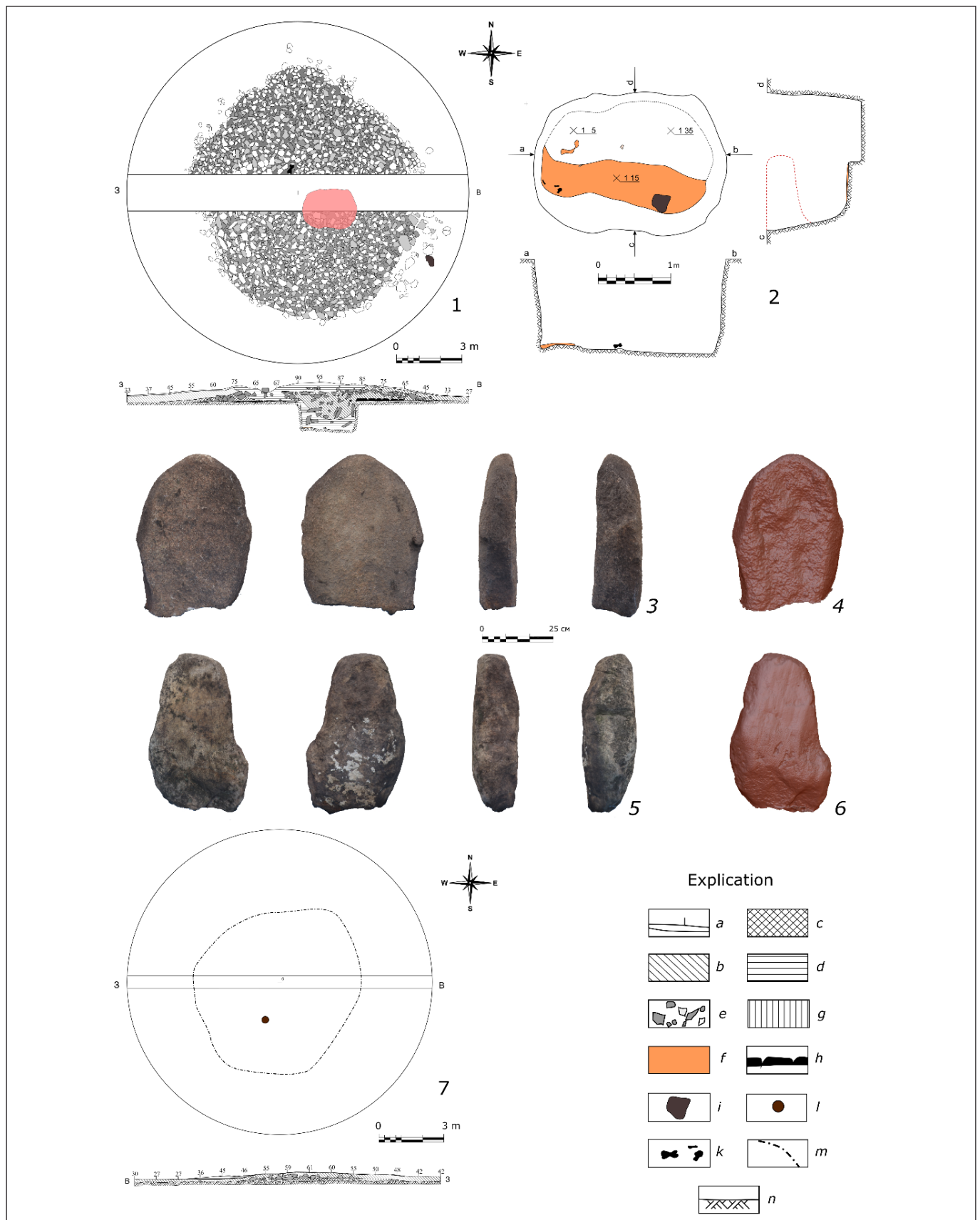


Fig. 6. Aydarly burial ground. Barrow No. 2: 1 - plan and stratigraphy of the embankment; 2 - plan and sections of the burial pit; 3 - 3D model of the sculpture from the burial pit of barrow No. 2; 4 - model of the sculpture from the burial in barrow No. 2 with painted texture; 5 - 3D model of the sculpture from the altar; 6 - model of the sculpture from the altar with painted texture (modeling was performed in the Emb3D program - authors S.A. Yarygin, N.N. Ilderyakov); 7 - plan and stratigraphy of barrow No. 3 (author of the drawing N.N. Ilderyakov). Explication: a - turf layer; b - light gray humus sandy loam; c - dark gray humus loam; d - variegated loam; e - torn shale; f - dark gray loess loam; g - light gray humus loam; h - burial pit debris (loam); i - stone (sandstone); k - bone fragments; l - posthole with wood debris; m - boundary of stone concentration in the barrow No. 3; n - underlying soil.

bottom of the access pit was found in the northern part of the burial pit at a depth of 1.35 m below the buried surface. The length of the access chamber at the bottom level is 2.3 m, the width is 0.6 m. The bottom of the recess was cleared in the southern part of the pit at a depth of 1.15 m from the level of the buried surface (Fig. 6/2). In the northern sector of the pit, wood decay was found at the bottom, resulting from the destruction of the access pit ceiling or the recess cover. In the southwestern part of the burial pit, at the level of the chamber floor, a cluster of foot phalanges and a heel bone of the deceased was cleared. Another heel bone was found at the boundary of the access pit and the undercut chamber in the western part of the burial pit. This allows us to assume that the initial orientation of the human skeleton was with the head facing east-southeast.

During the burial mound's exploration, two sculptures were discovered: one was part of the infill of a burial pit (Fig. 6/3-4), and the other was located in a collapsed state within an altar (Fig. 6/5-6).

Barrow No. 3, located 19 m northwest of barrow No. 2, was a heavily eroded stone and earth embankment 12 m in diameter and 0.4 m high. The barrow's embankment was included in a 14 m diameter excavation. A 0.6 m wide border was left in the central part of the excavation, running west-east. Excavation revealed that the embankment had been completely redeposited down to the underlying soil. Clearing was carried out to a depth of 0.25 m below the surface of the underlying soil.

The stratigraphy shows that the central part consisted of a soil core 8.0 m in diameter and up to 0.13 m high, capped by a stone lining approximately 5.5 m in diameter. The stones are arranged in a single layer. In the central part of the profile, individual granite slabs reach 0.65 m in length. The upper layer of light-gray humus loam is riddled with burrows. In the southern half of the mound, a lens of brown loam was discovered at a depth of 0.25 m below the buried surface (Fig. 6/7). During its excavation, remains of woody decay were found. The bottom of the lens was found at a depth of 0.4 m below the buried surface. A wooden post was likely installed vertically in the central part of the submound space.

In 2024 and 2025, archaeological surveys were conducted in the Sandyktau and Zerendy districts of Akmola region. The aim was to locate burial grounds similar in topography and planigraphy to Aydarly. The route ran along the southern foothills of Sandyktau and the southern and eastern foothills of the Ulken-Tokty Range, in the upper reaches of the Ushasha, Atyzhok, and Sarkyrama rivers, which form part of the Zhabay and Tokty river basins. The total area surveyed was 1,200 square kilometers.

During exploration, several burial grounds dating to the Early Iron Age were discovered. Three stand out among them: Karagayly, Atyzhok, and Tokty, whose topography and planigraphy are similar to Aydarly (Fig. 7). All sites occupy relatively level natural sites located near modern or ancient water sources, up to 500 meters from a river or stream bed. They consist of two or three burial mounds spaced 80 to 200 meters apart. At Atyzhok and Tokty, the burial mounds are



Fig. 7. Burial grounds identified in the foothills of Sandyktau and Ulken-Tokty: 1 – Karagayly; 2 – Atyzhok; 3 – Tokty.

aligned along a north-south and northwest-southeast axis. All mounds have been subject to long-term plowing, so their dimensions are based on average measurements. The height of the mounds does not exceed 1 m, with a diameter of approximately 20–30 m. Mapping of the burial grounds shows that they are located on a section of the route that connects turn-of-the-era sites on the Zhabay and Koshkarbay rivers.

DISCUSSION

Funeral rites and sculptures

The type of mound, burial rite, and grave goods recorded during the study of barrows No. 1 and 2 at the Aydarly burial ground have similarities with monuments previously attributed to the first stage of the Hunno-Sarmatian period in Northern Kazakhstan. Furthermore, similar structures are found in the Early and Middle Sarmatian cultures of the Pontic-Caspian steppe.

The ramparts around the burial pit were discovered during the study of mound No. 1 of the Konursu burial ground. The combination of the undercut found in barrow No. 1 of the Aydarly burial ground, constructed under the long western wall, the entrance at the level of the bottom of the access pit, and the southern orientation of the buried person, was also documented during the study of Mounds No. 3 and 5 of the Sarkara burial ground and burial 32 of the Zhabay-Pokrovka burial ground.⁵ This type of burial pit is identical to the recesses in the Sarmatian mounds of the Ilek River basin. They are usually constructed in the western wall of the access pit with a descent. The southern orientation of the buried is dominant, with a deviation to the west or east.⁶

The recess found in barrow No. 2 of the Aydarly burial ground had a different structure—its entrance was located above the bottom of the access pit. A similar arrangement was found in burial groups V and VII of the Tulhar burial ground in southern Tajikistan. Researchers noted the uniqueness of these recesses but did not provide an explanation due to the general scarcity of such chambers.⁷ Imitations of Eucratides' obols with a monogram absent from the actual coin of this Greco-Bactrian king were found in a number of burials at the Tulhar burial ground. These and other data allowed to date the monument to the last third of the 2nd century BC – early 1st century AD. with an error of no more than 25–30 years.⁸

The main collection available for dating was discovered in the barrow No. 1 of the Aydarly cemetery. This is primarily a collection of ceramic vessels. Jug No. 1 is identical to a vessel from a burial in the recess of mound No. 4 of the Sarkara tract. It is important to note that a sign was also applied to its lower part, but of a different shape. As M.K. Khabdulina notes, similar jugs are found in the aforementioned Tulhar cemetery.⁹ These are jugs with spherical bodies from mound No. 26 of group I, mound No. 5 of group V, mound No. 1 of group X, and mound No. 1 of group XVI. The vessels are

divided into two groups: large ones, over 19 cm, and small ones, up to 15 cm. The first group is characterized by a significant variety of shapes. Sometimes, as in the case of the find from Aydarly, they are in the form of a flattened sphere and a comparatively larger bottom diameter.¹⁰

The second vessel from the burial in barrow No. 1 of the Aydarly cemetery has analogies in a large group of Sarmatian pots of the 3rd–2nd centuries BC. They are assigned to category III of spherical or elliptical vessels. The pots of this category have a regular or slightly flattened in the middle ellipsoid body and a funnel-shaped or straight neck. The bottoms of the vessels are not particularly wide and sometimes not very stable due to a slight convexity.¹¹ A pot of similar shape was discovered in burial 2 of mound No. 15 of the Urkach 1 cemetery. The technique used in its manufacture—beating with a mallet using fabric—appears in the 4th century BC, but from the 2nd century BC onwards. The percentage of such utensils increases significantly compared to the previous period.¹²

The third flat-bottomed pot, in appearance, belongs to the squat vessels with a high neck, which became widespread in the Middle Sarmatian period. However, they are distinguished by the elliptical, in many cases rhombic in cross-section, shape of the body.¹³ The vessel from Aydarly has fairly straight walls. A pot of similar shape was discovered in burial 2 of mound No. 7 of the Ilyovka cemetery, located in the interfluvium of the Volga and Don.¹⁴

A knife from barrow No. 1 at the Aydarly burial ground is similar in shape to a find from burial No. 32 at the Zhabay-Pokrovka burial ground.¹⁵ The arrowheads belong to Type 6 according to A.M. Khazanov. These are iron, three-bladed, socketed arrowheads with a triangular head. The blades are cut relatively smoothly at an obtuse angle to the petiole. They are a variant of the widespread Type 4 arrowheads, in which the blades are cut at a right angle. In Northern Kazakhstan, arrowheads with a triangular head, a straight blade base, and dimensions of 3.0–4.5 × 1.2–2.0 cm become common in burials dating from the 2nd century BC to the 1st century AD.¹⁶ Single specimens of arrows of the 6th type appear among the Sarmatians as early as the 3rd–2nd centuries BC, but they become more characteristic in quivers of the middle Sarmatian period.¹⁷

The presented analogies of the burial rite and grave goods allow us to date the burials in barrows No. 1 and 2 within a chronological framework ranging from the 2nd century BC to the 1st century AD, with the possibility of narrowing this date to the 1st century BC to the 1st century AD. These objects are characteristic of the culture of nomads who settled from northern Kazakhstan to the Volga-Don steppes during the final stages of the Early Sarmatian period and the Middle Sarmatian period.

¹⁰ MANDELSTAM 1966, 88, 138, 167–169; tabl. V.10, VI.4, VII.8, VII.13.

¹¹ MOSHKOVA 1963, 26; tabl. 6.25.

¹² KRAEVA 2017, 86, 163, 171, 185; Fig. 244.

¹³ GLUKHOV 2005, 216, Fig. 70.2, 70.8.

¹⁴ SKRIPKIN 1990, Fig. 9, 34.A79.

¹⁵ Khabdulina 1994, 122, tabl. 44.6–7.

¹⁶ Khabdulina 1994, 51.

¹⁷ KHAZANOV 1971, 38, tabl. XIX/27–28.

⁵ Khabdulina 1994, 26, 119; tabl. 37, 38, 40, 45.

⁶ SMIRNOV 1975, 156–161.

⁷ MANDELSTAM 1966, 37, 39, 40, 80; Fig. 18–20.

⁸ MANDELSTAM 1966, 88, 138, 167–169; tabl. V.10, VI.4, VII.8, VII.13.

⁹ Khabdulina 1994, 132; tabl. 59.40.

Another category of material culture recorded during the study of the Aydarly burial ground are statuary monuments. A total of three such objects have been found within the burial ground: a slab with weakly expressed anthropomorphic features and two sculptures. A wooden post, the remains of which were found in barrow No. 3, can also be included in the list.

A slab with anthropomorphic features was discovered beneath the mound of barrow No. 1, above the southeastern edge of the entrance of the access pit (Fig. 5/1). It measures 0.30 × 0.20 m and is approximately 0.50–0.70 cm thick (Fig. 5/1). At the top of the slab there is a convex detail with a diameter of 0.15 m, which stands out clearly in the profile. The shoulders are sloping, with flattened elements extending downwards on both sides of the slab. The slab was toppled flat; however, judging by the burrow located at its base, it originally stood vertically, facing northeast or east, and fell during the collapse of the burrow's roof.

Another example of this type of monument is the sculpture from the burial in barrow No. 2 (Fig. 6/3-4). The monument is 0.82 m high, 0.46 m wide, 9 cm thick at the top, 0.18 cm thick at the bottom. The width of the base is 0.39 cm. The diameter of the crown is 6 cm. The top is rounded, the bottom is level. The width at shoulder level at the top is 0.26 cm. One wide side is unfinished, the other shows signs of processing – inwardly slanted roller-like edges, a rounded thickening at the top, and weak rollers below and on the sides. It is made of red sandy granite.

At the eastern base of barrow No. 2, another monumental object was discovered as part of an oval sacrificial arrangement: a boulder of dense, rounded white sandstone (Fig. 6/5-6). It is 0.78 m high, 0.14 m thick, and 0.22–0.32–0.20 m wide. It is visually divided into three parts. The upper part is approximately 0.15 m long and is marked on both sides by knocking and spalling 2–4 cm wide and no more than 5 mm deep. The diameter of the top is 0.14 m. The middle cone-shaped part is 0.20 m long, widening toward the base, from which it is separated by a 5 cm wide ledge. The trapezoidal base is 0.27 m long. Traces of hewing and subsequent polishing are visible on the side faces of the stele. At the bottom of the front side of the monument, 10 cm from the edges, a tamga-shaped sign is stamped.

Sculptures and steles are a common element of funerary ritual practices in the cultures of early Eurasian nomads. Three objects from the Aydarly burial ground and one from Karagayly can be classified as examples of statuary art with weakly expressed anthropomorphic features. The shape and type of the monuments, as well as the presence of signs on two, suggest Sarmatian statuary monuments from a wide area stretching from Western Kazakhstan to the northwestern Black Sea region as analogies.

In Asian Sarmatia, similar forms are demonstrated by objects discovered during the study of early Sarmatian burials in the barrows of the Ilek River basin (Fig. 8/1). Two monuments were found on the Zhaksy-Kargaly River (a right tributary of the Ilek River): stelae from Imangazy-Karasu II and Zhaksy-Kargaly 2. The first was discovered in the embankment of the main burial of the Imangazy-Karasu

II barrow, in the fill of a pit associated with burials 2 and 3. The sandstone stela was located among backfill stones in an upright position. The dimensions of the object are 12 × 27 × 54 cm, and its shape and cross-section are rectangular. A tamga-shaped sign is inscribed in the middle of one of the wide sides of the slab (Fig. 8/II/1). The burial is dated to the mid-5th century BC. The second stele was recorded on the top of the mound of Zhaksy-Kargaly 2. The height of the monument is 1 m, the width is 35 cm, the thickness is 10 cm. There is a tamga on one of the sides (Fig. 8/II/2). Initially, the mound was dated to the 4th century BC, however, according to S. Yu. Gutsalov and A. D. Tairov, the date is somewhat overestimated.¹⁸

Similar sculptures were discovered in burial 18 of mound No. 23 of the Pokrovka 2 burial ground. They were installed on a shoulder-step 35 cm wide, cut into the eastern wall of the burial pit. The material of manufacture is wild layered sandstone of a reddish-burgundy color. The “northern” sculpture was a rectangular slab measuring 76 × 43 cm, 15 cm thick at the base (Fig. 8/II/3). The “southern” sculpture is more anthropomorphic; together with the distinct head, it had a height of 115 cm, a thickness at the base of 55 cm, and a width at the base of 45 cm (Fig. 8/II/4). The burial is dated to the mid-4th century BC.¹⁹

A sculpture similar in type to the “southern” stele from Pokrovka 2 with weakly expressed anthropomorphic features was discovered in burial mound No. 5 of the Sapibulak burial ground, located on the right bank of the Tamdy River. The monument is dated to the 2nd century BC (Fig. 8/II/5).²⁰ Another rectangular stele without visible details was found in the embankment of burial mound No. 4 of the Berdinskaya Gora tract (Fig. 8/II/6). The mound is dated to the early 4th century BC.²¹ The sculptures and steles belong to the Volga-South Ural group of statuary monuments, which also includes finds from Novo-Petrovka, burial mounds No. 1 and 4 of the Naurzum IV cemetery, Zhanabaza, and Kashkan-Tau.²² The connection between the statuary objects from Aydarly and the Sarmatian tradition may be evidenced by the presence of a sign on the anthropomorphic sculpture from the altar near barrow No. 2 and on the slab from Karagayly. Similar evidence is found in Imangazy-Karasu II and Zhaksy-Kargaly 2. In the first case, a tamga-shaped sign in the form of a circle and an L-shaped protrusion extending from it, as well as an arrow bent at a right angle, is inscribed in the middle of one of the wide sides of the slab. In the second case, on the stele located on the top of the mound, there is a tamga in the form of a carved Latin letter h (Fig. 6/1-2).²³

In European Sarmatia, steles and sculptures with tamgas are localized to the west of the Dnieper, in the Dniester-Prut interfluvium and the adjacent regions of the northwestern Black Sea region and Crimea. Three steles with a tamga on a wide edge were discovered in the territory of Moldova – Taraclia, Tansa and Tetscany²⁴, one – in an open Sarmatian

¹⁸ GUTSALOV/TAIROV 2000.

¹⁹ GUTSALOV/TAIROV 2000.

²⁰ MAMEDOV/KITOV 2015.

²¹ GUTSALOV/TAIROV 2000.

²² GUTSALOV/TAIROV 2000, 226–251; OL'KHOVSKIY 2005, 131–132.

²³ GUTSALOV/TAIROV 2000.

²⁴ AGUL'NIKOV/BUBULICH 2010, 207; Fig. 2; KURCHATOV 2014.

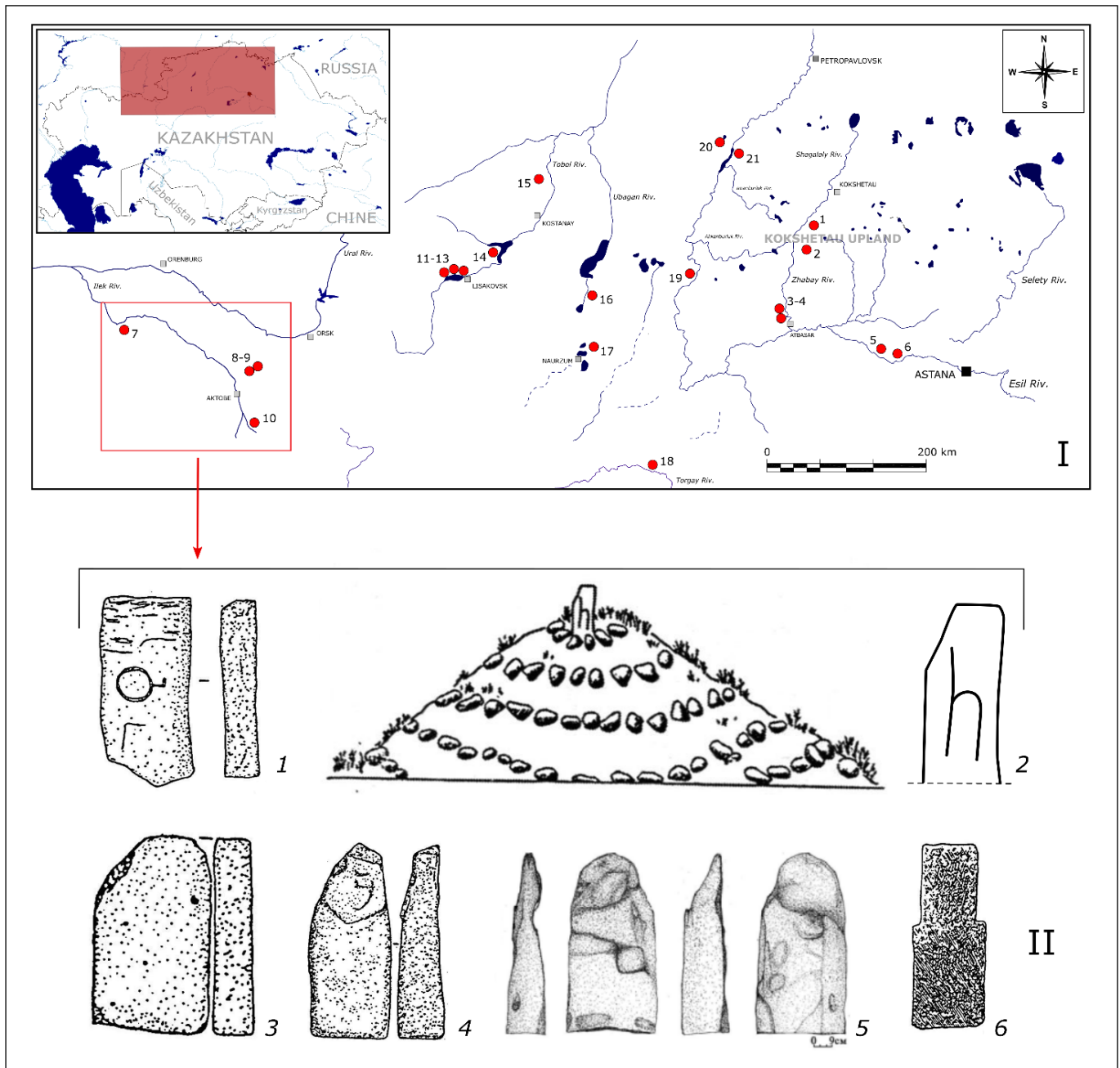


Fig. 8. Sarmatian monuments on the Ilek River, in Turgay and Northern Kazakhstan: I. Location of the monuments: 1 – Aydarly; 2 – Karagayly; 3 – Sarkara; 4 – Zhabay-Pokrovka; 5 – Ondyrys II; 6 – Zhambyl; 7 – Imangazy-Karasu II; 8 – Zhaksy-Kargaly 2; 9 – Pokrovka 2; 10 – Sapibulak; 11 – Kenysh-3; 12 – Lisakovsky; 13 – Lisakovsky-II; 14 – Karatomar; 15 – Nadezhdinka-4; 16 – Bestamak; 17 – Naurzum; 18 – Kyzyl-Zhuldyz; 19 – Konyrsu; 20 – Zhaltyr; 21 – Baikara. II. Statuary monuments of the Sarmatians: 1 – Imangazy-Karasu II; 2 – Zhaksy-Kargaly 2; 3, 4 – Pokrovka 2, mound No. 23, burial 18 [GUTSALOV/TAIROV 2000]; 5 – Sapibulak, mound No. 5 [MAMEDOV/KITOV 2015]; 6 – Berdinskaya Gora, mound No. 4 [GUTSALOV/TAIROV 2000]

burial from the territory of Zaporizhzhia. These also include a stela from the vicinity of the village of Zazdrost in Ukraine, as well as a slab with a tamga and an anthropomorphic tombstone from Crimea, a stela on the Arabat Spit.²⁵

Stelae in the Dniester-Prut interfluvium appeared in the region from the east as a result of the movement of nomadic tribes at the turn of the 1st and 2nd centuries CE. The symbols engraved on the stelae may have belonged to major military or tribal leaders who controlled the Dnieper-

Carpathian region in the first centuries CE. Precious metal objects and stelae bearing large, single symbols, 20 to 36 cm in height and meticulously carved, indicate their affiliation with a major Sarmatian chiefdom or clan within the kingdom of Farzoi.²⁶ In the west, indirect analogies to ritual structure No. 3 of the Aydarly burial ground (Fig. 6) are found in the burials of nomads in Eastern Europe from the 1st to 3rd centuries CE. In the burial mound No. 33 of the

²⁵ DRACHUK 1972: 105; KURCHATOV 2014; SOLOMONIK 1959: 68, 85–86.

²⁶ AGUL'NIKOV/BUBULICH 2010, 206. For the presence and history of the Sarmatians in the North and North-West Pontic region, see BĂRCĂ 2006, 245–249; BĂRCĂ 2006a; BĂRCĂ 2013; BĂRCĂ 2015; BĂRCĂ 2020; BĂRCĂ/SYMONENKO 2009.

Middle Sarmatian necropolis near the village of Belolesye in Budzhak, where a wooden post 20 cm in diameter was dug into the bottom of the grave behind the walls of the coffin, at the feet of the deceased. A similar situation was recorded in burial mound No. 17 of the Late Sarmatian necropolis near the village of Novo-Nikolskoye in the upper Don region. The wooden post was near the head of the deceased, an unarmed man, and his remains were preserved by cremation.²⁷ The difference between Aydarly and the cited analogies is obvious, but it is certain that they represent different versions of practices within the common funerary and memorial tradition of the Sarmatians.

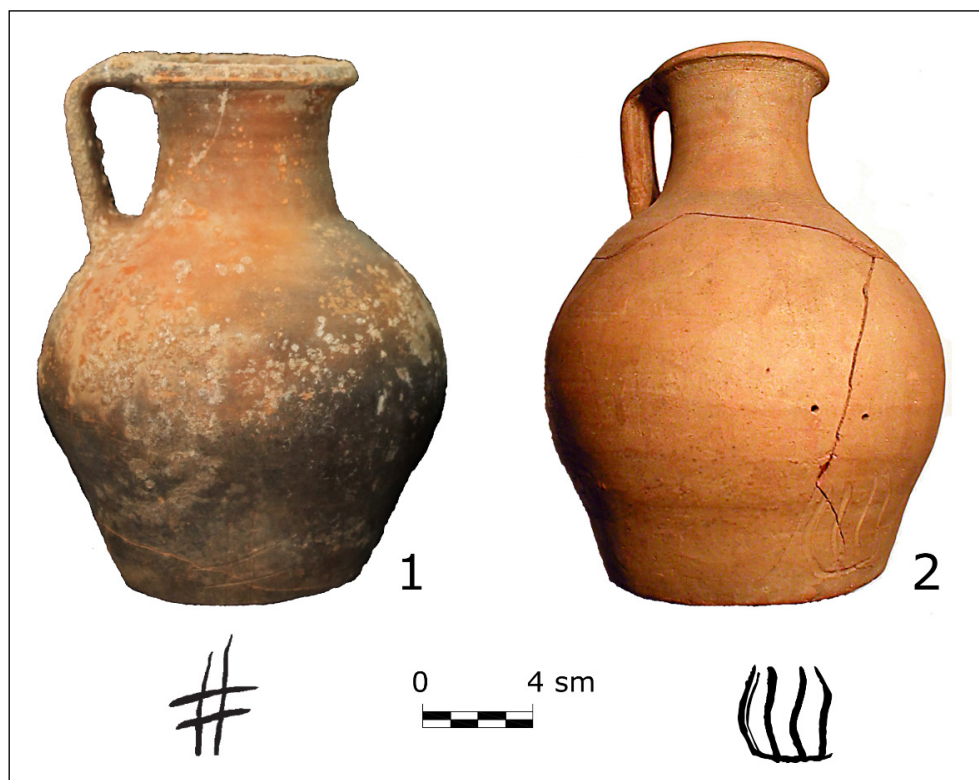


Fig. 9. Imported jugs with traced tamgas: 1 – barrow No. 1 of the Aydarly burial ground; 2 – burial mound No. 4 of the Sarkara tract.

Tamgas

Another separate and equally informative source for comparative analysis is tamgas. Among the known turn-of-the-era sites in Zerendy, Sandyktau, and the Zhabay River basin, four such signs are found: two tamgas were discovered during excavations at the Aydarly burial ground, one during prospecting at the Karagayly burial ground, and one during excavations of burial mounds in the Sarkara tract.

Two of the aforementioned marks were recorded on imported ceramic vessels (Fig. 9), which have analogies in the Tulhar burial ground.²⁸ Both marks were located on the bottom of the jugs. Early examples of marking vessels in this manner have been found in the territory of Khorezm. This tradition characterizes the Jigerbent ceramic complex, is recorded in the materials of the Balanda-2 mausoleum and is found at other sites whose chronology does not go further than the 4th century BC. The interpretation of the marks varies from defining them as marks of craftsmen, workshops, or batches of goods to marks of customers.²⁹

The shape of the symbols has analogies in neighboring regions. Lattice signs are found in southern Kazakhstan and Central Asia in the Kangyui and post-Kangyui periods. They were discovered on a flask from catacomb 3 of the Karatobe burial ground, in the Shaga necropolis and the Sidak sanctuary (Fig. 12/1-2).³⁰ Two identical signs are present in the collection from the Chach settlement. In addition, it was recorded on ceramics from the Kairagach

sanctuary.³¹ According to M.K. Khabdulina, the sign from Sarkara is similar to the “royal signs” of the Kushan era.³² However, following the tamga on the jug from Aydarly, it is closer to a series of Kangyui “comb” signs from the settlements of Chach, Sidak and the Shaga necropolis (Fig. 12/3-4).³³ Identical signs are dated from the 2nd century BC to the 5th–6th centuries AD, their area mainly coincides with the territory of Kangyui and, obviously, demonstrates the ethnocultural and political ties of the Sarmatians of Northern Kazakhstan.

Two more symbols were discovered on the sculpture and slab, ruling out their attribution as maker’s marks and indicating their affiliation with the Sarmatians of Zerendy and Sandyktau. The first, a Y symbol with an additional line, was discovered on an anthropomorphic sculpture (Fig. 10). It consists of two elements: the right, a Y-shaped symbol 6.2 cm long, and the left, a straight line 4.4 cm long. The carving was accomplished using large, rounded chips ranging in diameter from 0.3 to 1 cm. The symbols were created by successive blows with a hard instrument. The blows were applied from right to left, with the instrument clearly at an angle, as evidenced on both elements by the smoother left edge of the carving and the depression running along it. The diameter of the craters formed by the blows ranges from 0.4 to 1 cm. This method of carving is clearly associated with the extremely hard sandstone material, requiring the

²⁷ YATSENKO 2016.

²⁸ YARYGIN 2019

²⁹ BARATOV 2019; UTUBAEV/SUJINDIKOVA/KALIEVA 2025, 80, Fig. 4.

³⁰ PODUSHKIN 2017, 63, Fig. 2/18; SMAGULOV/YATSENKO 2008; SMAGULOV/YATSENKO 2014.

³¹ YATSENKO/SMAGULOV 2019, 222, Fig. 5; SMAGULOV/YATSENKO 2019, 238; Fig. 4.

³² KHABDULINA 1994, 71–73, tabl. 59.40.

³³ SMAGULOV/YATSENKO 2008, Fig. 13/3; SMAGULOV/YATSENKO 2014, Fig. 6/4.

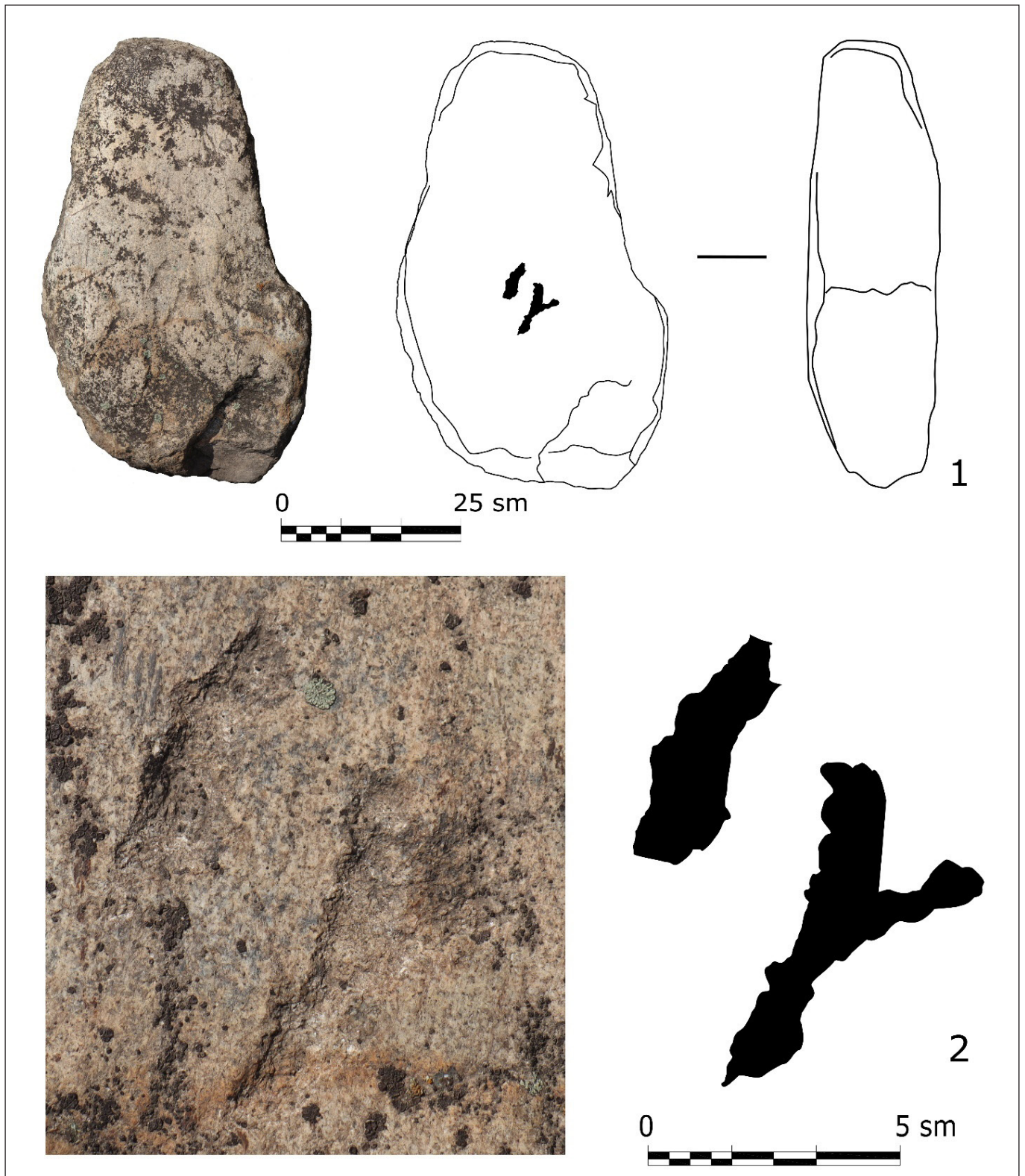


Fig. 10. Aydarly burial ground: 1 – sculpture with tamga; 2 – fragment of a stele with tamga and an image of a sign

maintenance of a specific symbol shape. It is clearly evident that the diacritical line element consists of five similar marks. The complex main sign was carved in two stages: in the first, the sign's axis and the left finial were carved in a single wide arc; in the second, a 2-cm-long, tapering right finial was added. The striking marks are patinated, and grinding marks are visible in the upper striking crater of the main sign. This is the first discovery of such carving on a

sculpture in Northern Kazakhstan, but, as research in 2025 has shown, it is not the only one.

Simple tamgas, representing a Y-shaped sign, are widespread in the Sarmatian culture. Similar symbols were recorded in site 1 of the Bayte III sanctuary, where they can be dated no earlier than the 1st century BC.³⁴ In southern

³⁴ YATSENKO 2019, 82; Fig. 6/131, 6/133, 6/135.

Kazakhstan, similar symbols are known from materials from the Shaga necropolis dating back to the 5th–7th centuries.³⁵ The combination of two symbols in one sign allows this tamga to be compared with the image on the plaque from set 1 of horse harness 11 in burial mound no. 2 of the Bashadar burial ground, which belongs to the Pazyryk archaeological culture. This is a horizontal Y-shaped symbol, below which there is a gently curved line (Fig. 12/5). Another similar symbol, but without the additional diacritical element, is carved on a wooden saddle brace from burial mound No. 3 at the Pazyryk burial ground. In general, this type of sign is quite rare compared to other forms.³⁶

A tamga discovered by the authors on the Suuk plateau, located on the northwestern edge of the Kairakkol ridge in eastern Zhetysu (Fig. 12/6), is a series of similarly shaped symbols.³⁷ It consists of a complex combination of a Y-shaped base with a small hook at the base, and several diacritical elements in the form of lines to the left of it.

One long line is positioned slightly above, and a second short line is located below. The symbol is paired with a double circular symbol, likely a paired circular tamga with small L-shaped appendages, which, taken individually, resemble the tamga from Imangazy-Karasu II.³⁸

Another sign on the slab was discovered as a result of exploration work in the Zhaksy-Tuktinskaya basin, 4.5 km northeast of the village of Kamenka in the Sandyktau district of the Akmola region, on the bank of a stream flowing into the Sarkyrama River (a tributary of the Zhabay River) (Fig. 11).

Initially, a burial ground consisting of three mounds was discovered in an arable field. An inspection of the area revealed that some stone slabs and blocks, previously part of the mound structures, had been displaced. Some were dumped at the edge of the field, while others were moved to a nearby natural outcrop. Among the latter, a trapezoidal slab with a sign was found at the very top. The slab is made

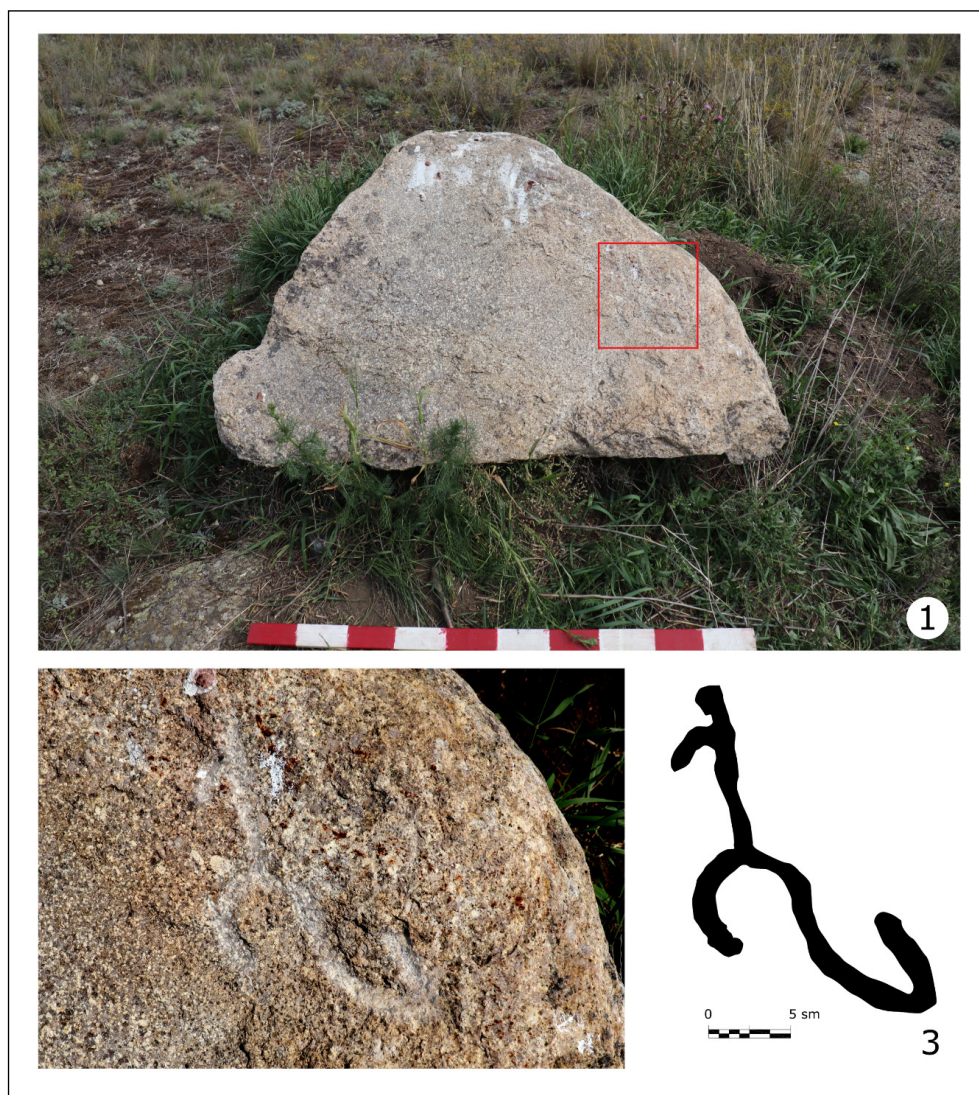


Fig. 11. Karagayly burial ground: 1 – slab with sign; 2 – fragment of slab and tamga image

of dense gray-yellow sandstone. It measures 0.6 x 1.1 m and is approximately 15 cm thick. The upper, narrow peak has a small, distinct section 0.5 cm high and 37 cm wide. The lower, wider section has jagged and chipped edges. The middle section of the right side has a faintly defined edge. The lower left edge of the slab is mushroom-shaped. At the right edge of the slab, near the edge, was a tamga in the form of a horizontally inverted S-shaped symbol with an additional vertical element resembling a hook (Fig. 11/3). The symbol measures 16 x 16 cm. The lines are 1–2 cm wide. Small thickenings are noted at the ends of the S-shaped base. The symbol was made using the knockout technique, with visible traces of grinding.

Tamgas based on an S-shaped element became widespread in the last centuries of the first millennium BC and at the turn of the eras, from the Eastern European steppes to Mongolia. They have been recorded among petroglyphs in the Tokraun River valley and in the Zheldebe Mountains, located north of Lake Balkhash. In one case, the tamga is carved horizontally on a separate stone next to a solar sign; in the second, it is carved on a vertical cliff along with two images of feline predators (Fig. 12/7). The differences lie in the strongly twisted ends. In particular,

³⁵ SMAGULOV/YATSENKO 2014, 166; Fig. 2/1.6.

³⁶ POLTORATSKAYA 1962, Fig. 4/2; 5.

³⁷ YARYGIN/SAKENOV/ILDERYAKOV 2024, 191, Fig. 6/2; KISHKEN-BAYEVA/SAKENOV/YARYGIN 2025.

³⁸ GUTSALOV/TAIROV 2000.



Fig. 12. Analogies of tamgas of Northern Kazakhstan in the monuments of Kazakhstan and Central Asia: 1 – Karatobe; 2, 3 – Sidak; 4 – Shaga; 5 – Bashadar; 6 – Suuk; 7 – Zheldebe; 8 – Kampyrtepe; 9 – Humbuztepe

an S-shaped element was recorded as part of a complex sign in the Shu-Ili Mountains. The tamga consists of three connected elements: two identical Y-shaped figures are combined with a central one, depicted as the Latin letter S. An identical sign was recorded in the Karakavak Canyon, on the northern slopes of Mangistau in Western Kazakhstan. Furthermore, this symbol was used to form a sign in the form of an S-shaped figure and an oval, within which two more short, angled strokes were carved. The tamga was discovered in the northern part of the Karatau Range at the Arpaozen site, and its exact counterparts were discovered in the Tsagan-Gol Valley in Mongolia.³⁹

Without additional elements and in a vertical position, a similar tamga is found in the territory of Kangyui, Kushan

³⁹ ROGOZHINSKIY/YATSENKO 2019, 143, 154–155.

Bactria, and Khorezm. Depictions of tamga are known on pottery from the Kanka settlement. Three such tamgas with minor differences were discovered on hums during an exploration of the Kampyrtepa fortress (Fig. 12/8). Obviously, they are related, and their bearers belonged to subdivisions of the same clan that inhabited the Kampyrtepa fortress during the reign of Kanishka I in the second quarter of the 2nd century CE. Under the influence of immigrants from the Kushan Empire, this tamga appeared in the territory of Khorezm, where it is dated no later than the last third of the 3rd century CE. It is represented on the coin of King Artramush (Fig. 12/9). However, in the territory of Khorezm, a sign in the form of a horizontal figure S, crossed by a long diagonal line, is recorded on pottery from the settlement of Humbuztepa of the 6th–5th centuries BC (Fig. 12/10).⁴⁰

In European Sarmatia, the S-shaped tamga is found among the aristocratic clan of the Alans, who roamed the Lower Don in the 2nd century AD.⁴¹ In the east of Central Asia, the S-shaped symbol as a diacritical element is one of the main ones in the tamgas of the Xiongnu period. It is depicted on three tamgas from burial

mound 31 of the Noin-Ula burial ground, on the sign of the astragalus from the Gol Mod-2 burial mound, on two tamgas from Khargaytyn, on three tamgas from Zhargalantyn, on a tamga from Yaman-Usa, and on six tamgas from Tsagan-Gol.⁴²

CONCLUSION

The appearance of the Sarmatians in the Zerendy and Sandyktau region of the Kokshetau Upland is associated with a number of historical processes. The eastward expansion of

⁴⁰ YATSENKO/SMAGULOV 2019, 226, Fig. 6; ILYASOV 2019, 119, Fig. 4/5–7; VAINBERG 1977, 53, tabl. XVI.B1.III, XVII.B1.IV, XVIII.B, B/1; BARATOV 2019, 121, Fig. 1/15.

⁴¹ YATSENKO/ROGOZHINSKIY 2021, 737.

⁴² TÖRBAT/BATSUKH/BAYARHUU 2012, 156, 159, 160, 161, Fig. 3, 4, 7–9, 12, 13.

the Early Sarmatian culture is observed as early as the 4th–2nd centuries BC. At this time, they appeared in Turgay.⁴³ At the turn of the eras, Sarmatian groups penetrated significantly further east, reaching the Kokshetau Upland and the Yesil River. This is evidenced by research into the burial grounds of Aydarly, Zhabay-Pokrovka, Zhaltyr, Sarkara, Ondyrys, and Zhambyl. Excavations at the Aydarly burial ground make it possible to determine the region of their original settlement. A similar combination of burial rites and the tradition of installing or placing steles and statues (in some cases with tamgas) in a mound or burial pit was recorded in the Ilek River basin in the 4th–2nd centuries BC. The upper date is determined by research materials from the Pokrovka 2 burial ground, the lower date by materials from the Sapibulak burial ground.

Tamgas recorded during the study of the Aydarly burial ground, the burial mound in the Sarkara tract, and the Karagayly burial ground suggest another scenario for the ethnocultural contacts of the Sarmatians of Northern Kazakhstan. The first two signs identified on imported jugs find convincing analogies in the Kangyui territory, where they continued to be found until the early Middle Ages. The signs on the sculpture and the slab, with general Sarmatian analogies, indicate connections with the tribes of the late Saka and Kushan circles. This is further supported by the shape of the imported vessels from Aydarly and Sarkara, as identical pieces were found in the Tulhar burial ground in southern Tajikistan. In this same burial ground, there is also a type of undercut grave pit with an entrance higher than the bottom of the access pit, recorded in barrow No. 2 of the Aydarly burial ground.

Research conducted in the territories of Zerendy and Sandyktau once again raises questions about the presence of Sarmatians in northern Kazakhstan and their regional connections with the tribes of southern and eastern Central Asia. One of the factors underlying their emergence in the region may have been not only favorable conditions for pastoralism, but also the presence of a well-established local tradition of mining and metallurgy, which developed continuously from the Bronze Age through the Saka period.⁴⁴ Furthermore, the vague similarities between these peoples and communities, documented in the monuments of European Sarmatia, suggest that they were the eastern part of a larger group of hordes of diverse origins, grouped in written sources under the ethnonyms “Aorses” or “Alans.”

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⁴³ SEITOV 2017; SEITOV/BAZARBAEVA/DZHUMABEKOVA 2021.

⁴⁴ RADIVOJEVIC/CALGARO 2025

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