DOI: 10.53737/2713-2021.2026.65.69.005

Aibar Kassenali, Zhanbolat Utubayev, Syrym Yessen, Ali Alimbekuly, Meirzhan Kyzyrkhanov, Rakhim Abat

NEW DATA ON KURGANS WITH “MOUSTACHES” IN THE ULYTAU REGION (CENTRAL KAZAKHSTAN)*

Kurgans with “moustaches” represent one of the most distinctive archaeological phenomena of Central Kazakhstan and are traditionally associated primarily with the Tasmola culture of the Early Iron Age, although some complexes may have a broader chronological range. To date, the Ulytau region remains relatively poorly investigated with regard to these complexes. This article presents new archaeological data on kurgans with “moustaches” from the Ulytau region. The study is based on the results of field surveys, GIS-based mapping of archaeological sites, and excavations of three previously unexplored sites. New radiocarbon dates obtained from the excavated materials allow us to refine the chronology of these structures. The results demonstrate that kurgans with “moustaches” are widely distributed in the Ulytau region and represent an important element of the ritual landscape of Central Kazakhstan.

Key words: Ulytau, archaeological sites, kurgans with “moustaches”, sacred landscape, ritual practices.

About the authors: Aibar Kassenali[1], PhD, Chief Researcher, Center for the Study and Preservation of Cultural Heritage; Zhanbolat Utubayev[2], Candidate of Historical Sciences, Historical and Archaeological Museum with an Exhibition Hall in the Ulytau Region; Syrym Yessen[3], Corresponding author, PhD, Faculty member, Astana International University; Ali Alimbekuly[4], Research Fellow, “Qazaq archaeology” Limited Liability Partnership; Meiirzhan Kyzyrkhanov[5], PhD student, L.N. Gumilyov Eurasian National University; Rakhim Abat[6], Faculty member, Astana International University.

Contact information: [1]01000, Kazakhstan, Astana, Nazhimedenov, str.10/2, office 46; [2]100600, Kazakhstan, Jezqazgan, Alashakhan Ave., 22, Historical and Archaeological Museum with an Exhibition Hall in the Ulytau Region; [3,6]010000, Kazakhstan, Astana, Kabanbay ave., 8; [4]161200, Kazakhstan, Turkistan, 5 Shymkent Highway, of. 40; [5]010008, Kazakhstan, Astana, 2 Satbaev st.; e-mail: [1]a.kassenali@gmail.com; [2]utubaev_z@mail.ru; [3]syrymesenov@gmail.com; [4]ali.alimbekuly@iuth.edu.kz; [5]mir_semei@mail.ru; [6]abatrahim85@gmail.com.

А.Е. Касенали, Ж.Р. Утубаев, С.Г. Есен, А. Алимбекулы, М. Кызырханов, Р. Абат

НОВЫЕ ДАННЫЕ О КУРГАНАХ С «УСАМИ» НА ТЕРРИТОРИИ УЛЫТАУ (ЦЕНТРАЛЬНЫЙ КАЗАХСТАН)

Курганы с «усами» являются одним из наиболее уникальных археологических феноменов Центрального Казахстана и традиционно связываются прежде всего с памятниками тасмолинской культуры раннего железного века, хотя отдельные комплексы могут иметь более широкий хронологический диапазон. По сей день территория Улытау остаётся сравнительно слабо изученной в отношении данных комплексов. Настоящая статья представляет новые археологические данные о курганах с «усами» Улытау. Исследование основано на результатах полевых разведок, картографировании памятников с использованием ГИС-технологий, а также раскопках трех ранее не исследованных объектов. Новые радиоуглеродные датировки, полученные по материалам раскопанных памятников, позволяют уточнить хронологию данных сооружений. Полученные результаты показывают, что курганы с «усами» широко распространены в регионе Улытау и являются важным элементом ритуального ландшафта Центрального Казахстана.

Ключевые слова: Улытау, археологические памятники, курганы с «усами», сакральный ландшафт, ритуальные практики.

* Статья поступила в номер17 сентября 2026 г.
Принята к печати 13 октября 2026 г.

© Aibar Kassenali, Zhanbolat Utubayev, Syrym Yessen, Ali Alimbekuly, Meirzhan Kyzyrkhanov, Rakhim Abat, 2026.

Сведения об авторах: Касенали Айбар Ерланулы[1], PhD, главный научный сотрудник, Центр по изучению и сохранению культурного наследия; Утубаев Жанболат Раймкулович[2], кандидат исторических наук, Историко-археологический музей с выставочным залом области Улытау; Есен Сырым Гадылбекулы[3], автор-корреспондент, PhD, преподаватель, Международный университет Астана; Али Алимбекулы[4], научный сотрудник, ТОО «Qazaq archaeology»; Мейржан Кызырханов[5], докторант, Евразийский национальный университет им. Л.Н. Гумилева; Рахим Абат[6], научный сотрудник, Центра по изучению и сохранению культурного наследия.

Контактная информация: [1]01000, Казахстан, г. Астана, ул. Нажимеденов, 10/2, оф. 46; [2]100600, Казахстан, г. Жезказган, пр. Алашахан, 22, Историко-археологический музей с выставочным залом области Улытау; [3,6]010000, Казахстан, г. Астана, пр. Кабанбай, 8; [4]161200, Казахстан, г. Туркестан, Шымкентское шоссе, 5, оф. 40; [5]010008, Казахстан, Астана, ул. Сатбаева, 2; e-mail: [1]a.kassenali@gmail.com; [2]utubaev_z@mail.ru; [3]syrymesenov@gmail.com; [4]ali.alimbekuly@iuth.edu.kz; [5]mir_semei@mail.ru; [6]abatrahim85@gmail.com.

Introduction

Ulytau is one of the few regions of Kazakhstan whose historical and archaeological significance remains largely unexplored. A notable element within its archaeological heritage is the kurgans with “moustaches”, unique monuments that offer significant insights into the ritual practices and worldview of the ancient inhabitants.

In the field of national archaeological science, academic research on kurgans with “moustaches” in Kazakhstan was initiated in this region by A.Kh. Margulan, the founder of the Kazakh archaeological school, in the mid-20th century (Margulan 1948: 122). Subsequently, these studies were not only continued but also significantly advanced by his colleagues M.K. Kadyrbayev and A.M. Orazbayev, who established the foundation for a systematic examination of this type of monument (Kadyrbayev 1958; Orazbayev 1969).

Kurgans with “moustaches” are a unique category of archaeological monuments prevalent in Central Kazakhstan. They are distinguished by a ritual mound, often lacking a human burial, and stone ridges called “moustaches” that extend mainly eastward from it (Beisenov 2017). This description reflects the primary type of kurgans with “moustaches”. However, besides this main type, there are other variants that differ in their layout and construction details.

Recent estimates indicate that over 400 such objects have been identified and documented in Central Kazakhstan (Beisenov et al. 2025). Their primary concentration is in the eastern parts of the region, which has resulted in more extensive research there. In contrast, the western territories, including the Ulytau region, have remained largely outside the focus of intensive archaeological studies of kurgans with “moustaches” for a long time.

The absence of organized data on kurgans with “moustaches” in Ulytau results in a substantial gap in understanding their distribution, as well as their cultural and chronological development.

This article reviews the findings from field research conducted in 2023, 2025, and 2026. During these field seasons, the authors conducted archaeological surveys in the Ulytau region, including detailed descriptions of kurgans with “moustaches”. The authors excavated three such complexes and obtained new radiocarbon dates for moustached kurgans in western Central Kazakhstan.

Materials and methods

The research on the kurgans with “moustaches” in the Ulytau region was conducted in multiple phases using interdisciplinary techniques. The methodology employed a systematic approach that integrated archival analysis with new empirical information gathered through field surveys and excavations.

Initially, the team conducted a thorough source analysis and data systematization, including a complete inventory of existing monuments. The source base consisted of published scientific works,

archival records, and cartographic materials. Archival information was gathered and verified within the collections of the Center for the Preservation of the Historical and Cultural Heritage of the Ulytau Region, the Center for the Preservation of the Historical and Cultural Heritage of the Karaganda Region, and the Scientific archive of the Margulan Institute of Archaeology.

To determine the precise locations of sites and identify archaeological structures that are barely visible in the present-day terrain, high-resolution satellite imagery and Earth observation data were analyzed. Synthesizing these data in QGIS made it possible to compile a preliminary digital map of the sites, which formed the basis for planning field surveys.

During the second stage, archaeological fieldwork was conducted. This involved verifying the coordinates of the monuments, performing detailed visual inspections, and documenting their features. For each complex, a comprehensive description was prepared, covering morphological characteristics, planigraphy, state of preservation, and structural features of the above-ground structures. The empirical data collected formed the foundation for later typological and spatial analysis of kurgans with “moustaches” within the cultural landscape of the Ulytau region.

A typological and spatial analysis of the kurgans with “moustaches” was conducted using an integrated approach that combined field observations, cartographic data, and remote sensing technology. The study focused on the morphological characteristics of the structures, detailed layout plans of the objects, and their spatial positioning within the ritual landscape. This analysis made it possible to classify mound shapes and identify the spatial arrangement of stone ridges.

Archaeological excavations were carried out at the Kotyrtau-1, Aktas-3, and Besobaly burial grounds. During the excavations, the sites were divided into separate sections. All stages of the excavations were accompanied by detailed graphic and photographic documentation. The positions of the finds were recorded on site plans, along with their elevation measurements. Individual samples of organic materials were selected for subsequent radiocarbon dating.

Samples for radiocarbon dating were collected and packaged during the archaeological excavations. Radiocarbon analyses (led by Dr. Žilvinas Ežerinskis) were conducted using accelerator mass spectrometry (AMS) at the Vilnius Radiocarbon Laboratory (Vilnius, Lithuania). The radiocarbon dates were calibrated with OxCal v. 4.4.4. A total of 4 samples from two burial grounds were analyzed: 3 from the Besobaly complex and 1 from the Aktasty complex.

Archaeological sites identified during exploratory work were mapped in QGIS version 3.44.7 (Solothurn). During fieldwork, a DJI Mavic 3 Enterprise drone was used to create orthophoto maps of the complexes and 3D models of the sites.

Archaeological Work to Locate and Identify Kurgans with “Moustaches” in the Ulytau Region

The earliest documentation of kurgans with “moustaches” in the Ulytau Region originates from the Central Kazakhstan Archaeological Expedition, initiated in 1946. Between 1946 and 1956, A.Kh. Margulan identified and surveyed these burial mounds. Subsequently, information about these sites was incorporated into the “Archaeological Map of Kazakhstan” including Sarytogan (No. 2080), Alashakhan (No. 2119), Toguzbaikul (No. 2053), Orezair (No. 2047), Dombaul (No. 2070), and Komsomol (No. 2090) (Ageeva et al. 1960).

In addition, Academician A.Kh. Margulan’s works also report three additional kurgans with “moustaches” that may belong to the Ulytau Region (Margulan 2010: 148). Although two are indicated as being located along the Karakengir and Sarysu rivers, their exact locations have not yet been determined. There is reason to believe that the third site, designated as the kurgan with “moustaches” “Ulytau” corresponds to the kurgan with “moustaches” now identified as Umanai-2 in current research.

In 1961, the Central Kazakhstan Archaeological Expedition, led by A.Kh. Margulan with A.M. Orazbayev as expedition leader, studied a kurgan with “moustaches” in the Zhanaydar region.

They discovered 58 Bronze Age enclosures and two kurgans with “moustaches”, one of which was excavated (Orazbaev 1969).

S.M. Akhinzhanov's article on kurgans with “moustaches” on the southwestern slopes of Karatau highlights a complex found in 1974 in the Beleutty River valley in western Betpakdala. This site included two stone ridges with circular stone arrangements and two burial mounds at their bases. S.M. Akhinzhanov emphasized the unique structure of this complex, which expanded the known range of kurgans with “moustaches” toward the southwest (Akhinzhanov 1977).

In 1984, a team from the Jezkazgan Regional Museum of Local History, as part of the Central Kazakhstan Expedition, surveyed the Batyrbulak burial ground (Usmanova 1987: 100).

In 1988, a team from the Karaganda State University expedition conducted exploratory and archaeological work in the Jezkazgan and Karaganda regions. During this work, the Aktas-3 burial ground was identified as “...where the only kurgan with ‘moustaches’ found so far in Baikonur was discovered” (Chindin 1989: 235).

In 2013, during excavations at endangered archaeological sites in the construction zone of the “Arkalyk—Shubarkol” railway line, two kurgans with “moustaches” were discovered and studied. These mounds belonged to the Terisakkan and Terisakkan-4 burial grounds.

A.Z. Beisenov and Zh.R. Utubayev provided the first detailed overview, including new information on kurgans with “moustaches” in the Ulytau Region, in a dedicated article. Their data indicate that surveys in 2012, 2016, and 2021 documented 22 kurgans with “moustaches” across 21 sites in the Ulytau Region (Beisenov, Utubayev 2022: 107).

In 2021, staff members of the National Museum of the Republic of Kazakhstan conducted exploratory work in the Ulytau District as part of the grant project “The Saka Cultural Complex of Western Saryarka and Northern Aral Sea Region: An Interdisciplinary Study.” During the work, eight burial mounds with stone ridges were documented: Talap, Ulzhan 1—2, Syrganaktas 1—2, Zhaksy Arganaty, and Otkelbay (Ongar 2023).

In 2023, during archaeological excavations in the Ulytau Region, three kurgans with “moustaches” were discovered: Aktas-1, Aktas-2, and Kotyrtau-1 (Kassenali 2023).

In 2025, the Ulytau Regional Administration approved the official list of historical and cultural monuments of local importance. This list includes nine kurgans with “moustaches” in the Ulytau Region (Akimat of Ulytau Region 2025).

In addition, according to the Preliminary List of Historical and Cultural Monuments of Local Significance in the Ulytau Region, there are 11 kurgans with “moustaches” in the region (as of April 2026).

By the start of fieldwork in 2026, information was available on a total of 57 kurgans with “moustaches” in the Ulytau Region.

A key part of the work involved determining the precise locations of 57 sites, as the geographic coordinates provided in existing sources were insufficiently accurate for their identification in the field. This issue is especially relevant for sites listed in the “Archaeological Map of Kazakhstan” and kurgans with “moustaches” included in the List of Historical and Cultural Monuments of Local Significance.

By examining cartographic, archival, and literary sources listed in the “Archaeological Map of Kazakhstan” for kurgans with “moustaches”, we identified four sites – Sarytogan, Alashakhan, Dombaul, and Togyzbaykul – with high certainty. However, the exact locations of Orezair and Komsomol remain indeterminate due to limited geographic references and minimal identifying details, preventing precise localization at this stage.

A similar situation applies to the State List of Historical and Cultural Monuments of Local Significance. Of all the listed sites, only two have been identified: Sarytogan (entry No. 166) and Dombaul (entry No. 175). The locations of the other seven sites are still unknown.

The kurgan with “moustaches” listed under item No. 229 of the State List deserves special attention. According to the list's description, it lies in the Dyusenbulak tract, 15 km south of the village of Yelshibek. However, on the map of the distribution of kurgans with “moustaches”

compiled by M.K. Kadyrbayev (Kadyrbayev 1966: 308), the Dusenbulak tract is located significantly east of the modern borders of the Ulytau Region. This circumstance casts doubt on the correctness of attributing this monument to the territory of the Ulytau Region and raises the possibility that it was erroneously included in the State List.

Furthermore, the Borly kurgan with “moustaches” should be excluded from the group of kurgans with “moustaches” because a follow-up field survey determined that the stone ridges are of natural origin and consist of bedrock outcrops.

As a result of the work conducted to locate kurgans with “moustaches”, the locations of 47 of the 54 identified sites have been determined. Thus, the Borly burial ground and the site in the Dyusenbulak tract should be excluded from the 47 localized sites. Consequently, the total number of localized kurgans with “moustaches” is 45.

Discrepancies in archaeological site names, observed across different sources, require careful examination. Sometimes, the same monument is listed under different names. This issue is particularly clear when comparing sites from the Preliminary List of Monuments with the data in the article by A.Z. Beisenov and Zh.R. Utubayev.

For example, the Zhaugasharsay kurgan with “moustaches” listed in the List of Monuments is referred to in the article by A.Z. Beisenov and Zh.R. Utubayev as the Zhetikyz-2 kurgan with “moustaches”. Similarly, the Utkelbay kurgan with “moustaches”, mentioned in the article by A.Z. Beisenov and Zh.R. Utubayev, is designated in the List of Monuments as the Karagansay kurgan with “moustaches”.

Discrepancies in the names of kurgans with “moustaches” are common. A primary cause is the absence of a unified, centralized database of archaeological sites that uses standardized naming and identification criteria.

During the 2026 field season, after completing the verification of the locations of previously identified sites, a team led by A.E. Kassenali carried out a series of activities in the Ulytau Region to survey previously identified sites and search for and identify new kurgans with “moustaches”.

At each surveyed site, in addition to compiling a technical description of the monument, work was carried out to produce orthophotos and digital terrain models. These methods ensure detailed spatial documentation of the sites and meet current requirements for documenting field archaeological research results (Fig. 1).

Processing and systematizing the collected field data are ongoing. A separate publication is planned based on these results. However, at this stage it has already been established that there are at least 179 kurgans with “moustaches” in the Ulytau Region. This number significantly exceeds the number of kurgans with “moustaches” known in the district before the start of the 2026 field season. The data obtained are not final and will likely be refined and supplemented as further research into the area proceeds.

Spatial analysis reveals marked unevenness in the distribution of kurgans with “moustaches” across the Ulytau Region. The highest concentration of sites is found in the northern part of the Ulytau District, particularly around the village of Terisakkan, where they form a compact cluster. A significant group of sites is also found in the central part of the district, while their spatial density gradually decreases toward the south.

Two notable kurgans with “moustaches”, Dautbay-1 and Dautbay-2, are situated in the southern part of the study area near the Kalmakkyrgan River. They are separate from the main group of kurgans with “moustaches”. Their location is important for defining the southern boundary of this archaeological site type and deserves additional investigation.

Archaeological Studies of Kurgans with “Moustaches” in Ulytau. Over the years, the authors have studied several kurgans with “moustaches” in the Ulytau region, including Kotyrtau-1, Aktas-3, and Besobaly.

Kotyrtau-1 Kurgan with “Moustaches”. The kurgan is located 4 km northwest of the village of Aktas and 5.2 km southwest of Mount Kotyrtau, on a slightly elevated section of terrain (Fig. 2).

The monument consists of a complex of two stone kurgans oriented along a west—east axis. The western mound has a diameter of 8.5 m and a height of 0.3 m. One meter to the east of it lies the second, eastern mound, which has a diameter of 7.5 m and a height of 0.2 m.

Ten meters east of the eastern mound, two stone ridges — the “moustaches” — begin. The northern stone ridge is 75 m long, 2.5—3.5 m wide, and 0.1—0.2 m high. At each end of the ridge, there are small stone mounds about 5 m in diameter.

The southern stone ridge is 67 m long, 2—3.2 m wide, and up to 0.25 m high. At its beginning and end, there are stone mounds approximately 3 m in diameter.

To the northeast and southwest of the western mound, several later Kazakh burials were identified, whose above-ground structures consist of stone mounds.

In 2023, an archaeological excavation was launched on the western mound of the complex (fieldwork director D.B. Duisenbay). During the excavation, the stone structure was dismantled down to ground level. Nineteen ceramic fragments were discovered at ground level.

The ceramic assemblage comprises two rim fragments, one base fragment, and 15 wall fragments (the ceramic analysis was conducted by Y.V. Dubyagina, a senior research fellow at the Margulan Institute of Archaeology). The rims belong to pot-shaped vessels; they flare outward and have a triangular cross-section. Both fragments exhibit structural features likely associated with lid use. The base is flat, with a groove visible along its outer edge. The pottery surface is predominantly rough, light brown to brown. The ceramic fabric is medium-grained, with a relatively smooth texture and a dark central core in some fragments. Clay was used as the raw material, with crushed stone or sand added as temper. The pottery was formed using the coil-building technique. The clay is slightly iron-rich; judging by the fracture, firing took place in a reducing atmosphere (Table 1).

The study of the complex is not yet complete at this stage. Fieldwork to further investigate it is planned for the near future.

Aktas-3 Kurgan with “Moustaches”. The Aktas-3 kurgan with “moustaches” is located 7 kilometers south of Aqtas village and 300 meters southwest of the Karpyq winter settlement. The cemetery is situated on a raised, flat ridge on the left-bank terrace of the Baykonyr River.

The kurgan with “moustaches” is located in the southeastern part of the burial ground. The complex consists of two parts: a stone mound and two stone ridges (“moustaches”) extending northeast from it. The mound has an overall diameter of 12 m and a height of 0.5 m. The northern stone ridge begins 7 m from the mound. Its total length is 65 m, and its width reaches 1.5—2 m in places. The southern stone ridge begins 8 m from the mound. Its total length is 55 m, and its width reaches 1.5—2.5 m in places. At the beginnings and ends of the stone ridges, oval-shaped mounds with diameters of 3—3.5 m were constructed (Fig. 3).

Also, 3 m east of the stone mound, exactly midway between the two ridges, three stones are set into the ground in a single line.

Archaeological excavations at the Aktas-3 burial ground were conducted during the 2025 field season. The excavations fully encompassed the complex's components — the stone mound and the two stone ridges.

During the initial layer-by-layer clearing of the mound, the density of the stone covering decreased toward the lower layers. During the complete clearing of the mound, a cluster of large stones was identified in its central section. However, the full excavation found no burial pit. Only a clay vessel was recovered from the mound’s central area. Additionally, while excavating the northern part of the mound, a small livestock astragal (knucklebone) was found among the stones.

Following the completion of excavations at the stone mound of the kurgan complex, research proceeded on the stone ridges. Small structures located at the beginning, end, and along the entire length of the stone ridges were subjected to comprehensive archaeological excavation. Throughout these excavations, the aforementioned structures were fully uncovered, and their characteristics were distinctly identified.

Archaeological excavations at the kurgan complex in the Aktas-3 burial ground yielded several artifacts, including a clay vessel, a granite hoe, and an astragal. During surface clearing of the

northern part of the stone mound, a small livestock astragal was discovered among the stones. In the central part of the mound, a ceramic vessel was uncovered (analyzed by S.Zh. Rakhimzhanova from the Margulan Institute of Archaeology). The vessel was found at ground level and is in poor condition, unadorned, with deformed external and internal surfaces but visible slip traces on the outside. Its thickness is 6 mm. Made from highly iron-rich clay containing sand, it contains brown iron ore (0.5—0.6 mm), limestone particles (0.8—1 mm), and dust-like sand (0.01 mm) in a 1:2 ratio, with occasional quartzite inclusions (1.2—1.9 mm) that contain mica. No intentionally added temper was identified. The vessel was constructed using the patch-building technique and has a uniformly light brown fracture. Its firing in a kiln at 750—800°C in an oxidizing environment suggests prolonged heat exposure (Fig. 4).

In addition, during the excavation of the northern stone ridge, a granite hoe was found beneath the stone covering (Fig. 5). The hoe is elongated in proportion (traceological analysis was conducted by A.E. Yerzhanova, lead research fellow at the Margulan Institute of Archaeology). Its length is 16.2 cm, width 13.6 cm, thickness 5.2 cm, and weight 1044 g. It is made of naturally shaped, coarse-grained granite; the back and one side retain their natural surfaces. The working edge is convex and uneven, with large and small notches. It was worked by percussion. On one of the central side faces, light indentations for a grip are formed by small flakes, 1.8 cm deep and 4.1 cm long, for securing the handle (Fig. 5: D). The working end face on the outer side shows signs of intensive wear in the form of strong smoothing and polishing, with traces of deep cuts arranged perpendicularly. The working edge extends onto the tool's face (Fig. 5: A—C). The blade was resharpened due to complete chipping and dulling. The facets of the last grind measure 24.5 mm. The edge bevel angle is 35 degrees. The tool was intensively used for work in soil with hard inclusions. The blade is asymmetrical in cross-section.

A carbon sample was collected from inside a clay vessel for radiocarbon analysis during the excavation.

Besobaly Kurgan with “Moustaches”. The site was identified and surveyed in 2025 during archaeological work at the Ulytau-1 and Ulytau-2 burial grounds. The burial ground is located 2.7 km southeast of the village of Ulytau. It is situated on a relatively flat section of the valley plain, bounded by the Zhumabai River to the south, north, and partially to the east, and by mountainous elevations and low hills to the west and east.

The Besobaly kurgan complex comprises five stone mounds, two stone ridges, and their starting and ending structures. The five mounds form a slightly arched chain, primarily aligned along a south—north axis. Mounds Nos. 1, 3, and 4 are generally rounded, whereas mounds Nos. 2 and 5 have more complex, elongated, or two-part layouts. To the east of the mounds lie two elongated stone ridges — the northern and southern “moustaches”. Both ridges are oriented eastward and have slightly arched outlines. At the beginning and end of each ridge, rounded stone linings have been identified (Fig. 6).

Archaeological research was conducted during the 2026 field season. The work covered the entire complex, including the chain of stone mounds, both stone ridges, their starting and ending structures, and the space between the individual structures. All five stone mounds were completely dismantled down to the level of the natural ground. The starting and ending structures of the northern and southern ridges were also fully investigated. During the work, the stone structures were systematically cleared, and the characteristics of the lining, the positions of individual stones, identified features, and archaeological finds were documented.

The most representative assemblage of artifacts was discovered in Mound No. 2. A compact cluster of 17 iron tanged arrowheads was found within the soil fill of the mound.

The arrowheads are tanged. Among them, specimens with rhombic and elongated-rhombic blades predominate. Some objects exhibit distinct longitudinal ribs. The degree of preservation varies: the surfaces are covered with corrosion products and soil deposits; some blades and tangs are damaged or have survived only as fragments.

Another iron tanged arrowhead was discovered in Mound No. 1 at a depth of about 0.1 m, directly beneath a stone in the mound. Based on the description provided, it is morphologically similar to the specimens from Mound No. 2, which may indicate that these finds date from the same period or are chronologically close to one another.

Two ceramic vessels, preserved in a crushed and fragmented condition, were discovered in the natural subsoil. Both vessels were positioned in specially prepared depressions and were located in situ.

The first vessel was located at the eastern edge of Mound No. 2 and placed in a rounded pit dug into the natural subsoil. The vessel has survived primarily as its base and lower sections, forming a rounded fragment about 20 cm in diameter. The upper part was destroyed by pressure from the soil and the stone structure. Darkening and traces of soot were observed on the surfaces of individual fragments. The vessel's fill consisted of humus-rich loam with fine charcoal inclusions.

The second vessel was discovered in the eastern part of Mound No. 3. It was also buried in the natural subsoil, and its fragments were found in a cluster approximately 20 cm in diameter. Coarse mineral inclusions, presumably sand and gravel, are visible in the ceramic fabric. The vessel's walls are severely deformed and crushed; the rim is either missing or completely destroyed.

Discussion

The layout and structural features of the Besobaly kurgan complex with "moustaches", especially the five kurgans aligned along a north—south axis, form a pattern that is quite uncommon in Central Kazakhstan. In the Ulytau region, similar arrangements of kurgans with "moustaches" have been recorded in only two instances — the Berkimbay and Sart 1 complexes.

According to A.Z. Beisenov's typology, the Besobaly complex is classified as Type 3a. However, its layout has distinctive features: the complex comprises five kurgans arranged in a single north—south line. This feature reflects the complex's unique spatial organization and should not be considered a separate type (Beisenov 2017).

Among the material cultural artifacts, the most informative are the arrowheads found in Mounds No. 1 and No. 2. A total of 18 arrowheads were discovered (Fig. 7).

All arrowheads are three-bladed, tanged types with rhombic blades, including both symmetrical and asymmetrical examples. The total length of intact specimens ranges from 6.1 cm (No. 10) to 10.0 cm (No. 2). The lengths of most specimens range from 6.9 to 7.6 cm. The blade length ranges from 3.0 cm (No. 7) to 5.2 cm (No. 3). The majority of arrowheads have a blade length of 4.0—4.8 cm. Another distinctive feature is the small shoulders between the tang and the blade.

To systematize them, we used the classification scheme developed by I.P. Zasetskaya (1994), which is based on the ratio of the upper and lower parts of the arrowhead blade (type), its proportions (subtype), and the configuration of the blades (variant). In the series under study, eight specimens belong to the classic wide-rhombic Type 1A (Variant A) arrowheads: Nos. 2, 6, 8, 11—13, 15, 16, and presumably No. 9. The group of elongated rhombic Type 1B (Variant A) arrowheads consists of specimens Nos. 3, 10, 14, 17, and 18; based on its geometric proportions, the corroded specimen No. 7 should also be classified under this subtype (with the possibility of asymmetry extending to Type 2B). Asymmetrical variants are represented by a single example: arrowhead No. 4, with its elongated blade proportions and elongated lower blade section, corresponds to Type 2A, while No. 3 corresponds to Type 3B — that is, a rhombic shape with an elongated upper blade section and a concave lower blade section.

Among the archaeological sites in Kazakhstan, the closest direct parallels to the series of rhombic arrowheads under consideration have been identified in Central and Eastern Kazakhstan: four specimens at the Atasu-2 site (Beisenov et al. 2018: 103—117); five examples at the Unirek 2 site (Kurmankulov et al. 2018: 291—295); and three examples in Kurgan No. 1 of the Zevakino burial ground (Arslanova 1975: 116—129). Parallels from South Kazakhstan are represented by finds from the Koktal kurgan (2 specimens), where the arrowheads exhibit similar blade morphology (Kadyrbayev 1959: 89—97). In the South Ural region, the most representative series

of three-bladed tanged arrowheads have been documented in the Solonchanka I complex — 48 specimens (Lyubchansky, Tairov 1999: 23) — and the Sultantemirovsky I complex — 21 specimens (Sungatov 2003: 216—224). Isolated finds of similar forms are known from the Gorodishchenskoye IX (2 specimens) and Izhevsky-2 (1 specimen) sites (Grudochko 2020).

Arrowheads of these types became widespread in the 5th—6th centuries CE and are among the characteristic finds at Hunnic- and post-Hunnic-period sites.

The radiocarbon results from the Besobaly kurgan with “moustaches” are generally consistent with the dating of the arrowheads. Three samples were selected for radiocarbon analysis: one from Mound No. 4 (taken at the level of the natural ground surface in the eastern sector of the mound), and one each from the northern and southern stone ridges. The sample from the northern ridge was discovered between the stones within the turf layer, 15 m from the beginning of the ridge. The sample from the southern ridge was located at the level of the natural ground surface, 6 m from the beginning of the ridge. The sample from the northern ridge yielded a modern radiocarbon date; therefore, this result cannot be used to determine when the complex was constructed and used.

The other two samples yielded older dates. The sample from Mound No. 4 has a radiocarbon age of 1627±30 BP, and the sample from the southern stone ridge has an age of 1531±29 BP. After calibration, their ranges are 384—543 and 435—602 cal AD (95.4%), respectively.

For comparison, it is worth noting the results of radiocarbon analysis of a sample from the Aktas-3 kurgan with “moustaches”. The charcoal sample has a radiocarbon age of 1758±30 BP, which, after calibration, corresponds to the range of 235—383 cal AD (95.4%). This date is earlier than the dates obtained for samples from Mound No. 4 and the southern stone ridge of the Besobaly complex. The calibrated range of 235—383 cal AD is earlier than the ranges obtained for Besobaly (384—543 and 435—602 cal AD), which may indicate an earlier date for the construction or use of the Aktas-3 complex. The obtained date suggests that the complex may have existed as early as the period traditionally associated with the Hunnic era. Overall, the sites of the Hunnic period in Central Kazakhstan remain poorly studied (Beisenov, Panichkin 2024: 130). Taken together, the radiocarbon data from Besobaly and Aktas-3 suggest that similar kurgan complexes existed in Central Kazakhstan during the 3rd—6th centuries CE, although the specific chronology of individual sites requires comparison with archaeological evidence.

The newly obtained radiocarbon dates from the Besobaly and Aktas-3 complexes complement the existing radiocarbon dataset for kurgans with “moustaches” in Saryarka, presented in the summary table by G.S. Jumabekova and G.A. Bazarbayeva (Jumabekova, Bazarbayeva 2022: 62). At the same time, the available body of evidence does not yet allow the overall chronology of this type of monument to be determined unequivocally. Rather, the results point to the need for further accumulation of radiocarbon dates and their correlation with archaeological evidence.

Conclusion

The results of the exploratory work indicate that kurgans with “moustaches” are widely distributed throughout the Ulytau region. The authors do not claim to have definitively determined the number of kurgans with “moustaches” in the study area. During subsequent field studies, this number may be significantly refined and, likely, increased. The use of GIS mapping, combined with detailed field documentation of the structural elements of kurgans with “moustaches”, ensures the collection of highly accurate data on their layout and spatial structure.

The materials collected during the excavations, including radiocarbon dating results, are essential for refining the chronological parameters and determining the cultural attribution of kurgans with “moustaches”, as well as for interpreting their ritual functions.

The newly obtained radiocarbon dates from materials discovered in kurgans with “moustaches” contribute to the refinement and expansion of the existing chronological database. However, the available dataset remains limited and is not yet sufficiently representative to thoroughly address issues related to the cultural and chronological attribution and periodization of kurgans with

"moustaches". In this context, it is particularly important to continue collecting radiocarbon dates, broaden the geographic scope of research, and employ interdisciplinary analytical methods. Such efforts will ultimately contribute to a more precise chronological framework and a clearer understanding of the developmental phases of these sites.

A principal focus in the systematization of data concerning kurgans with "moustaches" within Central Kazakhstan — considered within the broader setting of the Ural-Kazakh steppes — is the development of a comprehensive digital database that facilitates the standardization, integration, and comparability of diverse archaeological materials. The establishment of such a database necessitates the implementation of a unified metadata system encompassing information on the geographical coordinates of the sites (utilizing GIS technologies), their typological classification, layout and structural features, results of archaeological investigations and radiocarbon analyses, as well as data related to artifacts and associated materials. The integration of bibliographic and archival sources is of considerable importance.

Therefore, the research conducted affirms the considerable scientific potential of kurgans with "moustaches" in the Ulytau region and underscores the necessity for their continued comprehensive investigation. Despite the limited data presently available, the findings contribute meaningfully to the refinement of the chronology and interpretation of these sites. Prospects for future research include expanding the source base, employing interdisciplinary approaches, and developing digital analytical methods, which collectively will substantially enhance our understanding of the cultural and historical processes reflected in these archaeological complexes.

References

Ageeva et al. 1960: Ageeva, E.I., Akishev, K.A., Kushayev, G.A., Maximova, A.G., Senigova, T.N. (eds.) 1960. *Arheologicheskaya karta Kazahstana (Archaeological map of Kazakhstan)*. Alma-Ata: KazSSR Academy of Sciences (in Russian).

Akimat of Ulytau Region 2025: *Ob utverzhdenii gosudarstvennogo spiska pamyatnikov istorii i kultury mestnogo znacheniya oblasti Ulytau: postanovlenie akimata oblasti Ulytau ot 3 oktyabrya 2025 goda No. 78/01* (*On the approval of the State List of Monuments of History and Culture of Local Significance of Ulytau Region: Resolution of the Akimat of Ulytau Region No. 78/01 of October 3, 2025*) (in Russian).

Akinzhanov, S.M. 1977. Kurgan s "usami" na yugo-zapadnykh sklonakh Karatau (The kurgan with "moustache" on the southwestern slopes of Karatau). In: Akishev, K.A. (ed.). *Arkheologicheskie issledovaniya v Otrare (Archaeological investigations in Otrar)*. Alma-Ata: Nauka, 72—81 (in Russian).

Arslanova, F.Kh. 1975. Kurgany s "usami" Vostochnogo Kazakhstana (Kurgans with "moustaches" of Eastern Kazakhstan). In: Akishev, K.A. (ed.). *Drevnosti Kazakhstana (Antiquities of Kazakhstan)*. Alma-Ata: Nauka, 116—129 (in Russian).

Beisenov, A.Z. 2017. Kurgany s "usami" Tsentralnogo Kazakhstana (Kurgans with "moustaches" of Central Kazakhstan). In: Beisenov, A.Z., Loman, V.G. (eds.). *Arkheologicheskoe nasledie Tsentralnogo Kazakhstana: izuchenie i sokhranenie* (*Archaeological heritage of Central Kazakhstan: study and preservation*). Vol. 2. Almaty: Margulan Institute of Archaeology; Research center for the History and Archaeology "Begazy-Tasmola", 31—37 (in Russian).

Beisenov et al. 2018: Beisenov, A.Z., Torgoev, A.I., Duysenbay, D.B., Akhiyarov, I.K. 2018. Kurgan s "usami" Atasu-2 (The kurgan with "moustache" Atasu-2). *Povolzhskaya arkheologiya (The Volga river Region Archaeology)* 3 (25), 103—117 (in Russian).

Beisenov et al. 2025: Beisenov, A.Z., Akhiyarov, I.K., Kukushkin, I.A. 2025. Issledovanie kurgana s «usami» Tekey, Tsentralnyy Kazakhstan (Investigation of the kurgan with "moustache" of Tekey, Central Kazakhstan). *Teoriya i praktika arkheologicheskikh issledovaniy (Theory and Practice of Archaeological Research)* 37 (1), 189—205 (in Russian).

Beisenov, A.Z., Panichkin, A.V. 2024. Issledovanie struktury zheleznogo kinzhala gunnskogo vremeni iz Tsentralnogo Kazakhstana (Study of the Structure of an Iron Dagger of the Hunnian Time from Central Kazakhstan). *Materialy po arkheologii i istorii antichnogo i srednevekovogo Prichernomor'ya (Proceedings in Archaeology and History of Ancient and Medieval Black Sea Region)* 18, 127—135 (in Russian).

Beisenov, A.Z., Utubayev, Zh.R. 2022. Novye pamyatniki rannego zheleznogo veka v rayone gor Ulytau, Tsentralnyy Kazakhstan (New Early Iron Age sites in the Ulytau Mountains area, Central Kazakhstan). *Ufimskiy arkheologicheskiy vestnik (Ufa Archaeological Herald)* 22 (1), 104—114 (in Russian).

Chindin, A.Yu. 1989. Arkheologicheskie issledovaniya na territorii Karagandinskoy i Jezkazganskoy oblastey (Archaeological investigations in the territories of the Karaganda and Jezkazgan regions). *Margulan oqulary—1989 (Margulan Readings*), 234—236 (in Russian).

Grudochko, I.V. 2020. *Kurgany s “usami”. Epokha pozdney drevnosti i rannego srednevekov’ya Uralo-Kazakhstanskikh stepey (IV—VII vv. n. e.) (Kurgans with “moustaches”. The Late Antiquity and Early Medieval Period in the Ural-Kazakhstan Steppes (4th—7th centuries CE))*. Chelyabinsk: South Ural State University (in Russian).

Jumabekova, G. S., Bazarbayeva, G. A. 2022. “Solnechnye kurgany” Ashutasty: istoricheskaya pamyat v Stepi (po rezultatam radiokarbonnogo analiza) (“Solar” mounds of Ashutasty: Historical memory in the Steppe (based on the results of radiocarbon analysis)). *Kazakhstan Archeology* 3 (17), 43—73 (in Russian).

Kadyrbayev, M.K. 1958. O nekotorykh pamyatnikakh rannikh kochevnikov Tsentralnogo Kazakhstana (On some sites of the early nomads of Central Kazakhstan). *Izvestiya AN KazSSR. Seriya istorii, arkheologii i etnografii (Proceedings of the Kazakh SSR Academy of Sciences. Series of History, Archaeology and Ethnography)* 1 (6), 95—104 (in Russian).

Kadyrbayev, M.K. 1959. Issledovaniya kurgana s kamennymi gryadami v Jambulskoy oblasti (Research of a kurgan with stone ridges in the Jambul Region). *Vestnik Akademii nauk Kazakhskoy SSR (Bulletin of the Academy of Sciences of the Kazakh SSR)* 7 (172), 89—97 (in Russian).

Kadyrbayev, M.K. 1966. Pamyatniki tasmolinskoy kultury (The sites of the Tasmola culture). In: Margulan, A.Kh., Akishev, K.A., Kadyrbayev, M.K., Orazbayev, A.M. 1966. *Drevnyaya kultura Tsentralnogo Kazakhstana (Ancient Culture of Central Kazakhstan)*. Alma-Ata: Nauka, 303—433 (in Russian).

Kassenali, A. 2023. *Arkheologiya salasyndagy gylymi-zertteu zhumystary. Aktas qorimy, Ulytau audany, Ulytau oblysy: gylymi-zertteu zhumystarynyn gylymi esebi (Research work in the field of archaeology. Aktas burial ground, Ulytau District, Ulytau Region: scientific report on the research work*). Zhezkazgan: Center for the Preservation of Historical and Cultural Heritage (in Kazakh).

Kurmankulov et al. 2018: Kurmankulov, Zh., Utubayev, Zh.R., Kassenova, A.D. 2018. Arkheologicheskie issledovaniya kurgana s “usami” Unirek 2 v Shetskom rayone (Archaeological investigations of the kurgan with “moustache” Unirek 2 in the Shet District). *Margulan oqulary—2018 (Margulan Readings)*, 291—295 (in Russian).

Lyubchanskiy, I.E., Tairov, A.D. 1999. *Kurgannyy mogilnik Solonchanka I* (*Solonchanka I Kurgan Burial Ground*). Chelyabinsk: South Ural State University (in Russian).

Margulan, A.Kh. 1948. Arkheologicheskie razvedki v Tsentralnom Kazakhstane (1946 g.) (Archaeological surveys in Central Kazakhstan (1946)). *Izvestiya AN KazSSR. Seriya istoricheskaya (Proceedings of the Kazakh SSR Academy of Sciences. Historical Series)* 4 (49), 119—145 (in Russian).

Margulan, A.Kh. 2010. *Shygarmalary (The essays)*. Vol. 8: Architecture of Kazakhstan. The most ancient, ancient, medieval. Almaty: Alatau (in Kazakh).

Onggar, A. 2023. *Otchet o nauchno-issledovatelskoy rabote: Sakskiy kulturnyy kompleks Zapadnoy Saryarki i Severnogo Priaral’ya: mezhdistsiplinarnoe issledovanie (zaklyuchitel'nyy)* (*Research report: Saka cultural complex of Western Saryarka and the Northern Aral Sea region: an interdisciplinary study (final report*)). Archive of the National Museum of the Republic of Kazakhstan. Astana (in Russian).

Orazbayev, A.M. 1969. Kurgan s “usami” v mogil'nike Janaydar kak arkhitekturnyy pamyatnik (The kurgan with “moustache” at the Janaydar burial ground as an architectural monument). In: Akishev, K.A. (ed.). *Kultura drevnikh skotovodov i zemledeltsev Kazakhstana (Culture of the ancient pastoralists and farmers of Kazakhstan)*. Alma-Ata: Nauka, 175—192 (in Russian).

Sungatov, F.A. 2003. Sultantemirovskiy kurgan s “usami” (The Sultantemirov kurgan with “moustaches”). *Ufimskiy arkheologicheskiy vestnik (Ufa Archaeological Herald)* 4, 216—224 (in Russian).

Usmanova, E.R. 1987. Novye materialy po epokhe kochevnikov iz Jezkazganskoy oblasti (New materials on the nomadic period from the Jezkazgan region). In: Zdanovich, G.B. (ed.). *Ranniy zheleznyy vek i srednevekov'e Uralo-Irtyshskogo mezhdurech'ya (The Early Iron Age and the Middle Ages of the Ural-Irtysh interfluve)*. Chelyabinsk: Publishing house of Bashkir University, 99—105 (in Russian).

Zasetskaya, I.P. 1994. *Kultura kochevnikov yuzhnorusskikh stepey v gunnskuyu epokhu (konets IV—V vv.)* (*Culture of the Nomads of the Southern Russian Steppes in the Hunnic Period (late 4th—5th centuries))*. Saint Petersburg: Ellipse Co., Ltd (in Russian).

Table 1. **Morphological and Technological Characteristics of the Ceramic Material from the Kotyrtau Kurgan with "Moustaches".**

№	Fragment	Morphological Characteristics	Dimensions	Surface and color	Clay body	Raw materials	Shaping technique	Firing
1	Rim	Curved outward, tapering in shape, triangular in cross-section; tapers into a widening body. Signs of adaptation for a lid are evident.	Diameter at the rim: 12 cm; rim thickness: 0.8 cm; wall thickness: 0.7 cm	Rough on both sides, light brown; traces of smoothing are visible	Coarse-grained and uniform, medium-sized; black central core	Sand / crushed stone; grains 0.3—0.5 mm, subangular, ratio 1:4	Strip Decal	—
2	Rim	Curved outward, rounded and tapering in shape, triangular in cross-section; tapers into a widening body. On the inner side, there is a horizontal line, likely related to the use of the lid.	Diameter at the rim: 13 cm; rim thickness: 0.7 cm; wall thickness: 0.8 cm	Rough on both sides, light brown	Coarse-grained and moderately sorted; black central core	Sand / crushed stone; grains 0.3—0.5 mm, subangular, ratio 1:4	Strip Decal	—
3	Bottom section, 2 fragments	Flat bottom with a groove along the outer edge; a bottom-expanding shape. An additional band is visible, applied to even out the bottom and create a smooth transition to the body.	Base diameter: 9 cm	The outer surface is smooth, while the inner surface is rough and bumpy; light brown	Coarse-grained and moderately sorted; the core is black in the body region and brown in the base region	Sand / sand; grains 0.3—0.5 mm, subangular and subrounded, ratio 1:3	Strip Decal	—
4	Walls, 15 fragments	–	Wall thickness: 0.7—0.8 cm	Rough, brown	Coarse-grained, rough, moderately sorted; black central core	Sand / crushed stone; grains 0.3—0.5 mm, subangular and subrounded, ratio 1:4	—	Recovery environment; slightly iron-rich clay

Table 2. **Key Characteristics of the Structures of the Besobaly Complex.**

№	Structure	Location	Dimensions	Key specifications
1	Mound No. 1	The southern part of the chain	Diameter: 10.7 m; height: 0.3 m	A round stone mound
2	Mound No. 2	4.3 m north of Mound No. 1	Length: 14 m; width: 9 m; height: 0.3 m	Elongated oval; probably two-part
3	Mound No. 3	The central part of the chain	Diameter: 10 m; height: 0.4 m	Rounded; the southeastern section is lower
4	Mound No. 4	9 m north of Mound No. 3	Diameter: 8 m; height: 0.3 m	A round stone mound
5	Mound No. 5	5.4 m north of Mound No. 4	Length: 14 m; width: 10 m; height: 0.3 m	Complex, resembling a figure-eight
6	Northern Ridge	13.7 m east of Mound No. 5	Length: 122 m; width: 1.5–2 m	A faintly arched stone ridge; at its eastern end, a rounded structure
7	Southern Ridge	16 m east of Mound No. 1	Length: 100 m; width: 1.5–2 m	A faintly arched stone ridge; more massive and better preserved

Table 3. **Results of Radiocarbon Analysis of Samples from the Besobaly and Aktas-3 Kurgans with “Moustaches”.**

№	Sample Object and Collection Site	Laboratory Code	Radiocarbon Age, BP	Calibrated Date, cal AD (68,3%)	Calibrated Interval, cal AD (95,4%)
1	Besobaly. Kurgan 4	FTMC-DR33-1	1627±30	410—440; 460—478; 496—534	384—543
2	Besobaly. Northern Ridge	FTMC-DR33-2	–322±26	2011—2012	1956—1956; 2010—2013
3	Besobaly. Southern Ridge	FTMC-DR33-3	1531±29	482—492; 537—594	435—466; 474—518; 528—602
4	Aktas-3. Charcoal	FTMC-DR33-4	1758±30	246—261; 277—341	235—383

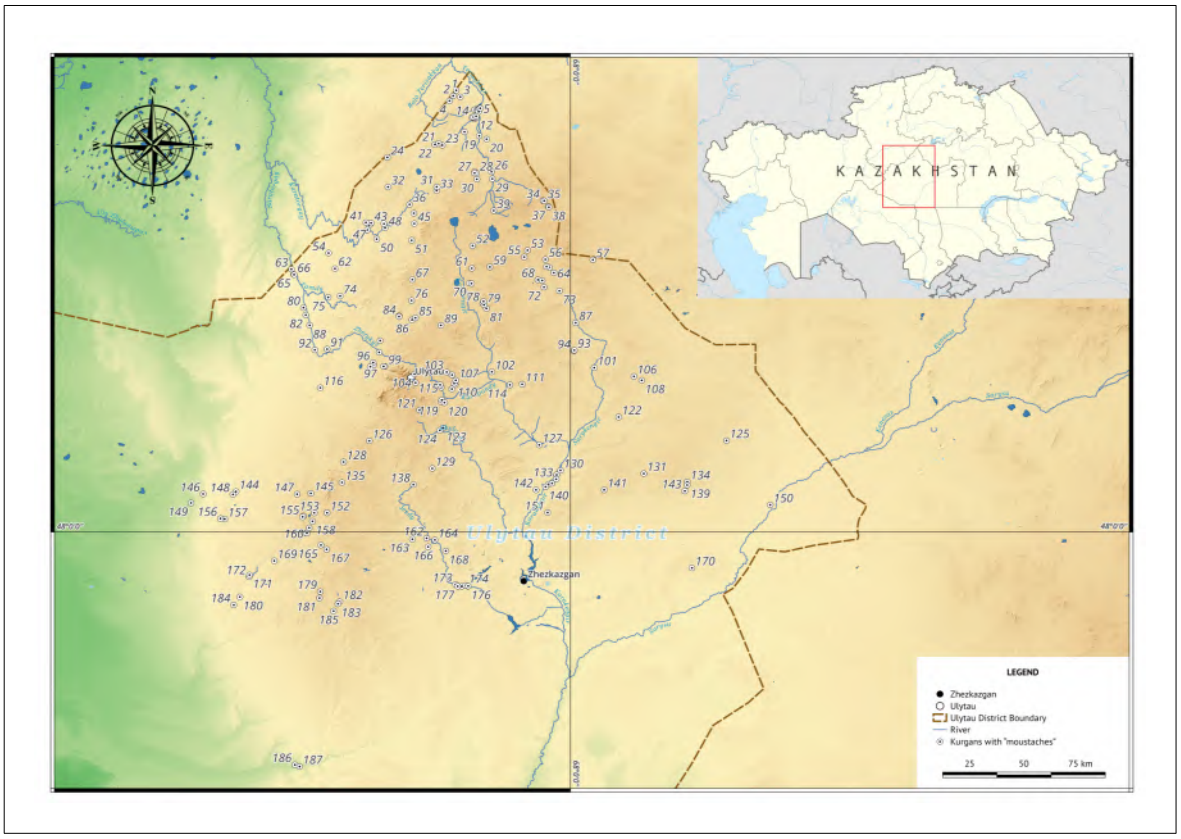


Fig. 1. Map showing the distribution of kurgans with “moustaches” in the Ulytau region.

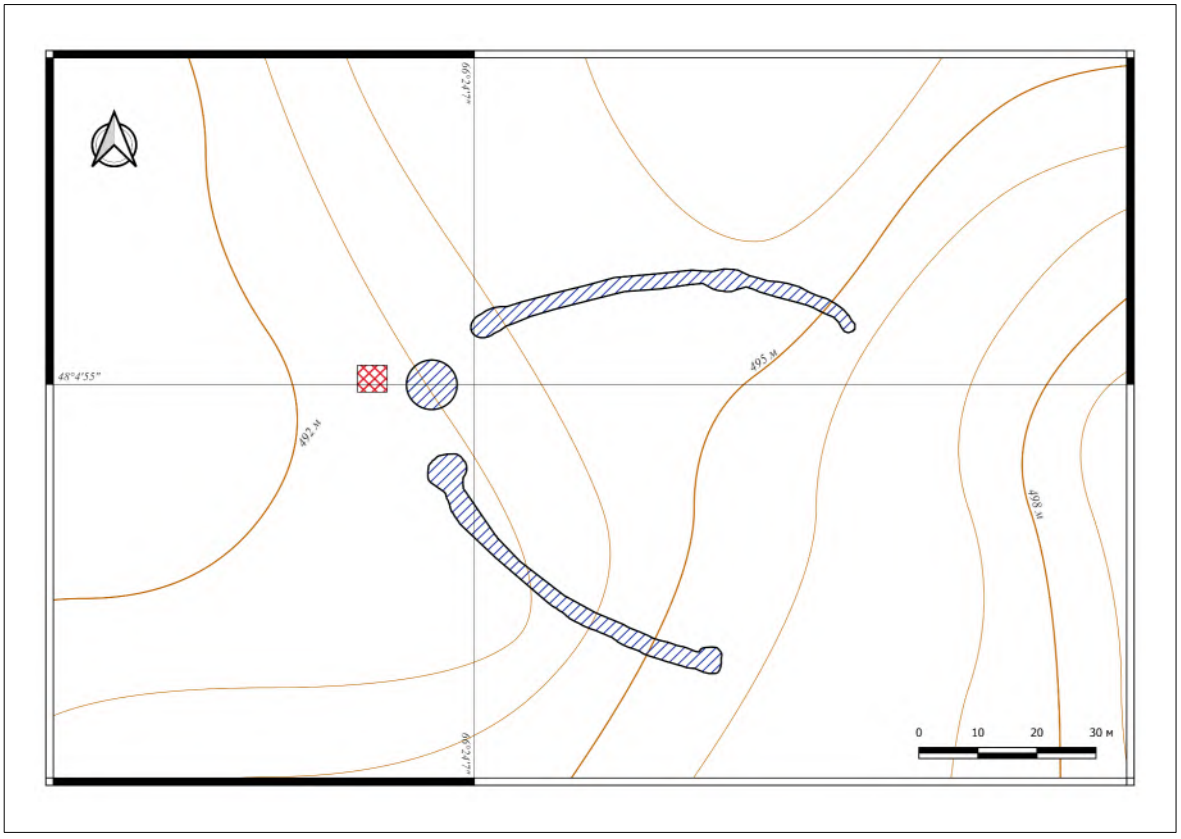


Fig. 2. Plan of the Kotyrtau-1 burial ground.

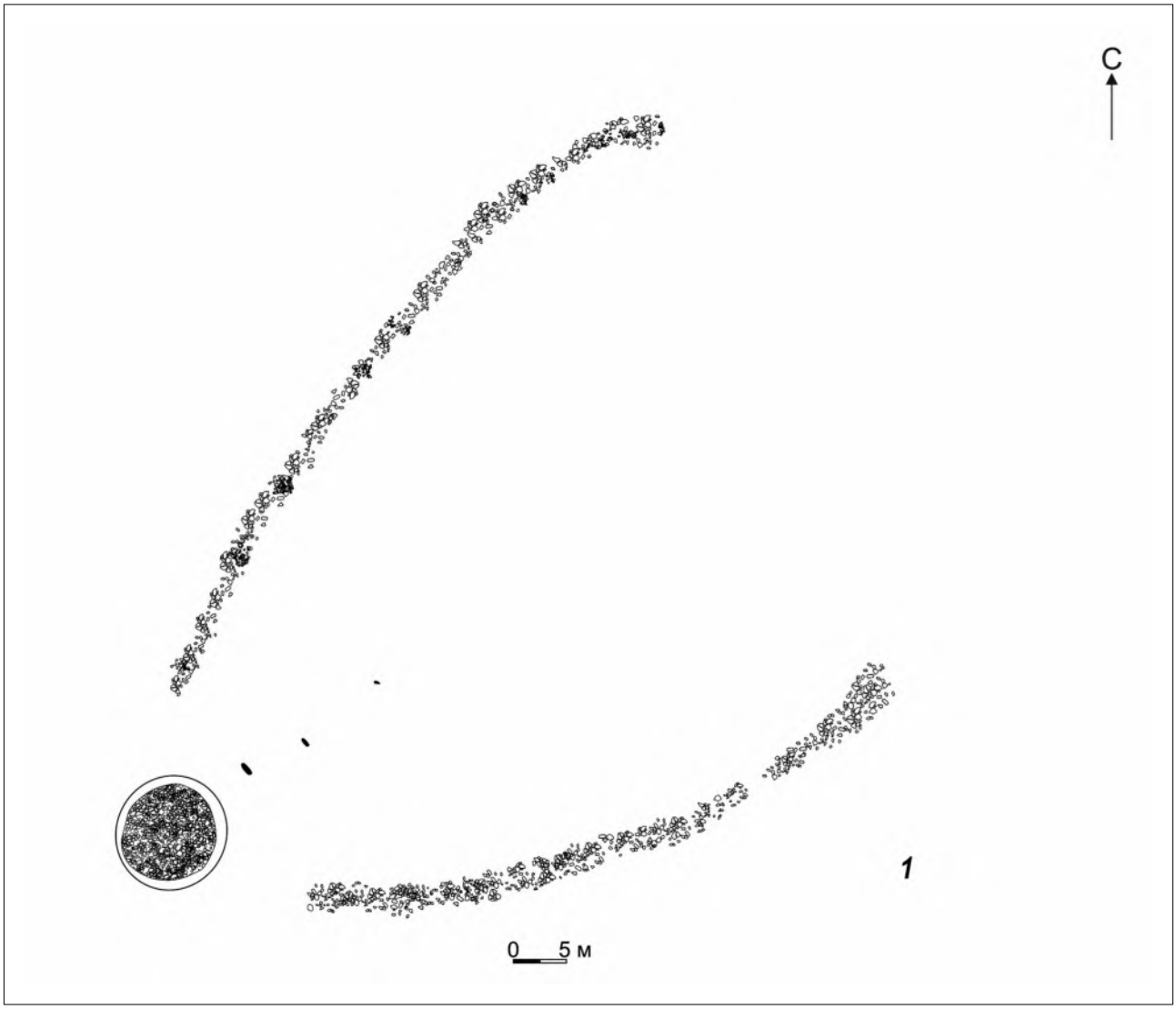


Fig. 3. Plan of the Aktas-3 kurgan with “moustaches”.

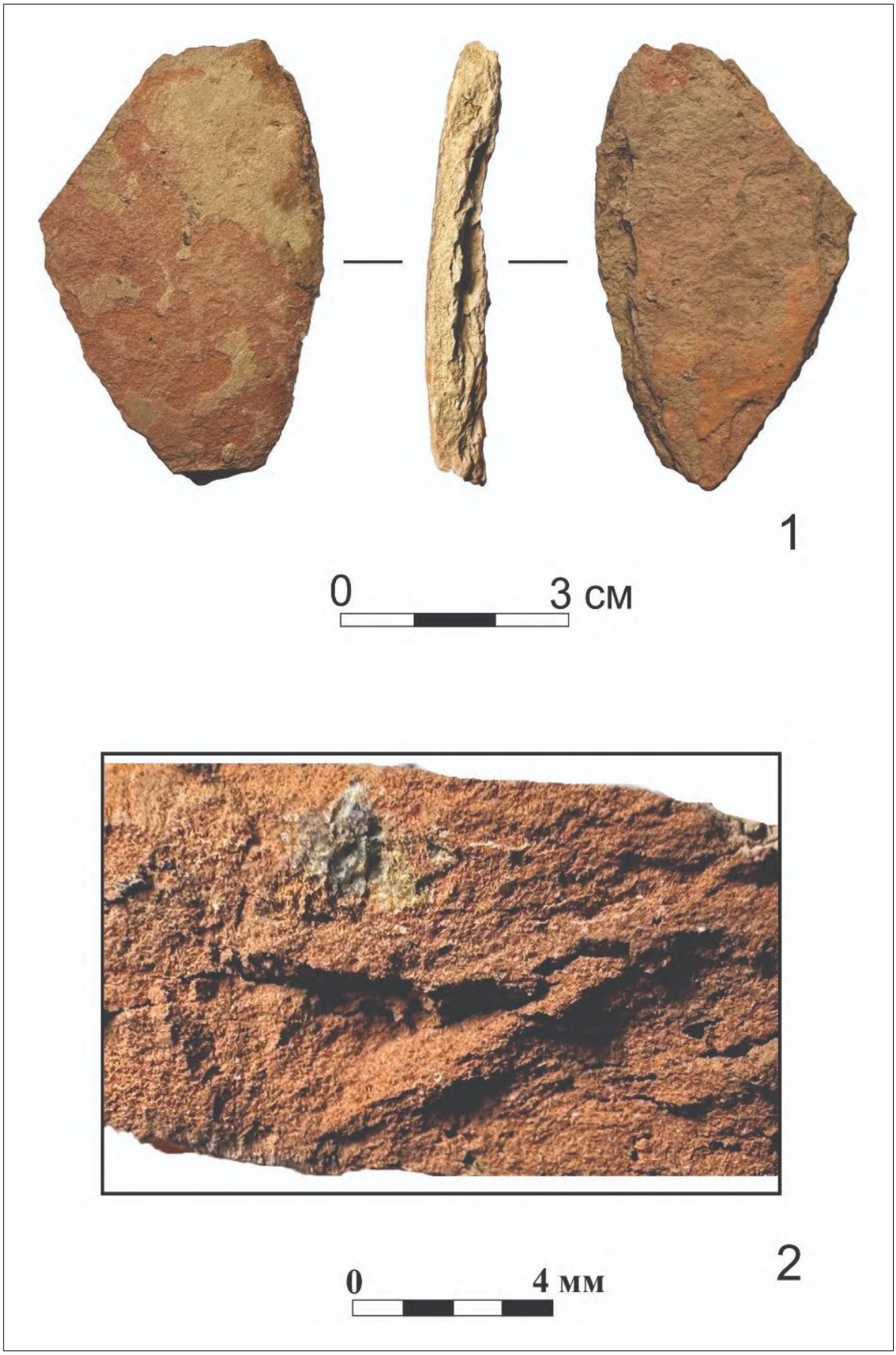


Fig. 4. Fragments of a ceramic vessel from the Aktas-3 kurgan with “moustaches”.

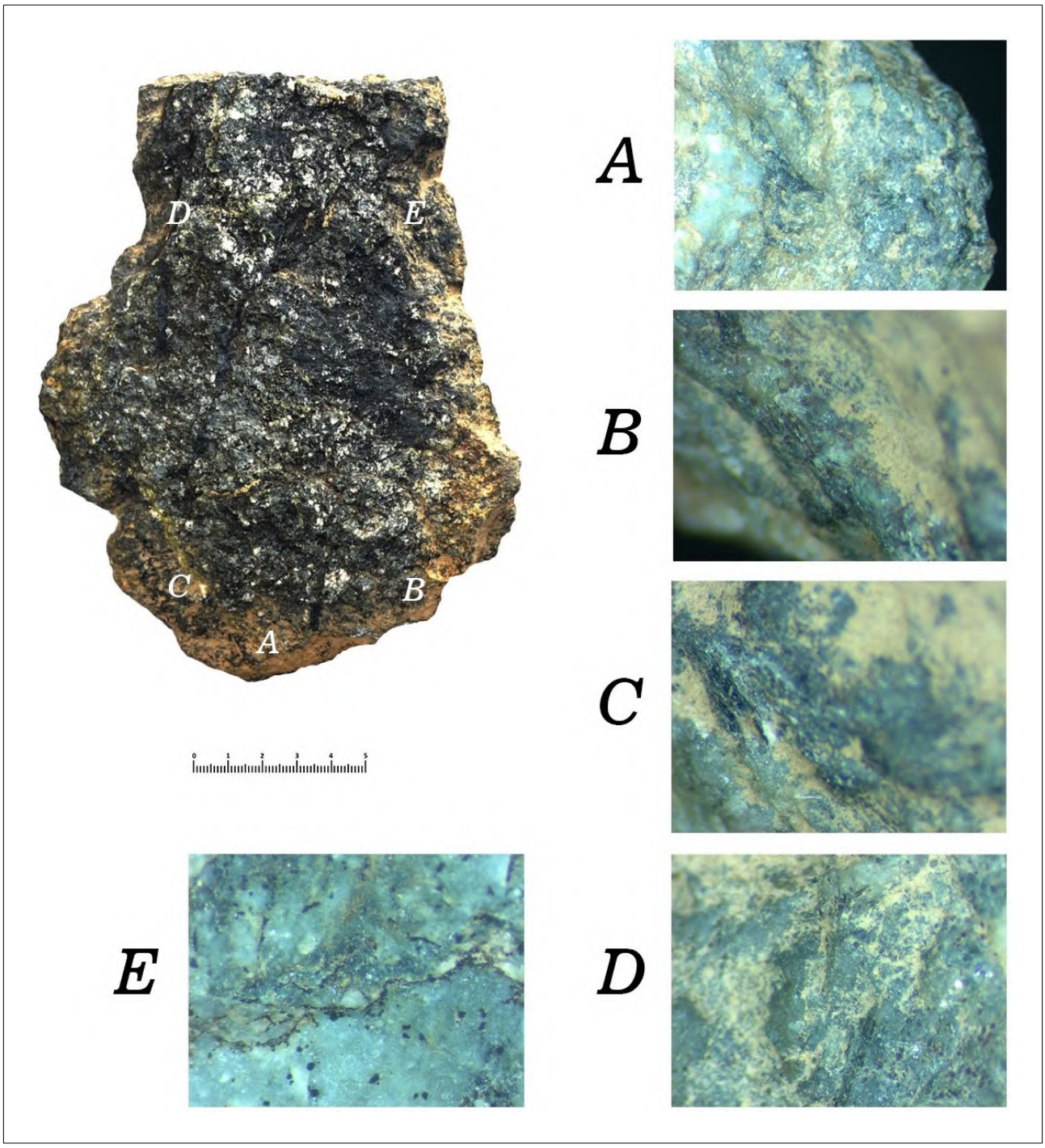


Fig. 5. Stone hoe from the Aktas-3 kurgan with “moustaches”.

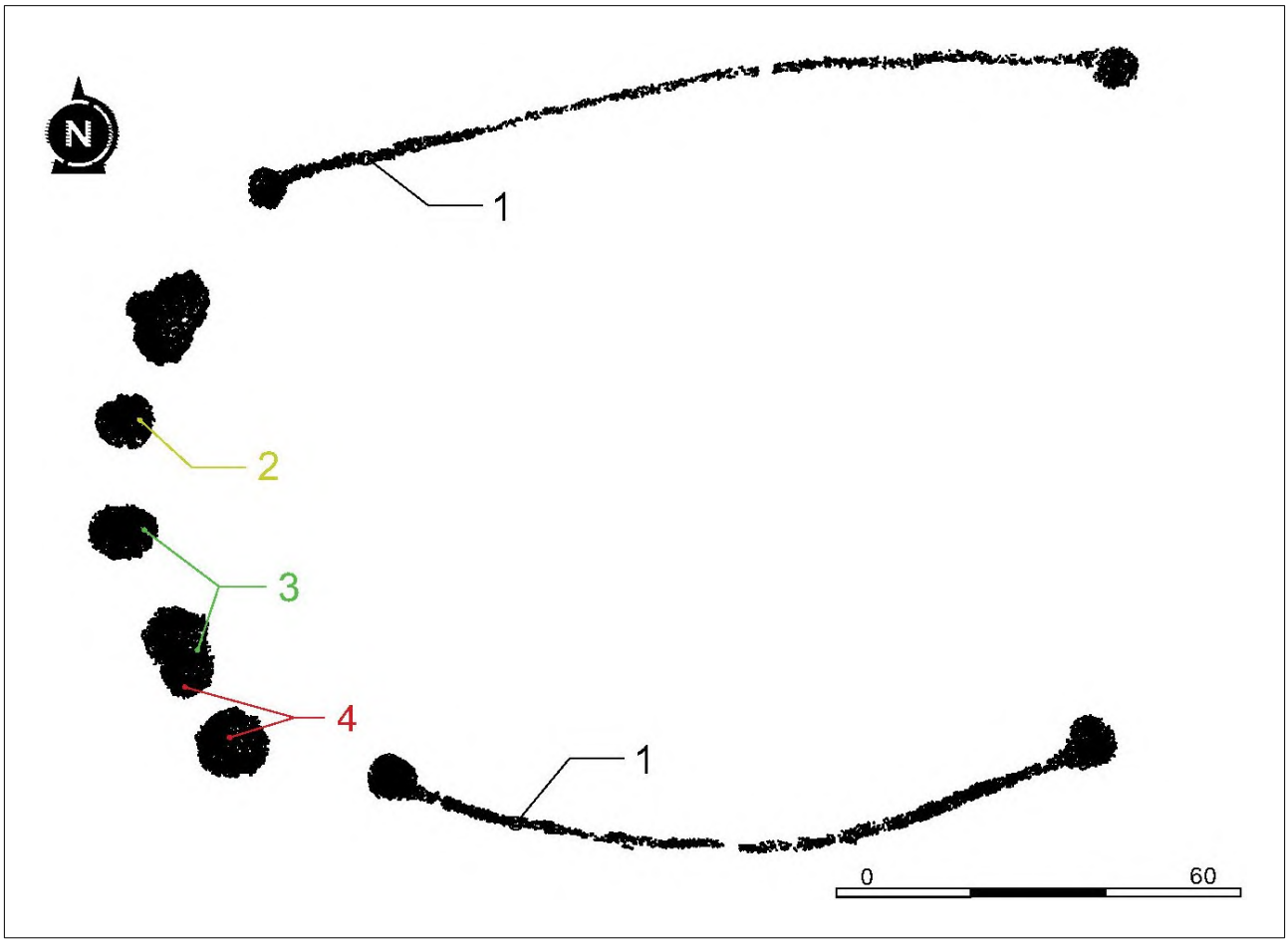


Fig. 6. Excavation plan of the Besobaly kurgan with "moustaches": *1* — Bone sampling location for radiocarbon dating; *2* — Charcoal sampling location for radiocarbon dating; *3* — Locations of ceramic vessels; *4* — Locations of arrowheads.

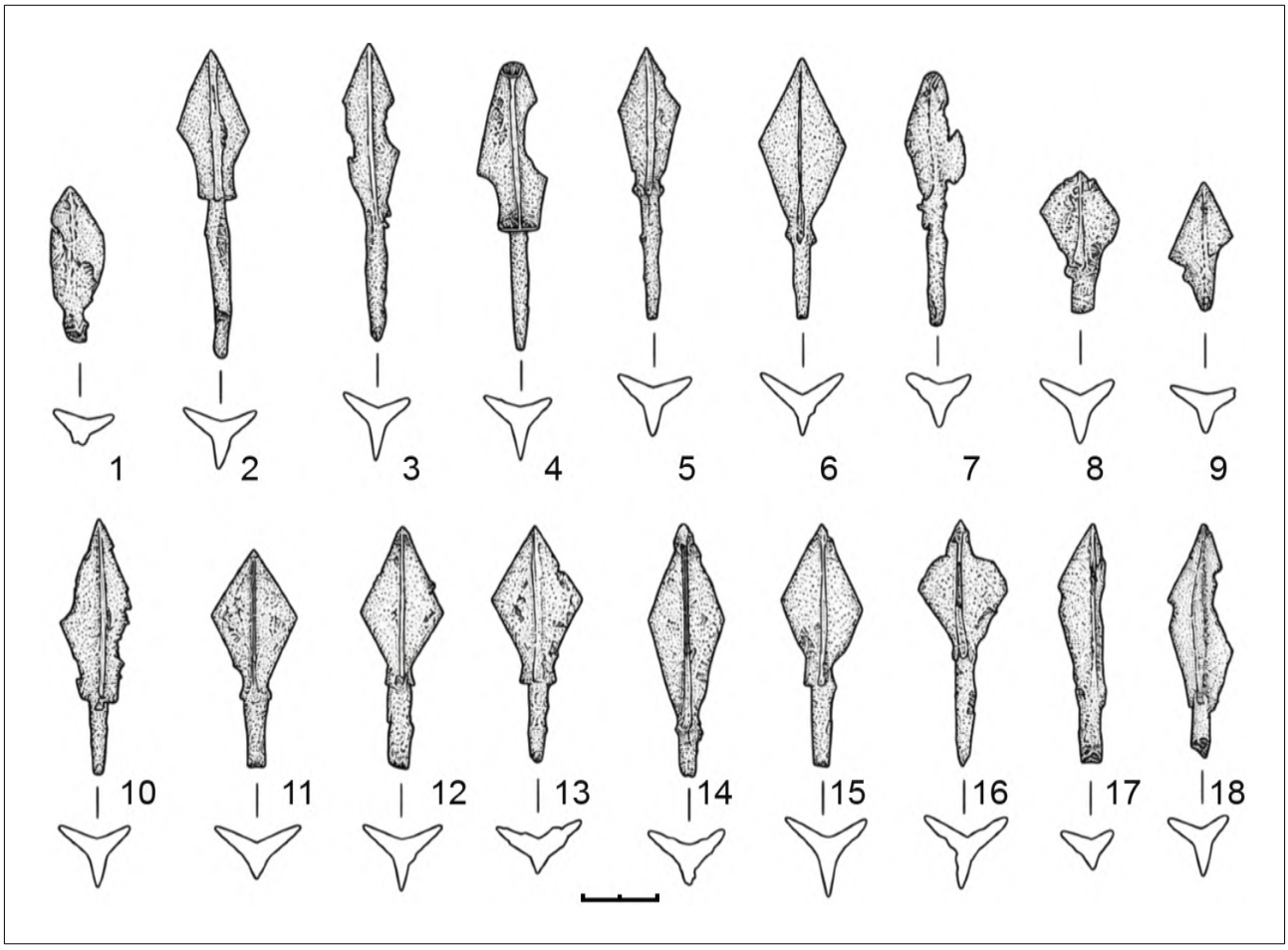


Fig. 7. Arrowheads from the Besobaly kurgans with “moustaches”: *1* — Kurgan No. 1; *2—18* — Kurgan No. 2.

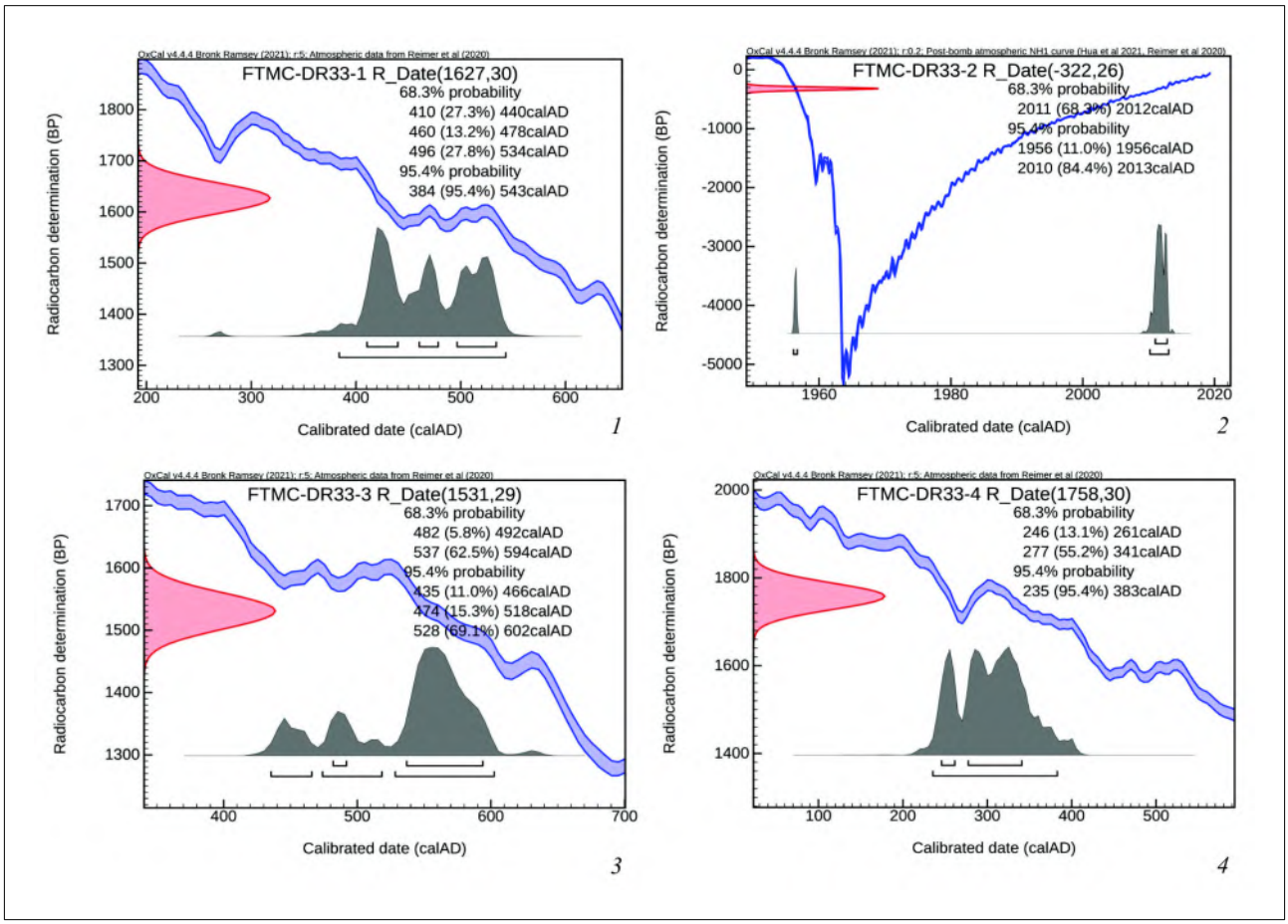


Fig. 8. Results of radiocarbon dating and calibration of samples FTMC-DR33-1–4.