

**Azerbaijan National Sciences Academy
Institute of Archaeology and Ethnography**

DETAILED SCIENTIFIC REPORT

**Excavation of the Borsunlu kurgan cemetery located near KP
247 SCPX pipeline**

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1 SUMMARY

The report provides information on the archaeological excavations carried out from November 6, 2015 to January 14, 2016 in the Borsunlu kurgan cemetery, in the vicinity of Borsunlu village, Goranboy district at KP 247 of the gas export pipeline corridor under the SCPX project. Nine kurgans were excavated in preparation of construction of an accommodation camp for the SCPX project. Graves were discovered during the excavations under the kurgans, along with ceramic samples and ornaments. Actual archaeological data that sheds light on the domestic life, religious views and social status of the residents of this settlement was obtained on the site. According to the analysis of the archaeological content, researchers established that the cemetery dates to the early Iron Age. Occupation of an earlier period is suggested by remains of two grindstones incorporated in the fill of burial chambers and sporadic obsidian tools found across the site during construction of the camp.

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2 INTRODUCTION

2.1 SITE DISCOVERY

The Borsunlu kurgan cemetery, located south of KP 247 of the SCPX route, was recorded due to this location's use as an accommodation camp for the project. A kurgan was excavated and researched in the Borsunlu territory during construction of the BTC main export oil pipeline nearby as early as in 2005, about 1km west of the site described here. Therefore, archaeologists presumed that an archaeological monument could be located in the area. Indeed, dozens of kurgan-type monuments were revealed during a visual check-up conducted in the area. The Borsunlu kurgan cemetery was initially registered and listed among the monuments in the SCPX corridor where archaeological excavations would be carried out in compliance with the agreement reached by the IoAE and BP (SCPX). It is noteworthy that a few more burials are located in the nearby area west and south of the excavated kurgans. These include a large kurgan mound where four burial chambers can be traced in the cover area. This was probably the tomb of a tribal leader. The area west of the camp is crossed by lines of small river rounded boulders possibly delineating roads and small enclosure. Their age and purpose is unclear. These lines of stone appear very similar to the stone lines that delineated the main wall of the Kerpijlitepe fortress, excavated as part of the project about 500m to the north. Whether these features are related to this site is possible, but unfortunately, impossible to prove. Unfortunately, these features were not excavated, as they were outside the area required for the camp.

2.2 BRIEF DESCRIPTION OF THE SITE

The settlement is located in the N-403723.6; E-0464108.7 coordinates at KP 247.900 of the SCPX route, 208-210 metres above sea level. It is situated about 1km southeast of the Goranboy district Borsunlu village, 1km north of the Veyisli village on the right-hand side of the road leading from the Baku-Gazakh highway to the Goranboy regional centre. The Gazanbulag river ravine stretches along the western part of the kurgan cemetery. The area has plain relief. There is gravel in the soil composition. The area has been used for pasture grazing.

2.3 WHO CARRIED OUT THE EXCAVATION AND WHEN

An expedition group of the ANSA IoAE carried out archaeological excavations in the area of the Borsunlu kurgans from November 6, 2015 to January 14, 2016, overseen by PhD in History, senior research fellow Vagif Asadov, with the participation of the Institute's employees, including PhD in History, senior research fellow Dmitry Kirichenko, junior research associate Ahliman Abdurahmanov and senior laboratory assistant Farhad Farmanov. BP (SCPX) Cultural Heritage Site Construction Manager Mahammad Novruzov contributed to the excavation work as an observer.

3 OUTCOME OF ARCHAEOLOGICAL EXCAVATIONS

3.1 GENERAL DESCRIPTION OF THE SITE

The Borsunlu kurgan cemetery is located in a plain area. The monument is situated at the N-403723.6; E-0464108.7 coordinates, 208-210 metres above sea level. The kurgans have a general title and in terms of administrative division are part of the Borsunlu village of the Goranboy district. The monument lies south of KP247 of the SCPX pipe route about 1km southeast of the Borsunlu village, 1km north of the Veyisli village on the right-hand side of the highway leading to the Goranboy regional centre. The Gazanbulag river ravine traverses the western part of the monument area. Given that there is gravel in the soil composition, this territory is unsuitable for sowing. Therefore, the area has been used exclusively for grazing cattle. For this reason, the discovered kurgans remained intact, which significantly facilitated research in the area.

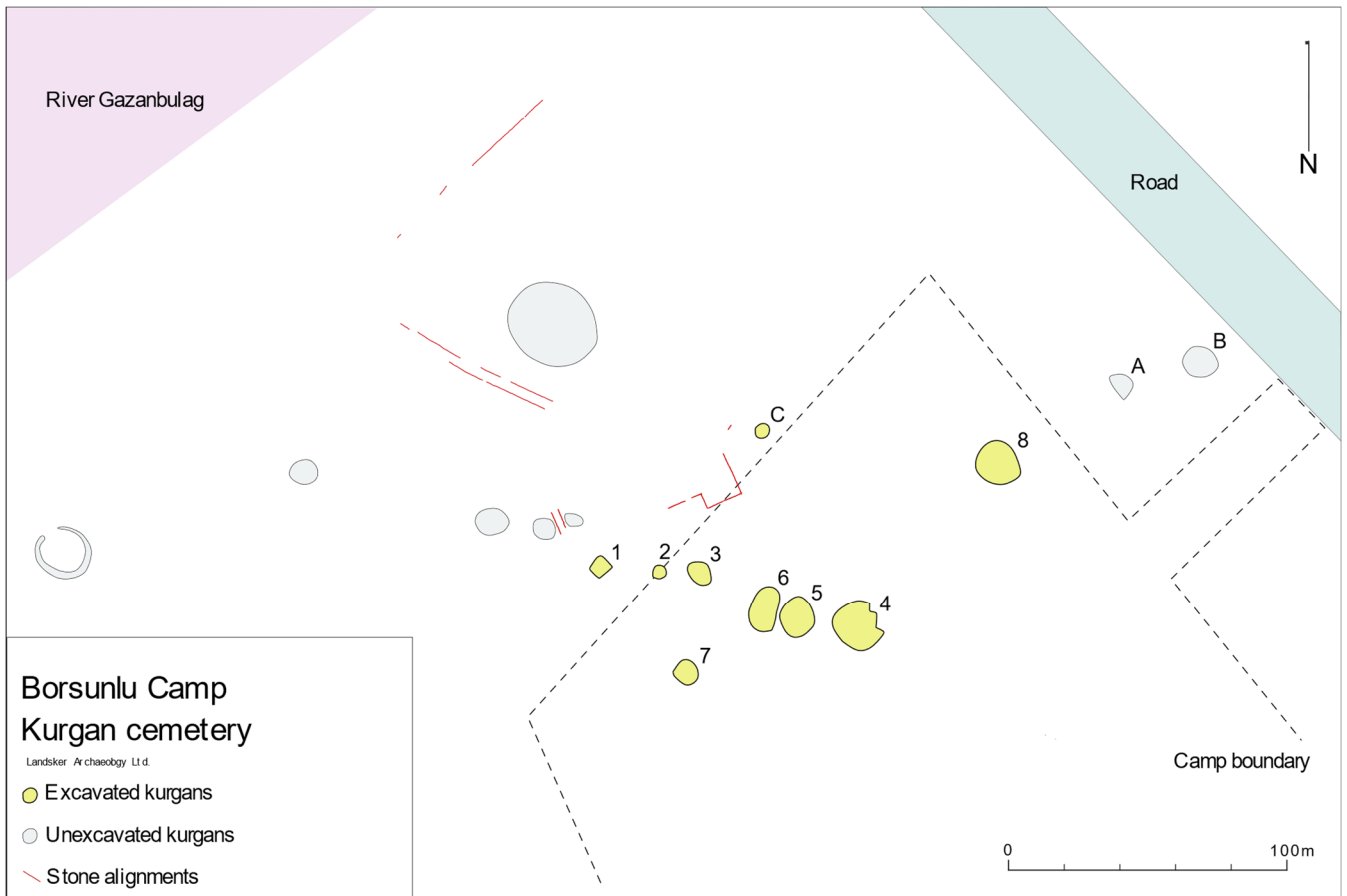


Figure 1. Archaeological excavation area (yellow kurgans excavated, grey kurgans unexcavated) (David Maynard).

Walking around the site one may come across a certain number of burial monuments. The tangible cultural remains discovered in the mentioned areas are mainly significant in terms of the archaeological evaluation of those areas. However, Goranboy territory is considered a common archaeological zone in general. The discovery of numerous archaeological monuments and ceramic samples of a wide variety dating back to the ancient times in this territory allows making a conclusion that life was burgeoning in these areas during that period.

The territory surrounding the kurgans is very conducive for a habitat. Suitable soil reserves and sources of water for farming are available around the kurgan. Perhaps, animal husbandry played a bigger role in the farming activities of local residents. However, the available artefacts prove that there had been very suitable conditions for sowing there as well.

4.2. GENERAL DESCRIPTION OF FEATURES

Work on site began with the selection of an excavation area. The chosen territory was located about 250 metres south of the BTC and SCP pipelines and the new pipeline corridor. The kurgans occupied an area spanning approximately 1 hectare. A total of nine kurgans (with varying dimensions) were excavated. Initially, features resembling small cromlechs, located in the east, southeast and central sections, were excavated and reviewed. However, this test work yielded no archaeological results. Afterwards, excavations were launched at the kurgans located in the northern part of the area. As mentioned above, nine kurgan graves were registered in the excavation area and numbered sequentially 1 to 8. Another kurgan cover, which appeared to be rather questionable, was recorded as “C” at first. Nevertheless, the excavations conducted later confirmed that it was also a kurgan grave.

A total of fifteen kurgan features can be identified in the area (Figure 1). Nine were inside or very close to the boundaries of the camp and were therefore excavated. The remaining six were outside the area and left intact. Kurgans A and B were close to the entrance to the camp which was moved further away

to avoid them. It is possible that Kurgan A was already damaged by construction of a buried cable that runs parallel to the modern road. All kurgans are formed of low mounds of earth and stone, some of very shallow height. Kurgans 6, 8 and the most westerly of the unexcavated features show evidence that they are formed of a 'ring cairn' type feature where the stone covers forms a circle enclosing a stone free centre. Other examples of this type are known in the area, for example, the kurgan south of the BTC Borsunlu kurgan excavated in 2002. The large earth kurgan west of the camp site along with the line of small river boulders forming trackways and enclosures form a complex landscape that may have an extended history.

The landscape appears to have never been ploughed as shown by the survival of the stone alignments and the presence of surface stones across the area. This also suggests that the form of the kurgans has not been greatly changed by recent activities. Observation of the site plan (figure 1) suggests that the kurgan cemetery is laid out in two linear lines very roughly east to west (B, A, 8, C and the large kurgan in the northern line with 4, 5, 6, 3, 2, 1 and four unexcavated kurgans to the south). It is possible that other kurgans may be encountered in the area as it is difficult to identify these above the surface.

All the discovered kurgans were paved with stones with a soil admixture. These included average size and large river rocks. The section located between the stone layers revealed in the kurgan covers was filled with piled soil.

Kurgan 1. It was recorded in the southwest part of the area. The kurgan's initial rock cover diameter was 4m, while the height was 10cm (Figure 21).

The second layer of rocks emerged after the first one was removed. Its dimensions were 3.25m x 3.2m. Ceramic vessel body fragments were encountered amidst the stones in this layer. The second layer of rocks was superseded by a third one. Its dimensions were 3.25m x 2.2m. The third layer of rocks was followed by a fourth one. This layer, which was comprised of average size river rocks, stretched toward the southwest part of the kurgan. The dimensions of its surface were 2.4m x 0.85m.

A layer of piled soil surrounded by gravelly soil emerged in the kurgan's northern part in an area sized 1.95m x 1m. Furthermore, a fifth layer of rocks comprised of average size and large river rocks was discovered in the area at the depth of 70cm under the ground. The round-shaped layer of rocks had a diameter of 70cm. A grindstone fragment was found (Figure 22) amid the rocks.

The sixth layer of rocks emerged at the 80cm depth in this part of the kurgan. This layer included little, medium size and large river rocks. The dimensions were 1.1m x 0.70m. The seventh layer was discovered at the depth of 1m. Its dimensions were 70cm x 60cm.

The next, eighth line of rocks, which was found at the 1.4m depth during the excavations conducted at the burial chamber, included medium size river rocks. The oval line extended 90cm in the west-east direction. It was 60cm wide. Remains of degraded timber (Figures 23-26) were found north of this line adjacent to the burial chamber. A human arm bone emerged at a depth of 1.6m after the rocks were removed. Scattered fragments of legs, ribs, spinal, finger and knee bones began to be found in the surrounding area (Figure 29) while the soil around the mentioned bone was being cleaned. Moreover, it became clear that these fragments were located inside a small line of rocks sized 1.3m x 1.1m. Fragments of a large vessel body split into two parts were found next to the bones, along with pieces of an iron roller, red and black coloured agate beads, as well as a black obsidian splinter.

The discovered vessel is a small pitcher. The black coloured, biconic vessel is polished. The mouth element is funnel-shaped. The vessel has a narrow neck, which is girdled by a line with four grooves. The neck smoothly goes into the shoulder. A handle with a pipe-shaped cross section connects the shoulder with the mouth area in the back. The shoulder is girdled by vertical polished stripes. The body, which has a flat surface, narrows downward. The middle section of the body has grooves (made by applying vertical scratched lines). The base is narrow and flat. The vessel's height is 12cm, while the mouth element diameter is 7.4cm, the body diameter is 11.5cm and the base diameter is 5cm (Figure 30).

Kurgan 2. This kurgan was located 20m northeast of the first one. Its diameter was 4.6m and height was 10cm (Figure 31). A round-shaped line of rocks stretching from the kurgan's centre northward was found as well. The line, which had a diameter of 3.2m, included small, average size and large river rocks. A second layer of rocks emerged after this one was removed. Its dimensions were 3.2m x 2.4m.

Following the second layer of rocks, a third one sized 1.4m x 1.65m emerged. Following the third layer of rocks, a fourth one sized 1.2m x 1.4m emerged. Following the fourth layer, a fifth one emerged. Its dimensions were 1.1m x 1.4m.

The sixth line, which consisted of large river rocks, occupied an area of 2.2m x 1m. This layer of stones emerged at the 70cm depth below the ground. Pieces of coal, fragments of a ceramic vessel body, a grindstone fragment as well as a stratum of reinforcing substance remains were encountered amid the rocks.

The seventh layer of rocks included small, average size and large rocks. Reinforcing material and grindstone fragments also emerged amid the rocks in this layer, which was located 1.3m below the ground.

Fragments of an infant's leg and rib bones were found amid the eighth line of rocks in the northwest part of the burial chamber. Traces of a green coloured bronze item remained upon one of the leg bones. The eighth layer of rocks was 1.3m by 1m.

Skeletal bones of a child aged 9-10 were scattered in the middle of the burial chamber (Figure 32). Furthermore, a heap of medium size river rocks emerged in the southeast part of the burial chamber, along with a little polished vessel (Figure 33). The vessel was a black coloured, biconic pitcher with a wide mouth element. Its neck broadens toward the shoulder and goes into the body. The base is narrow and flat. The body narrows downward in a rounded shape from the middle part. There is a semi-circular handle with a round cross section connecting the mouth area with the middle section of the body on one of the sides. The black coloured surface is polished. Vertical polished lines girdle the neck till the shoulder part. There are five notched arrow images with upright edges extending within a 4cm or 4.5cm distance from one another throughout the shoulder. The wall is thin. The vessel body diameter is 10.5cm, while the height is 7cm, the mouth element diameter is 7.3cm, the base diameter is 5cm and the wall thickness is 0.4cm (Figure 34).

Two bronze bracelets were found amidst the bone fragments as well (Figure 32). Moreover, a bronze ear-ring (or a child's ring), various paste, agate and bronze beads (Figure 35) and pins, bones, thin bronze sheet fragments were discovered in the burial chamber. Following the removal of the rocks in the southeast part of the burial chamber, two bronze rings and a bronze ear-ring emerged underneath (Figure 36).

It is worth mentioning that pieces of coal and chalk were also found in the kurgan cover and inside the burial chamber during the excavations. The burial chamber was sized 1.3m x 1m and its depth was 1.15m.

Kurgan 3. This kurgan was located 14m northeast of the second kurgan. Its diameter was 8cm, while the height was 20cm (Figure 37).

The first line of rocks occupied an area of 4.2m x 5m. A sacrificial altar emerged at the northeast lower end of the kurgan's cover area. Two fragmented ceramic vessels, parts of a bronze bracelet and a little set of paste beads were found in this feature.

A second layer of rocks that was located in the middle of the kurgan's cover included average size river rocks. The dimensions were 4.9m x 4m.

Following the second heap of rocks, another line of little river rocks emerged at the depth of 40cm under the cover area. The line, which was sized 1m x 0.6m, stretched in the west-east direction.

Two more small and medium size pitchers (Figure 38) were found 50cm below the cover level in the southwest section of the kurgan's lower part. Thus, two altars were found at the foot of the kurgan.

The medium size pitcher's mouth element broadens sideways slightly. The narrow neck smoothly goes into the convex body. The base is wide and flat. The neck is girdled by three thin, parallel notched grooves. Parallel shallow grooves extend throughout the body from the upper part in the neck area toward the base. It was made on a potter's wheel. There is a handle with a round cross section in the back connecting the mouth element with the upper part of the body. The colour is grey. The wall is thin. The height is 14.5cm, while the body diameter is 13cm, the neck diameter is 8cm, the neck height is 4cm, the mouth element diameter is 7.5cm, the base diameter is 9cm and the wall thickness is 0.4cm (Figure 39).

As for the small pitcher, its mouth element broadens sideway in the funnel shape. The low and narrow neck smoothly goes into the shoulder. The pitcher has a pear-like shaped body. Traces of a handle connecting the mouth element with the shoulder remained on the surface. The base is wide and flat. The surface and the inside part of the mouth element are polished. The vessel body is girdled vertically by polished lines. The clay composition is clean. The colour is black. The height is 11.5cm, while the body diameter is 7.5cm, the neck diameter is 3.5cm, the neck height is 2cm and the base diameter is 4.4cm (Figure 40).

It is noteworthy that no burial chambers or human skeletons were discovered at this kurgan. Thus, Burial Mound 3 could be merely considered a cenotaph or a memorial.

Kurgan 4. It was located 60m northeast of Kurgan 3. The dimensions of this burial site, which is the largest discovered kurgan, are as follows: 17.8m in the north-south direction, 19.9m in the east-west direction; height - 22cm (Figure 41). Two fragments of a black coloured, polished vessel's body, located at a distance from one another, were encountered at the depth of 20-30cm at the foot of the kurgan cover.

A line of large and medium size river rocks emerged at the 10cm depth in the southeast part of the kurgan's cover. The heap of stones stretched for 1.4m in the south-west-northeast direction (Figure 42). A thin, ash-coloured plate was recorded at the 20cm depth in the middle of the kurgan's cover. A crescent-shaped heap of large and medium size river rocks emerged at the 10cm depth in the eastern part of the cover area. This line extended for 13.2m in the southwest-northeast direction. It was 0.7m to 0.8m wide (Figures 41, 43). This line of stones can be seen as a kerb to the mound to prevent disintegrating and scattering of the kurgan cover. No evidence was seen for an extension of the kerb in the opposing arcs of the circle.

A second line of rocks emerged 5cm below the first one. Soil was piled to fill the section located between the layers of rocks. The heap, which included average size river rocks, extended in the previously mentioned direction. Its length was 1.8m and the width was 0.55cm.

A thin, grey coloured layer of soil was tracked at the 10cm depth in the northern part of the kurgan cover. The layer was sized 1m 1.9m. A line of rocks with a diameter of 1.8m was recorded in this section 90cm south of the cover's outskirts.

The items found amid the stones in the kurgan cover included a fragment of a small vessel's body, the body part of a vase-type vessel, pieces of a little, thin wall vessel's body, as well as a fragment of a cutting tool made of black coloured obsidian.

The burial chamber was discovered at the 50cm depth in the middle of the kurgan cover's western part. The burial chamber was sized 2.7m 1.9m and its depth was 1.1m. A large jug and a jar were placed west of the chamber. A few fragments of a human skeleton were found inside (Figure 44).

The large household jug's convex body narrows downward. The wide mouth element is bent sideways. The base is wide and flat. The low and wide neck smoothly goes into the shoulder. Horizontally positioned parallel scratched lines are seen upon the shoulder. Descending polished lines cross the

mentioned horizontal lines from the shoulder toward the base, girdling the body vertically. The vessel is of high quality. The colour is grey. The surface is polished. The vessel's height is 42cm, while the body diameter is 36cm, the mouth element diameter is 16.5cm and the base diameter is 17cm (Figure 45).

The narrow mouth element of the pear-shaped jar is bent sideways. The narrow and low neck goes directly into the body. The neck is girdled by thin scratched lines. Black coloured, polished stripes extend toward the base from the neck. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth area with the body. The colour is black. The surface is polished. The jar's height is 22cm, while the body diameter is 20cm, the mouth element diameter is 9cm, the neck height is 3cm and the base diameter is 10.8cm (Figure 46). Pieces of timber were found in the burial chamber.

There was a radiocarbon date from the chamber of kurgan 4 of human bone. Beta 464799 2760 \pm 30BP 980-830 cal BC. This date is very similar to those from the Tovuzchai kurgan cemetery.

Kurgan 5. was located 23m southwest of Burial mound 4. The burial site's cover area stretched 15m in the north-south direction and 12.5m in the east-west direction. Its height was up to 12cm (Figure 47).

A circular line of large and average size river rocks emerged from the surface in the central part of the kurgan's eastern section. The line, which had a diameter of 5.2m, was apparently comprised of two concentric rows of stones. The height was 40cm (Figure 48).

Another heap, which had an elongated shape and consisted of medium size river rocks, was recorded 1.1m northwest of the mentioned round-shaped line at the depth of 10cm. The 70cm wide line (Figure 49) stretched for 1.8m in the east-west direction.

A pile of various vessel fragments was found in the northwest part at the foot of the kurgan. It was located 60cm under the ground 70cm inside the kurgan foot area.

A small pitcher with a convex body was found in between in its entirety. The mouth element broadens in the funnel shape. The low and narrow neck smoothly transforms into the shoulder. There is a pipe-shaped handle upon the vessel's shoulder connecting the latter with the mouth. The base is narrow and flat. There is significant sand admixture in the clay composition. The vessel is handmade. The surface is polished. The colour is pink. Traces of soot remained on the vessel. The height is 16.5cm, while the body diameter is 15.5cm, the mouth diameter is 7cm, the base diameter is 6.5cm and the wall thickness is 0.7cm (Figure 51).

The burial chamber of Burial Mound 5 was discovered at its western foot. Following the retrieval of the 1.2m deep burial chamber from the ground, researchers estimated that it extended 2.2m x 1.3m in the west-east direction. A number of sherds were found in the western part of the chamber at a depth of 80cm, including a fragmented pitcher, fragments of several vessels, fragmented parts of a bronze bracelet with a round cross section (Figure 52), as well as two red coloured agates and 16 whitish, rhombic and conic paste beads (Figure 53).

A ring-shaped piece of clay emerged near the southeast wall of the burial chamber. Perhaps, this item had been inside a round timber or bone that later decayed, assuming its shape.

Skeletal bones of a teenager were scattered throughout the burial chamber's bottom part. These mainly included arm, knee and rib fragments (Figure 50).

Two fragments of a thick wall vessel body, fragments of a large, thin walled pitcher's upper part and a little, black coloured and polished vessel, as well as two average size pitchers, were discovered inside the burial chamber.

The mentioned large pitcher with thin walls has a narrow mouth. The mouth element expands sideways slightly. The narrow neck goes directly into the pear-shaped body. There is significant sand admixture in the clay composition. The colour is pink. The surface was combed vertically and covered with white

engobed coating. The engobed coating was applied on the inside as well. The mouth diameter is 9cm, while the body diameter is 16cm and the wall thickness is 0.5cm (Figure 62).

As for the average size pitcher, the vessel has a wide mouth. The mouth element expands sideways slightly. The body is spherical, while the base is oval. The low and wide neck smoothly goes into the shoulder. There is a hook-like handle with a round cross section in the back that connects the mouth area with the body. The vessel is handmade. There is sand admixture in the clay composition. The clay colour is dark creamy. The surface is covered with black polish. There is a round, flat and vertical protrusion upon the body on the handle's reverse side. Another protrusion (d.-1cm) that looks like a button is seen in the lateral part. There is also a trace of a similar protrusion on the other side of the vessel and on the opposite side of the protuberance. The body diameter is 18cm, while the mouth diameter is 14.2cm, the height is 12.5cm and the base diameter is 8cm (Figure 63).

Kurgan 6. It was located 26m northeast of Burial Mound 3. Its dimensions were as follows: 16m in the north-south direction; 9m in the east-west direction; height-22cm (Figure 54).

An elongated line of rocks emerged at the southern foot of the kurgan cover. The heap, which was located at the level of the cover area, stretched for 2m in the south-west-north-east direction. It was 1.1m wide.

A line of rocks sized 4.4m x 4m and slanted in the north-south direction was recorded in the kurgan's central part, along with a round-shaped heap with 3.3m diameter in the southeast part.

A semi-circular line of rocks stretching over a distance of 9.5m from the south to the north was found 1.1m west of that line. Once the line of rocks in the kurgan cover's northeast section was removed, a sacrificial altar emerged 40cm below the ground. Four ceramic vessels were lined up there in the northwest and southeast directions (Figure 55). The first vessel was an average size bowl. Its wide mouth element is slightly inclined inward. It goes directly into the convex body. The base is oval. The body's upper part is girdled below the mouth by notched patterns. The wall is thin. There is a gravelly sand admixture in the clay composition. The colour is light pink. The bowl's mouth diameter is 16cm, while the body diameter is 22cm and the height is 11cm (Figure 56).

Three more vessels were consecutively placed on the site 40cm southeast of the bowl. The second vessel was a small black polished pitcher with a narrow mouth. The low neck smoothly goes into the shoulder. The body is convex. There is a handle with a round cross section in the back that connects the mouth area with the shoulder. The handle was attached to the vessel at a slant to facilitate the item's use. The neck's part that crosses over into the shoulder is decorated by askew notched patterns. There are vertical grooves upon the body. The base is narrow and flat. The wall is thin. The clay composition is clean. The surface is polished. The pitcher's height is 22cm, while the mouth diameter is 9cm, the body diameter is 20cm, the neck height is 3cm and the base diameter is 10.8cm (Figure 57).

The third vessel was a large, fragmented pitcher with a convex body and a narrow mouth element. The pitcher's narrow and low neck smoothly goes into the shoulder. The base is wide and flat. There is sand admixture in the clay composition. The colour is grey. There is a trace of burning all over the bottom of the base. The wall thickens downward. The body is girdled horizontally by parallel grooved stripes. The body diameter is 26cm, while the mouth diameter is 13cm, the base diameter is 19.3cm and the wall thickness is 0.5-0.7cm (Figure 58).

The fourth vessel is an average size jar. The jar has a narrow and wave-like mouth area. The narrow neck smoothly goes into the shoulder. The body is convex. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth area with the shoulder. The back side of the mouth is higher than the front part. There is sand admixture in the clay composition. The colour is brown. The surface is polished and covered with whitish engobed coating. The engobed coating in the vessel's lower part is rubbed off under the impact of humidity. The body diameter is 20cm, while the mouth diameter is 9cm, the height is 9cm, the neck height is 3cm and the base diameter is 10.8cm (Figure 59).

A river rock was placed beside the vessels. A tiny pitcher, a clay bud pattern and a bronze bracelet were discovered under the vessels after they were removed. The tiny pitcher had a narrow mouth. The narrow and low neck smoothly goes into the shoulder. The body is convex. The base is narrow and flat. There is a round and enclosed protrusion resembling a spout on it. The vessel has a wavy mouth area. The bottom is girdled by little notched lines. The vessel's colour is creamy. Traces of black polish remained on the surface. The height is 5.6cm, while the body diameter is 6.4cm, the mouth diameter is 2.7cm and the base diameter is 2.8cm (Figure 60).

The discovered little salt shaker or spice jar is shaped as a drum. One side of the wide mouth element is higher than the other one. The clay composition is clean. The base is wide and flat. The colour is pale pink. The height is 2.2-2.3cm, while the base diameter is 4.6cm (Figure 61). A large river rock was placed at the depth of 50cm in the southwest part of the kurgan cover area, along with two ceramic vessels nearby. One of these vessels was a pitcher with a narrow neck, pear-shaped body and a single handle. Another pitcher was found 18cm northwest of that vessel. The pink coloured vessel had a wide mouth.

A medium size bowl was found a short distance away from those vessels. The mouth is wide. The bowl's lateral parts, which are rather convex, rise up vertically. The base is wide and flat. There is significant sand admixture in the clay composition. The colour is pink. The surface is not smooth. The wall is thick. Traces of soot remained on the vessel (Figure 64).

Researchers presumed that a burial chamber could have been located under the kurgan below the heap of rocks, which was located in the middle of the kurgan, sized 4.4 x 4 metres and slanted in the north-south direction. A half-section of this line was removed in order to identify the structure of the potential burial chamber. Raw soil (subsoil) was discerned 70cm beneath the highest part of the kurgan cover. A hollow with 90cm diameter encircled by large river rocks whereby a burial chamber was presumably located was further found in the side view of the cover area in the central part.

As for the kurgan's stratigraphy, a 50cm thick layer of fine soil was followed underneath by 20cm of hard soil. Three layers of stones were traced within the fine soil layer. However, extra rocks were not noticeable in the hard soil stratum. Further excavations confirmed that a burial chamber was located on the site. The burial chamber's diameter was 90cm and its depth was 70cm. A human skeleton's bone fragments scattered inside the burial chamber were found amid little river rocks after the chamber was completely cleaned up (Figure 65).

A small dopu-type vessel's lower part (Figures 66-67), bronze buttons (Figure 68) and two sets of white paste beads decorated with round protrusions (Figure 69) were found in the chamber, along with numerous sets of beads made of white and pale blue paste shaped as barrels and little buttons (Figure 70).

Kurgan 7. It was located 39m southeast of kurgan 3 and 37m south of kurgan 6. Its dimensions were as follows: 5.8m in the north-south direction, 2.9m in the west-east direction; height - 40cm (Figure 71).

A pile of fragments of seven vessels emerged in the southern part of the kurgan cover area.

Following the removal of the first layer of rocks, a second layer emerged. The latter stretched 7m in the north-south direction and 2.4m in the west-east direction. The third layer of stones was 1.1m in the north-south direction and 3.5m in the west-east direction.

The layer of rocks of the kurgan cover's half-part (southern part) was removed (Figure 72) in order to track down the kurgan grave's structure. A burial chamber was discovered in the central part of the cover area in the process. The chamber was sized 2.7m x 1.9m and its depth was 1.1m.

Many ceramic vessels and other samples were found in the chamber. The items placed in a sacrificial altar included the following ceramic vessels:

1. A little pitcher with a wide mouth. The thinning mouth element slightly broadens sideways. It goes directly into the barrel-shaped body. The base is wide and flat. It was roughly made by hand. There is sand admixture in the clay composition. The colour is pink. The surface was smoothed (Figure 73).

2. A little dopu. It is pear-like shaped. The round-shaped mouth element somewhat broadens sideways. The low and relatively narrow neck goes into the convex body. The base is wide and flat. It is roughly made. There are two protuberant holes upon the neck that served to hang the vessel. The holes are positioned opposite one another. There is significant sand admixture in the clay composition. The colour is pink. The surface is covered with grey engobed coating (Figure 73).

3. A medium size pitcher with a narrow mouth and an elongated body. The item is fragmented. The narrow neck goes directly into the body. The bottom part of a handle with a round cross section remained in the part that crosses over into the body. The neck is girdled by askew notched lines. Two patterns resembling the sun were applied to the right and left of the handle at the bottom of the neck. Circles with notched lines inside are girdled by slanting notched lines. The base is wide and flat. There is fine sand admixture in the clay composition. The item is covered with creamy polish on the inside and grey polish on the outside (Figure 74).

4. Fragments of a medium size pitcher. The narrow mouth element is bent sideways. The narrow and low neck transforms smoothly into the shoulder. There is a gravelly sand admixture in the clay composition. The colour is pink. The surface is covered with greyish engobed coating.

5. A small pitcher. The mouth element expands sideways. The low neck gradually goes into the convex body. The base is narrow and flat. There is sand admixture in the clay composition. The surface is polished. The colour is brown. The bottom is covered with traces of burning (Figure 75).

6. An average size pitcher with a wide mouth and a spherical body. The mouth area has welt. It directly transforms into the convex body. The shoulder is girdled by a pair of notched vertical lines. The base is wide and flat. There is sand admixture in the clay composition. Traces of a potter's wheel remained on the vessel. The colour is light grey. The surface is covered with yellowish engobed coating. There are traces of soot in some areas (Figure 76).

7. A fragment of a pitcher-type vessel's wide mouth element. The mouth area, which has welt, goes directly into the body. The body's upper part is girdled by grain-like notched patterns. The wall is thin. There is sand admixture in the clay composition. The colour is grey (Figure 77).

In addition, rim elements, neck and body fragments of various ceramic vessels, barrel-shaped and flat paste beads, 11 sets of agate beads of different sizes (Figures 78-79), two iron knife blades (Figure 80) and an iron roller (Figure 81) were discovered in the burial chamber.

A sacrificial altar was found at the depth of 60cm, along with two vessels inside (Figure 82) in the southwest part of the burial chamber's cover area. One of these was a medium size jar. Its mouth element slightly broadens sideways. The narrow and low neck transforms smoothly into the shoulder. The body is pear-like shaped. The base is wide and flat. There is a handle with a round cross section in the back connecting the shoulder with the mouth area. The vessel is covered with black polish (Figure 83).

The other vessel is a little bowl. The wide mouth is bent to the side. The low, wide neck goes directly into the convex body. The part of the neck transiting into the body is girdled by askew notched patterns. The base is oval. There is significant sand admixture in the clay composition. The colour is pink (Figure 84).

No human skeletons were discovered in this kurgan either, which leads to the conclusion that it was a memorial site.

Kurgan C. It was located 86m southwest of Burial Mound 8 and 54m northwest of Burial Mound 3. The round-shaped kurgan's diameter was 5m (Figure 85).

The diameter of the second layer of rocks narrowed down to 3m. The third line of rocks stretched in the northwest and southeast directions. The line was 1.3m wide. Following the removal of this heap of stones, two ceramic vessels were found precisely in the centre of the kurgan, along with a necklace made of a twisted bronze roller (Figure 86), fragments of a bronze bracelet (Figure 87), as well as round, pipe-shaped and rhombic paste beads (Figure 88). Researchers concluded that this was the site of the kurgan's sacrificial altar. One of the vessels placed in the altar is a medium size, can-type sample with an elongated body. The mouth area, which has welt, expands laterally. The narrow and low neck goes directly into the body. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth area with the body's upper part. The clay colour is black. There is a gravelly sand admixture in the clay composition. The colour is grey on the surface. The body is girdled by parallel polished stripes on the way down from the upper part. The wall is thin (Figure 89). The second vessel is a small biconic pitcher. The mouth element broadens sideways. The low neck smoothly goes into the shoulder. The body begins to narrow gradually after broadening toward the middle. The base is narrow and flat. There is a hook-like handle with a round cross section in the back connecting the vessel's mouth with the middle section of the body. The wall is thin. The clay composition is clean. The vessel is covered with black polish. The shoulder is girdled horizontally by two parallel grooves. The clay colour is grey. Some of the vessel's parts are torn off. It was made on a potter's wheel (Figure 90).

No human skeletons or burial chambers were encountered in Kurgan C.

Kurgan 8. It was situated 79m north of kurgan 4. Its diameter was 16.6m (Figure 91).

The eighth kurgan was divided into four equal sections and further excavated. The excavations revealed that the kurgan's central part was encircled by a line of rocks throughout the edges. The stones were lined up to prevent sliding of the kurgan cover.

A cromlech with 1.1m diameter was registered amid this heap of stones at the northwest foot of the kurgan cover (Figure 92). Fragments of a vessel with a single handle (Figure 93) emerged underneath after the cromlech was removed. In addition, fragmented and whole ceramic vessels of different shapes and sizes were found throughout the perimeter of the cromlech amid and under the rocks (Figures 94-96). The finds are indicated below.

1. A medium size pitcher with a narrow neck. The mouth element broadens sideways. The low neck smoothly goes into the shoulder. The convex body narrows downward. The base is narrow and flat. There is sand admixture in the clay composition. The colour is red. The surface is entirely covered with scale. There is a handle with a round cross section in the mouth area connecting it with the shoulder (Figure 97).

2. A small pitcher. It is pear-shaped. Its narrow mouth element expands sideways. The narrow and low neck goes smoothly into the shoulder. The body narrows downward from the middle section. The base is narrow and oval. There is a pipe-shaped handle in the back that connects the mouth with the middle section of the body. The neck is girdled by askew notched lines. The clay composition is clean. Black polish was applied on the vessel. The surface is covered with scale (Figure 98).

3. A small pitcher with a pear-shaped body. The mouth element is funnel-shaped. The low and narrow neck smoothly goes into the shoulder. The body is horizontally girdled in the middle by a wide groove. The base is narrow and flat. There is a handle with a round cross section in the back that connects the body's lower part with the mouth area. The clay composition is clean. Black polish was applied on the vessel. The surface is covered with scale (Figure 99).

4. A small biconic vessel. The mouth is broken. The narrow neck smoothly goes into the shoulder. The middle section is girdled by a shallow groove. The convex body narrows toward the base from that groove. The base is narrow and flat. The base of a handle with a round cross section remained in the back. The handle probably connected the shoulder and the mouth element. Black polish was applied on the vessel. Most of the surface is covered with scale. The clay composition is clean (Figure 100).

5. A little mug. Its wide mouth element expands sideways. It goes directly into the body. The latter assumed an oval shape after descending straight down. The wide and flat base is slightly depressed inward. The body's area crossing over into the oval part is girdled by horizontally applied, notched, grain-like patterns. There is a handle with a round cross section in the back that connects the mouth element with the lower part of the body. There is sand admixture in the clay composition. It was baked in unstable temperature conditions. The colour is light pink. Most of the surface is covered with scale (Figure 101).

6. Fragments of a small black polished pitcher. The mouth element broadens sideways. The low and narrow neck smoothly goes into the shoulder. The body is convex. The vessel has a pipe-shaped handle connecting the mouth area with the body. The neck is girdled by notched grain-like patterns. The base is wide and flat. The clay composition is clean. The wall is thin. Traces of a potter's wheel are seen on the inside. Most of the surface is covered with scale (Figure 102).

7. Fragments of a biconic vessel. The convex body narrows downward from the middle. The vessel has a handle with a round cross section. The base is wide and flat. There is sand admixture in the clay composition. The colour is light brown. Traces of soot are left on the surface. The upper part is not available (Figure 103).

8. Fragments of a medium size, black polished vessel's lower part. The wall is thick. The base is flat. It was made on a potter's wheel. The clay composition is clean (Figure 104).

Fragments of a medium size vessel's lower part. The wall is thin. There is sand admixture in the clay composition. The base is wide and flat. The body is girdled by askew notched patterns. The colour is light pink. The surface is entirely covered with scale (Figure 105).

9. Fragments of a small vessel with an elongated body. Black polish was applied on the vessel. The mouth is broken. The base is narrow and oval. The clay composition is clean. There is a handle with a round cross section connecting the body with the mouth area (Figure 106).

A large burial chamber extending in the west-east direction was discovered in the middle of the kurgan. The oval burial chamber's length was 2.8m and the width was 1.4m, while its depth equalled 1.5m after it was removed from the kurgan's cover (Figure 107). Four ceramic vessels, including both fragmented items and those found in their entirety, were obtained inside the chamber (Figures 108-111). The finds also included a lot of agate stones (Figure 112), barrel-shaped, elongated and round-shaped bronze beads (Figure 114, inv.115), those processed into conic shape and paste and cowrie items shaped as little buttons (Figure 113, inv.116-123), as well as paste triangular and ring-shaped ornaments (Figure 113, inv.124 and 128).

Bronze jewellery included a bracelet (Figures 115-116), a finger ring (Figure 117), a scale (Figure 118), an ear-ring (Figure 119), as well as half-parts of a thin bronze ring (Figure 111, inv.127).

An iron knife blade was found in the burial chamber as well (Figure 120). However, no human skeletons were encountered. The pottery found in the chamber included the following items:

10. A large vessel body fragment. It was part of a vessel with a convex body. There is sand admixture in the clay composition. The wall is thin. The colour is pink. Significant traces of soot remained on the smoothed surface.

11. A vase-type vessel's half-part. The body broadens sideways from the base. The wall is thick. The clay composition is clean. The narrow base is heeled. There is a hollow in the middle. The clay colour is grey. There is black polish on the surface. Thick, criss-cross patterns shaped as the letter "X" were applied on the inside with polish (Figures 108-109).

12. A medium size jar-type vessel with a narrow neck. The narrow mouth element is funnel-shaped. The narrow and low neck smoothly goes into the shoulder. The body is convex. The base is wide and flat. There is an elbow-shaped handle connecting the mouth with the shoulder in the back. The dark grey coloured clay has a clean composition. The surface is polished black. The neck is girdled by grain-like

notched patterns. The shoulder is girdled by wavy polished lines drawn amid protruding parallel lines. Parallel polished straight lines extend downward below those lines (Figure 110).

13. A medium size, black polished jar. The narrow and low neck smoothly goes into the shoulder. The body is convex. There is an elbow-shaped handle in the back connecting the mouth element with the shoulder. The base is wide and flat. The neck is girdled by incrustrated patterns comprised of notched lines. Three separate triangular incrustrated patterns extend toward the shoulder from the neck. Two parallel grooves girdle the vessel's shoulder underneath. There are three papilla-shaped protrusions in front and on the side of the vessel under these grooves. The papilla's are encircled by little incrustrated dotted circles. Three more slight grooves girdle the middle section of the vessel's body. Following those grooves, the body narrows toward the base. The body's lower part is decorated by parallel polished stripe patterns that descend toward the base. The clay composition is clean (Figure 111).

The numerous white and greenish paste beads found in the burial chamber stand out in terms of remarkably diverse shapes. The beads include round, flat, triangular, quadrangular, elongated, biconic items, as well as those shaped as goggles, pipes, little buttons, barrels, rhombus and crosses (Figure 121).

Conclusions

The Borsunlu kurgans had stone covers with different diameters (4.6m–17.8 x 19.9m) and height (ranging from 10cm to 40cm). Burial chambers were revealed in all the excavated kurgans with the exception of Kurgans No.3 and C. Although burial chambers and equipment were discovered in Kurgans No.7 and No.8, no human skeletons were found inside. Burial chambers were located in the centre of the cover area in some of the kurgans (such as No.6, No.7 and No.8), while the chambers found in the other kurgans (No.1, No.2, No.4 and No.5) were situated at the foot of the kurgan cover.

The dimensions of the burial chambers were as follows:

Kurgan 1 – 1.3m x 1.1m, depth-1.2m

Kurgan 2–1.3m x 1m, depth-1.15m

Kurgan 4 – 2.7m x 1.9m, depth-1.1m

Kurgan 5–2.2m x 1.3m, depth-1.2 m

Kurgan 6–diam.-90cm, depth-70cm

Kurgan 7– 2.7m x 1.9m, depth-1.1m

Kurgan 8–2.8m x 1.4m, depth-1.2m

The skeletons found in the burial chambers were fragmented and scattered inside the chamber. Cranial bones were not found in any of the chambers.

Broken and fragmented ceramic vessels, bronze and bone ornaments, iron knife blades and numerous beads of a wide variety were found around the bones. Moreover, some grain stones and reinforcing material fragments were encountered in the kurgan covers, along with rotten timber logs, pieces of coal and chalk in some of the burial chambers.

It is worth mentioning that sacrificial altars (even two in some of them) were found in the covers of all the kurgans, including Kurgans No.3 and C, which lacked burial chambers.

Pottery and jewellery items or their fragments were found in those altars. As for Burial Mound 8, ceramic vessels placed separately or in pairs were found within and under the line of rocks, which encompassed

the kurgan's central part. A similar line was revealed in Burial Mound 1, while the heap of stones in Burial Mound 4 had a semi-circular (crescent) shape.

Analysis of the archaeological samples obtained in the Borsunlu burials suggests that these kurgans date to the early Iron Age.

4 ARCHAEOLOGICAL FINDS

4.1 Ceramics

The ceramic items discovered in the excavation area are similar to the materials pertaining to the Tovuzchay necropolis graves of the latest period in terms of their shape and content. These can be dated to the 9th-8th centuries BC based on their typological features.

Polished ceramic vessels were predominantly found in the site. The clay colour was mostly black, grey, brown and pink. Some of them are covered on the outside with engobed coating. Most of the vessels had one or two handles with round cross sections (Figures 12.3, 17, 19, 51, 77). The surface of the vessels is decorated with polished, notched, grooved, protuberant and scratched patterns (Figures 18, 19). Black polished vessels that had patterns with incrustrated inside parts were found as well.

The obtained samples pertaining to kurgan equipment are of a great variety and excellent quality. These include parts of clay vessels similar to pitchers, jugs, jars, dopu, salt shakers, cans, bowls, vases and mugs. The images of these vessels were reflected in the released information regarding progress of the excavations. Therefore, listing their typical features would be appropriate.

Mostly **pitchers** and large **jugs** were discovered during the excavations (Figures 2-6, 2; 7, 1-3, 5; 8, 2; 10-11, 2; 12.1; 15.3; 16-17; 39; 57-58; 60; 62-63; 73.1; 74-77). The mouth elements of the pitchers are round and funnel-shaped (Figure 18), while their necks are either wide and low or narrow; the necks smoothly go into the shoulders.

Samples with mouth elements transiting into the shoulders directly were also discovered. Their bodies are convex, pear-shaped (Figures 20, 40, 98-99) and sometimes biconic (Figures 90, 100, 103). Little pitchers with barrel-shaped bodies were rarely encountered in the area as well. The bases are flat and either wide or narrow.

Earthenware pots, which are a type of pitchers, have wide mouth elements and convex bodies.

The large jugs also have wide mouths and convex bodies. Their broad and low necks smoothly cross over into the shoulders (Figure 80). The bases are flat (Figures 104-105).

Jars were the second most commonly discovered vessels. Their rims are sometimes funnel-shaped or slightly expand sideway. Their narrow and low necks smoothly cross over into the shoulders. The bodies are pear-shaped or convex. The bases are wide and flat. The vessels have handles with round cross sections in the back connecting the shoulders and the mouth area (Figures 6.1; 9.2; 11.1; 46; 59; 83, 110-111).

Cans have elongated bodies. Their mouths have welt. Their narrow and low necks directly cross over into the body. The vessels have handles with round cross sections in the back connecting the mouths with the bodies. The bases are flat (Figures 7.4; 8.1; 89).

The mouth elements of some of the obtained **bowls** are inclined inward, while those of other such samples are bent laterally. The wide flanks rise upright to some extent, directly transiting into the body. The body sharply narrow downward. The body are convex (Figures 56, 64, 84).

Vases were found during the excavations as well. Their body broaden sideway from the bases. The bases are narrow, ring-like and heeled (Figures 9.1; 20; 108-109).

Piyale (bowl-type vessel) mouth elements, salt shakers or spice jars (Figure 61) and ceramic mugs (Figure 101) were occasionally encountered amidst the burial equipment as well.

It is noteworthy that similar mugs were found at the Iron Age-era monuments in Nakhchivan [6] and Eastern Anatolia [7].

Elongated beads (Figure 122) and a ring (Figure 123) were among the interesting clay samples obtained in the area.

4.2 Metal items

Numerous bronze ornaments were found during the excavations. These samples include bracelets (Figures 13-14, 36, 52, 87, 115-116), a finger ring (Figure 117), earrings (Figure 36, 119), necklaces (Figures 14, 86), buttons (Figures 68, 118), rings (Figure 114, inv.127), as well as beads (Figure 14; 114, inv.115).

The discovered iron items include knife blades (Figures 79-80, 120) and an iron roller (Figure 81).

4.3 ANALYSIS OF RESULTS ACHIEVED AT THE SITE

Overall, the archaeological excavations carried out in the settlement were very successful. Very valuable information was collected during the excavations with regard to various facets of the economic life and craftsmanship of the people who lived in the early Iron Age, as well as their religious views.

The great number of ceramic vessels and jewellery samples found as a result of the excavations also allows making certain conclusions concerning the economic and domestic life as well as craftsmanship activities of local residents in the mentioned period.

5 ANALYTICAL RESULTS

It is noteworthy that the archaeological excavations at the Borsunlu kurgan cemetery were successfully completed and all of the kurgans located in the camp site were excavated. In addition to creating a very comprehensive database regarding the nature, peculiarities, type and time period pertaining to the kurgans, the obtained artefacts provide sufficient data about the economic life, activities, religious views and the world outlook of the early Iron Age-era settlement's residents.

The territory of the kurgans covers about 1 hectare. The excavated area encompassed a part of the kurgans, given that kurgans were also recorded outside the excavation area. The determination of the chronological range of the archaeological artefacts discovered at the Borsunlu kurgans was based on the typological and comparative analysis methods and respective scientific conclusions were made.

5.1 IDENTIFYING PERIOD AND CHRONOLOGY

The determination of the chronological range of the Borsunlu kurgan monuments is based on the features of the burial traditions and the comparative analysis of the obtained tangible cultural samples.

The Borsunlu kurgans were a burial monument and it has retained samples reflecting high cultural and economic development. Though the researched area covered only part of the kurgans, the available facts prove that habitation continued in this area for several centuries. The obtained ceramic samples do not raise doubts that these kurgans date to the early Iron Age. However, the excavation work conducted in a certain part of the burials necessitates extensive research in order to determine the

chronological range of the monument more precisely. Nevertheless, comparative analysis conducted several times allows making a conclusion that the burials were carried out at Borsunlu in the 9th-8th centuries BC. Changes in this chronological range resulting from further researches are not ruled out.

Features of highly developed early Iron Age-era craftsmanship are traced in the tangible cultural samples discovered in the kurgans. Undoubtedly, some of the samples found during the excavations and made very delicately were not produced locally and were delivered from nearby developed regions through an exchange of goods.

There was a radiocarbon date from the chamber of kurgan 4 of human bone Beta 464799 2760+/-30BP 980-830 cal BC.

6 DISCUSSION

When the outcomes of the archaeological excavations are summarized and the results of the work are further put on open discussion, the scientific views and final conclusions of the report author are grouped. These scientific conclusions have been confirmed by the observations of other research fellows involved in the excavations.

6.1 INTERPRETATION OF THE RESULTS OF EXCAVATIONS

The archaeological excavations conducted on the site of a ditch to be drilled for the pipeline in the future were designated for rescue purposes. A visual check-up of the area, as well as the research conducted in the excavation area, lead to a conclusion that the kurgans cover a territory that exceeds 1 hectare and the archaeological excavations were probably carried out in the central and northern parts of the monument. Ceramic vessels and their fragments, iron and jewellery items revealed in the kurgan covers and the burial chambers are attributed to the 9th-8th centuries BC based on the typological and analytical methods. Evidently, a habitat was located nearby in the mentioned period.

6.2 INTERPRETATION OF THE ANALYSIS OF FINDS

Four samples of bone were taken for radiocarbon determination. Three of them failed due to insufficient collagen surviving in the bone to allow the test to succeed. The fourth sample gave a determination of 2760+/-30BP, which calibrates to 980-830 cal BC (Beta 464799). This was a piece of human bone from the central chamber of kurgan 4

6.3 DISCUSSION COMPARED WITH SIMILAR SITES LOCATED ON THE PIPELINE ROUTE

Nine kurgans were discovered and researched through excavations in this area as a result of archaeological field research in the SCPX corridor. For instance, the Tovuzchay and Seyidlar necropolis where excavations were carried out during construction of the BTC and SCP pipelines are among such monuments. The tangible cultural remains revealed in the Borsunlu kurgan covers and the burial chambers, as well as the results of research upon the monuments referenced in the commentary regarding finds slated for various purposes and a comparative analysis with archaeological materials obtained from those monuments, were of great importance. The archaeological excavations conducted at the Tovuzchay and Seyidlar necropolis, which are located at a relatively close distance from one another, allowed researchers to identify the burial traditions that prevailed in the late Bronze Age and early Iron Age.

7 INVENTORY

No.	Item	Description	Kurgan	Location	Dimension
1	Vessel	Two fragments of a small ceramic vessel body. There is sand admixture in the clay composition. Black polish was applied on the outside surface. The colour is grey on the inside.	4	depth: 20-30cm	Wall th.-0.7cm
2	Flake	A cutting tool fragment made of black obsidian. It is three-faceted. One of its sides is barbed.	4		4 x 2.4cm
3	Vessel	A vase-type vessel's body. It broadens sideways. The base is narrow, ring-like and heeled. The clay composition is clean. It is polished black.	4		
4	Vessel	Fragments of a small piyale (bowl) type vessel's body. The wall is thin. There is significant sand admixture in the clay composition. Traces of a potter's wheel are seen on the inside. The colour is light pink.	4		wall th.- 0.4cm
5	Vessel	A fragment of a small ceramic vessel's body. The clay composition is clean. The item is of high quality. The colour is greyish brown on the inside. Black polish was applied on the outside surface.	5	depth: 20cm	wall th.- 0.5cm
6	Vessel	An mouth element fragment of a small dopu-type vessel. The mouth area, which has welt, is slightly bent sideways. The low and wide neck smoothly goes into the shoulder. There is slight sand admixture in the clay composition. The surface is polished. The colour is light grey.	5		wall th.- 0.4cm
7	Vessel	A small dopu-type vessel's mouth element fragment. The mouth area has welt. It goes directly into the body. There is sand admixture in the clay composition. The colour is grey.	5		wall th.- 0.4cm
8	Flake	A fragment of a cutting and scraping tool made of black coloured obsidian. It is three-faceted.	5		width- 3.5cm
9	Vessel	A fragment of a little item made of baked clay. It is round shaped on one side. There is significant sand admixture in the clay composition. The colour is dark pink.	5		width- 1.7cm wall th. 0.8cm
10	Vessel	Fragments of a ceramic vessel body. The surface is not smooth. The item is roughly made though a potter's wheel was used. There is a gravelly sand admixture in the clay composition. The colour is red.	5		wall th.- 0.7cm
11	Vessel	A small ceramic vessel neck fragment. The neck is narrow. The mouth is broken. There is sand admixture in the clay composition. The colour is grey on the inside. The outside surface is polished black.	5		wall th.- 0.7cm
12	Vessel	A small pitcher with a convex body. The mouth element broadens in the funnel shape. The low and narrow neck smoothly transforms into the shoulder. There is a pipe-shaped handle upon the shoulder. It connects the shoulder and the mouth element, which are positioned one opposite another. The base is narrow and flat. There is significant sand admixture in the clay composition. The vessel is handmade. The surface is polished. The colour is pink. Traces of soot remained on it. Figure 51.	5		height- 16.5cm st. d.-15.5cm orif. d.-7cm base d.- 6.5cm wall th.- 0.7cm
13	Vessel	A pitcher-type vessel's lower part fragment. The body is convex. The base is wide and flat. There is coal clay in the clay composition. The colour is dark pink on the inside and light brown on the outside. The surface is polished. Traces of combing are visible on the surface. It is handmade.	5		base d.-9cm wall th.- 0.7cm
14	Beads	Beads made of yellowish paste. 10 rhombic items; five items shaped as the letter "f"; one conic item; three semi-conic items. Figure 53.	5		
15	Bracelet	A fragmented bracelet made of a bronze roller with a round cross section. Figure 52.	5		diam.- 5.5cm
16	Vessel	A little pitcher-type vessel. It is fragmented. The body is convex. The mouth is bent sideways. It goes directly into the shoulder. The walls are thin. The base is wide and	4	Sacrificia l altar	base d.- 10.5cm wall th.- 0.5cm

No.	Item	Description	Kurgan	Location	Dimension
		flat. There is sand admixture in the clay composition. The colour is grey.			
17	Vessel	A fragment of a small vessel body. The body is convex. There is a lot of gravelly sand admixture in the clay composition. It is handmade. The neck goes directly into the body. The colour is red. The surface is polished.	2	Mound cover	wall th.- 0.7cm
18	Grindstone	A grindstone fragment made of a processed river rock. The surface is flat, while the bottom is round-shaped. Figure 124.	2	Mound cover	width-13cm thickness-6cm
19	Vessel	A small biconic pitcher. The neck of the vessel, which has a wide mouth element, expands toward the shoulders, transforming into the body. The base is narrow and flat. The body narrows downward from the middle in a rounded shape. There is a semi-circular handle with a round cross section on one side that connects the mouth area with the body's middle section. The surface is polished black. Vertical polished lines girdle the neck all the way to the shoulder. There are five notched arrow images with upright edges located 4cm and 4.5cm away from one another throughout the shoulder. The wall is thin. Figure 34.	2	Burial chamber	st.-10.5cm height - 7cm orif.d.- 7.3cm wall th.- 0.4cm base d.-5cm
20	earring	An earring made of a thin bronze wire. The edges are intertwined. Figure 36.	2	Burial chamber	diam.- 1.6cm
21	Ring	Two finger rings made of a bronze wire. The edges are intertwined. Figure 36.	2	Burial chamber	diam: 1-2.3cm 2-2cm
22	Beads	Little beads carved from a bronze plate. There are protruding holes in the middle section.	2	Burial chamber	diam.- 0.4cm
23	Button	Fragments of a button made of a thin bronze plate.	2	Burial chamber	diam. 0.1-1cm
24	Beads	13 sets of round-shaped beads of different sizes made of red coloured agate. Figure 35.	2	Burial chamber	diam.- 1cm
25	Beads	16 sets of little blue beads. Notched patterns were applied on their surface.	2	Burial chamber	
26	Beads	Elongated beads made of black agate.	2	Burial chamber	
27	Ornament	An ornament shaped and made of a bone. The bottom is flat, while the surface is protuberant. There are notched line patterns and two protruding holes made for pinning it to clothes.	2	Burial chamber	diam.- 1cm
28	Beads	Barrel-shaped beads of different sizes made of yellowish paste. There is a notched line pattern on their surface.	2	Burial chamber	
29	Beads	Round-shaped, flat beads made of yellowish paste. Figure 35.	2	Burial chamber	diam.- 0.8cm
30	Vessel	Two fragments of a large, thin wall vessel body. There are horizontal patterns on them comprised of parallel, polished black lines. The clay composition is clean. The colour is grey.	2	Burial chamber	wall th.- 0.5cm
31	Vessel	An average size pitcher. The mouth element broadens sideways slightly. The narrow neck smoothly goes into the convex body. The base is wide and flat. The neck is girdled by three thin parallel notched grooves. Parallel shallow grooves extend throughout the body from the neck down to the base. The wall is thin. The vessel was made on a potter's wheel. There is a handle with a round cross section in the back connecting the mouth element with the body's upper part. The colour is grey. Figure 39.	3	Sacrificia l altar	st.d.-13cm neck d.- 8cm orif.d.- 7.5cm base d.- 9cm height- 14.5cm wall th.-0.4cm neck h.- 4cm
32	Vessel	A small pitcher. The mouth element broadens sideway in the funnel shape. The low and narrow neck transforms smoothly into the shoulder. The body is pear-shaped. Traces of a handle connecting the mouth with the shoulder remained on the item. The base is wide and flat. The surface and the inside part of the mouth are polished. Polished lines girdle the vessel's body vertically. The clay composition is clean. The colour is black. Figure 40.	3	Sacrificia l altar	neck d.- 3.5cm neck h.-2cm height- 11.5cm base d.- 4.4cm
33	Vessel	A body fragment of a large vessel with thin walls. There is sand admixture in the clay composition. It is handmade.	1		wall th.-0.6cm

No.	Item	Description	Kurgan	Location	Dimension
		The convex body narrows sharply from the lower part. The colour is grey. The surface is polished.			
34	Vessel	A small biconic pitcher. The black coloured item is polished. The mouth element is funnel shaped. The narrow neck is girdled by four grooved lines. The neck smoothly goes into the shoulder. There is a handle with a pipe-shaped cross section in the back connecting the mouth area with the shoulder. The latter is girdled by vertical polished stripes. The body, which is flat on the outside, narrows downward. The body's middle section is grooved (with vertical scratched lines). The base is narrow and flat. Figure 30.	1	Burial chamber	st.d.-11.5cm neck d.-6cm orif.d.-7.4cm base d.-5cm h.-12cm
35	Vessel	A medium size pitcher. The mouth is wide. The body is convex. The outside surface is girdled by two parallel grooves. The base is broad and flat. The colour is light grey. It is polished. There are significant traces of burning throughout the surface.	1	Burial chamber	st.d.-16cm orif.d.-10cm height- 11cm neck h.-1cm base h.-11.4cm
36	Vessel	Body fragments of a large pitcher with thin walls. The vessel is handmade. The clay composition is clean. The surface is polished. The colour is grey. There are black polished, horizontal and parallel lines on the outside part.	1	Mound cover	wall th.- 0.4cm
37	Vessel	A little pear-shaped dopu. The round-shaped mouth element slightly expands sideways. The low and relatively narrow neck goes into the convex body. The base is wide and flat. The vessel is roughly made. There are two, protruding holes positioned opposite one another upon the neck that were used to hang the vessel. There is significant sand admixture in the clay composition. The colour is pink. The surface is covered with grey engobed coating.	7	Burial chamber	st. d.-9cm orif.d.- 5.5cm h.-7cm neck h.- 1.6cm base d.-6cm
38	Vessel	A small pitcher with a wide mouth element. The thinning mouth slightly broadens sideway. It goes directly into the barrel-shaped body. The base is wide and flat. The vessel was made roughly by hand. There is sand admixture in the clay composition. The colour is pink. The surface is smoothened.	7	Burial chamber	st.d.-9cm orif.d.- 7.5cm base d.-7cm height-5cm
39	Vessel	A medium size pitcher with a narrow mouth and an elongated body. It is fragmented. The narrow neck goes directly into the body. The bottom of a handle with a round cross section remained in the part transiting into the body. The neck is girdled by askew notched lines. Two patterns resembling the sun were applied at the neck bottom to the right and left of the handle. Circles with notched lines on the inside are girdled by askew notched lines. The base is wide and flat. There is fine sand admixture in the clay composition. Creamy polish was applied on the inside along with grey one on the outside. Figure 74.	7	Burial chamber	st.d.- 9cm wall th.-0.5cm base d.- 6.5cm
40	Vessel	Fragments of a medium size pitcher. The narrow mouth is bent sideway. The low and narrow neck transforms smoothly into the shoulder. There is a gravelly sand admixture in the clay composition. The colour is pink. The surface is covered with greyish engobed coating. Figure 75.	7	Burial chamber	neck h.- 2.5cm wall th.-0.7cm
41	Vessel	A small pitcher. The mouth element broadens sideway. The low neck gradually goes into the convex body. The base is narrow and flat. There is sand admixture in the clay composition. The surface is polished. The colour is brown. There are traces of burning throughout the lower part. Figure 75.	7	Burial chamber	st. d.-10.5cm orif.d.-7cm h.- 10.5cm base d.- 5.3cm wall th.-0.3cm
42	Vessel	A medium size pitcher with a wide mouth and a spherical body. The mouth area has welt. It goes directly into the convex body. The shoulder is girdled by a pair of notched vertical lines. The base is wide and flat. There is sand admixture in the clay composition. Traces of a potter's wheel remained on the item. The colour is light grey. The	7	Burial chamber	orif.d.-12cm wall th.- 0.3cm base d.- 10.5cm

No.	Item	Description	Kurgan	Location	Dimension
		surface is covered with yellowish engobed coating. Traces of soot remained in some parts. Figure 77.			
43	Vessel	Rim fragment of a pitcher-type vessel with a wide mouth. The mouth area has welt. It goes directly into the body. The body's upper part is girdled by grain-like notched patterns. The wall is thin. There is sand admixture in the clay composition. The colour is grey.	7	Burial chamber	wall th.- 0.4cm
44	Vessel	A vessel body fragment. There are two slightly visible, protuberant parallel stripes on it. Traces of a potter's wheel remained on the inside. There is sand admixture in the clay composition. The wall is thick. The colour is blackish-grey.	7	Burial chamber	wall th.- 0.9cm
45	Vessel	An mouth element fragment of a little piyale (bowl) type vessel. Its narrow mouth goes directly into the convex body. The item is of high quality. The colour is grey. The surface is smoothened.	7	Burial chamber	wall th.- 0.6cm
46	Vessel	A neck fragment of a medium size thin wall vessel. The mouth element is bent sideway. The low neck smoothly transforms into the shoulder. The neck is girdled at the bottom of the mouth by notched line patterns with a thin scratched horizontal line underneath. The vessel's surface is well polished, while the inside part is uneven. The colour is light brown.	7	Burial chamber	neck h.- 2.5cm wall th.- 0.3cm
47	Vessel	A vessel body fragment. There are two corrugated stripes on it. The wall is thin. The surface is polished, while the inside part is uneven. The colour is light brown.	7	Burial chamber	wall th.- 0.3cm
48	Beads	Barrel-shaped beads made of bluish paste. Both of the edges are girdled by scratched lines. The beads are girdled in between entirely by vertical notched lines.	7	Burial chamber	d.- 6.5cm
49	Beads	Flat beads made of white paste. There is a protruding hole in the middle.	7	Burial chamber	d.-1cm
50	Vessel	A half-part of a pitcher mouth element. It has a wide mouth and a convex body. The low and wide neck goes smoothly into the shoulder. There is sand admixture in the clay composition. The colour is grey. The wall is thin.	7	Burial chamber	orif.d.-13.5cm neck h.- 1.5cm wall th.- 0.5cm
51	Beads	Round-shaped agate beads of different sizes (11 items). 10 of these are red coloured and one is black. Figure 78.	7	Burial chamber	d. -0. 1-1cm
52	Vessel	Mouth element fragment of a medium size pitcher. The mouth is wide. The low and wide neck smoothly goes into the shoulder. There is a gravelly sand admixture in the clay composition. The colour is light brown.	7	Burial chamber	wall th.-0.7cm
53	Knife	Fragments of an iron knife handle and blade. There are protrusions with round edges upon the handle that served to reinforce a tree visor. The blade narrows toward the edge. Figure 79.	7	Burial chamber	hand.wid.-2cm blade wid.-1.6-1.2cm
54	Knife	Fragments of an iron knife handle. The items have a flat and triangular shape. The narrow edge is bent inward. Figure 80.	7	Burial chamber	width-2-3cm
55	Ornament	Fragments of an item made of an iron roller. It narrows toward the edge. Figure 81.	7	Burial chamber	cross sect.d.- 0.5-1cm
56	Vessel	Fragments of a vessel body. The wall is thick. The base is flat. There is sand admixture in the clay composition. The colour is dark grey on the inside and black on the outside.	7	Burial chamber	wall th.- 0.8cm
57	Vessel	A large vessel body fragment. The wall is thick. There is a protruding stripe on it. There is fine sand admixture in the clay composition. The polish colour is grey on the inside, while the outside surface is polished black.	6	Mound cover	wall th.- 1cm
58	Vessel	A dopu-type vessel's lower part. The wall is thin. The elongated body broadens upward slightly from the base. The base is wide and flat. The surface is polished black. Figure 66.	6	Burial chamber	base d.-5cm wall th.- 0.4cm
59	Button	Shield-shaped buttons made of a bronze plate. A half-part of one of these items is broken. One side of the buttons is protuberant. There are single holes and pairs of holes upon the edges for pinning the buttons to clothes. Figure 68.	6	Burial chamber	diam.- 3.2cm

No.	Item	Description	Kurgan	Location	Dimension
60	Beads	Two sets of barrel-shaped beads made of pale blue paste. The beads were decorated on top with round protrusions (in the nut shape). Figure 69.	6	Burial chamber	diam.- 0.7cm len.- 1cm
61	Beads	Barrel-shaped beads made of white coloured paste. A pattern of thin vertical lines was applied on the surface.	6	Burial chamber	
62	Beads	Barrel-shaped beads made of pale blue paste. Both of the edges are girdled by thin scratched lines. The space in between was filled with vertical notched lines.	6	Burial chamber	
63	Beads	Beads (23 items) shaped as little buttons made of pale blue paste. The beads were decorated with scratched line patterns.	6	Burial chamber	diam.- 0.5cm
64	Beads	Beads of different sizes made of paste. The cross section is round. 59 white coloured items and 10 pale blue samples are available. Figure 70.	6	Burial chamber	
65	Vessel	A small bowl-type vessel's rim fragment. The mouth area is inclined inward. The low and wide lateral part goes directly into the body. The body apparently narrows downward sharply. The wall is thinning downward. The body is girdled below the neck by elongated askew notched patterns. The colour is dark pink.	8	Mound cover	neck h.- 1.7cm wall th.- 0.4-1cm
66	Vessel	A small vessel handle's half-part. The handle, which had a pipe-shaped cross section, was attached to the vessel vertically.	8	Mound cover	cross sect.d.- 1.5cm
67	Beads	Elongated beads made of dark pink coloured clay. Both of the edges have a conic shape. The clay composition is clean. Figure 122.	8	Mound cover	len.-2.5cm
68	Beads	Round-shaped beads made of agate.	8	Mound cover	diam.- 0.6cm
69	Vessel	A medium size jar. The mouth element broadens sideways slightly. The low and narrow neck smoothly transforms into the shoulder. The body is pear-shaped. The base is wide and flat. There is a handle with a round cross section in the back connecting the shoulder with the mouth area. Black polish was applied on the vessel. Figure 83.	7	Sacrificial altar	st. d.-16.3cm h.-20cm base d.-8cm neck h.- 3cm
70	Vessel	A small bowl-type vessel. The mouth is wide. The mouth element is bent sideways. The low and wide neck goes directly into the convex body. The neck part transitioning into the body is girdled by askew notched patterns. The base is oval. There is significant sand admixture in the clay composition. The colour is pink. Figure 84.	7	Sacrificial altar	st. d.-12.5cm orif. d.-11cm base d.-7cm height- 6.8cm
71	Vessel	Fragments of a medium size pitcher. The mouth is wide. The low and wide neck goes smoothly into the convex body. The base is narrow and flat. The wall is thin. There is a gravelly sand admixture in the clay composition. The colour is light pink.	7	Mound cover	orif. d.-11.5cm base d.- 7.5cm wall th.- 0.5cm
72	Vessel	Fragments of a vessel's handle and base. The base is oval. The handle, which had a round cross section, was attached to the vessel vertically. There is a gravelly sand admixture in the clay composition. The handle connects the mouth area with the body. The mouth is narrow. The low and narrow neck smoothly transforms into the shoulder.	7	Mound cover	orif. d.- 6.5cm h and. d.- 2.2cm wall th.- 0.7cm
73	Vessel	A neck fragment of a thin wall vessel. The neck smoothly goes into the shoulder. The neck is girdled by short, notched lines. The clay composition is clean. The colour is grey. The surface is polished.	7	Mound cover	wall th.- 0.5cm
74	Vessel	The wide mouth is slightly bent sideways. The low and wide neck smoothly goes into the shoulder. There is significant sand admixture in the clay composition. The colour is pink.	7	Mound cover	neck h.- 2.7cm wall th.-0.7cm
75	Vessel	A small vessel handle fragment. The handle with a round cross section connected the narrow mouth with the body. The clay composition is clean. The colour is grey. The surface is polished.	7	Mound cover	cross sect. d.- 0.7cm
76	Vessel	A fragment of a medium size vessel's elongated body. The low neck directly goes into the body. The wall is thin.	7	Mound cover	wall th.- 0.3cm

No.	Item	Description	Kurgan	Location	Dimension
		The vessel was baked at a high temperature. It was made on a potter's wheel. The colour is grey. The surface is polished. The item is decorated on the outside with vertical polished lines.			
77	Vessel	A little vessel's handle fragment. The cross section is round. The colour is grey. The surface is polished.	7	Mound cover	diam.- 1.3cm
78	Vessel	A little vessel's body fragment. The body is spherical. There is sand admixture in the clay composition. The colour is pink.	7	Mound cover	wall th.- 0.7cm
79	Vessel	Fragments of a pitcher-type vessel. The wall is thick. The clay composition is clean. The vessel has a vertically attached, wide handle with a tape-shaped cross section. There is a horizontal groove on the body with elongated askew notched patterns underneath. The colour is grey. The surface is polished.	7	Mound cover	han.cr.sect.wid.-3.3cm wall th.- 0.8cm
80	Vessel	A large household jug. The convex body narrows downward. The wide mouth is bent sideways. The base is wide and flat. The low and wide neck smoothly goes into the shoulder. There are horizontally positioned parallel scratched lines on the shoulder. Descending polished lines traverse those horizontal lines, girdling the body vertically from the shoulder toward the base. The vessel is of high quality. The colour is grey. The surface is polished. Figure 45.	4	Burial chamber	st.d.-36cm height- 42cm orif.d.-16.5cm base d.-17cm
81	Vessel	A pear-shaped jar with a narrow mouth element. The mouth is bent sideways. The narrow and low neck goes directly into the body. The neck is girdled by thin scratched lines. There are black polished stripes extending from the neck toward the base. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth area with the body. The colour is black with polished surface. Figure 46.	4	Burial chamber	st. d.-20cm orif.d.-9cm height- 22cm base d.-10.8cm neck h.-3cm
82	Vessel	A medium size pitcher. It has a narrow and wavy mouth area. The narrow neck goes smoothly into the shoulder. The body is convex. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth area with the shoulder. The back side of the mouth is higher than the front side. There is sand admixture in the clay composition. The colour is brown. The surface is polished and covered with whitish engobed coating. The engobed coating in the vessel's lower part faded under the impact of moisture. Figure 59.	6	Sacrificial altar	st. d.-20 cm orif.d.-9cm height- 22cm base d.-10.8cm neck h.-3cm
83	Vessel	A small pitcher with a narrow mouth. The low neck goes smoothly into the shoulder. The body is convex. There is a handle with a round cross section in the back connecting the mouth area with the shoulder. The handle was attached slightly at a slant to simplify use. The neck part of the mouth element transiting into the shoulder is decorated with askew notched patterns. The body is grooved vertically. The base is narrow and flat. The wall is thin. The clay composition is clean. The colour is black. The surface is polished. Figure 57.	6	Sacrificial altar	st. d.-14.5cm height -14.5-16cm neck h.-4-4.5cm orif.d. -7cm base.d.- 9.7cm
84	Vessel	A tiny pitcher. The mouth element is narrow. The low and narrow neck goes smoothly into the shoulder. The body is convex. The base is narrow and flat. There is a spout-like round and enclosed protrusion on it. The vessel has a wavy mouth area. It is girdled at the bottom by slight notched lines. The colour is creamy. Traces of black polish remained on the item. Figure 60.	6	Sacrificial altar	st.d.- 6.4cm height – 5.6cm orif.d.- 2.7cm base – 2.8cm
85	Vessel	A little saltshaker or spice jar. It is shaped as a drum. One side of the wide mouth element is higher than the other one. The clay composition is clean. The base is wide and flat. The colour is pale pink. Figure 61.	6	Sacrificial altar	base d.- 4.6cm h.-2.2-2.3cm
86	Vessel	A medium size bowl. Its wide mouth element is slightly inclined inward. It transforms directly into the convex body. The base is oval. The body's upper part is girdled	6	Sacrificial altar	orif.d.-16cm st. d.-22cm height- 11cm

No.	Item	Description	Kurgan	Location	Dimension
		below the mouth by notched patterns. The wall is thin. There is a gravelly sand admixture in the clay composition. The colour is light pink. Figure 56.			
87	Vessel	A large pitcher with thin walls. The discovered item was fragmented. The mouth is narrow. The low and narrow neck goes smoothly into the shoulder. The body is convex. The base is wide and flat. There is sand admixture in the clay composition. The colour is grey. There are traces of burning all over the bottom of the base. The wall thickens downward. The body is girdled by horizontal, parallel grooved stripes. Figure 58.	6	Sacrificia l altar	st.d.-26cm orif.d.-13cm base d.-19.3cm wall th.-0.5- 0.7cm
88	Bracelet	Three bracelets with different diameters made of a bronze roll. The small one was made using a thinner roller. The edges are bent, covering one another.	6	Sacrificia l altar	diam: 1-5.4cm 2-5cm 3-3.4cm
89	Ornament	Three ornaments made of a bronze wire and shaped as adjoining quadrangular frames.	6	Sacrificia l altar	dimensions: 1-2 x 1.4 2-1.7 x 1.4cm 3-1.3 x 1.3cm
90	Beads	Five sets of beads made of bone. The hole on one of these was made in the lateral part (shaped as a little button), while the hole on the other four items (flat shaped) was opened on top. There are pattern elements on the surface of these samples.	6	Sacrificia l altar	
91	Beads	Little beads made of paste (five items). Three of these items are pale blue coloured and the other two items are white.	6	Sacrificia l altar	
92	Vessel	A medium size bowl. The mouth is wide. The sides, which rise upright, are slightly convex. The base is wide and flat. There is significant sand admixture in the clay composition. The colour is pink. The surface is not smooth. The walls are thick. Traces of soot remained on the vessel. Figure 64.	6	Mound cover	
93	Grindstone	A half-part of an elongated grindstone. It was made of basalt rock. The upper part is smooth. The bottom is oval, but the middle section is flattened. The edge slightly rises on the upper side. Figure 22.	1	Mound cover	24 x 14 x 6cm
94	Vessel	the shoulder. There is a hook-like handle with a round cross section in the back that connects the mouth area with the body. The vessel is handmade. There is sand admixture in the clay composition. The clay colour is dark creamy. The surface is covered with black polish. There is a round, flat and vertical protrusion upon the body on the handle's reverse side. Another protrusion (d.-1cm) that looks like a button is seen in the lateral part. There is also a trace of a similar protrusion on the other side of the vessel and on the opposite side of the protuberance. Figure 63.	5	Burial chamber	st. d.-18cm orif.d.-14.2cm height-12.5cm base d.-8cm
95	Vessel	Fragments of a small black polished vessel. The body is convex. The clay colour is grey. The wall is thin. There is sand admixture in the clay composition. The outside surface is horizontally girdled by thin polished lines.	5	Burial chamber	wall th.- 0.3- 0.5cm
96	Vessel	A large pitcher with thin walls. The narrow mouth element slightly broadens sideway. The narrow neck directly goes into the pear-shaped body. There is a lot of sand admixture in the clay composition. The colour is pink. The surface was vertically combed and covered with white engobed coating. Engobed coating was also applied on the inside. Figure 62.	5	Burial chamber	orif.d.-9cm st.d.-16cm wall th.- 0.5cm
97	Vessel	A medium size pitcher. It is fragmented. The mouth is wide. The low and wide neck goes into the shoulder. The body is convex. It broadens sideways and upward from the base. The base is wide and flat. There is sand admixture in the clay composition. The clay colour is red. The black coloured surface is polished.	5	Burial chamber	base d.-10.5cm wall th.- 0.7cm neck h.-2cm
98	Vessel	Two fragments of a thick wall vessel body. There is sand admixture in the clay composition. The colour is grey.	5	Burial chamber	wall th.- 0.8cm

No.	Item	Description	Kurgan	Location	Dimension
		The surface is polished. There is a scratched stripe with a criss-cross pattern on it.			
99	Vessel	Two fragments of a large vessel body. The clay composition is clean. The colour is creamy. The surface is polished.	5	Burial chamber	wall th- 0.7cm
100	Ornament	A ring-like item made of dried clay. Its cross section is round. There is sand admixture in the clay composition. The colour is yellowish. Figure 123.	5	Burial chamber	diam. inside- 2.5cm outside - 4.7cm
101	Beads	Two sets of round-shaped beads made of red coloured agate. There is a hole in the middle.	5	Burial chamber	diam.- 0.5cm
102	Vessel	An average size, can-type vessel with an elongated body. The mouth area, which has welt, broadens sideway. The narrow and low neck goes directly into the body. The base is wide and flat. There is a handle with a round cross section in the back connecting the mouth with the upper part of the body. The clay colour is black. There is a gravelly sand admixture in the clay composition. The surface colour is grey. The body is girdled by parallel polished stripes from the upper part downward. The wall is thin. Figure 89.	C	Sacrificia I altar	st. d.-10.5cm height- 20cm neck h.-2.8cm base d.- 7.3cm wall th.- 0.4cm
103	Vessel	A little biconic pitcher. The mouth broadens laterally. The low neck goes smoothly into the shoulder. The body begins to narrow down gradually after broadening toward the middle. The base is narrow and flat. There is a hook-like handle with a round cross section in the back connecting the mouth with the middle section of the body. The wall is thin. The clay composition is clean. The vessel is polished black. The shoulder is horizontally girdled by two parallel grooves. The clay colour is grey. Some of the vessel's parts are torn off. The vessel was made on a potter's wheel. Figure 90.	C	Sacrificia I altar	st.d.-11cm height- 6.5cm neck h.-1.3cm base d.- 4.5cm wall th.-0.3- 0.5cm
104	Beads	Beads of different shapes made of white paste. White coloured, round-shaped – 24 items, pipe-shaped - one item, rhombic – one item. Figure 88.	C	Sacrificia I altar	Round diam.- 0.2-0.4cm
105	Vessel	A large vessel body fragment. The vessel had a convex body. There is sand admixture in the clay composition. The wall is thin. The colour is pink. There are significant traces of soot all over the surface. The surface is smoothed.	8	Burial chamber	wall th.- 0.6cm
106	Vessel	A vase-type vessel's half-part. The body broadens sideways from the base. The wall is thick. The clay composition is clean. The base is narrow and heeled. It is depressed in the middle. The clay colour is grey. The surface is polished black. There are thick, "X"-shaped, polished and criss-cross patterns on the inside. Figure 108.	8	Burial chamber	orif.d.-20cm height- 7.5cm base d.-9cm wall th.- 1cm
107	Vessel	A medium size jar-type vessel with a narrow and low neck. The mouth is funnel shaped. The neck goes smoothly into the shoulder. The body is convex. The base is wide and flat. There is an elbow-shaped handle in the back connecting the mouth with the shoulder. The clay composition is clean. The colour is dark grey. The surface is polished black. The neck is girdled by notched grain-like patterns. Wavy polished lines girdle the shoulder amid parallel protruding lines. Underneath there are parallel polished straight lines oriented downward. Figure 110.	8	Burial chamber	
108	Vessel	A medium size, black polished jar. The low and narrow neck goes smoothly into the shoulder. The body is convex. There is an elbow-shaped handle in the back connecting the mouth with the shoulder. The base is wide and flat. The neck is girdled by incrustrated patterns comprised of notched dots. Three triangular incrustrated patterns positioned at a distance from one another extend from the neck toward the vessel's shoulder. Underneath the shoulder is girdled by two parallel grooves. There are three papilla-shaped protrusions on	8	Burial chamber	st.d.-16.5cm height- 20cm orif.d.-6.2 cm neck d.- 4.5cm neck h.- 3.5cm base d.- 8.6cm

No.	Item	Description	Kurgan	Location	Dimension
		the front and lateral sides of the vessel below those grooves. The papillae are girdled by little circles comprised of incusted dots. The body's middle section is girdled by three more slight grooves. Below these, the body narrows toward the base. The body's lower part is decorated with parallel polished stripe patterns descending toward the base. The clay composition is clean. Figure 111.			
109	Bracelet	A bracelet made of a bronze roller. The cross section is round. The edges are not connected. Figure 115.	8	Burial chamber	diam.- 6cm
110	Bracelet	A bracelet made of a bronze roller. Its cross section is round. It has a barbed surface. Agate beads were run through the area connecting the edges. Two bone rings were also run through the bracelet. One of the rings is round, while the other one is pipe shaped. Figure 116.	8	Burial chamber	diam.- 4.5cm
111	Ring	A finger ring made of a flattened bronze roller. The edges are connected. Figure 117.	8	Burial chamber	diam.- 2.4cm
112	Button	A button made of a bronze plate. One of its sides is protuberant. It is shaped as a round shield. A hole was made on both ends for pinning the item to clothes. Figure 118.	8	Burial chamber	diam.- 3cm
113	Knife	A fragment of an iron cutting tool blade. It is narrow and three-faceted. Figure 120.	8	Burial chamber	width -1.5cm
114	Beads	Flat, round and barrel-shaped agate beads of different sizes (125 items). Black cylindrical agate was used. Blackish-red coloured – five items; black coloured – one item; light red - 119 items. Figure 112.	8	Burial chamber	d.- 0.1-2cm
115	Beads	Beads made of a bronze plate - 12 items; barrel-shaped – 8 items, elongated items – 4 sets, round- shaped – 5 sets. Figure 114.	8	Burial chamber	d.-0.2-0.5cm
116	Beads	Cowrie beads – 5 sets. Figure 113.	8	Burial chamber	
117	Beads	Biconic beads made of whitish paste. Figure 113.	8	Burial chamber	
118	Beads	Beads made of white paste (three sets). Two of these are barrel-shaped items and the other one is round (a half-part remained intact). Scratched patterns were applied on these samples. Figure 113.	8	Burial chamber	
119	Beads	Cylindrical beads made of white paste. One of its edges is broadening. Two protruding holes were made upon it in addition to the hole extending throughout the beads. The surface was decorated with patterns comprised of little grey circles. Figure 113.	8	Burial chamber	len.- 1.6cm
120	Beads	An ornament processed by folding it into a conic shape with the use of white paste. There is a hole on its edge slated for hanging the item. Figure 113.	8	Burial chamber	
121	Ornament	Disc-shaped ornaments shaped as little buttons. They were made of whitish paste. The bottom parts are flat, while the upper sides are rather protuberant. There is a pair of holes on the surface, which is also decorated with scratched patterns. 4 items. Figure 113.	8	Burial chamber	diam.:2 items-1cm 1 item- 0.8cm 2 item- 0.7cm
122	Beads	Insect-shaped beads made of greenish paste. The surface is decorated with scratched patterns. Figure 113.	8	Burial chamber	
124	Beads	A triangular ornament. It has a forked edge. The colour is white. Figure 113.	8	Burial chamber	
125	Necklace	A necklace made of a twisted bronze roller. Its separated edges are flattened. Figure 86.	C	Sacrificia I altar	diam.- 15.5cm
126	Bracelet	Half-parts of bracelets made of bronze rollers (two items). Figure 87.	C	Sacrificia I altar	
127	Ring	Half-parts of rings made of thin bronze (three items). Figure 114.	8	Burial chamber	diam.- 1cm
128	Ring	A ring made of greenish paste. The surface is decorated with an ornament comprised of white particles. Figure 113.	8	Burial chamber	diam.- 1.3cm
129	Vessel	A medium size pitcher with a narrow neck. The mouth element expands sideway. The low neck smoothly transforms into the shoulder. The convex body narrows	8	Mound cover	st.d.-16cm neck d.- 6cm h.-16.5cm

No.	Item	Description	Kurgan	Location	Dimension
		downward. The base is narrow and flat. There is sand admixture in the clay composition. The colour is red. The surface is entirely covered with scale. There is a handle with a round cross section in the mouth area connecting the shoulder with the mouth element. Figure 97.			base d.- 8cm wall th.-0.5cm neck h.-3cm
130	Vessel	A small pitcher. It is pear-shaped. The narrow mouth element broadens sideways. The narrow and low neck gradually goes into the shoulder. The body narrows downward from the middle. The base is narrow and oval. There is a pipe-shaped handle in the back connecting the mouth with the body's middle section. The neck is girdled by askew notched lines. The clay composition is clean. The item is polished black. The surface is covered with scale. Figure 98.	8	Mound cover	st. d.-12cm neck h.3cm h-11.5cm base d. 5.4cm
131	Vessel	A small pitcher with a pear-shaped body. The mouth element is funnel shaped. The narrow and low neck gradually goes into the shoulder. The body's middle section is horizontally girdled by a wide groove. The base is narrow and flat. There is a handle with a round cross section in the back that connects the body's lower part with the mouth area. The clay composition is clean. The item is polished black. The surface is covered with scale. Figure 99.	8	Mound cover	st. d.-9cm h.- 9.1cm neck h.- 2.5cm base d.-5cm wall th.- 0.5cm
132	Vessel	A little biconic vessel. The mouth is broken. The narrow neck gradually goes into the shoulder. The middle section is girdled by a shallow groove. The convex body begins narrowing down toward the base from that groove. The base is narrow and flat. The base of a handle with a round cross section remained in the back. The handle probably connected the shoulder and the mouth element. Black polish was applied on the vessel. Most of the surface is covered with scale. The clay composition is clean. Figure 100.	8	Mound cover	st.d.-11cm h.h.- 7.5cm base d.- 5.2cm wall th.- 0.5cm
133	Vessel	an oval shape after descending straight down. The wide and flat base is slightly depressed inward. The body's area crossing over into the oval part is girdled by horizontally applied, notched, grain-like patterns. There is a handle with a round cross section in the back that connects the mouth element with the lower part of the body. There is sand admixture in the clay composition. It was baked in unstable temperature conditions. The colour is light pink. Most of the surface is covered with scale. Figure 101.	8	Mound cover	orif.d.- 8.6cm h.- 5.8cm st.d.-9cm base d.-6cm wall th.-0.5cm
134	Vessel	Fragments of a small black polished pitcher. The mouth element broadens sideways. The low and narrow neck smoothly goes into the shoulder. The body is convex. The vessel has a pipe-shaped handle connecting the mouth area with the body. The neck is girdled by notched grain-like patterns. The base is wide and flat. The clay composition is clean. The wall is thin. Traces of a potter's wheel are seen on the inside. Most of the surface is covered with scale. Figure 102.	8	Mound cover	orif.d.- 6.5cm wall th.- 0.5cm neck h.- 2.8cm
135	Vessel	Fragments of a biconic vessel. The convex body narrows downward from the middle. The vessel has a handle with a round cross section. The base is wide and flat. There is sand admixture in the clay composition. The colour is light brown. Traces of soot are left on the surface. The upper part is not available. Figure 103.	8	Mound cover	base d.- 7.5cm han.d.- 1.5cm wall th.-0.5cm
136	Vessel	Fragments of a medium size, black polished vessel's lower part. The wall is thick. The base is flat. It was made on a potter's wheel. The clay composition is clean. Figure 104.	8	Mound cover	base d.- 7.7cm wall th.- 0.8cm
137	Vessel	Fragments of a medium size vessel's lower part. The wall is thin. There is sand admixture in the clay composition. The base is wide and flat. The body is girdled by askew notched patterns. The colour is light pink. The surface is entirely covered with scale. Figure 105.	8	Mound cover	wall th.- 0.5cm base d.-10.5cm

No.	Item	Description	Kurgan	Location	Dimension
138	Vessel	Fragments of a small vessel with an elongated body. Black polish was applied on the vessel. The mouth is broken. The base is narrow and oval. The clay composition is clean. There is a handle with a round cross section connecting the body with the mouth area. Figure 106.	8	Mound cover	base d.- 5.5cm wall th.-0.4-0.7cm
139	earring	An earring made of a thin bronze roller. Figure 119.	8	Mound cover	d.- 1.2cm
127 A	Beads	Beads of different sizes and shapes made of white and greenish paste. Scratched patterns were applied on the surface. White coloured items: round-shaped – 139; flat – 16; pipe-shaped – 107; biconic – 4; triangular – 32; barrel-shaped – 3; shaped as little buttons – 1; quadrangular – 1; rhombic – 1; Greenish items: 1; round-shaped – 3; cross-shaped – 3; biconic – 8; elongated – 10; shaped as little buttons – 8; goggle-shaped – 1; rhombic – 2; barrel-shaped – 4. Figure 121.	8	Burial chamber	

8 APPENDICES

8.1. REFERENCES

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8.1 ILLUSTRATIONS

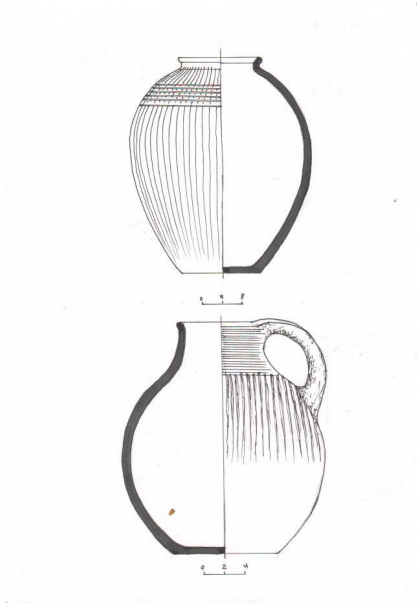


Figure 2.1. Pitcher with round mouth. 2. Pitcher with narrow neck and convex body.

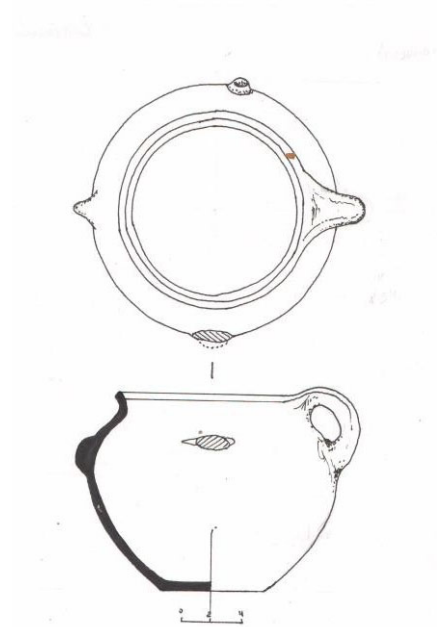


Figure 3. Pitcher with wide mouth and one handle.

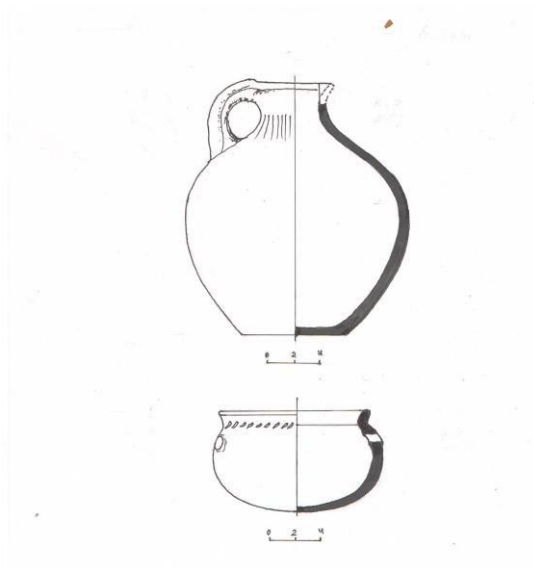


Figure 4. Pots and pitchers with convex bodies.

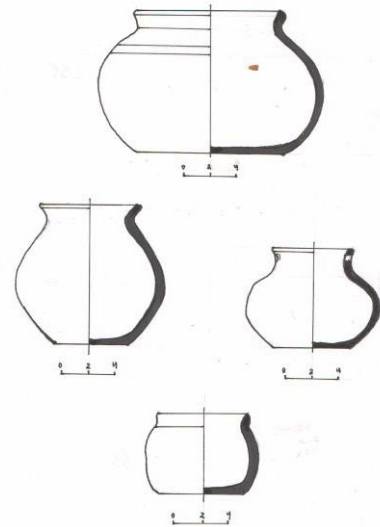


Figure 5. 1. Pitcher with narrow neck and single handle. 2. Biconic pitcher with grooved surface; pitcher with narrow mouth and convex body.

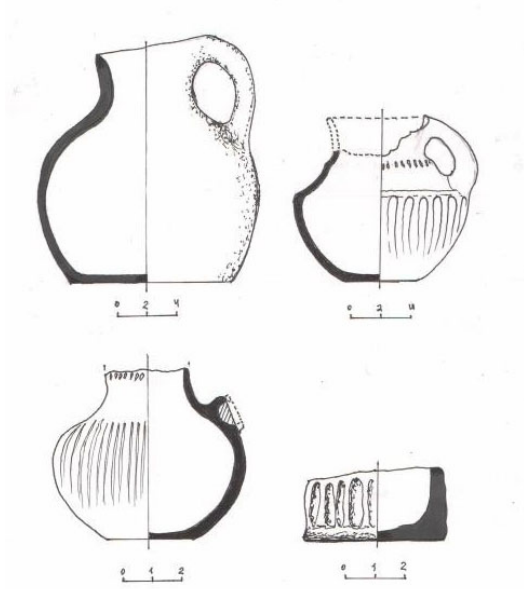


Figure 6. 1. Jar with pear-shaped body. 2. Pot with convex body.

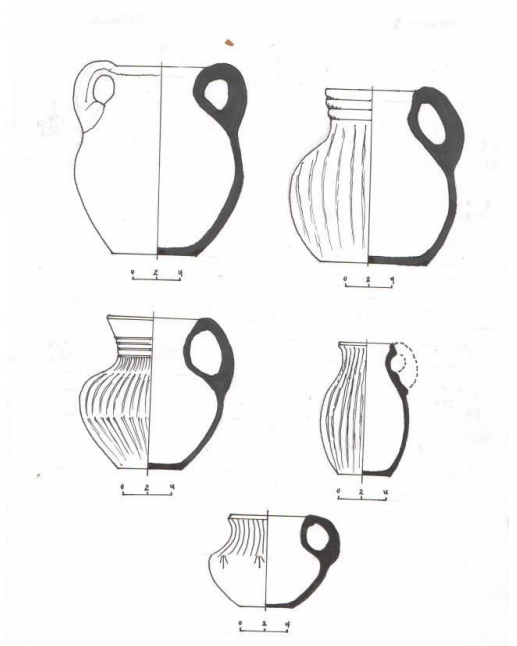


Figure 7. 1. Pitcher with two handles. 2. Pitcher with single handle. 3. Pitcher with funnel-shaped mouth. 4. Can with elongated body. 5. Little pitcher with single handle.

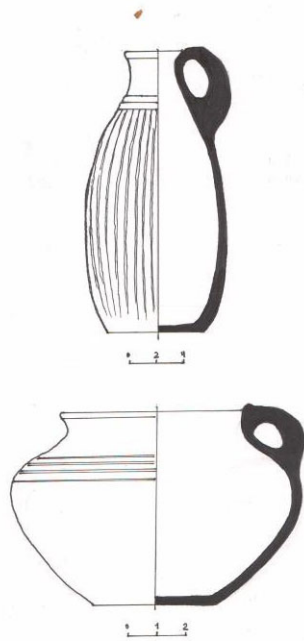


Figure 8. 1. Can with elongated body. 2. pot with convex body.

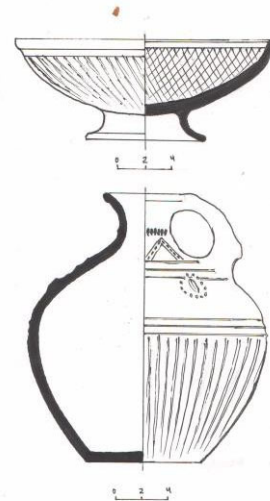


Figure 9. 1. Vase. 2. Jar with patterned and grooved surface.

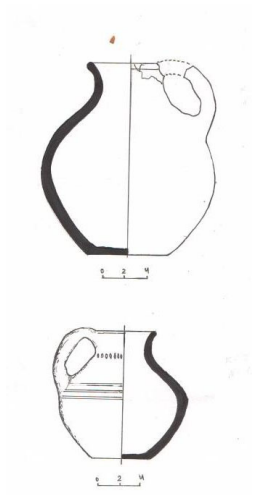


Figure 10. Pitchers with single handle.

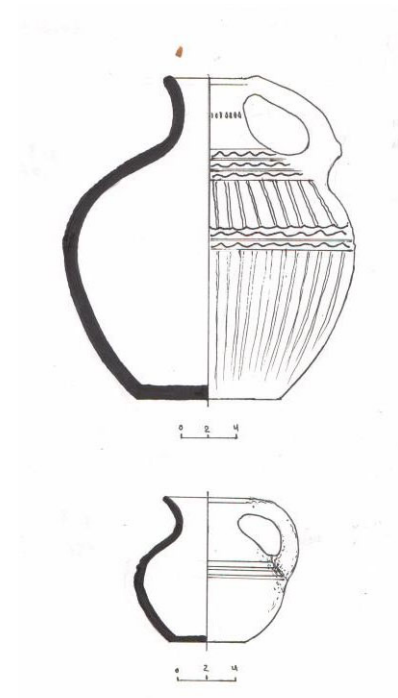


Figure 11. 1. Jar with patterned and grooved surface. 2. Little pitcher.

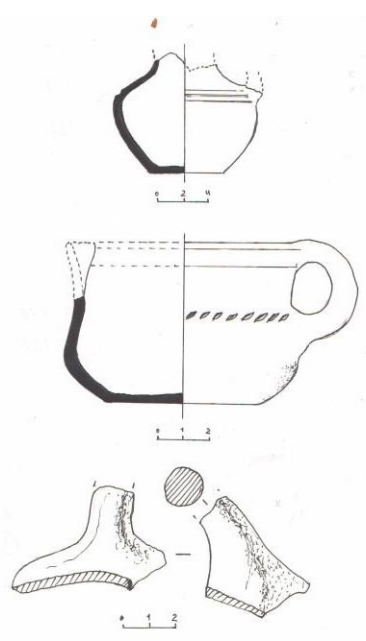


Figure 12. 1. Little pitcher. 2. Mug. 3. Vessel handles.

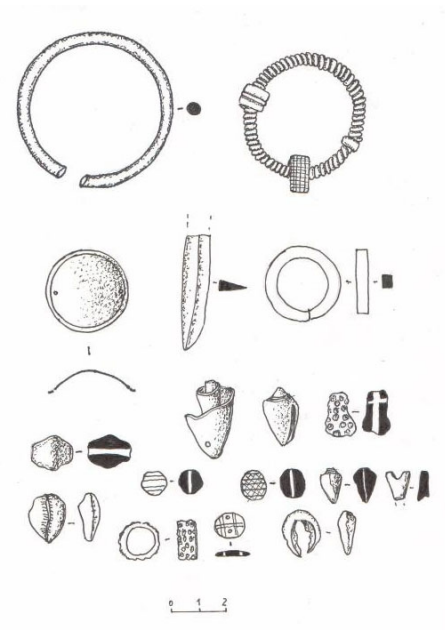


Figure 13. Bronze bracelets and jewellery items. Paste and cowrie beads. Bone ornaments.

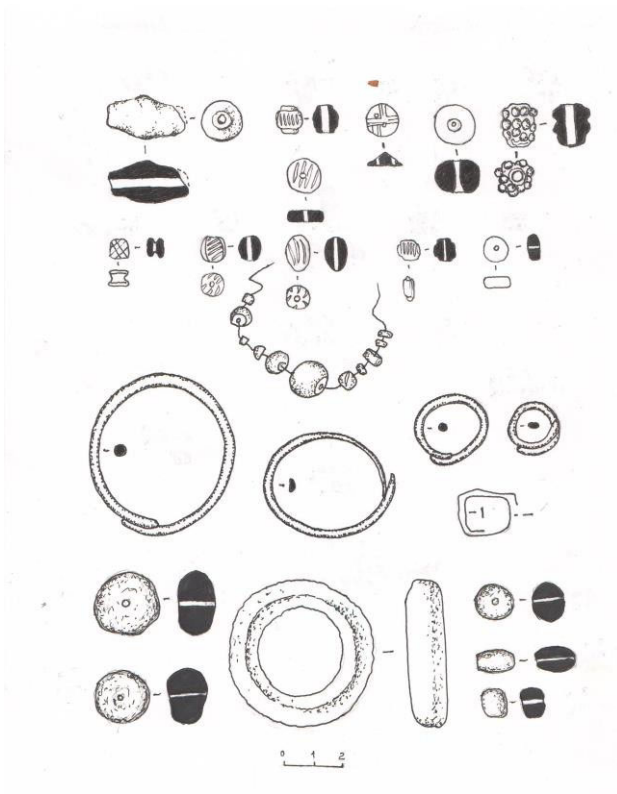


Figure 14. Bronze and cowrie ornaments, agate beads, bronze necklaces and bracelets.

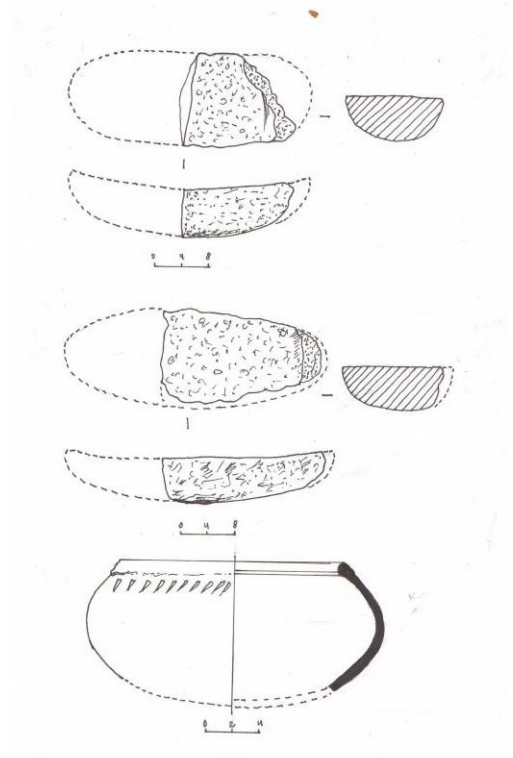


Figure 15. Grindstones; pot with convex body.

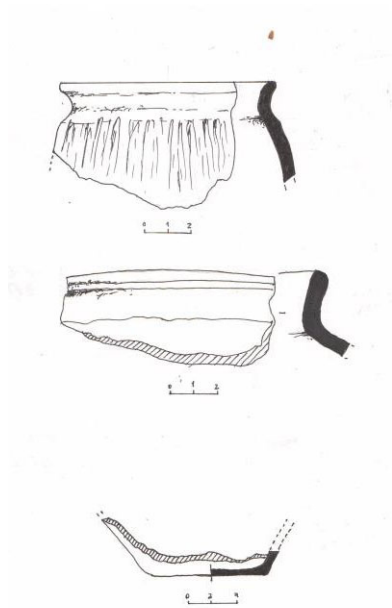


Figure 16. Fragments of vessel shoulder and base.

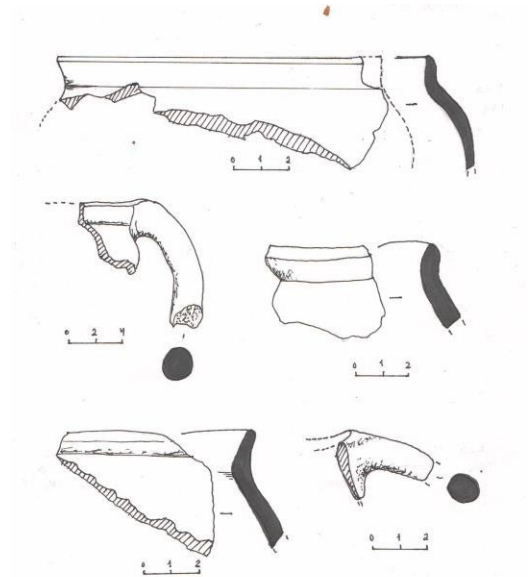


Figure 17. Fragments of vessel mouths, shoulders and handles.

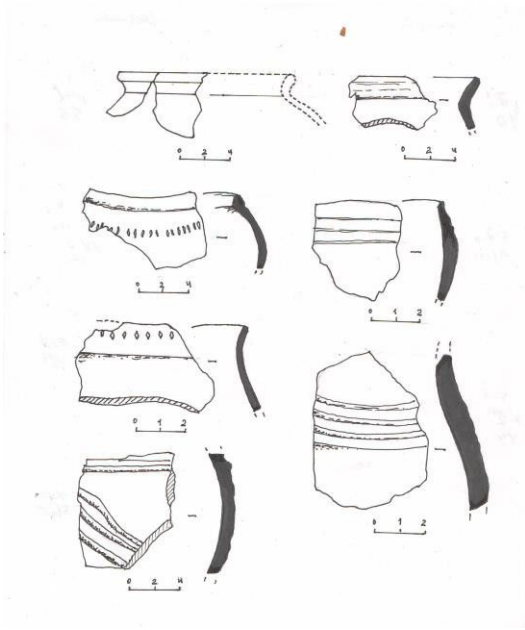


Figure 18. Fragments of patterned vessel mouth and body.

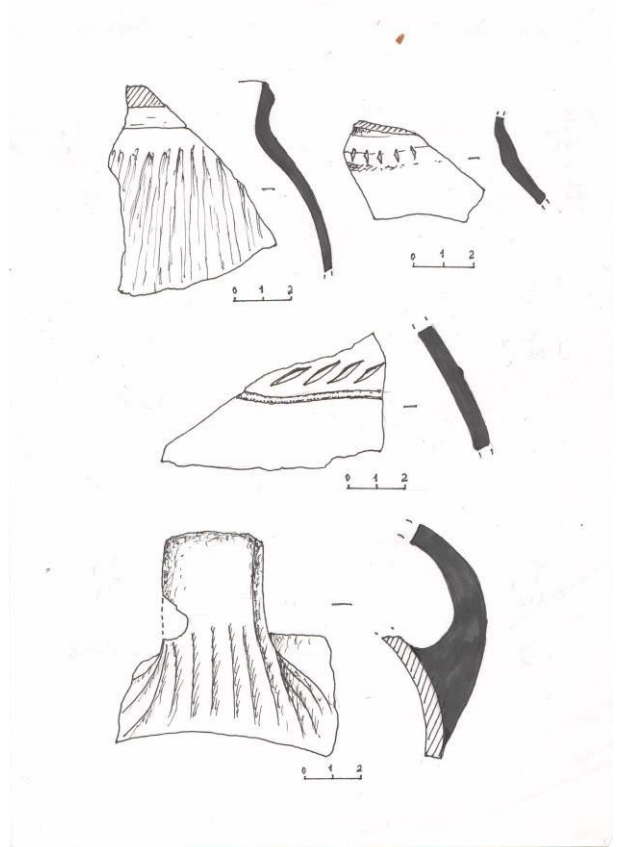


Figure 19. Fragments of vessel body, shoulder and handle with grooved surface decorated with notched patterns.

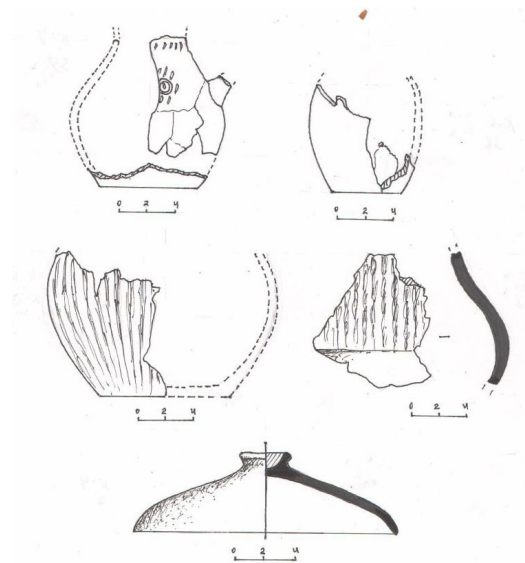


Figure 20. Vessels with pear-shaped bodies; vase.

8.3 PHOTOS



Figure 21. Kurgan 1 at start of excavation. View to west.



Figure 22. Basalt grindstone. Kurgan 1, inv 93.



Figure 23. Kurgan 1 rock layer.



Figure 24. Kurgan 1 rock layer.



Figure 25. Kurgan 1 rock layer.



Figure 26. Kurgan 1 rock layer.



Figure 27. Kurgan 2 from above.



Figure 28. Kurgan 1 from above.



Figure 29. Kurgan 1, burial chamber



Figure 30. Small biconic pitcher



Figure 31. Kurgan 2 first rock cover. View to west.



Figure 32. Kurgan 2 Chamber. View to north.



Figure 33. Kurgan 2 chamber, fragmented vessel and bronze bracelets.



Figure 34. Kurgan 2. Small pitcher



Figure 35. Agate, tourmaline and paste beads



Figure 36. Kurgan 2. Bronze ear-ring and bracelets.

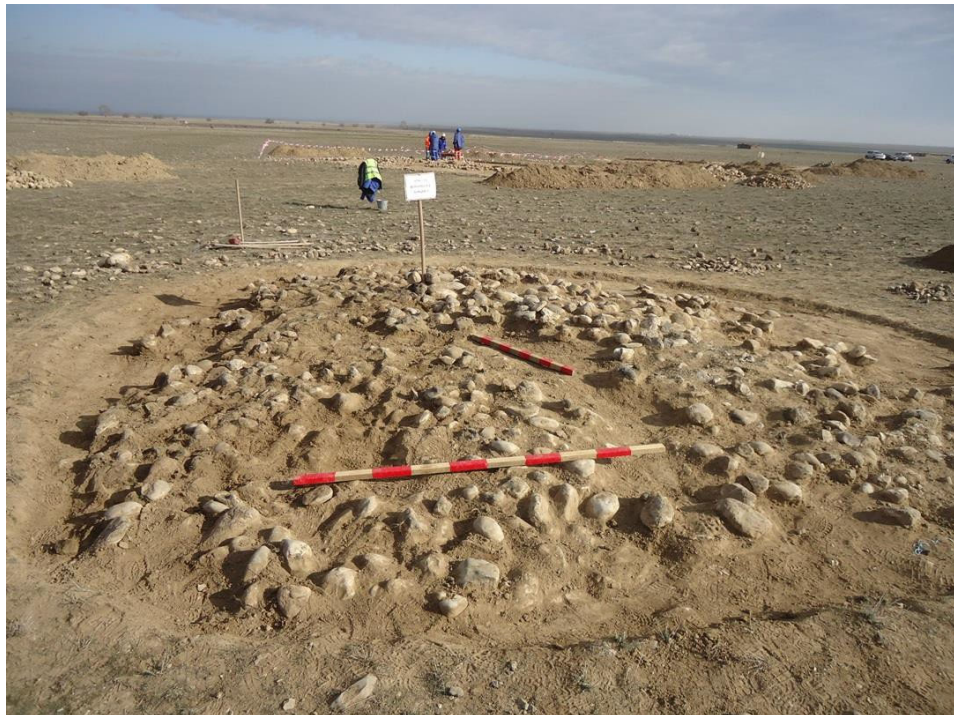


Figure 37. Kurgan 3 first stone layer. View to northeast.



Figure 38. Kurgan 3 sacrificial altar. View to northeast.



Figure 39. Medium size pitcher.



Figure 40. Pitcher with pear-shaped body.



Figure 41. Kurgan 4. View to north.



Figure 42. Kurgan 4 line of rocks.



Figure 43. Kurgan 4 crescent-shaped line. North at base of image.



Figure 44. Kurgan 4 chamber. View to west.



Figure 45. Large jug.

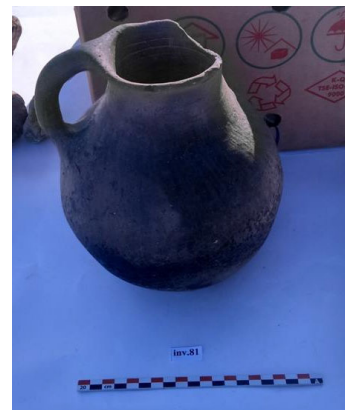


Figure 46. Average size jar.



Figure 47. Kurgan 5 after initial cleaning. View to west.



Figure 48. Kurgan 5 round line of rocks set up in two rows. View to north.



Figure 49. Kurgan 5 elongated line of rocks. View to west.



Figure 50. Kurgan 5 chamber. View to west.



Figure 51. Pitcher with two handles.



Figure 52. Bronze bracelet.



Figure 53. Beads made of paste.



Figure 54. Kurgan 6. View to northwest.



Figure 55. Kurgan 6 sacrificial altar. View to northwest



Figure 56. Average size bowl.



Figure 57. Small pitcher.



Figure 58. Fragments of jug with convex body.



Figure 59. Jar.



Figure 60. Tiny pitcher.



Figure 61. Salt cellar.



Figure 62. Upper part of large pitcher.



Figure 63. Pitcher with convex body and single handle.



Figure 64. Clay bowl.



Figure 65. Kurgan 6 chamber. View to north.



Figure 66. Dopu-type vessel's lower part.



Figure 67. Dopu-type vessel's lower part.



Figure 68. Bronze buttons.



Figure 69. Paste beads with protruding surface.



Figure 70. Barrel and button-shaped paste beads.



Figure 71. Kurgan 7. View to northeast.



Figure 72. Kurgan 7 half-section of mound cover. View to southeast.



Figure 73. Little pitcher and dopu.



Figure 74. Pitcher with elongated shape.



Figure 75. Fragments of average size pitcher.



Figure 76. Spherical pitcher.



Figure 77. Pitcher with wide mouth.



Figure 78. Agate beads.



Figure 79. Iron knife blade.



Figure 80. Iron knife blade.



Figure 81. Iron roller.



Figure 82. Kurgan 7 vessels found in kurgan cover.



Figure 83. Black polished jar.



Figure 84. Bowl with convex body.



Figure 85. Kurgan C. View to east.



Figure 86. Bronze necklace.

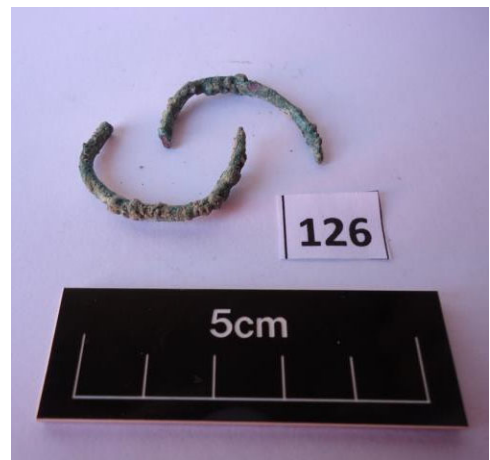


Figure 87. Bronze bracelet.



Figure 88. Paste beads.



Figure 89. Jar.



Figure 90. Biconic pitcher.



Figure 91. Kurgan 8. View to southwest.



Figure 92. Kurgan 8. Cromlech in kurgan cover.



Figure 93. Kurgan 8. Vessel fragments under cromlech.



Figure 94. Kurgan 8. Vessels found within line of cromlech.



Figure 95. Vessels found within line of cromlech.



Figure 96. Vessels found within line of cromlech.



Figure 97. Pitcher with narrow neck.



Figure 98. Pear-shaped pitcher.



Figure 99. Small pear-shaped pitcher.



Figure 100. Biconic vessel.



Figure 101. Ceramic mug.



Figure 102. Fragments of black polished vessel.



Figure 103. Biconic vessel fragments.



Figure 104. Black polished vessel's lower part.



Figure 105. Average size vessel's lower part.



Figure 106. Fragments of small vessel with elongated body.



Figure 107. Kurgan 8 chamber in centre of mound.



Figure 108. Ceramic vase.



Figure 109. Ceramic vase.



Figure 110. Ceramic jar.



Figure 111. Ceramic jar.



Figure 112. Agate beads.



Figure 113. inv.116-123-paste and cowrie beads; inv.124-triangular ornament; inv.128-paste ring.



Figure 114. inv.115- bronze beads; inv.127- bronze ring parts.



Figure 115. Bronze bracelet.



Figure 116. Bronze bracelet.



Figure 117. Bronze finger ring.



Figure 118. Bronze button.



Figure 119. Bronze ear-ring.



Figure 120. Iron knife blade.



Figure 121. Paste beads.

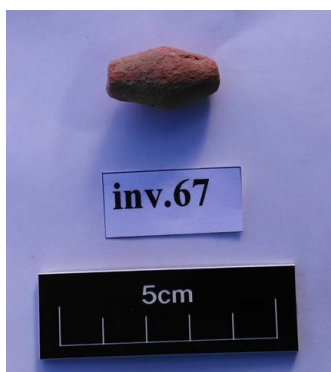


Figure 122. Clay bead.



Figure 123. Mound 5, inv 100. Clay ring.



Figure 124. Mound 2, inv 18. Grindstone fragment.