Azerbaijan National Academy of Sciences Archaeology and Ethnography Institute

# **COMPREHENSIVE SCIENTIFIC REPORT**

# Excavations of Ağılı Dərə settlement at KP 337.6 SCPX pipeline

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### **1 SUMMARY**

The report provides information regarding the outcome of archaeological excavations carried out in the late Chalcolithic-era settlement that was discovered near the Ashaghi Eyyublu village of Tovuz district at KP 337.600 of the SCPX route. Several household wells, furnace sites and pottery items of different shapes and types were found in the monument area as a result of the excavations, which were conducted August 1-28, 2014. In addition, four later soil graves dating to the late Bronze Age and early Iron Age were excavated on the occupation layer slope.

The ceramic samples obtained in the settlement include vessels similar to pitchers, crocks, kheyres and bowls. The burial goods in the later graves was comprised of jewellery, weapons and pottery.

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### 2 1. INTRODUCTION

#### SITE DISCOVERY

The Aghilidere settlement was discovered during construction of the BTC pipeline in 2005. The settlement was revealed as a result of the archaeological monitoring conducted during the removal of the upper soil layer on the BTC route in connection with the construction of pipelines [1, p. 4]. Archaeological excavation was planned on the route of SCPX ahead of construction.

#### 2.1 BRIEF DESCRIPTION OF THE SITE

The Aghilidere monument is located 1km northwest of the Ashaghi Eyyublu village in the Tovuz district a few kilometres south of the right bank of the Kura river. The archaeological monument is located at the N-4534658.009, N-4534701.066 and E-8573256.58, E-8673189.149 coordinates at the altitude of 326 metres above sea level at KP 337.600 of the SCPX corridor. It is situated at the end of the plain 1200m west of the Zayam riverbed at the foot of a low slanting hill [2]. This territory has predominantly fertile dark grey and black soil, which is suitable for sowing.

### 2.2 TIMING OF THE ARCHAEOLOGICAL EXCAVATION

An ANSA IoAE expedition group carried out archaeological excavations in the Aghilidere settlement in 2014, which were overseen by senior research fellow Shamil Najafov, with the participation of the Institute's employees, senior research fellow Vagif Asadov and research fellow Ahliman Abdurahmanov. 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

As mentioned above, the monument area is located on the left bank of the Zayam river. The monument, which is situated at the foot of low slanting hills, has large territory. Ceramic samples were found above the ground, along with stone artefacts, in the settlement area spanning about 1 hectare. Ploughing work was repeatedly done in the area due to creating vineyards and planting potatoes. Traces of scraping caused by ploughing machinery were seen in the upper layer of soil. Ceramic and stone items were discovered in the ploughed soil layer. The greatest amount of materials were encountered in the lower part of the soil stratum. Most of the obtained ceramic samples were attributed to the Leylatepe type. These also included pottery dating to the late Bronze Age. Remains of a settlement traced back to this period were located southwest of the researched territory at the end of the valley.

#### 3.2 GENERAL DESCRIPTION OF OCCUPATION LAYERS

Archaeological excavations in the Aghilidere settlement were also conducted during the construction of the BTC and SCP pipelines. Remains of a Chalcolithic-era settlement dating to the late Bronze Age and early Iron Age were discovered in Aghilidere and two soil graves were excavated [1, p. 10]. Ceramic of the ancient period and the early Middle Ages started to emerge from the 20cm depth during the excavations at the initial units designated in the excavation area in the SCPX corridor (Units 1, 3, 5 and 7). These ceramic items had a clean clay composition and

were well fired. Some of these were even polished and covered with engobed coating. However, such ceramic items were not found at further depths. They probably originated outside this area and ended up there as a result of the operation of machinery during sowing work, given that such ceramic samples traced back to this period are not inherent to the Aghilidere settlement.

The structure and composition of soil changed depending on relevant depths. The initial soil layer at the range of 0-30cm was comprised of ploughed fertile black soil. This was followed by cucurbitaceous and gravelly soil layers at the depths of 30-40cm, as well as yellow, hard, compressed soil mixed with clay at 40-60cm and yellow soil mixed with sand and clay after a depth of 60cm (Photo 2).

Depth dimensions in excavated units were as follows:

- Unit 1: depth=90cm
- Unit 2: depth=100cm
- Unit 3: depth=85cm
- Unit 4: depth=90cm
- Unit 5: depth=115cm
- Unit 6: depth=140cm
- Unit 7: depth=130cm
- Unit 8: depth=130cm
- Unit 9: depth=100cm
- Unit 10: depth=85cm
- Unit 11: depth=100cm
- Unit 12: depth=110cm
- Unit 13: depth=110cm
- Unit 14: not excavated
- Unit 15: depth=100cm
- Unit 16: not excavated
- Unit 17: depth=90cm
- Unit 18: not excavated
- Unit 19: depth=100cm
- Unit 20: not excavated

It is worth mentioning that an upper fertile layer was also recorded in the 20cm deep scraped layer of soil. The occupation layer was barely noticeable in these excavated units. However, a Chalcolithic-era stratum was clearly visible at a depth of 90cm in Units 7 and 8.

Three red and light red ceramic samples of the Chalcolithic period (Photo 3) were found in the central part of Unit 7 at the depth of 85-90cm. These samples, which were found at a distance from one another, were once part of different clay vessels.

A ruined facility with the diameter of about 2x3 metres that included a large numbers of Chalcolithic-era pottery sherds was discovered adjacent to Unit 7's northwest wall and close to the northeast wall of Unit 8. The discovery was recorded at the depth of 90-110cm. An average size pitcher placed side up was found on the site. Although the pitcher had crumbled, all of its fragments were found on the spot and the item was restored. The vessel has a high rim that protrudes outward. The body is rather spherical, while the bottom is rounded. Vessels of this type are typical of the Chalcolithic period that lacked bases. A number of such vessels were found in Boyuk Kasik and the Poylu II settlements during the laying of the BTC pipeline.

Numerous animal bones were found near the pitcher. These included ribs and thigh bones of sheep and goats. Some of these bones were blackened due to significant burning.

A number of coal remains, obsidian and flint cutting tools were found around the pitcher. An unfired clay vessel handle was found nearby. One stone amulet was obtained during the cleaning in this complex. A hole had been opened in its upper part to hang it on a person's neck (Inv 95).

Other finds recorded in this facility included polished kheyre, pitcher and jar sherds that were of high quality despite vegetative admixtures in their clay composition, as well as roughly made ceramic with vegetative and sand admixtures (Photos 4, 5, 6).

Evidently, the "high quality" and "rough" ceramic categories were already distinguished in the pottery making craft of Aghilidere residents at the end of the Chalcolithic period. The stone tools found in this area were made only of flintstone (Photo 13) and obsidian (Photos 11, 12), but more flint tools were available. These mainly included cutters. Some of the obsidian samples included only splinters (Photos 11, 12), i.e. they were torn off the core to prepare a tool but never used for this purpose. About 30 obsidian items were found in the area, but not all were tools. Unlike obsidian samples, all of the flint items were processed and used as tools, though the number of such items was small. There were a total of nine flint items. These included long blades with three negative flake scars (Photo 13) and significantly barbed edges on both sides. All of these samples were fragmented but had clear shapes. These tools were used as knives and sickle blades. The fact that more flint tools were found in comparison with obsidian items indicates that stone tools were widely used by Aghilidere residents. Hammering tools and grinders (Photo 9) are particularly worth mentioning among the stone tools. The hammering tools, which were made of river rocks, were fragmented. They had the same shapes but different dimensions. The diameter of the grinders equalled 6-12cm. These flat items had significantly rubbed surfaces. The edges of the hammering tools were greatly hammered.

Three small catapult stones were discovered at a depth of 100cm in Unit 8. Such stones were widely used in hunting. These stones were used to hit birds with slings. The bones found at this depth were mainly thigh bones and ribs of sheep and goats and some of these were affected by burning. The animal bones were found in piles alongside clay vessels and stone items. It is particularly worth pointing out that all the clay vessels found in the area were fragmented and date exclusively to the late Chalcolithic period. In addition to the piles of ceramic samples and animal bones, sparse Chalcolithic-era ceramic items with vegetative admixtures were encountered in different parts of the excavated units, in particular, in Units 7, 8 and partially in Units 6 and 9 following the depth of 90cm. These ceramic samples mainly included rim and body fragments of pottery vessels. Their bases were rounded with thick walls. Interestingly, the

Chalcolithic-era layer was observed only in Units 7, 8 and partially in Units 6 and 9. It appears that the main part of the Aghilidere settlement, or rather, the most abundant section of the occupation layer, was excavated and studied during construction of the BTC pipeline.

The 20 metre distance between the BTC and SCPX corridors should be considered as the main focus of the Chalcolithic-era settlement. Therefore, most likely, the excavated area in the SCPX corridor covered the outskirts of the Aghilidere settlement. Subsequently, the late Bronze Age and early Iron Age graves were inserted into this area.

**Graves:** Four later graves rich in archaeological material and traced back to the Bronze Age were revealed in the dark grey coloured gravelly soil layer during the excavations conducted at the depth of 80-100cm in the excavation. The burials were rich in tangible cultural remains, which dated to the late Bronze Age and early Iron Age, i.e. the late 2nd millennium and the early 1st millennium BCE. The human remains buried there were mainly slightly or densely folded, in accordance with relevant burial customs [9, p. 100-109].

**Grave 1** was discovered at the intersection of Units 5 and 6 close to the southwest wall of Unit 5 (Photo 2). Large river rocks (sized 30x20cm; 15x20cm) were found over the grave. These sparse rocks were scattered in the upper part in a disorderly manner (Photo 14). The upper stones in the soil grave were found at the depth of 40cm. The yellow coloured soil mixed with clay in the grave's inside part differed from the black-grey gravelly soil in the surrounding area. The burial chamber was 155cm long (in the east-west direction) and 145cm wide (in the north to south direction). Clay vessels, human skeleton remains and metal fragments were found inside. The burial stretched along the entire chamber, and orientated in the west-east direction. The skeleton was in a relatively good condition. Remains of the skull and a dental bone were found in front of the skull showed that the hands were raised toward the face from the elbows and the dead body was buried in the half-folded position. Large river rocks were placed on the opposite side. Moreover, three big pitchers were put by the feet. All the three vessels had flat rims and convex bodies. Little boiler, piyale (bowl) and kheyre fragments were found in the grave as well.

The remaining parts of the human skeleton were obtained in the middle of the burial chamber. Two metal fragments, namely, a finger ring part and metal plates, were found in the central part of the grave.

Two bronze daggers (Photo 10) were encountered during cleaning of the burial chamber, at a depth of 35cm.

**Grave 2.** This soil grave was discovered at the depth of 70cm below the ground right in the middle of Unit 3 (Photo 2). The grave, which was located 50cm away from the east wall, had a quadrangular shape. There were disorderly and sparse river rocks inside. Four clay vessels were found in the burial chamber (Photo 15). The first one was a boiler with a wide rim and a spherical body, which emerged at the northeast corner of the burial chamber.

Three pitcher-type vessels were lined up in a row at the chamber's eastern corner. Soil in the chamber was yellow with clay admixture and differed from the surrounding soil. The chamber was 100cm wide (in the north to south direction) and 110cm long (in the west-east direction).

Two more clay vessels (a total of six items) emerged after the mentioned vessels were removed. These were a little plate and a basin. No skeletons were found in the grave (Photo 16).

**Grave 3 T**his grave was discovered 70cm below the ground toward the southwest wall of Unit 2 (Photo 3). Clay vessels and a human skeleton were found in the burial chamber.

A bronze bracelet, agate and paste beads were found around the skeleton. The latter was located in the east part of the chamber, while the clay vessels were lined up in the west part above the

skull. The burial chamber, which had a rather oval shape, was 170cm long and 155cm wide (Photo 17).

No rocks were found inside the burial chamber. The yellow coloured soil in the grave was soft.

The skeleton found in the grave was in poor condition. Parts of the skull, arms and thighs, as well as ribs, were the only bones to survive. The skeleton's condition made it clear that the dead body was half-folded and buried in the west-east direction with the face slanted southward.

Beads made of agate and paste, a bracelet and a bronze pendent were found from the neck and chest parts of the skeleton.

The pendants were made of thin bronze plate and shaped as a heart (Photos 10-11). The grave's floor was plastered.

A total of seven clay vessels, namely, two boilers, a jar, two pitchers, a jug and a plate, were found (Photo 4).

**Grave 4** was found 50cm under the ground (Photo 3) near the northwest wall of Unit 4. A total of three average size stones were placed over the soil grave. Soil inside the grave contained hard clay which complicated the excavation. Therefore, the human skeleton found in the burial chamber was in poor condition and excavation was challenging (Photo 18).

The burial chamber's length was 130cm (in the north to south direction). The chamber's depth was 45cm. The human skeleton discovered in the chamber was inclined in the northwest to southeast direction. Most likely, the burial was conducted in this manner.

The dead body was buried in a half-folded position on the right shoulder with the face slanted southward.

A large set of paste beads was found from the neck part, along with a big obsidian rock placed over the pelvic bone and the chest. The rock, which was processed, might have been placed there due to a popular belief in stones. Furthermore, three vessels, namely, a boiler, a pitcher and a jar, as well as fragments of various clay vessels, were found in the burial chamber. A medium size stone was placed near the pelvis part. The skull found in the grave was smashed and flattened, while the knee cap bones were found near the pelvic bone.

### 4 ARTEFACTS

The archaeological materials discovered in the settlement mainly included pottery, stone and metal items, as well as beads. The pottery and stone samples were obtained from different depths, while the metal items and beads were retrieved from the graves along with the entire clay vessels and other artefacts.

**Pottery items** mainly included fragments of rough, thick walled items made by hand with admixtures in the clay composition (such as slight amounts of gravel and vegetative substance). The samples rims protruding outward at a straight angle and spherical bodies. These primarily included parts of pitchers and kheyres, vase and bowl-type clay vessels (Photos 7, 8).

**Stone items** mainly included hammering tools, quernstones and cutting tools made of obsidian and flintstones (Photo 12). No stone artefacts were found in their entirety. Quernstones were primarily boat-like shaped lower quernstones and upper quernstones or grinders (Photo 13). Lower quernstones were shaped as boats due to wear of their surfaces through use.

The obtained cutters were predominantly flint items. This is a distinct feature of the Aghilidere settlement in contrast to other Chalcolithic-era monuments, which normally have high proportions of obsidian and chert. The abundance of working tools made of flint indicates that the ancient residents of this territory prioritized such tools in their domestic life.

**Beads** that were found in the graves (Photo 29) mainly included agate, paste, metal and glass paste items (Photo 11).

*Metal items* were discovered in the graves as well (Photo 10). Such samples included a bronze bracelet, a pendant, a leaf-shaped ornament, metal beads (Photo 30) and two bronze daggers, one with a latticed pommel (Photos 31, 32).

The bronze daggers, which are referred to as daggers of the South Caucasus type in scientific literature, were widespread [10] throughout the Middle East countries in the late 2nd millennium and the early 1st millennium BCE. Samples that could be likened to these items the most are encountered in Anatolia as well. Likewise, five daggers of this shape were found in the graves at the Zayamchai necropolis, 1.6km to the southeast excavated in 2003.

#### 4.1 GENERAL SUMMARY OF TYPES AND NUMBER OF ARTEFACTS

*Ceramic samples*: Rich archaeological samples were discovered in the Aghilidere settlement. Clay items were the most widespread finds recorded during the excavations. The obtained Chalcolithic-era vessels had a different clay composition. It included a significant amount of chaff and sand admixture. Despite the use of massive and fine sand admixtures in the production of pottery, these items were properly kneaded. As for the firing of the clay, it is worth mentioning that the extent of firing varied. Slightly fired items were found among these vessels in addition to the well fired ones. The availability of admixtures in the clay composition had a certain impact upon the baking quality of the vessels. The extent of baking depended on their intended purpose, as well as their shapes, size and the wall thickness. Moreover, the proficiency and skills of the potters was of great importance in this regard. The types of vessels obtained from the Chalcolithic-era occupation layer were very plain and limited due to the simplicity of the economy, flaws in the applied techniques and the lack of potters' experience. Some of the discovered clay vessels were made roughly using poorly mixed clay with chaff admixture. These items were slightly fired at unstable temperature. Most of the pottery vessels were red coloured items, but those with grey spots, reddish-brown fragments, as well as those painted red on the inside wall, were encountered as well.

Several ceramic vessels found in the Chalcolithic-era occupation layer had combed surfaces. These pottery items, which had different shapes and dimensions, included vessels similar to kheyres, bowls, jugs, crocks and pitchers.

One of the few <u>kheyre-type</u> vessel fragments found in the archaeological excavation area should be particularly emphasized. Its rim slightly protrudes outward, while its clay is light orange coloured and its composition includes chaff. The inside and outside surfaces are polished and their colour is the same as the clay colour.

The rim of the <u>bowl-type</u> vessels is slightly bent inward. The inside and outside surfaces of the vessels are light coffee-coloured and polished. There is vegetative admixture in the clay composition. A greyish layer emerged on the inside surface of one of the bowls as a result of baking in an unequal temperature.

<u>Crocks</u> were light red coloured items of high quality kneaded using clay with fine sand admixture and fired at a stable fire temperature. Based on the crock fragments obtained in the settlement, a conclusion may be made that these samples had high necks and rounded bases.

<u>Pitchers</u> are thick walled, well fired and brown coloured vessels with vegetative and sand admixtures in the clay composition. These vessels have narrow and long necks. Some of these were red coloured items with wide rims. Their rim has a welt and is bent outward. The pitchers, which had vegetative and sand admixtures in the clay composition, were fired well. These vessels were made on a potter's wheel. Traces of combing are clearly visible both on the inside and outside.

<u>Jugs</u> obtained in the area were large vessels of high quality with vegetative and sand admixtures in the clay composition, which were once used in the household. Their rim has a thick welt and is bent outward. Some of these vessels are well fired, pink coloured samples with surfaces covered with white engobed coating. The neck part is girdled by a canal-like line.

Comprehensive descriptions of the obtained vessels found in the graves were provided in the inventory of tangible cultural remains (Section 7).

#### Stone items:

<u>Quernstones</u> were mainly made of black and grey coloured tuff stones, as well as grey river rocks. Their base parts are oval, while the upper working side is depressed to some extent due to the use of the straight quernstones (Figure 13, Photo 10).

<u>Hammering tools.</u> Four items used as hammering and smashing tools were found in the settlement. These tools had been made of river rocks. The small samples were processed into suitable shapes for convenient use by hand and were subsequently used on both edges.

<u>Cutting tools.</u> Most of the Chalcolithic-era cutting tools made of obsidian and flintstones were discovered in Unit 7. Slightly more flint cutters than those made of obsidian were found in the settlement (Figure 12).

*Obsidian cutters* could be divided into several types. These items mainly had right-angled and elongated shapes. The obtained blades showed good knapping techniques with a controlled production of flakes from the core producing many long narrow flakes with overlapping negative flakes producing flakes with three and four-facets in profile. Some of the obsidian blades were barbed on either one or two sides (Photos 11, 12). The edges of some of cutters were blunted due to extensive use (Photo 13). Researchers believe such working tools were used as sickle blades.

The Chalcolithic-era obsidian cutters were apparently used either as knives or assembled sickle blades.

Slightly more flint cutting tools than obsidian flakes were found in the settlement. The flint flakes were mainly pink, dark coffee-coloured and dark grey coloured, three and four-faceted items with elongated and rectangular shapes. Some of these blades were shaped as knives with two barbed edges. Some of the blades had only one barbed side. One of the sides was barbed, while the other one was sharp. Evidently, the latter was kept un-barbed in order to attach it further to a sickle frame. Tools of this type had different shapes as they were used to prepare a sickle's edge or its middle part.

**Beads** were found in the graves. These items were made by means of slicing. The material used included agate, yashma, paste and glass paste (Photo 29). A set of bronze metal beads was also found (Figure 11).

**Metalware** included jewellery and weaponry discovered in the graves (Figure 10). Pendants included bronze, leaf-shaped items. They were prepared by means of hammering with the use of thin bronze plates. One of these samples is a bracelet with a round cross section (Photo 30). A bronze dagger with a latticed pommel facilitate researchers' efforts to study the fighting

techniques and weapons of the people who lived in this territory in the ancient times. The first dagger was a small weapon found together with pommel, while the pommel of the second was missing. The first dagger was 13.5cm long, while the length of its handle was 2.3cm. The pommel was d.=3.5cm (Photo 31). The second dagger was 15.5cm long, while the length of its handle was 3.5cm and the width equalled 3.5cm (Photo 32).

### 5 ANALYTICAL RESULTS

#### 5.1 COLLECTION OF RESULTS

The excavation work at Aghilidere should be considered as furthering of the BTC excavations. If the outcomes of these operations are combined, the overall excavations carried out in the settlement may be deemed as a comprehensive effort. The excavations were successful and allowed researchers to make final scientific conclusions regarding the monument. A more abundant Chalcolithic-era layer was discovered during the BTC excavations, along with two soil graves traced back to the late Bronze Age and early Iron Age [1, p. 10]. However, the Chalcolithicera layer was relatively insignificant during the SCPX excavations; four graves dating to the late Bronze Age and early Iron Age were discovered. Units 7 and 8 were the most prolific units in the excavation site. Interesting Chalcolithic-era artefacts were found at the depth of 80-100cm in these units. The obtained ceramic samples included both "high quality" and "roughly" made items of the Chalcolithic period. Only soil graves were encountered in Aghilidere and all of the discovered six graves were attributed to this type [1, 9]. Such graves, which reflect a certain burial tradition, differ from the graves that had gravestones only due to the type of their cover. Most of the pottery vessels, with the exception of a few ceramic samples, were made on potter's wheels. Most of the ceramic vessels found in the Aghilidere necropolis were fired in ordinary furnaces and had fine and large sand, as well as small gravel admixtures, in their composition.

The pottery vessels found in the graves could be divided into two groups in terms of their designated purpose, namely, household items and domestic kitchenware. The domestic ceramic attributed to the first group mainly includes black and dark grey coloured clay vessels made by potters using machines. These primarily include vessels, dopus, pitchers, bowls and plates, crocks and jars, kheyres, etc. with wide or spherical bodies that either had handles or lacked them. Some of these samples had one or more mushroom-like shaped protrusions in the neck and shoulder parts instead of a handle. Clay vessels of this type are inherent to the territories with the widespread Khojaly-Gadabay archaeological culture, as well as the entire South Caucasus region [11, p. 10]. Such vessels are common for the Saritepe [12, p. 9-10, 13-15] and Sarvantepe settlements in the Gazakh district; the Aziztepe necropolis [13, p. 140-150]; the kurgans in the Dashkasan district on the Goshgarchai bank [14, p. 90-97]; the Hasansu necropolis of the late Bronze Age and early Iron Age located in the Aghstafa district [15, p. 100-104]; the Tavatepe settlement [16, p. 47-48]; the early Iron Age-era Girag Kasaman settlement [17, p. 550-551]; the Zayamchai and Tovuzchai necropolis [18, 19] and most settlements of the same period in Gadabay [20]; the Mughan fields; Hasan Zamini, Aghaevlar, Chilakhana, Shirshir, Veri, Khoja Davud Kopru, Joni, Shuguladere, Kraveladidan at the foot of the Talvsh Mountains: various locations in Nakhchivan [22, p. 15-20], Absheron [23, p. 81-90], etc., as well as the Goyche lake basin in present-day Armenia, Georgia's Samtavr cemetery [24, Table 5], etc. The surface of these vessels is covered with wax. More precisely, it is slightly polished and smoothened and is also frequently decorated with depressed lines and stripes, cord-like, spike-like and grooved patterns. Two daggers were found in Grave 3 in Aghilidere. These daggers, which have domeshaped latticed pommels [9, p. 107-108], could be attributed to the first of the four types defined by A. Ivessen [25, p. 161-163]. The blade of this type of dagger has a tongue to attach to the wooden support from above [26, p. 38-39]. The blade is attached to the handle using a triangular latticed frame. The hilts of these daggers were decorated with net-like shaped lattices, similar to the pommels of the bronze daggers found in the Zayamchai necropolis graves [27, p. 29-33]. Their upper part, which is attached to the handle, is encircled by an extra bronze plate. This was aimed at preventing the handle from moving during use. There was a hole at the end of the thin part that was put through the handle. Items similar to bronze daggers with latticed pommels were found in Nagorno-Karabakh [28, p. 40-47; 29, p. 162-163]. Daggers of this type were also found in Dovshanli 1 (four items), Akhmakhi kurgans 1, in Sarichoban [10, p. 77], Goygol and Khajbulag monuments [14, p. 98-102], the Ganjachay basin, Mingachevir [30, p. 10, Panel II, Figures a, b], the Goyche lake basin, as well as in Georgia [24, p. 44]. K. Kushnaryova wrote on the basis of E. Resler's excavations that the metal items, in particular, daggers, which were discovered in Nagorno-Karabakh, Dovshanli, Balliqaya and in the Akhmakhi kurgans are the same as the materials found in the territories of Goygol, Mingachevir and Shamkir [28, p. 41-46; 29, p. 135-136, 162-163, 176].

Most of the beads obtained from the necropolis graves were made of agate and paste [9]. Paste beads were usually pipe-shaped and made by means of slicing. Paste beads of such shapes are frequently encountered in the Caucasus among the ornaments obtained from monuments dating to different stages of the Bronze Age [31, p. 63].

It is noteworthy that the direction of the graves in the Aghilidere necropolis was the same as the direction of the bodies buried there. Most of the burial chambers were slanted in the north to south direction. No human remains were discovered in Grave 2 [9, p. 108]. The principle of following the same direction while conducting burials in the graves at the necropolis was somewhat anticipated. Thus, mostly graves positioned in the north to south direction were encountered inside the burial chambers. The skeletons were partially folded or even completely folded and placed in the graves upon the right and left shoulders [1, 2]. It is worth mentioning that traces of such burials have been tracked in most of Azerbaijan's burial monuments dating to the late Bronze Age and early Iron Age. This is similar to some material discovered in the monuments pertaining to the Khojaly-Gadabay culture and are attributed to the same chronological range [18, p. 543-549; 17, p. 550-552]. Based on the burial traditions and the analysis of the obtained archaeological samples, the Aghilidere soil graves could be traced to the late Bronze Age and beginning of the Iron Age, i.e. the late 2nd millennium and the early 1st millennium BCE.

The people that settled in Aghilidere during the Chalcolithic period lived in this territory for a certain period of time and left behind an abundant legacy of tangible remains. Nevertheless, Chalcolithicera graves were not discovered.

Bronze Age-era residents of the Zayamchai basin carried out their burials in this area significantly thereafter. Graves were set up at a distance from one another. This is due to the fact that the graves were discovered near the northern boundary of the necropolis. River rocks lined up densely above the ground in the southern part of the hill indicate that this area served as a cemetery in the ancient period. Specific chambers were found in the graves. However, tracking the boundaries of the burial chambers was challenging due exclusively to certain soil in the necropolis. The necropolis graves were set up in accordance with the same principle and their surfaces and the surrounding area were further covered with river rocks, gravel and soil with sand admixture based on the territory they occupied.

Comprehensive research of the late Bronze Age-era soil graves and the evidence in the Aghilidere settlement enables study of the overall historical and cultural development of the ancient Zayamchai residents in the late Bronze Age and early Iron Age.

#### 5.2 PERIOD AND CHRONOLOGY

The determination of the chronological range of the ancient Aghilidere settlement is based on comparative analysis of the obtained samples of tangible culture and special tests. Scholars concluded on the basis of similar analysis, stratigraphical conclusions and the typological features

of the discovered ceramic items that the first settlement in Aghilidere dates to the late Chalcolithic period (the first half of the 4th millennium BCE), while the four graves found in the occupation layer of the monument are of the late Bronze Age and early Iron Age [9, p.107-108].

### 6 DISCUSSION

#### 6.1 INTERPRETATION OF RESULTS

Based on the remains of tangible culture found as a result of the archaeological excavations carried out in the Aghilidere settlement and the analysis of the obtained samples, a conclusion was made that the monument has one occupation layer. The ancient and medieval ceramic found in the upper part of the occupation layer during the excavations had originated outside the researched site, i.e. these materials are not characteristic of this settlement. Moreover, cultural samples dating to the late Chalcolithic period were discovered at the edge of the archaeological monument's occupation layer. It is also worth mentioning again that researchers concluded while studying the site that the Chalcolithic-era layer had been damaged. The upper strata were significantly damaged and the layers blended with one another during soil and sowing in the past. Pottery accounted for most of the tangible cultural samples found in the archaeological site. The analytical study of the typological and preparation techniques of the obtained pottery samples leads to a conclusion that the tribes that lived in this territory had gained high pottery making skills and that this craft stands out for its peculiar features in the researched monument area.

The fact that most of the harvesting and cutting tools found in the archaeological area were made of flint is worth mentioning. This was also the case in numerous late Chalcolithic-era monuments, including the Boyuk Kasik settlement. The skills applied by craftsmen to make cutting tools using particularly hard flintstones point to the advanced craft of stone working.

# 7 INVENTORY

| No. | Description   | Unit,<br>depth      | Dimensions                                 |
|-----|---|---------------------|--|
| 1   | Large jug rim sherd. The rim is smooth. There is a thin line over the rim and the neck on the outside. The low and wide neck goes smoothly into the shoulder. There is sand admixture in the clay composition. The colour is pink.  | Surface<br>material | rim w:2.7cm<br>wall th:1.4cm               |
| 2   | Medium size vessel neck fragment. It was apparently part of a pear-like shaped vessel. The narrow neck transforms smoothly into the shoulder. Two parallel grooves girdle the neck part near the rim. The item is of high quality. The colour is pink. The surface was painted red.   |                     | wall th:0.6cm                              |
| 3   | Vessel base sherd adjacent to the body. The base is narrow and flat. The body broadens outwards sharply. There is sand admixture in the clay composition. The colour is dark grey. The surface is polished. There are traces of scale on it.  | Unit 5-6<br>grave 1 | wall th:0.7cm                              |
| 4   | Vessel base fragment. The base is narrow and flat. The body broadens outwards sharply. The item is black on the inside, while the outside surface is light grey. The surface is polished.   | Unit 5-6<br>grave 1 | wall th:0.5cm                              |
| 5   | Fragments of an average size shallow kheyre. The rim has a welt. The body narrows downward sharply from the low flank. There is a hook-like shaped handle with a protruding hole in the middle upon the rim, along with convex protrusions. The colour is whitish-grey.   | Unit 5-6<br>grave 1 | rim d:27.5cm                               |
| 6   | An average size piyale (bowl). Its wide rim broadens outward. The rim is round.<br>The bottom part becomes oval-shaped from the flank. The base is narrow and<br>flat. The surface is polished. The colour is blackish and dark grey. Figure 9,<br>Photo 19.  | Unit 5-6<br>grave 1 | rim d:13cm<br>body d:11cm<br>base d: 5.5cm |
| 7   | Fragment of a vessel's wide rim. The rim has a welt. The item is of high quality.<br>There is a thin scratched line below the rim. The colour is grey. The surface is<br>polished.  |                     | rim w:1.5cm                                |
| 8   | Medium size pitcher rim sherd. The rim is bent outwards. The rim is round. It goes directly into the shoulder. There is significant sand admixture in the clay composition. The colour is light grey. There are traces of soot all over the surface.  |                     | wall th:0.5cm                              |
| 9   | Fragments of a small pitcher-type vessel. The rim, which has a welt, is bent<br>outwards slightly. The wide neck smoothly transforms into the shoulder. It<br>divides into two parts the vessel's body, which has a facet with a chain-like<br>model ornament. The base is wide and flat. It was fired in unstable temperature<br>conditions. The colour is whitish-grey. | Unit 5-6<br>grave 1 | wall th:0.7cm                              |
| 10  | Wide vessel rim sherd. The wide rim is bent outwards. The rim is round. It is part<br>of a thin wall vessel. The rim goes directly into the shoulder. There is sand<br>admixture in the clay composition. The colour is grey.   | Unit 5-6<br>grave 1 | orif.w:1.7cm                               |
| 11  | Rim sherd of a medium size vessel. The wide rim is bent outwards. The rim is round. A thin scratched line runs parallel to the rim. The rim crosses over directly into the body. The latter is apparently pear-like shaped. There is a trace of a deep thin groove girdling the body's upper part. The colour is grey. The surface is polished.                           |                     | orif.w:1.7cm<br>wall th:0.5cm              |
| 12  | Vessel rim sherd. The rim is bent outwards. The rim is round. The item was fired<br>in unstable temperature conditions. There are sand and coal clay admixtures in<br>the composition. The colour is light brown.   |                     | orif.w:1.3cm                               |
| 13  | Rim sherd of a little vessel. The wide rim is bent outwards. The rim is round.<br>There is sand admixture in the clay composition. The colour is whitish-grey.  |                     | orif.w:1.2cm                               |
| 14  | Small dopu-type vessel's neck fragment. The round rim is bent outwards slightly.<br>The low neck transforms smoothly into the shoulder. The vessel is of high<br>quality. The colour is grey.   |                     | wall th:0.5cm                              |
| 15  | Four fragments of a vessel body. There is sand admixture in the clay composition. There is a stripe featuring model chain-like patterns upon the item. The colour is grey.  |                     | wall th:0.7cm                              |
| 16  | Vessel rim sherd. The rim is bent outwards. The rim is round. The colour is dark grey.  |                     | orif.w:1.7cm                               |
| 17  | Vessel base fragment adjacent to the body. The base is wide and flat. The body<br>expands upward sharply. The item was probably part of a kheyre-type vessel.<br>The colour is dark grey. The surface is polished on both sides and covered with<br>scale on the outside.   |                     | wall th:0.5cm                              |

| No. | Description  | Unit,<br>depth          | Dimensions   |
|-----|--|-------------------------|--|
| 18  | Fragments of a boiler-type vessel with a narrow rim and a spherical body. A faceted line girdles the vessel's shoulder somewhat below the rim. There is a barbed section in between. There is a horizontally attached quadrangular protrusion-like handle under the facet. There is another scratched wave-like line under the handle amid two parallel scratched lines. The vessel's body narrows toward the base. The slightly heeled base is wide and flat. The clay colour is greyish-black.   | Unit 5-6<br>grave 1     | orif.d:11.5cm<br>handle<br>dims:4x5.8cm<br>th:0.8cm<br>base d:11cm                         |
| 19  | Fragments of a deep kheyre. The round-shaped rim protrudes outward slightly.<br>The body, which is separated from the flank by a facet, narrows downward. A<br>small hook-like shaped handle is connected to the vessel vertically. There is a<br>hole in its protuberant middle section. Most likely, this handle was used only to<br>hang the vessel. The vessel was decorated on the inside with ray-shaped,<br>parallel (vertical) polished stripes. The colour is dark grey. The outside surface is<br>polished.  | Unit 5-6<br>grave 1     | orif.d:27cm  |
| 20  | Boiler with a narrow rim and a convex body. The flat rim is oriented outward.<br>There are parallel stripes featuring model chain-like patterns that girdle the body<br>from the part below the rim. Two wide tape-shaped handles positioned opposite<br>one another in the body's upper part are attached to the vessel vertically. The<br>colour is grey. The inside part and partially the outside section are covered with<br>scale. The item is fragmented.   | Unit 5-6<br>grave 1     | orif.area<br>w:2.2cm<br>handle cross<br>section:3.3cm<br>wall th:0.7cm                     |
| 21  | Bronze dagger. Its blade narrows toward the edge. There is a protruding hole at<br>the edge of the blade made for attaching the handle. The latter is separated from<br>the blade by a protuberant welt. The welt is made of a bronze plate. The pommel<br>put through the handle edge is conic and shaped as a dust-like lattice. The edge<br>is oval. The lattice is shaped as triangular and rectangular partitions. The edge is<br>sharp.<br>Figure 10, photo 31.  | Unit 5-6<br>grave 1     | total I:20.5cm<br>blade I:16cm<br>blade w:3.5cm<br>pommel<br>h:3.5cm<br>pommel<br>diam:4cm |
| 22  | Narrow dagger made of a bronze plate. It narrows slightly toward the edge. The edge is oval. A roller was put through the blade hole, which was made for attaching the handle. A plate with a welt was attached to the section between the blade and the blade. The item was made by means of lattice casting. Figure 10, photo 32.  | Unit 5-6<br>grave 1     | total l:16.2cm<br>blade l:13.3cm<br>handle w:2cm<br>edge:1.3cm<br>blade l:1.7cm            |
| 23  | Part of a finger ring made of a thin bronze pivot.   | Unit 5-6<br>grave 1     |  |
| 24  | Fragments of a piece of jewellery made of a thin bronze plate.   | Unit 5-6<br>grave 1     |  |
| 25  | Large vessel handle fragment. It has a tape-shaped cross section. It is attached vertically. There is sand admixture in the clay composition. The colour is pink. There is a trace of red paint upon the item.   | Unit 1<br>d:40cm        | cross sect.<br>width:3.3cm   |
| 26  | Fragment of an item made of a flat river rock. One of the sides is torn off along a straight line. The other side was processed at an angle.   | Unit 3<br>d:40-<br>50cm | dims:5x3.2cm   |
| 27  | Fragment of a three-faceted cutting tool made of transparent obsidian.   |                         |  |
| 28  | Lower part of a large elongated pitcher. The body broadens upward. The base is wide and flat. There is significant sand admixture in the clay composition. The item is of poor quality. The colour is light grey. There are traces of soot on the surface.   | Unit 5<br>grave 1       | body d:28cm<br>base d:13.2cm   |
| 29  | Fragments of a large boiler-type vessel with a wide rim. The rim is bent outwards slightly. The rim is round. It goes directly into the spherical body. There is significant sand admixture in the clay composition. The base is narrow and flat. The colour is black.   | Unit 3<br>grave 2       | rim d:23.8cm<br>base d:9.5cm   |
| 30  | Fragments of a large pitcher with a narrow neck. The rim is round and bent outwards. The low neck transforms directly into the shoulder. The body is sphere-shaped. The base is flat. The colour is light grey.  | Unit 3<br>grave 2       | orif.d.:11.7cm<br>inside:9.7cm<br>neck h:3.5cm   |
| 31  | Medium size pitcher with a narrow neck. The round rim is bent outwards. The<br>low neck goes smoothly into the sphere-shaped body. The latter becomes<br>elongated and narrows on the way down. There are two auricle-shaped handles<br>positioned opposite one another in the upper part of the body. There is a<br>protruding hole in the middle of the handles. The middle section rises upright and<br>slightly bends laterally. The base is wide and slightly oval-shaped. The colour is<br>grey. Traces of combing are visible on the surface. Most of the surface is<br>covered with scale. The item is of high quality. The surface is polished. Photo 21. | Unit 3<br>grave 2       | Orif:10.5cm<br>st.d:21.5cm<br>h:22cm<br>base d:10cm  |
| 32  | Fragments of an average size pitcher with a wide rim. The round rim is bent outwards. The low neck goes directly into the sphere-shaped body. The neck is  | Unit 3<br>grave 2       | rim d:14.5cm   |

| No. | Description  | Unit,<br>depth              | Dimensions   |
|-----|--|-----------------------------|--|
|     | girdled by three protruding parallel stripes. The body is also encircled by stripes<br>comprised of thin protruding lines. The base is narrow and flat. The colour is<br>black.  | uopui                       |  |
| 33  | Fragments of a small pitcher-type vessel. The rim is wide. The rim broadens laterally. The rim is round. The rim, which is girdled by a protuberant line on the inside, goes directly into the shoulder. The body is sphere-shaped. There are patterns on the surface featuring short, notched lines and scratched stripes. The base is wide and flat. The base edges are decorated on the outside by patterns comprised of askew notched almond-like lines. There is significant sand admixture in the clay composition. The vessel was fired in an unstable temperature regime. It is of poor quality. The colour is grey. The surface is covered with scale on the inside and outside. Traces of a potter's wheel are seen on the inside.   | Unit 3<br>grave 2           |  |
| 34  | Fragments of an average size vessel. There is significant sand admixture in the clay composition. The roughly made item is of poor quality. Stripes featuring model chain-like patterns were applied on the surface. The base is wide and flat. Chain-like patterns were engraved in the base area. There are traces of a potter's wheel on the inside.  |                             |  |
| 35  | Large jug with a convex body. The rim is relatively narrow. The rim, which has a welt, broadens outwards. The low neck transforms smoothly into the shoulder. There is a stripe comprised of bored wave-like patterns upon the shoulder between two scratched lines. The base is wide and flat. The colour is grey. Photo 20.  | Unit 3<br>grave 2           | rim w:12cm<br>body d:22cm<br>height:21cm<br>base d:9.5cm           |
| 36  | Little bowl-type vessel. The wide and round rim protrudes outward. The body narrows downward from the flank. The base is narrow and flat. The hand vessel is asymmetrical but is of high quality.  |                             | orif.d:16.5cm<br>inside:14.5cm<br>h:24cm                           |
| 37  | Rim sherd of a kheyre-type vessel. The rim, which has a thick welt, is inclined laterally and downward. The flank is separated from the bottom by a facet. There is gravelly sand admixture in the clay composition. The vessel is of high quality. The colour is grey. The surface is polished.   | Unit 6<br>d:20-<br>45cm     | rim w:1.5cm<br>wall th:0.7cm                                       |
| 38  | Small dopu-type vessel's rim sherd. The rim, which has a welt, is bent laterally.<br>The low neck goes smoothly into the shoulder. There is gravelly sand admixture<br>in the clay composition. The vessel, which was fired in an unstable temperature<br>regime, is of poor quality. The colour is grey.  |                             | wall th:0.6cm  |
| 39  | A catapult stone made of a round-shaped river rock. The colour is greyish. Such stones were mainly used as hunting tools to hit birds.   |                             | Diam:4.5cm   |
| 40  | A catapult stone made of an egg-like shaped tuff rock. The colour is pink.   |                             | dims:5x3.2cm   |
| 41  | Rim sherd of a large household jug. The wide rim has a welt on the side. Its walls are thick. The jug is of high quality. The colour is pink. The vessel is covered with engobed coating.  | Unit 7<br>d:50cm            | rim w:4.5cm  |
| 42  | Catapult stones made of little round-shaped tuff and river rocks (three items).<br>Their colour is grey, pink and yellowish.   |                             | diams-<br>1. 2.5cm<br>2. 2.2cm<br>3. 2cm                           |
| 43  | Medium size boiler or pail-type vessel. The vessel is fragmented. The wide rim is bent outwards. The rim is grooved on the inside. This was probably done to put a lid on the vessel. The rim goes directly into the body. The body becomes convex toward the middle but further narrows downward. The body's upper part is encircled by a grooved wavy line. The body's middle section is decorated by criss-cross lines applied by a comb-like tool, while its lower part is decorated by horizontal lines. The base is narrow and flat. The base's bottom part was also combed, while its edges were encircled with askew depressed patterns applied by a painting tool. Large sand particles were added to the clay composition. The fired item is fragile. The colour is brown. Traces of soot remained upon the surface. Photo 22. | Unit 2<br>d:70cm<br>grave 3 |  |
| 44  | Little kheyre-type vessel. The rim is wide and straight. The rim protrudes<br>outwards. The bottom part narrows downward sharply from the flank. The base<br>is narrow and flat. There is sand admixture in the clay composition. The colour is<br>greyish-black. The surface is polished on the outside. The vessel was fired in an<br>unstable temperature. Photo 23.  | Unit 2<br>d:70cm<br>grave 3 | orif.d:17cm<br>h:5cm<br>base d:5.5cm<br>wall th:0.7cm<br>st.d:14cm |
| 45  | Medium size pitcher with a convex body. The rim is narrow. The rim is round. It broadens outwards slightly. The low neck transforms directly into the body. The base is wide and flat. The body's upper part is girdled by a grooved stripe. The item is of high quality. The colour is grey.  | Unit 2<br>d:70cm<br>grave 3 | orif.d:9.5cm<br>neck h:2cm<br>h:13.5cm<br>base d:9.5cm             |

| No. | Description   | Unit,<br>depth               | Dimensions   |
|-----|---|------------------------------|--|
|     | Photo 24.   | dopui                        | st.d:18cm  |
| 46  | Fragments of a grey coloured dopu-type vessel with clean clay composition. It was partially restored.   | Unit 2<br>d:70cm<br>grave 3  | orif.d:6.2cm<br>height:7cm<br>st.d:10.5cm<br>base d:4.7cm      |
| 47  | Large jug with a convex body. Its relatively narrow rim is bent outwards. The low<br>neck transforms smoothly into the shoulder. The latter is girdled by a stripe<br>featuring askew lines. The body's middle section is encircled by thin lines applied<br>by combing. The vessel's body sharply narrows toward the base from the lower<br>part, assuming a pear-like shape. The base is narrow and slightly oval. The<br>colour is grey. There is a burnt spot on the surface.   | Unit 2<br>d:70cm<br>grave 3  | orif.d:14.5cm<br>base d:10cm<br>st.d:28cm<br>h:28.5cm          |
| 48  | Large pitcher with one handle. The narrow rim is bent outwards. The low and<br>narrow neck goes smoothly into the shoulder. The vessel's bent pipe-like shaped<br>handle connects the rim's back side with the shoulder. The pear-shaped body<br>narrows toward the base. The shoulder is girdled by two parallel transitional<br>lines. The part connecting the handle to the rim is shaped as a flat protrusion.<br>The base is narrow and flat. There is sand admixture in the clay composition.<br>The colour is grey. The item is of high quality. Photo 26. | Unit 2<br>d:70cm<br>grave 3  | orif.d:9cm<br>base d:10cm<br>han.h:11cm<br>st.d:24cm<br>h:32cm |
| 49  | Pipe-shaped beads (2 sets) made of a twisted bronze plate.<br>Photo 29.   | Unit 2<br>d:70cm<br>grave 3  | diams:<br>0.5cm<br>0.3cm                                       |
| 50  | Thin elongated beads made of paste.<br>Photo 29.  | Unit 2<br>Grave 3,<br>d:70cm | Length:1cm   |
| 51  | White and yellow round-shaped beads (2 items) made of paste.<br>Photo 29.   | Unit 2<br>d:70cm<br>grave 3  |  |
| 52  | Round-shaped beads (49 items) made of a red coloured agate.<br>Photo 29.  | Unit 2<br>d:70cm<br>grave 3  |  |
| 53  | Bracelet made of a bronze wire. It is a thin item with disconnected edges. The cross section is tape-shaped.<br>Photo 30.   | Unit 2<br>d:70cm<br>grave 3  | Diam:7.5cm   |
| 54  | An almond-shaped ornament made of a thin bronze plate. One of the edges is oval, while the other edge has a quadrangular shape and is not forked. There is a protruding hole on it. Photo 30.   | Unit 2<br>d:70cm<br>grave 3  | Dims:3.7x2.2c<br>m   |
| 55  | Leaf-like shaped pin made of a thin bronze plate. There are two protruding holes at the thinning edge. Photo 30.  | Unit 2<br>d:70cm<br>grave 3  | 4.7x3.1cm  |
| 56  | Parts of a pin made of a thin bronze plate. It was impossible to determine its shape.   | Unit 2<br>d:70cm<br>grave 3  |  |
| 57  | Ornament twisted into a pipe-like shape using a thin bronze plate. Presumably, the item served as a set of beads. One of the edges is wide, while the other one is relatively narrow and has a hole in it. Agate beads were found inside. Photo 30.   | Unit 2<br>d:70cm<br>grave 3  | hole<br>diam:0.5cm   |
| 58  | Medium size boiler or pail-type vessel. Photo 25.   | Unit 4<br>d:50cm<br>grave 4  | orif.d:21.5cm<br>st.d:23cm<br>h:18.5cm<br>base d:8cm           |
| 59  | Medium size jar with a narrow neck. Its rim is torn off. The neck goes directly into the shoulder. The body is elongated. The base is wide and flat. There is sand admixture in the clay composition. The colour is black. Photo 27.  | Unit 4<br>d:50cm<br>grave 4  |  |
| 60  | Boiler or pail-type vessel's fragments. The wide rim is bent outwards. The flat rim was divided into two parts by a facet. The rim goes directly into the body. There is gravelly sand admixture in the clay composition. The base is wide and flat. The base edges were decorated with patterns featuring elongated askew notched lines. The colour is brown. Traces of combing remained on the surface.   | Unit 4<br>d:50cm<br>grave 4  | orif.w:2.3cm<br>wall th:0.5cm                                  |
| 61  | Fragments of a small pitcher-type vessel. The vessel could not be found in its entirety. The neck smoothly transforms into the shoulder. The rim is bent outwards. The neck part that is bent outwards is faceted on the inside. There is significant sand admixture in the clay composition. The fired item is of poor quality. The grey coloured surface is covered with scale. The clay colour is brown.   | Unit 4<br>d:50cm<br>grave 4  | wall th:0.7cm  |

| No. | Description  | Unit,<br>depth              | Dimensions                                     |
|-----|--|-----------------------------|--|
| 62  | Little bowl or piyale-type vessel fragment. It was not possible to retrieve all of the vessel's fragments completely. The walls are thin. The rim is bent outwards. There is sand admixture in the clay composition. The vessel, which was fired in unstable temperature conditions, is of poor quality. The colour is greyish-brown. The surface is covered with scale on both sides.   | Unit 4<br>d:50cm<br>grave 4 | flank h:2.2cm<br>wall th:0.9cm                 |
| 63  | Black coloured obsidian splinter. Most likely, it was supposed to be used as raw material for making cutting tools.  | Unit 4<br>d:50cm<br>grave 4 | 6.2x4cm  |
| 64  | Large pitcher. The obtained item was fragmented. The narrow rim is bent<br>outwards. The rim is round. The low neck smoothly transforms into the shoulder.<br>The shoulder is decorated with horizontal patterns featuring parallel protruding<br>stripes. The zoomorphic handle (with a ram figure), which connects the shoulder<br>with the upper part of the body, was attached to the vessel vertically. There was<br>probably another handle on the opposite side, but unfortunately, it could not be<br>found. Moreover, there is a cylindrical protrusion upon the shoulder that served<br>as a handle. The protrusion ends in a flat cap. The zoomorphic handle's base is<br>ornamented with vertical polished parallel lines. The vessel is pear-like shaped.<br>The body narrows toward the base, which is wide and flat. There is sand<br>admixture in the clay composition. The colour is black. The surface is polished.<br>Photo 28. | Unit 4<br>d:50cm<br>grave 4 | orif.d:13.5cm<br>base d:12cm<br>prot.cap d:4cm |
| 65  | Base fragment of an average size ceramic vessel. The base is ring-like and heeled. The body broadens outwards. There is significant sand admixture in the clay composition. The colour is pink.  | Unit 7<br>d:50cm            | wall th:0.7cm                                  |
| 66  | Rim sherd of a kheyre-type vessel with a wide rim. The straight rim goes directly<br>into the shoulder. The flank is high. The rim is slightly inclined outwards and<br>inward. The fired item is of poor quality. There is sand admixture in the clay<br>composition. The colour is light pink. The outside surface completely burned<br>down.  | Unit 7<br>d:70cm            | shoulder<br>h:4cm                              |
| 67  | Neck fragment of an average size pitcher-type vessel. The rim is bent outwards slightly. The rim is smooth. The rim goes directly into the neck. The neck, in turn, gradually crosses over into the shoulder. There is sand admixture in the clay composition. The colour is pink. Traces of combing are visible on the surface.   |                             | neck h:5cm<br>wall th:0.7cm                    |
| 68  | Body fragment of a large thick wall vessel. The fired item is of high quality. The clay composition includes a vegetative substance. The colour is light pink. There are traces of soot on the inside.   |                             | wall th:1.6cm                                  |
| 69  | Vessel rim sherd. The rim is wide and bent outwards. The rim is straight. The clay composition includes a vegetative admixture. The colour is light grey. The outside surface was smoothened.  |                             | orif.w:3.6cm                                   |
| 70  | Large thick wall vessel's body fragment. The clay composition includes a vegetative admixture. The colour is pink.   |                             | wall th:1.6cm                                  |
| 71  | Rim sherd of a vessel with a wide rim. The latter broadens outwards. The rim has a welt. The clay composition includes a vegetative admixture. The rim gradually goes into the shoulder. The fired item is of high quality. The colour is pink.  |                             | orif.w:4cm<br>wall th:1.6cm                    |
| 72  | Rim sherd of a kheyre-type vessel. The rim, which is slightly slanted inward, goes directly into the body. The rim is round. There is sand admixture in the clay composition. There is a protruding hole upon the rim slated for hanging the vessel.   |                             | wall th:0.8cm<br>hole th:0.6cm                 |
| 73  | Tray-type vessel body fragment connected to the rim. The rim, which has a welt, rises slightly above the body. The body is wide and flat. The clay composition includes a vegetative admixture. The item is of high quality. The colour is pink.   |                             | wall th:1cm                                    |
| 74  | Tray-type vessel's rim sherd. The rim is smooth and oriented inward. The item is of high quality. The colour is pink.  |                             |  |
| 75  | Thick wall vessel's body fragment. It is oval-shaped. The vessel was fired in unstable temperature conditions. It is roughly made. There are sand and vegetative admixtures in the clay composition. The colour is pink.   |                             | Diam:8cm<br>wall th:1.2cm                      |
| 76  | Grinder made of a greyish flat river rock. It is round-shaped.   |                             | Diam:10.5cm                                    |
| 77  | Whitish-brown coloured river rock. It was processed to make a grinder. It is round-shaped and flat.  |                             | Diam:5.5cm                                     |
| 78  | Fragment of a quernstone grinder made of a grey coloured, elongated and wide river rock.   |                             | cross sect.<br>w:9.2cm<br>th:5.2 cm            |
| 79  | Fragment of a grey coloured, narrow and flat river rock. It was once used as a whetstone.  |                             | cross<br>sect:3.5cm                            |

| No. | Description  | Unit,<br>depth     | Dimensions  |
|-----|--|--------------------|---|
|     |  |                    | th:1.7cm  |
| 80  | Little narrow river rock. It is flat and elongated. It may have been used as a whetstone.  |                    | 5.4x1.5cm   |
| 81  | Five fragments of elongated cutting tools made of grey and whitish flintstones.<br>The items are one and two-faceted. Their edges are straight and barbed.   |                    | dims:<br>1. 5.4x1.8cm<br>2. 4.2x1.8cm<br>3. 3.5x2cm<br>4. 2.9x1.6cm<br>5. 3.4x1.5cm |
| 82  | Black, greyish (one item) coloured and transparent obsidian splinters (46 items).<br>The items are of different sizes.   |                    |   |
| 83  | Body fragment of a thick wall ceramic vessel. There is sand admixture in the clay composition. It was part of a large vessel. The colour is pink. There are traces of soot on the inside surface.  | Unit 7-8<br>d:80cm | wall th:1.8cm   |
| 84  | Vessel neck fragment. The rim is bent outwards. There is gravelly sand admixture in the clay composition. The colour is pink.  |                    | wall th:1.1cm   |
| 85  | Rim sherd of a kheyre-type vessel. The rim is wide. The rim is smooth and inclined inward. There is vegetative admixture in the clay composition. The rim goes directly into the body. The item is of high quality. The colour is light pink.  |                    | wall th:1.1cm   |
| 86  | Medium size pitcher-type vessel's base fragment. The narrow base is ring-like<br>and heeled. It extends below the vessel's lower part. The body broadens<br>upward. There is gravelly sand admixture in the clay composition. The colour is<br>light pink.   |                    | wall th:1-cm  |
| 87  | Neck fragment of a large thick wall vessel. The rim has a welt. The low neck smoothly transforms into the shoulder. There are sand and vegetative admixtures in the clay composition. The item is of high quality. The colour is light pink.   |                    | wall th:1.6cm   |
| 88  | Rim sherd of a thick wall vessel. The rim has a welt. The neck is low. There are sand and vegetative admixtures in the clay composition. The colour is light pink. The surface is covered with whitish engobed coating. The fired item is of high quality.   |                    | wall th:2cm   |
| 89  | Fragment of a thin wall vessel's high neck. The latter expands upward. The thin rim goes directly into the neck. The item is of high quality. The surface is polished. The colour is pink.   |                    | neck h:7cm<br>wall th:0.5cm   |
| 90  | Rim sherd of a tray-type vessel. The rim is oriented inward. It goes directly into<br>the wide and flat base. The surface is polished on both sides. The vessel was<br>fired in an unstable temperature regime. The colour is grey.  |                    | wall th:0.6cm   |
| 91  | Neck fragment of a medium size ceramic vessel. The neck is wide and low.<br>There are gravel and sand admixtures in the clay composition. The rim is torn<br>off. However, the rim was apparently straight. It goes directly into the neck. The<br>colour is pink.   |                    | wall th:0.8cm   |
| 92  | Domestic item planed in the round shape using a vessel body. There are gravel<br>and sand admixtures in the clay composition. The colour is orange. There are<br>traces of soot throughout the outside surface.  |                    | d:7.5cm<br>wall th:1cm  |
| 93  | Clay item planed in the round shape using a vessel body. There are sand and vegetative admixtures in the clay composition. The colour is light brown. There are significant traces of burning on the inside surface and traces of soot on the outside.   |                    | Diam:7cm<br>wall th:0.6cm   |
| 94  | Neck fragment of a medium size ceramic vessel. The straight rim is slightly inclined inward. It goes directly into the neck. The low neck gradually crosses over into the shoulder. There are sand, gravel and vegetative admixtures in the clay composition. The colour is pink. There are traces of soot throughout the outside surface. |                    | neck h:3.5cm<br>wall th:0.9cm   |
| 95  | Amulet made of a white, soft rock. Both of its sides are flat. One of the edges had a quadrangular shape, while the other one was sharpened. A protruding hole was made at the sharp edge to hang the amulet over a person's neck.   |                    | dims:<br>3.5x1.5x0.8cm<br>hole d:0.7cm  |
| 96  | Little elongated river rock. It was used as a grindstone. The colour is light grey.  |                    | Len:8.5cm<br>Wid:2.5cm  |
| 97  | Fragment of a thin wall vessel's high neck. The rim is bent outwards. The rim is round. The neck gradually goes into the shoulder. There are sand and little gravel admixtures in the clay composition. The colour is light pink.  |                    | H:4.7cm<br>wall th:0.6cm  |
| 98  | Catapult stone made of a round-shaped river rock. The colour is grey.  |                    | Diam:4.5cm  |

| No. | Description   | Unit,<br>depth    | Dimensions                 |
|-----|---|-------------------|----------------------------|
| 99  | Cutting tool made of black coloured obsidian. The sharp edge is shaped as a hand fan. There is a hollow on the other edge made to put a finger through the item.  |                   | 4.6x4.2cm                  |
| 100 | Fragment of a handle with a round cross section. It was attached to the vessel vertically. There are sand and little gravel admixtures in the clay composition. It was significantly fired. The colour is greyish-pink.   | Unit 1B<br>d:40cm | Diam:2.4cm                 |
| 101 | Rim sherd of a small vessel. The rim is wide. There are grooved lines below the rim on both sides of the vessel's surface. The low neck transforms smoothly into the body. There is fine sand admixture in the clay composition. The colour is light brown.   |                   | wall th:0.6cm              |
| 102 | Body fragment of a small thin wall vessel. There is a scratched wavy line on the surface with a straight line drawn underneath. The colour is light brown. There are traces of soot on the surface.   |                   | wall th:0.5cm              |
| 103 | Part of a quernstone made of a planned porous river rock. It has an elongated<br>and quadrangular shape. The bottom part is slightly oval, while the upper part is<br>smooth. Photo 10.   | Unit 7<br>d:70cm  | dims:13.5x<br>11.3x5.5cm   |
| 104 | Large pitcher fragment. The rim is wide and slightly bent outwards. The rim is round. The low and broad neck smoothly transforms into the shoulder. The body is pear-shaped. The composition contains gravelly sand and vegetative admixtures. The colour is light pink. There are traces of soot on the surface. Photo 4 | Unit 7<br>d:70cm  | rim d:24cm<br>neck h:5.5cm |
| 105 | Neck fragment of a medium size thin wall vessel. The neck goes smoothly into<br>the shoulder. There is a scratched wavy line between two parallel grooves on it.<br>The item is of high quality. The colour is red. The inside part is covered with<br>scale. The walls are thin.   | Unit 1B<br>d:40cm | wall th:0.5cm              |

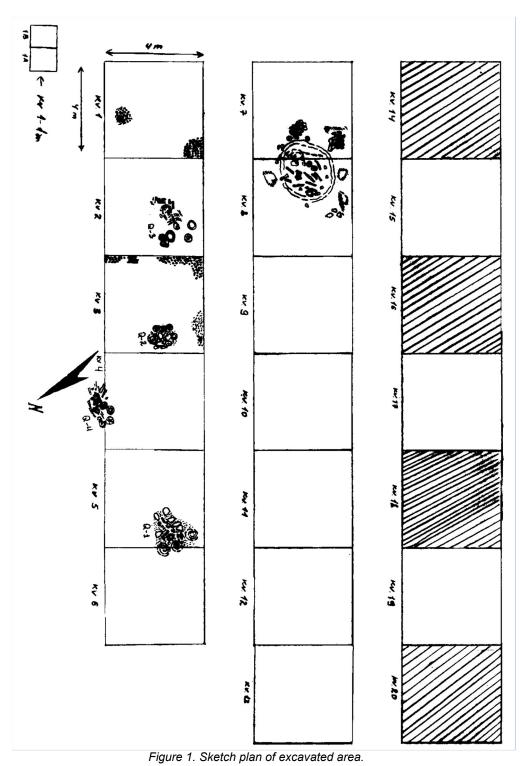
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# 8.2 ILLUSTRATIONS



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Figure 2. Graves 1 and 2.

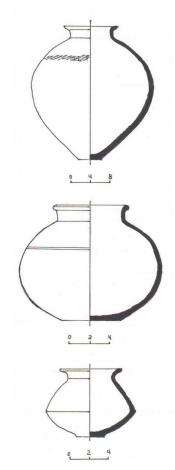


Figure 4. Grave 3. Clay vessels.

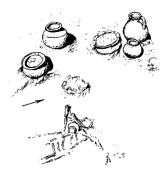




Figure 3. Graves 3 and 4.

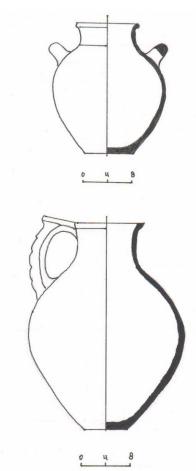
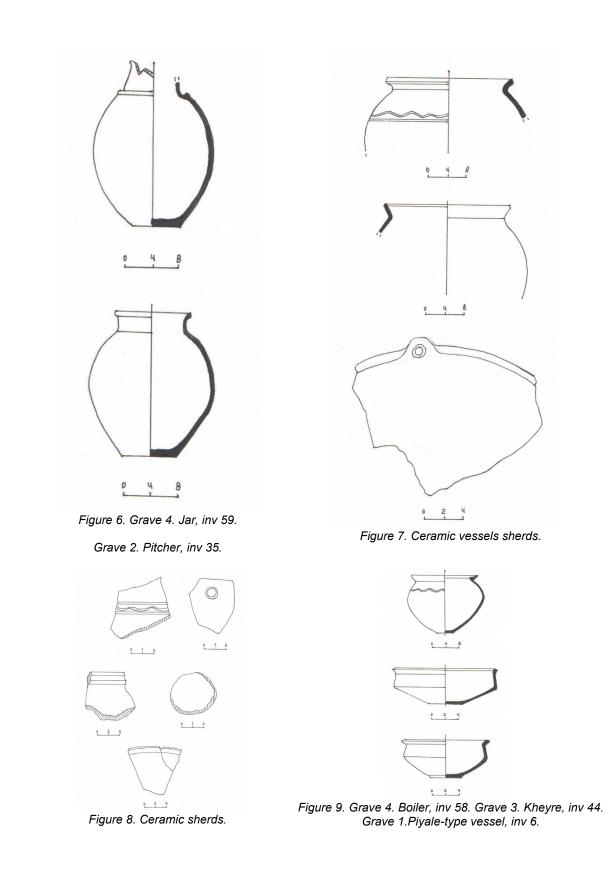
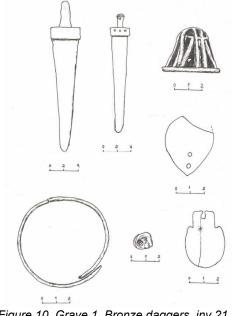
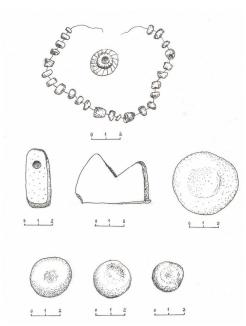


Figure 5. Grave 2. Double handled pitcher, inv 31. Grave 3. Pitcher with one handle inv. 48.







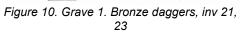


Figure 11. Beads and stone items.

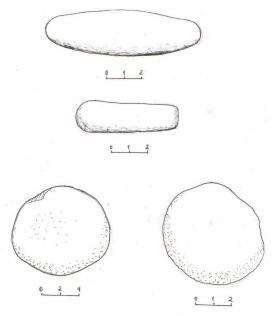


Figure 13. Stone tools.

#### 8.3 PHOTOGRAPHS



Photo 1. Excavation area. View to east.



Photo 3. Cleaning Unit 7.



Photo 2. Excavations in progress.





Photo 5. Chalcolithic-era ceramic with vegetative admixture in composition



Photo 6. Ceramic vessel fragments with polished surfaces.



Photo 7. Ceramic fragments with gravel admixture in composition.



Photo 8. Ceramic planed in round shape and other fragments.



Photo 9. Small flat grinders



Photo 10. Boat-like shaped lower quernstone, inv 103.

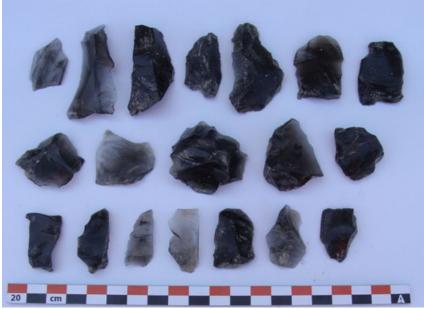


Photo 11. Small obsidian cutters.



Photo 12. Obsidian blades



Photo 13. Flint flakeS, inv 81



Photo 14. Grave 1. View to east.



Photo 16. Grave 2. Clay vessels. View to southeast.



Photo 18. Grave 4. View to northwest.



Photo 15. Grave 2. View to southeast.



Photo 17. Grave 3. View to northwest.



Photo 19. Grave 1. Piyale-type vessel, inv 6.



Photo 20. Grave 2. Pitcher, inv 35



Photo 22. Grave 3. Boiler, inv 43



Photo 24. Grave 3. Small pitcher, inv 45



Photo 26. Grave 3. Handled pitcher, inv 48.

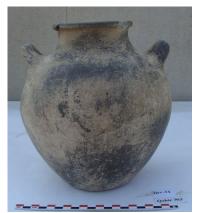


Photo 21. Grave 2. Double handled pitcher, inv 31



Photo 23. Grave 3. Kheyre, inv 44



Photo 25. Grave 4. Boiler, inv 58



Photo 27. Grave 4. Jar, inv 59.



Photo 28. Grave 4. Pitcher with model zoomorphic handle, inv 64



Photo 29. Grave 3. Agate and paste beads.



Photo 30. Grave 3. Bronze ornaments, inv 53, 54, 55, 57.



Photo 31. Grave 1. Bronze dagger with latticed pommel, inv 21.



Photo 32. Grave 1. Bronze dagger, inv 22.