

Azerbaijan National Academy of Sciences
Archaeology and Ethnography Institute

DETAILED SCIENTIFIC REPORT

Excavations in Qıraq Kəsəmən II settlement at KP 386.8
SCPX pipeline

Author of the report:

VAQIF ARIF OGHLU ƏSƏDOV
Institute of Archaeology and Ethnography,
Senior research fellow,
Doctor of Philosophy in History

Baku-Azerbaijan

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1 SUMMARY

The report describes the archaeological excavations carried out on 2-23 July 2014 in the Girag Kasaman 2 settlement discovered on KP (Kilometre Indicator) 386.840 of the SCPX export gas pipeline corridor on the outskirts of the village of Girag Kasaman in Agstafa District and the remains of material culture discovered there. The archaeological excavations revealed furnaces, tandirs, wells, burnt strips, as well as rich ceramic products, metal and stone items, together with three earth burials. Actual archaeological materials were obtained, clarifying the occupation and living conditions of residents of the rural settlement here. Based on the analysis of the archaeological materials, it was established that the settlement belonged to the antique period and that a rural settlement existed here from the first century BC to the second century AD.

This information complements and expands the features recorded during construction of the BTC and SCP pipelines in 2005. No further evidence of the site was recorded during monitoring of the site during construction of the SCPX pipeline in 2016.

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2 INTRODUCTION

2.1 SITE DISCOVERY

The settlement of Girag Kasaman 2, located on KP 386.840 of the SCPX line, was registered in the first and second stages. In 2005, archaeological excavations were carried out at this monument and rich archaeological materials were found when the BTC main oil export route was built nearby. Therefore, archaeologists were aware of the existence of this monument. Since the territory of the monument is used as a sowing field over many years its terrain does not differ from its surroundings, it is difficult to determine the existent of the settlement visually. Only a large number of surface ceramics and stone products prove the possible existence of an archaeological site here. In the manner agreed between the IoAE and BP (SCPX) beforehand, the Girag Kasaman 2 settlement was registered and included on a list of monuments where advance archaeological excavations would be carried out in the SCPX corridor.

2.2 BRIEF DESCRIPTION OF THE SITE

The Girag Kasaman 2 settlement is located in Agstafa District, at a height of 208-210 metres above sea level, at coordinates N-4564072.958, E-8540081.119; N-4564169.91, E-8540025.043. It is located 550-600 metres southwest of the village of Girag Kasaman in Agstafa District, on the right side of the Agstafa - Boyuk Kasik highway, on 386.840 km of the SCPX route. The settlement is surrounded by sowing areas on all sides. The terrain of the site is flat. Soft chernozemic soils have been used as sowing areas for many years.

2.3 WHO CARRIED OUT THE EXCAVATIONS AND WHEN

The ANSA IoAE archaeological expedition team conducted archaeological excavations in the Girag Kasaman 2 settlement from 2 to 23 July 2014 under the leadership of the PhD in History and leading scientific worker Vagif Asadov and with the participation of employees of the Institute - PhD in History, leading scientific worker Anar Agalarzadeh and scientific worker Ahliman Abdurahmanov. Mahammad Novruzov, BP (SCPX) manager for cultural heritage sites, participated in the excavations as an observer.

3 RESULTS OF ARCHAEOLOGICAL EXCAVATIONS

3.1 GENERAL DESCRIPTION OF THE SITE

The Girag Kasaman 2 settlement is located in the village of Girag Kasaman in Agstafa District. The settlement is one of the archaeological sites studied in connection with the construction of the SCPX gas pipeline. Archaeological excavations carried out in this monument can be considered efficient. During the excavations conducted in an area of 448 unit metres (28x4 m), numerous tandirs and hearths were discovered, a large amount of archaeological material was obtained, and graves were discovered and explored.

The area where the settlement of Girag Kasaman 2 is located is plain. The monument is located at N-4564072.958, E-8540081.119; N-4564169.91, E-8540025.043. The name given to the settlement has a general character and belongs to the village of Girag Kasaman of Agstafa district from the administrative point of view. This name was given to the monument during BTC excavations. The reason for the name of Girag Kasaman 2 is that there is a settlement with the same name (Girag Kasaman 1) excavated on the BTC and SCP project in 2005 to the southeast.

The settlement is covered by a sowing area. This plain, where there are sowing areas, has been used as a sowing area for many years.

When visiting the area where the settlement is located and the surrounding area, many pottery sherds are visible on the surface. The remains of material culture found in these areas are important in terms of the archaeological evaluation of these areas. The fact that numerous ceramic items, which encompass distant centuries, and the variety of them in the area allow us to conclude that life was intense here in those times.

The position of the settlement is favourable in terms of town planning. There are fertile lands and sources of water to organize farms around the settlement. Perhaps most livestock-breeding had a more important place in the farms of residents of the settlement.



Figure 1. Excavation area after initial topsoil removal. View to southeast.

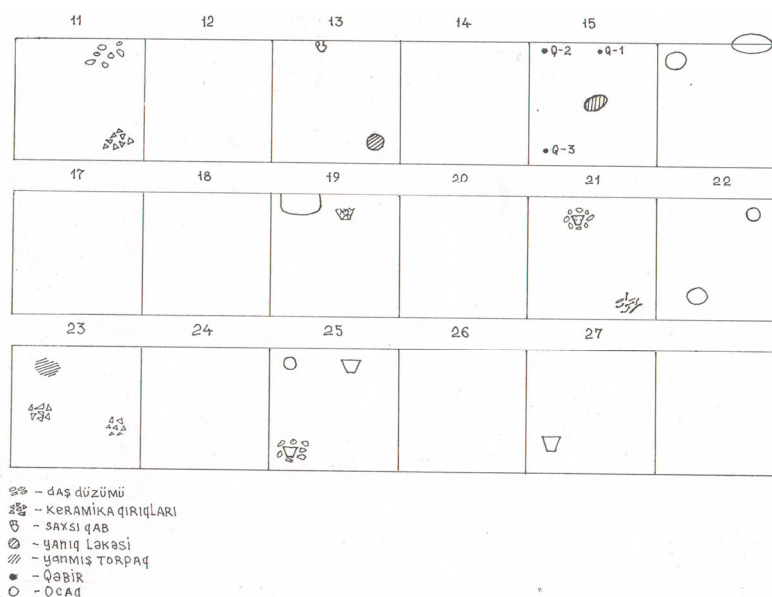


Figure 2. Schematic plan of the excavations (No excavations were carried out in Units 12, 14, 17, 18, 20, 24, 26, 28).

3.2 GENERAL DESCRIPTION OF CULTURAL LAYERS

Excavations in the area began with the selection of the excavation area. The territory where the excavation area was selected was in a new pipeline corridor 40 metres from the BTC and SCP pipeline corridor (Figure 1). The excavation area was split into two parts on the right and left of an irrigation water canal. The length of the excavation area was 112 metres and width 4 metres. There were a total of 28 units (4 x 4 metres in size). The units were numbered south-east-north-west, i.e. along the pipeline, and excavations were planned in the form of a chessboard (Figure 2). Initially, the upper 20cm deep fertile layer of the site was removed by machinery and deposited at the edge of the excavation. Despite many years of sowing, there were many pottery sherds on the surface. This testified to the richness of the cultural layer of the settlement. The 448-sq.m excavation strip was also in the sowing area. A large number of ceramic items were found in the 20cm layer of soil that was removed.

During the excavations, it was revealed that the Girag Kasaman 2 settlement had one layer and the cultural layer was between 100-120cm thick. Observations revealed that the top 25cm cultural layer was not rich in cultural artefacts. This was due to the fact the top layer of soil was cultivated for many years. The part of the cultural layers rich in coal, ash, fragments of pottery, animal and poultry bones begins from 30cm and continues to a depth of 1-1.2 metres. Remains of a large number of jars and hearths were explored in the excavation area.

The excavation depth of the units in the excavation area were as follows:

Unit 1 - depth 60cm

Unit 2 - not excavated

Unit 3- depth 60cm

Unit 4- not excavated

Unit 5- depth 60cm

Unit 6- not excavated

Unit 7- depth 60cm

Unit 8 - not excavated

Unit 9 - depth 60cm

Unit 10 - not excavated

Unit 11 - depth 110cm

Unit 12 - not excavated

Unit 13 - depth 120cm

Unit 14 - not excavated

Unit 15 – depth 120cm

Unit 16 – depth 120cm

Unit 17 - not excavated

Unit 18 - not excavated

Unit 19 - 120cm

Unit 20 - not excavated

Unit 21 - 120cm

Unit 22 - 120cm

Unit 23 - 120cm

Unit 24 - not excavated

Unit 25 - 120cm

Unit 26 - not excavated

Unit 27 - 120cm

Unit 28 - not excavated

Note that Units 1-10 did not provide significant material.

Starting from Unit 11, the number of fragments of pottery began to increase. A layer consisting of small and medium-sized stones was found near the centre of the southern wall of the unit at a depth of 50cm. The layer was 1 metre long in the east-west direction (Figure 8).

At a depth of 70cm, a concentration of pottery vessels was found in the northern corner of the unit. The area occupied by the pile was 50 x 60cm (Figure 9).

In Unit 13, an intact medium-sized earthenware vessel was found on the southeast wall of the unit at a depth of 60cm (Figure 10). Although the vessel was asymmetrical, it was of high quality. Its narrow and low neck gradually flowed into the shoulder. Its body was stout. Its mouth was slightly wider. In the back section there was a lenticular handle that connected the lower part of the body to the mouth edge. Its base was wide and flat. The shoulder of the vessel was decorated with sharp zigzag-shaped patterns. These patterns are crossed by patterns of sharp lines. Its colour is light pink. Its clay is pure. The surface is covered with lime scale. In the same unit, an area of burning with a diameter of 80cm was found at a depth of 70cm from the ground. There were traces of burns, ceramic fragments, and half of the body of a jar-like vessel with a thickness of 10 cm.

Another of burnt soil with a diameter of 80cm was found at a depth of 80cm from the ground in Unit 15 (Figure 3,1; 11). Also, a burnt layer was found at a depth of 45cm near the southwest wall of this unit. The layer consisted of traces of burning and fired clay. The thickness of the plate was 27cm and length 80cm. The base of a clay vessel found here was intact, and the rest was mixed with grave soil in the form of small fragments. Also, small bone fragments were also observed here. Probably, there used to be a hearth here. This is shown by the charcoal fragments mixed with soil and the base of a vessel found here burnt and turned into clay.

Near the southwest wall of this unit, 70cm south of the burnt spot of soil, a layer of soil was found in the cross section of the wall. This layer, which differs from the surrounding soil with its dark colour, gave rise to assumptions that there was a grave here. This layer begins at a depth of 15cm and went as deep as 80cm. When observing the stratigraphy of the layer, ceramic fragments and coal flakes began to appear at a depth of 50cm from the ground. Grave 1,

contained human feet, ribs, and lower jaw bones and the bottom of a jug-like bowl. Traces of strong burns were observed in the grave (Figures 3, 12, 13).

A soil grave (Grave 2) was found at a depth of 1.1m in the east corner of Unit 15 (Figure 4; 14; 15). The skeleton was in a relatively good condition. The body lay on his left side towards the west. His face was turned to the south. His arms were wrapped around his chest. There was a medium-sized vessel with a narrow neck and stout body in front of the face of the deceased. The mouth edge opens to the side. The mouth edge is connected to the body with a rounded handle. The body gradually flows into the base. The base is flat and wide. The upper surface of the vessel is covered with a red paint. It is red-coloured and well baked from clay mixed with fine sand (Inv 30).

Under the arm bones of the skeleton, a dagger or a blade of iron were found (Inv 30a). The narrow blade becomes even narrower towards its tip and bends. Only a part of the stalk of the handle remains intact. The blade is strongly corroded. It is believed that the handle was attached to this stalk. The length of the blade is 17 cm, width 2cm (Figure 16, 1).

In Unit 16, a hearth was found near the south wall of the unit at a depth of 1.1 metres (Figure 1). The hearth diameter was 70cm and the depth - 30cm (Figure 17). An ash layer, coal crumbs and potsherds were found in the hearth. One is the mouth part of a jar-type earthenware vessel with a thick wall and dark brown colour delicately baked from organic clay. The edge of the mouth is bent outwards. The outer surface is covered with burns. The wall thickness is 0.7cm (Figure 18, inv.56). There is also a rim fragment of a bowl-shaped vessel. It has thin walls, is light brown and is well baked from pure clay. It has a biconic shape and the passage from the shoulder to the neck is sharp. The mouth edge is bent outwards. Its surface is well-polished. A layer of soot is observed on the surface. The diameter of the mouth is 16.5cm and wall thickness - 0.4cm (Figure 18, inv. 57). The third find is a circular cross-sectional handle fragment. It belongs to a jar-type earthenware vessel. It is dark brown coloured and is delicately baked from clay mixed with sand. A layer of soot is seen on the handle. The handle diameter is 2cm (Figure 19, inv 60). Another is a fragment of a handle of a medium-sized jug. It is flat and broad and connects the shoulder and the mouth edge. Its dark brown coloured clay is mixed with organic substances and is well baked. The width of the handle in cross section is 2.5cm, and the wall thickness is 0.7cm (Figure 19, inv.61). Finally, there were fragments of a body belonging to a large jar among the fragments of vessels. It has thick walls and is well baked from dark brown inorganic clay. There is a burn inside. The wall thickness is 2.3cm (Figure 19, inv.62).

At the same depth, a second large hearth adjacent to the east wall of the unit was found (Figure 2). Since the oval-shaped hearth went closer to the east wall of the unit, the wall had to be slightly expanded. The edges of the hearth were framed with burned clay. Along with coal crumbs, a ceramic fragment, as well as a grindstone were found inside. The hearth dimensions are 1.1 x 0.6 m, depth 20cm (Figure 20). One of the fragments found inside is a circular cross-sectional handle of a boiler-type vessel. There are crooked notched patterns on top of the handle. It is assumed that the handle was connected to the shoulder part of the boiler horizontally. It is well baked from light orange clay mixed with sand. There is a delicate layer of engobe on it. The diameter in cross section is 2cm, and the length is 7.2cm. Another product is a flat, broad and elongated grindstone-type instrument made from river stone. Both surfaces became smooth as a result of use. Its length is 6.3cm and width - 3.7cm.

In Unit 19, a large broken container was found at a depth of 50cm from the ground level. The vessel has thin walls and is pink (Figure 21). At a depth of 60 cm, a burnt clay ground adjacent to the south wall of the unit was found. The dimensions of the ground were: 1x0.8 m, thickness = 25cm (Figure 23).

Artefacts found at a depth of 35cm below ground level near the southeast wall of Unit 21 were the remains of another large jar. Even though the surviving bottom part of the jar was broken, it

kept its shape in part. The fractures of the upper part were scattered around. The mouth part was not found. The approximate diameter of the jar body was 70-80cm (Figure 22).

Near the north wall of the unit, a pile of bones belonging to a large horned animal was found at a depth of 1m below the ground level. Medium-sized riverstones had been placed among the bones. One of them was round. The bones and stones stretched for 70cm in the east-west direction (Figure 24).

In Unit 22, a small hearth (No. 3) was found at a depth of 1 metre. There were ashes inside the hearth. Its diameter was 40cm, depth - 10cm (Figure 25). Ashes and a burnt soil layer were found from a furnace (1) found at a depth of 1.6 metres. The diameter of this hearth is 55cm and depth - 60cm (Figure 26).

Near the northwest wall of Unit 23, more big fragments of an earthenware vessel were found at a depth of 35cm from the ground (Figure 27). A small circular burnt soil layer was found at a depth of 80cm from the ground near the northeast side of the unit, and potsherds were found 90cm west of it (Figure 28).

In the eastern corner of Unit 25, the lower part of the body of an earthenware vessel and middle-sized stones were found around it at a depth of 70cm. The area they occupied was 50 x 20cm (Figure 29). Half the bottom of a large jar was found on the west side of the unit at a depth of 1 m below the ground. Its diameter was 60cm and height - 10cm (Figure 30). A furnace site with a depth of 60cm (No 2) was found at a depth of 1.1 cm. There were ash layers and ceramic fragments in this furnace (Figure 31).

The bottom part of another large jar was found at a depth of 80cm at the east end of the southeast wall of Unit 27. Its diameter was 80cm and height 10cm (Figure 32).

It must be noted that during the archaeological excavations in the Girag Kasaman 2 settlement, numerous hearths and furnaces, fragments of various earthenware vessels, tools made from river stone (grindstones, grinders, mortars, weight stones, etc.), and small amounts of stonework, mainly osteological remains of large horned animals were found. From this perspective, Units 22 and 23 provided richer material. No material and cultural artefacts made from glass and other materials were found at the settlement.

Thus, initial studies and the analysis of the artefacts that were obtained make it possible to say that the settlement of Girag Kasaman 2 belongs to the ancient era, i.e. the 4th-3rd centuries BC. As for the graves discovered in Unit 15 of the excavation area, these graves may belong to an earlier stage of the antique period (fifth-fourth centuries BC). It should be noted that during the construction of the SCP pipeline in this area, ancient settlements and graves were excavated and studied here [9; 10; 11]. The results of the radiocarbon analysis of the materials taken from the settlement at the time [11, p. 187] are one of the factors that confirm the accuracy of the aforesaid dating.

Hearths:

Hearth No 1 was found in Unit 16 near the southern wall of the unit at a depth of 1.1 m below the ground. The hearth diameter is 70cm, depth - 30cm (Figure 17). An ash layer, coal crumbs and earthenware fragments were found in the hearth.

Hearth No 2 was found to be adjacent to the east wall of Unit 16 at a depth of 1.1m. Since the oval-shaped large hearth was facing the east wall of the unit, the wall had to be slightly expanded. The edges of the hearth were framed with burnt clay. Along with coal fragments, ceramic fragments, as well as a grindstone were discovered inside. The furnace size was 1.1 x 0.6m and depth 20cm (Figure 20).

Hearth No 3. In Unit 22, another small hearth was found at a depth of 1 m below the ground. There was a layer of ash in the hearth. The diameter was 40cm, depth - 10cm (Figure 28). Ash and burnt soil were found in the second hearth (No 4) at a depth of 1.6m. The diameter of this hearth was 55cm and depth - 60cm (Figure 25).

Furnaces:

Furnace No 1. A 60cm furnace place was found at a depth of 1.1 m below the ground in Unit 25. There were ash layers and ceramic fragments inside the furnace (Figure 26).

Furnace No 2. Ashes and a burnt soil layer were found in furnace found at a depth of 1.6 m. The diameter of this furnace was 55cm and depth - 60cm (Figure 31).

Graves:

Grave 1. This grave was also found near the southwest wall of the unit. It was located 70cm south of grave 1. In this grave, a human foot, ribs, and a lower jawbone and the bottom of a jar-like vessel were found. Signs of strong burns were observed in the grave (Figure 3; 15; 16).

Grave 2 was found at a depth of 1.1m near the east corner of Unit 15. The skeleton in the grave was relatively intact. The skeleton was lying on its side left in the west-east direction. His face was looking south. His arms were wrapped around his chest. The foot bones of the skeleton were not found. Only two hand bones were found on the east side of the oval-shaped grave chamber. A pottery vessel with a narrow neck and stout body was placed in front of the face of the deceased (Picture 4; 17; 18).

4 ARCHAEOLOGICAL FINDS

Ceramics:

It should be noted that a large number of earthenware fragments were found in the excavation area. These include fragments of jugs, jars, bowls, plates, jurdak, kuza, kheyra, sahang and kazan-type containers and in some cases, whole or broken vessels. The earthenware vessels are mostly pink, and at the same time, orange, red, grey, brown, and yellowish clay vessels were found. Sometimes the vessels are covered with white, yellowish, greyish or pink engobe. There are also vessels painted in red. The surface of the vessels is often polished. Ornaments on the surface of vessels consist of notched, scratched, engraved or embossed patterns. Occasionally, ribbed or furrowed fragments are also found (Figure 37-38). Earthenware vessels are made by hand or on a pottery wheel with high quality. These vessels were used at farms or at home.

Medium-sized jugs obtained during excavations have mostly stout bodies (Figure 33, inv.12). Sometimes, lengthy and pear-shaped jug fragments were also found (Figure 5; 6). Their mouths are rarely inclined to the inside, and the majority of them have fringed or funnel-shaped mouths that open sideways (Figure 34, inv 65, 67, 68). The necks are wide and low (Figure 35), or narrow and tall (Figure 36). Sometimes there are scratched or notched patterns on them (Figure 39, inv.7). They are with or without handles. The bases are large and flat (Figure 39, inv.6, 8).

Farm jars are relatively larger and thick-walled. The thickness of their walls is between 1.2 and 2.5cm. Their mouths are folded to the side or flattened. Their bodies become narrower towards the bottom. Although the bases are flat, sometimes poorly-made bases are also found. One of the jar fragments that were found is a fragment of a body that belongs to a large-sized thick-walled and grey jar made of clay mixed with inorganic substances. There remains a part of the raised belt-like pattern that passes through the body of the jar. Inside there are signs of burns. The wall

thickness is 2.5cm (Figure 40). The vessel has a wide mouth. The wide and low neck gradually flows into the shoulder. The clay is sandy. The edge of the mouth is flat and wide. It has thick walls. Its colour is red. A wavy engraved pattern was made on the edge of the mouth. The width of the mouth is 5-5.5cm, the wall thickness is 1.5cm (Figure 41).

Numerous bowl fragments have also been found at the excavation site. The edges of the mouths of the bowls that have wide mouths are flat and thin and are folded to the side. Rarely, fragments of bowl mouths that tend towards the inside are found. Their bodies have a biconic shape (Figure 6).

Among the archaeological materials there are plenty of *plates and kheyras (copper bowls)*. Their mouth edges are flat and straight, and sometimes bent inside. Sometimes the mouth or shoulders are covered with channel-like lines. Sometimes shoulders have a protrusion that replaces the handle. One of the fragments obtained is half the body of a middle-sized kheyra. The mouth edge is flat and smooth. Its slightly concave neck is separated from the body with a rib. The composition of the clay is slightly sandy. It is well baked even though at unstable temperatures. Its surface is polished. The colour of the clay is pink. The body begins to become narrow towards the bottom. The diameter of the mouth is 22cm and the wall thickness is 0.6cm (Figure 42).

Mainly neck fragments of long pitchers were obtained. Their necks are narrow and long, bodies are balloon-shaped. Their mouths usually open to the side. One of the fragments is part of the body of a small pitcher-like vessel. The vessel has a narrow neck and a balloon-shaped body. The surface is well polished. It is covered with a red paint. It is well cooked from pure clay. The wall thickness is 0.7cm (Figure 6, 43, inv.32). The second fragment is part of the neck of a medium-sized pitcher-type vessel with a narrow neck. Its mouth folds slightly and opens to the side. The mouth is round. Its relatively high neck gradually flows into the shoulder. During the baking process, pores appeared on its surface. Its interior is dark and exterior is pink. There are traces of soot on both sides. The composition of the clay is mixed. The height of the neck is 9cm and the wall thickness is 0.7cm (Figure 44).

Descriptions of the *jurdak* (Figure 10; 11) and *bardag*-type (Figures 5, 16, 2) vessels found in the excavation area are given above. One of the striking finds among the artefacts is a fragment of a thick-walled and light orange *parch* (scoop) that is well baked from clay mixed with sand. The *parch* with a biconic body has a wide and ribbon-like handle on the shoulder. The centre of the handle is cut. The neck is well polished. The wall thickness is 1cm (Figure 44, inv.90). An interesting find is in a boiler handle, which has a zoomorphic image on it. The image is in the form of sheep or doghead and has button-shaped eyes. Before baking, a spike-like pattern was also made. It is delicately baked from dark pink, pure clay. The wall thickness is 0.7cm (Figure 43, inv. 33). One find is a fragment of the body of a bowl-shaped vessel which has thin walls, light brown colour and is baked from pure clay. The biconic shoulder and neck have a sharp connection. The mouth edge is slightly bent outwards. The surface is well-polished. A layer of soot can be observed on the surface (Figure 18, inv.57).

In addition to ceramic artefacts, grinding mills (Figures 7; 45; 46), grindstones (Figures 7; 47; 48), pestle sets (Figure 49, 50), whetstones (Figure 7, 51-54), balance weights (Figure 55) made from river stone, as well as a spindle whorl made from clay (Figure 56) were found.

Metal objects:

During the excavation, one piece of iron was found. It is a knife blade found in Grave 3 (Inv 30a). The narrow blade becomes narrow and bends towards the tip. Only a part of the handle's tang remained. The blade was strongly corroded. Apparently, the handle made from wood was attached to this tang. The length of the blade is 17cm, width 2cm (Figure 19, 1).

4.1 GENERAL SUMMARY OF TYPES AND NUMBERS OF FINDS

Archaeological finds from the settlement can be attributed to the following types:

Labour tools: remains of grinding mills, grindstones, handles and whetstones (Figure 7; 49-58), as well as circular, biconical spindle whorls (Figure 60) made from clay.

Household items: These include clay vessels, whetstones (Figure 7; 55-58), an iron knife (Figure 16.1), balance weights (Figure 59).

Weapons: no weapons were found at the excavation site.

Decorations: no decorative items were found.

Labour tools include mainly grinding mills, grindstones, and pestle sets. The other halves of the bottom grinding mills were found. They are boat-shaped.

Household items were mainly used in the household and kitchen, as well as in farms. This is primarily clay vessels. Clay vessels are different by their design and functions. They include household jars, pitchers, bowls, plates, bardags, jugs, and bowl-type clay vessels (Figure 19: 21-22; 36-48). The clay vessels were made by hand and on pottery wheels and have pure clay or clay mixed with sand. They were baked at stable fire temperatures, and very rarely at unstable temperatures. Some of them are covered with yellowish or white engobe, and others are red. Jars and pitchers have thick walls.

4.2 GENERAL ANALYSIS OF RESULTS ACHIEVED

Archaeological excavations at the settlement were generally very successful. During the excavations, valuable information was collected on the various spheres of economic and artistic life of the residents of the ancient rural settlement. The settlement of Girag Kasaman 2 had an agrarian character. In other words, the indigenous population was engaged in agriculture as well as cattle-breeding. In addition to paleontological remains belonging to small and big cattle found during the archaeological excavations, the discovery of tandirs and a well proves that along with cattle-breeding, agriculture was also developed here.

The hearths found in the Girag Kasaman 2 settlement are circular and oval-shaped. Some of the hearths are covered with plaster.

The great number of the remains of hearths and large jars found during the excavations give a clearer idea of the number of the rural population as well.

5 ANALYTICAL RESULTS

It should be noted that the archaeological excavations at the Girag Kasaman 2 settlement were successfully completed and most of the settlement was excavated including the previous excavations in the BTC and SCP corridors. These step-by-step excavations provide us with a wealth of information about the nature, type and time of the settlement, while the artefacts that were obtained give us enough information about the economic life and occupation of residents of the ancient village.

Ancient ceramic items scattered around the monument cover about 1-2 hectares. The area where surface materials are more widespread in the pipeline corridor is more than 100 metres. The features of the topography of the monument, as well as the nature of the surface materials provide

a basis for determining the nature of the antique settlement. The excavation area is likely to cover a farming area, because no walls or foundations of dwelling houses were discovered in this excavation site. The surface materials are rich in the southeast and east of the corridor, they are rarely found in the west and north of the corridor. The establishment of the chronological framework of the archaeological complexes discovered in the settlement of Girag Kasaman 2 is based on typological and comparative analysis methods, and scientific findings were made.

5.1 PALEONTOLOGICAL, PALEOZOOLOGICAL AND PALEOBOTANIC REMAINS

During the archaeological excavations at the Girag Kasaman 2 settlement, only animal bones were found among the paleozoological remains. Among the paleontological remains found in the excavation area, bones belong to small and big cattle were mostly found. Most animal bones were found in Unit 21.

Archaeological research shows that in ancient times, cattle-breeding was developed in the Ganja-Gazakh region, which became a leader in this field. The study of rural settlements of the region shows that in the 4th-3rd centuries BC, it took a leading place in cattle-breeding. The reason was rich pastures and hayfields. The study of animal bones found in Lak 1 indicates that sheep and goats had a special place among the small cattle. Some parts of them - ribs, spine, and hip bones were found. Of course, this is due to the crucial role of small cattle in cattle-breeding and their great importance in the lives of people.

In addition to small cattle, big cattle also occupied a certain place in livestock. Big cattle was also used as working animals. Undoubtedly, big cattle also played a role in the development of wheeled transport. Ox carts were used in Azerbaijan until recently.

Bones belonging to wild birds were also found in the settlement, which indicates that along with farming, the population was also engaged in hunting.

No analysis of bone remains was carried out.

No paleobotanical remains were found at the settlement.

5.2 PERIOD AND CHRONOLOGY

The identification of the chronological framework of the Girag Kasaman ancient settlement is based on a comparative analysis of stratigraphic observations and material culture samples that were obtained.

The Girag Kasaman 2 ancient settlement was a village-type settlement and has examples of high cultural and economic development. Despite the fact that the settlement is composed of only one cultural layer, facts show that it was inhabited for several centuries. The fact that some of the clay samples belong to the Yaloylutepe culture makes it possible to give a more accurate view of the chronology of the monument. Along with that, it is not ruled out that this chronological breakdown will undergo changes as a result of future studies.

Features of highly-developed Albanian craftsmanship can be traced in the material-cultural examples of the settlement.

6 DISCUSSION

When submitting the results of the work for open discussion by summarizing the results of archaeological excavations, the scientific position of the author who wrote the report and the final results are summarized. These scientific findings have been confirmed by the observations of other scientists involved in the archaeological excavations.

6.1 INTERPRETATION OF OUTCOMES OF THE EXCAVATIONS

Archaeological excavations at the site of the future ditch for the pipeline were of a rescue character. The observation of cultural layers, as well as studies carried out at excavation sites allow the conclusion that the length of the settlement is more than 70m in the pipeline corridor and the archaeological excavations are most likely to have been carried out in the southern side of the monument.

Hearths, fragments of earthenware vessels, stone items and tools found in the cultural layer are attributed to the 4th-3rd centuries based on the typological and analysis method. Apparently, during this period, there was a village-type settlement here.

Life in the settlement ended for some reason. Perhaps, archaeological excavations to be performed in different parts of the settlement in the future will provide more detailed archaeological facts.

7 INVENTORY

No.	Type	Description	Unit depth	Size
1	Handle	Part of the handle of an earthenware vessel. It belongs to a thin-walled vessel. The vessel is hand-made. The handle is pipe-shaped and joins the vessel vertically. It is circular in cross section. Its colour is pink. Its surface is covered with grey engobe.	11 depth: 50cm	wall.th-0.5 cm. handle.d- 2cm
2	Neck	Part of the neck of a miniature vessel. Its neck is wide and low. Its mouth bends to the side. its mouth edge is broken. The clay is made of fine sand. It has thin walls. Its colour is orange.		wall.th- 0.4cm. neck.h-1cm.
3	Vessel sherds	Fragments of the body of a pitcher-type medium-sized vessel. It belongs to a thin-walled vessel. Its mouth is bent inwards and has a thin edge. It flows straight into the body. The clay is mixed with sand. There are two protrusions shaped like nipples on the body. Its colour is orange. There are remains of limestone on it.		
4	Base	A fragment of a middle-sized vessel base. The base is wide and flat. The vessel wall becomes wider towards the top. The clay is mixed with sand. Its colour is light pink.		wall.th- 0.6cm
5	Balanc e weight	A balance weight made by rounding a riverstone. Some places are slightly flat. Its colour is grey.	depth:50cm (Figure 55).	diam.7.5cm
6	Base	The base of a middle-sized jug-type vessel. The base is wide and flat. It belongs to thin-walled vessel. Its bottom is covered with a burn. Its colour is light pink.	10-11 depth:50- 60cm (Figure 39).	diam-8cm. wall.th- 0.5cm
7	Neck	A fragment of the neck of a middle-sized vessel. The neck gradually flows into the shoulder. There are notched almond-shaped patterns on its shoulder. The clay is mixed with sand. Its surface is greyish and light pink, and the middle is pink.	(Figure 39).	wall.th-0.5- 0.8cm
8	Base	A fragment of the base of a middle-sized earthenware vessel. The base is wide and flat. The body becomes wider towards	(Figure 39).	wall.th 0.5- 1cm

No.	Type	Description	Unit depth	Size
		the top. It is strongly baked. There are traces of soot on its surface. Its colour is pink.		
9	Body	A fragment of a large body. It belongs to a thick-walled vessel. The clay is mixed with sand. Its colour is orange. Its surface is covered with limestone.		wall.th-2cm
10	Whetstone	A fragment of a whetstone made from narrow and flat riverstone.	(Figure 52).	Cross section - 2.6cm
11	Handle	A latch-like handle that belongs to a middle-sized vessel. It is round in cross section. Its sides are round-shaped. Its middle is poorly baked. The clay contains sand. Its colour is pink. It is strongly baked.	13. depth: 70cm (Figure 33).	diam. 7cm
12	Body	A fragment of the body of a vessel with a middle-sized stout body. It has thin walls. It can be sensed that the base is oval. There are parallel shallow cuts on it. Its colour is light grey. Its bottom and the lower part of the body are covered with traces of burns.	(Figure 33).	wall.th-0.5cm
13	Handle	A fragment of the handle of a middle-sized vessel with a surrounding bit. There are patterns of notched lines along the handle. The handle is pipe-like and circular in cross section. The colour is pink.	(Figure 33).	Cross section-2cm
14	Vessel fragments	Fragments of a small-sized jurdak-type vessel. The low neck flows straight into the body. Its mouth is bent to the side. Its base is flat. The clay is mixed with sand and fire clay. Its colour is light pink. There are nipple-like protrusions on it. It was impossible to fully restore it. There are traces of limestone on its surface. It has thin walls.	3 depth: 80cm	wall.th-0.5cm
15	Jug	A middle-sized jug. Although it is asymmetric, it is well made. Its narrow and low neck gradually flows into the shoulder. Its body is stout. Its mouth becomes slightly wider. In the back, it has a ribbon-like handle that connects the lower part of the body to the mouth edge. Its base is wide and flat. The shoulder of the vessels is covered with notched zigzag-shaped patterns. These patterns have curved notches. Its colour is light pink. Its clay is pure. Its surface is covered with limestone.		
16	Whetstone	A grey whetstone made of elongated and flat riverstone. Its bottom part is flat and upper part is stout.	15 depth: 50cm	13.5x5x2.5cm
17	Whetstone	A fragment of a flat and elongated ribbon-like whetstone.		width-2.3cm thickness-1.3cm
18	Whetstone	Whetstone made from light grey riverstone. It is elongated but round in cross section. Its surface is polished. One tip is flattened and a hole was made on it to hang it. The other tip is broken.		Cross section diameter - 1.5 cm hole.d-0.6cm
19	Handle	A fragment of the handle of a small-sized vessel. It is shaped as a pipe and is circular in cross section. It is connected to the vessel vertically in a semi-circular way. In its middle, there are patterns of notched elongated lines. Its colour is orange.		Cross section.d-1.5cm
20	Neck	Fragments of the neck of a vessel (2 pieces). The neck gradually flows into the shoulder. The clay is pure and is well baked. The clay is pink. Its surface is covered in yellow engobe. Its walls are thin.		wall.th-0.4cm
21	Body	A fragment of the body of a thin-walled earthenware vessel. There is a scratched wave-like line engraved on its surface. The clay is pure. Its colour is light pink.	15 depth:60cm (Figure 37).	wall.th-0.4cm
22	Handle	The basis of a ribbon-like handle. The clay is pure. Its colour is light pink.		Cross section width 3cm
23		A fragment of a pipe-like handle which is circular in cross section. The clay is pure. There are awry notched patterns on its surface along the handle. Its colour is orange.		Cross section.d-1.6cm

No.	Type	Description	Unit depth	Size
24	Body	A fragment of the body of a middle-sized thick-walled earthenware vessel close to the base. It is light red and well-baked from clay mixed with sand. It is hand made. Its wall close to the base is very thick. It is believed that embossed patterns were made on the fragment of the vessel before it was baked.	17 depth: 80-90cm	wall.th-1cm
25	Small jug	A fragment of the shoulder of a small jug. The wall of the red vessel baked from clay mixed with fine sand is thin. The neck and handle are broken. The shoulder is surrounded by a pattern of delicate awry notches.		wall.th-0.4cm
26	Jug	A fragment of the mouth of thick-walled, brown-red jug-type earthenware vessel well baked from clay mixed with sand. The edge of the mouth of the vessel is delicate and is bent outwards. Since the clay is mixed with mineral stones, they give various kinds of sheen to the vessel. It is glazed from inside and outside. The layer of soot on its surface shows that it was used in the household.		wall.th-7mm
27		A fragment of a mouth belonging to a thin-walled, light yellow jug well baked from pure clay. The mouth edge is straight. It is well polished from inside and outside.		wall.th-0.5cm
28	Miniature jug	A fragment of a mouth belonging to a small jug. Its mouth edge is funnel-shaped and bent outwards. It is delicately baked from light brown clay mixed with sand.		wall.th-0.7cm
29	Base	A fragment of a flat base belonging to an earthenware vessel. The wall of the body is thick and the base is thin. It is well baked from light yellow clay mixed with fine sand.		wall.th-0.6cm
30	Bardag	A bardag with a narrow and relatively long neck and a stout body. The mouth edge opens to the side. The mouth edge and the body are connected by a handle. The body gradually flows into the base. The base is flat and wide. The surface of the vessel is painted red. It is well baked from red clay mixed with fine sand.	15 Grave 3 (Figure 16.2)	mouth.d-7cm neck.h-5cm height-18cm body.d-18cm wall.th-12cm
30 a	Knife	Iron knife blade. The narrow blade becomes even narrower and bent towards the tip. Only a fragment of the stalk remains intact. The blade is strongly corroded. It is likely that a wooden handle was attached to this stalk.	15 Grave 3 (Figure 16.1)	length-19cm width-2cm
31	Grindstone	A grindstone made from a greyish round riverstone. One side is flat.	(Figure 47).	
32	Pitcher	An small pitcher-type earthenware fragment. The vessel has a narrowing neck and a balloon-shaped body. Its surface is well polished. It is covered with red paint. It is well baked from pure clay.	19 depth:80cm (Figure 43).	wall.th-0.7cm
33	Zoomorphic pot handle	A pot handle shaped as a protrusion with a zoomorphic image on it. The image is shaped as a sheep or dog head with button-shaped eyes. It is moulded. Before baking, a spike-shaped pattern was made too. It is delicately baked from dark pink pure clay.	(Figure 43).	wall.th-7mm
34	Handle	A fragment of a handle round in cross section. Its end is not connected anywhere. It is well baked from light pink pure clay.		diam-2.7cm
35		A fragment of a handle round in cross section with notched patterns made on it before baking. It belongs to an earthenware vessel from grey inorganic clay.		diam-2.5cm
36	Whetstone	Whetstone from blue solid riverstone. It is elongated and flat. Its sides are well polished as a result of long use and have become flat. It is very likely that a hole was made in its end, but this bit is broken.	(Figure 53).	length-7.5cm width-1.6cm
37	Whetstone	An elongated whetstone made from grey solid riverstone. Its sides are well polished as a result of use. It is smooth. One side is covered with a white layer of limestone.	(Figure 53).	length-11.5cm
38	Grindstone	A grindstone-type stone tool made from bluish solid riverstone. One face and sides of the tool are polished due to long use. One side is broken. It is shaped as a trapezium with a wide upper side and flat and straight bottom. Its right side is smooth		length-6.5cm width-6.5cm

No.	Type	Description	Unit depth	Size
		and left side coarse. It is hollow from the bottom and steep from the top.		
39	Pitcher	An earthenware jug-type fragment with a narrow and long neck and balloon-shaped body. its neck gradually flows into the shoulder. Its mouth edge is bent outwards. There is a deep channel-like line on the neck. The body suddenly flows into the base. It is well baked from pink inorganic clay.	15 depth:70cm	neck.h-5cm wall.th- 0.6cm
40	Base	The base of a thick-walled red earthenware vessel well baked from inorganic clay. The base is flat and wide.		diam-17cm wall.th-7mm
41		A fragment of the base of a thin-walled orange earthenware vessel well baked from inorganic clay. It is flat and wide.		diam-9.3cm
42	Earthen ware fragment	A fragment belonging to a thick-walled light brown earthenware vessel. It is poorly baked.		wall.th- 1.7cm
43	Base	A fragment of a base belonging to a thin-walled small earthenware vessel. It is poorly baked from grey-brown inorganic clay. There is a layer of soot on it.		diam-7.5cm
44	Jar	A fragment of the mouth of a large jar. Its mouth edge is funnel-shaped and bent outwards. It is well baked from red clay mixed with sand.		wall.th.7mm
45	Earthen ware fragment	An thin-walled earthenware fragment well baked from dark brown clay mixed with sand. There is soot on its surface.		wall.th. 7mm
46	Jar	A fragment of the mouth of a large jar. Its mouth edge is funnel-shaped and bent outwards. It is well baked from inorganic light pink clay.		wall.th-2cm
47	Earthen ware fragment	A fragment of the body of a middle-sized jug or an earthenware jar-type vessel. It is well baked from light pink pure clay.		wall.th- 0.5cm
48	Jar fragment	A fragment of the body of a large jar. It has thick walls. It is well baked from light red inorganic clay. Its wall is smooth. There is a trace of a burn on its surface.		wall.th- 2.5cm
49	Jug	A fragment of the neck of a large thick-walled jug-type earthenware vessel well baked from light pink clay mixed with sand. There is a white engobe layer on the vessel. Its mouth edge is bent outwards.	19, depth: 50- 60cm	mouth.d- 28cm wall.th- 1.3cm
50	Bowl	A middle-sized bowl-type earthenware vessel. The mouth edge of the vessel is simple and is bent inwards. Its surface and interior are smooth. It is poorly baked from red clay mixed with fine sand.		mouth.d- 20.5cm wall.th.5mm
51	Base	A fragment of a base that has a flat and wide bottom. The body flows into the base in a curved line. It is poorly baked from red inorganic clay.		wall.th.1cm
52	Pitcher	A fragment of the mouth of a thin-walled pitcher-type earthenware vessel. The vessel has a narrow and relatively long neck, and a mouth edge that opens to the side. Its surface and interior are well polished. It is well baked from dark brown pure clay.		wall.th.5mm
53	Handle	A fragment of a handle round in cross section. It is mixed with red fine sand and is poorly baked. Notched patterns were made on the right side of the handle before baking.		diam-1.5cm
54		A fragment of a handle round in cross section. It is poorly baked from brown clay mixed with sand.		diam-1.8cm
55	Balanc e weight	A narrow and elongated balance weight-type tool made from riverstone. The end of the tool is broken. Three sides of it are relatively round. It is well polished as a result of use.		length-9.2cm
56	Pitcher	The mouth of a thin-walled, dark brown pitcher-type earthenware vessel poorly baked from organic clay. The edge	16	wall.th-7mm

No.	Type	Description	Unit depth	Size
		of the mouth is bent outwards. The external surface is covered with a trace of a burn.	hearth interior (Figure 18).	
57	Bowl	A fragment of the mouth of a light brown bowl-type earthenware vessel well baked from pure clay. It has a biconic shape and has a sharp shoulder-to-neck passage. The mouth edge is bent outwards. The surface is well polished. There is a layer of soot on the surface.	16 hearth interior (Figure 18).	mouth.d-16.5cm wall.th-4mm
58	Plate	A fragment of the mouth of a thick-walled red plate-type earthenware vessel well baked from clay mixed with sand. The mouth edge is straight and simple. It has a shallow shape.	19 depth 40-50cm	wall.th-1cm
59	Handle	A fragment of the handle and mouth of a bardag-type earthenware vessel. A flat and wide handle connects the neck and the shoulder. It is well baked from pure orange clay. Its surface is well polished.		width-1.7cm
60		A fragment of a handle round in cross section. It belongs to a pitcher-type earthenware vessel. It is poorly baked from dark brown clay mixed with sand. There is a layer of soot on the handle.	16 hearth interior (Figure 19).	diam.2cm
61	Handle	A fragment of the handle of middle-sized jug. It is flat and wide and connects the shoulder and the mouth edge. Its dark brown clay is inorganic and well baked.	16 hearth interior (Figure 19).	Handle width-2.5cm wall.th-7mm
62	Jar fragment	A fragment of the body of a large jar. It has thick walls and is well baked from dark brown inorganic clay. There is a trace of a burn inside.	16 hearth interior (Figure 19).	wall.th-2.3cm
63	Balance weight	A balance weight-type tool made from flat, wide and elongated riverstone. Both sides are smooth as a result of use.	16 Second hearth interior	length-12cm width-3.7cm
64	Handle	A handle round in cross section. It belongs to a pot-type earthenware vessel. There are awry notched patterns on the handle. It is believed that the handle was connected to the shoulder of the pot horizontally. It is well baked from light orange clay mixed with sand. There is a white thin layer of engobe on the surface.		diam-2cm length-7.2cm
65	Jug	A fragment of a jug-type earthenware vessel that had a funnel-shaped mouth edge. Its mouth edge is bent outwards. It is scraped out in channels from inside. The surface of the mouth edge is also embossed. It is well baked from light red clay mixed with fine sand.	25 depth:80-90cm (Figure 34).	mouth.d-26.5cm wall.th-1cm
66	Handle	A fragment of a handle with awry cut patterns made on it before baking. It is poorly baked from red clay mixed with sand.	(Figure 34).	width-2.7cm
67	Mouth fragment	A fragment of the mouth of a small earthenware vessel well baked from light orange clay mixed with sand.	(Figure 34).	wall.th-7mm
68	Jar	A fragment of the mouth of a large jar. The mouth edge is funnel-shaped and is bent outwards. It is well baked from red clay mixed with sand.	(Figure 34).	wall.th.2.5cm
69	Balance weight	A balance weight-type unit-shaped tool made from riverstone. Its colour is brown. Its surface is well polished as a result of long use. Its end is broken. Its right side and surface are concave because of use. There is also a trace of a red dye in these parts.	(Figure 34).	length-7.5cm width-2.7cm
70	Handle	An elongated and wide handle-type stone tool. The hitting side of the tool is tattered. Its end is broken. It is made from bluish solid riverstone. One side is covered with limestone.	21 depth: 80-100cm (Figure 49).	length-15cm width-5.2cm
71		A handle-type stone tool made from light grey solid riverstone. It is elongated and wide. It is well polished. There are traces of strikes at both ends. However, it is believed to have been used very rarely.	(Figure 50).	length-22cm width-7.5cm

No.	Type	Description	Unit depth	Size
72	Balance weight	An elongated light blue solid stone tool. One side of it became flat as a result of long use and looks like an oval-shaped pipe. Its end is broken.	(Figure 54).	length-13.5cm width-3cm
73	Grindstone	Bluish tool made from solid riverstone. It is round. It was used as a grinder on all sides of the stone. For this reason, the stone has a multifaceted shape. It is unbroken.	(Figure 47).	diam.7.5x7.5cm
74	Bowl	A fragment of bowl-type earthenware vessel with a biconic body. The mouth edge is narrow and bent outwards. The shoulder has a delicate channel-like line. The surface and interior are polished. It is well baked from orange clay mixed with fine sand.	22 depth: 80-100cm	wall.th 8mm
75	A fragment of an item	A fragment of a pipe-shaped clay piece shaped as a protrusion. Its end is broken. It is well baked from light yellow pure clay.		length-3.2cm diam-1cm
76	Grinding mill	Grinding mill from white porous tufa stone. It is flat, wide, elongated and boat-shaped. One side has become concave as a result of long use. Half of it is broken.	(Figure 45).	length-25.5cm width-11cm height-5.5cm
77	Grinding mill	Fragment of a grinding mill made from grey porous riverstone. The flat side of the tool became concave and smooth as a result of use. It is wide, tall and boat-shaped. There is a concave place on one side. The other bottom side is broken.	(Figure 46).	length-18cm width-11cm height-7.5cm
78	Spindle whorl	Spindle whorl made from clay. It has a biconic shape and a two-sided hole in the middle.	21 depth:100cm (Figure 56).	diam-2.8cm height-2cm
79	Handle	A fragment of a handle round in cross section. It is believed to connect the mouth edge of the vessel to the shoulder. It is well baked from red inorganic clay.	22 90-100 cm	diam-1.8cm length-6cm
80	Jug	A fragment of the mouth of a middle-sized jug. The mouth edge is turned outside and is finished with a comb-like tool using the twisting pattern. It has a relatively narrow neck. It is well baked from dark brown clay mixed with sand. There are traces of burns on its surface.	22 hearth trace (Figure 35).	mouth.d-18.5cm wall.th-6mm
81	Jar	Fragments of a large jar. The body of the thick-walled jar made from light red clay mixed with sand is wide, but suddenly becomes narrow towards the base. The base has a weak sole. It is poorly baked.	22 depth:1 metre	base.diam-19cm wall.th-1-1.2cm
82		A fragment of the body of a poorly-baked thick-walled jar made from grey inorganic clay. There is a fragment of a belt-like embossed pattern going from the body of the jar. There are traces of burns inside.	(Figure 40).	wall.th-2.5cm
83	Grindstone	An elongated, flat and wide grindstone-type tool made from riverstone. It is made from grey, solid and smooth riverstone. One side is flat as a result of use. It is intact.		length-23.5cm width - 6cm
84		A fragment of a brown grindstone-type tool made from smooth riverstone. One side of the tool is flat as a result of use.		width-7cm length-11.2cm
85	Whetstone	A balance weight-type tool made from bluish riverstone. It is flat and wide. It has become flat as a result of long use. It is smooth.	(Figure 51).	length-12.2cm width-3.2cm
86	Jug	A fragment of a small thick-walled jug well baked from red clay mixed with sand. It has a tall sole.	23 depth:20-40cm	wall.th-1cm
87	Base	A fragment of the base of a thick-walled earthenware vessel made from red clay mixed with sand.		wall.th-7mm
88		A fragment of the base of a thick-walled earthenware vessel well baked from dark pink clay mixed with sand.		wall.th-7mm
89		A fragment of the base of a thin-walled earthenware vessel well baked from light yellow clay mixed with sand.		

No.	Type	Description	Unit depth	Size
90	Jug	A fragment of a thick-walled jug-type earthenware vessel well baked from light pink clay mixed with sand. The mouth edge of the vessel is funnel-shaped and is bent outwards. There is a trace of a black burn on the mouth edge. A twisted pattern was made on the mouth edge before baking. The neck suddenly flows into the shoulder.	(Figure 44).	wall.th-7mm
91	Neck	A fragment of the neck of a small jug or pitcher. It is well baked from red clay mixed with sand.	(Figure 44).	wall.th-7mm
92	Bardag	It has thick walls and is well from light orange clay mixed with sand. The biconic-shaped bardag has a wide and ribbon-like handle on its shoulder. The middle of the handle is channel-like in cross section. The neck is well polished.	(Figure 44).	wall.th-1cm
93	Plate	A fragment of a plate-type earthenware vessel well baked from brown clay mixed with sand. The mouth edge is straight and flat. The shoulder is poorly polished.		wall.th-8mm
94	Handle	A fragment of a handle round in cross section belonging to a large earthenware vessel. There are awry patterns under each other on the handle. It is well baked from red clay mixed with sand.		diam-2.5cm
94 ^a		A fragment of the handle of a thick-walled earthenware vessel well baked from grey clay mixed with sand. The handle is simple and is shaped as a protrusion.		
95	Balance weight	A fragment of a wide and flat balance weight made from stone. One side is flat as a result of use.		wall.th-7mm
96	Jar	A fragment of the body of a large jar. It is well baked from red clay mixed with sand. There are traces of soot on its surface.	27 depth:80-90cm	wall.th-1.5cm
97	Base	A fragment of the base of a thick-walled dark brown earthenware vessel. The clay is mixed with sand and is poorly-baked.		diam-9 cm wall.th-7mm
98	Bowl	A fragment of a thin-walled red bowl-type earthenware vessel with a biconic body. The mouth edge is straight and narrow. It is bent outwards.		wall.th-5mm length.14cm
99	Balance weight	An elongated and narrow balance weight-type stone tool. It is well polished as a result of use.		length-14cm
100	Jug	A fragment of a small jug-type earthenware vessel. It has an elongated pear-shaped body. It has a narrow neck and a wide mouth. Its mouth edge is bent outwards. There is a horizontal circular handle on its shoulder. It is well baked from light red clay mixed with sand. Its surface is well polished. There is a trace of a burn on the vessel.	25	neck.h-1.8cm height-14.5cm body.d-14cm
101	potsherd	A fragment of an earthenware vessel well baked from grey clay. The clay is mixed with sand and was baked on stable simmering fire. Its surface is glazed.	Third hearth trace	
102	Pitcher	A fragment of a narrow and long-necked pitcher. The mouth edge is bent outwards. Its dark brown clay mixed with sand is well baked. Its surface is well polished.		wall.th-9-7mm
103	Jar	A fragment of the mouth of a large jar. Its funnel-shaped mouth edge is thick and bent outwards. It is well baked from red clay mixed with sand.	25 depth: 80cm	wall.th-1.8cm
104	Jug	A fragment of a thick-walled jug-type earthenware vessel well baked from light red clay mixed with sand. The mouth edge of the vessel is wide and bent outwards. The shoulder and the mouth edge are connected by a wide and ribbon-like handle. A channel-like furrow is made in the middle of the handle. There is a button-shaped moulded pattern on the place that joins the mouth. There is a trace of a burn on it.		wall.th-6mm
105		A fragment of the mouth of a jug poorly baked from dark brown clay mixed with sand. The mouth edge is slightly edged and bent outwards. The neck is well polished by hand. The base is flat and wide. The surface is coarse.		mouth.d-1cm wall.th-7mm

No.	Type	Description	Unit depth	Size
106		A flat and wide base. It is believed to have belonged to a jug-type earthenware vessel. It is well baked from dark brown clay mixed with sand.		base.d-10.5cm wall.th-5mm
107	Jurdak	A jurdak-type earthenware vessel well baked from light orange clay mixed with sand. It has a narrow neck, a mouth bent to the side and a pear-shaped body. A trace of a burn can be observed near the mouth.	Unit 13. Figure 10.	wall.th-6mm
108	Jug	A fragment of a small jug-type earthenware vessel. The mouth edge opens to the side. Its balloon-shaped body gradually flows into the base. Its base is flat and wide. It is well baked from dark brown clay mixed with sand.		wall.th-6mm base.d-13cm
109	Plate	A fragment of a thick-walled plate-type earthenware vessel well baked from red pure clay. the vessel's mouth edge is well polished and has a channel-like line. On the shoulder, there are two patterns shaped as protrusions with a zoomorphic image or handles. The surface of the vessel is well polished.	25 Second hearth trace	mouth.d-23cm wall.th-8mm
110		A fragment of plate-type earthenware vessel well baked from dark brown clay mixed with fine sand. The vessel's mouth edge is bent inwards. Its surface is covered with black soot. Two deep channel-like lines cross the shoulder.		wall.th-mm
111	Base	A fragment of the base of a middle-sized earthenware vessel. The body of the vessel sharply flows into the base. It is clearly visible that it has a small sole. There is a trace of a burn on its surface. It is well baked from light pink clay mixed with sand.		wall.th-5mm base.d-9cm
112	Jug	A fragment of the mouth of a dark grey-brown jug-type earthenware vessel mixed with sand. The mouth edge was covered with awry patterns before baking. Its surface is covered with soot.		wall.th-7mm
113	Handle	A fragment of a handle round in cross section. The connecting place remains on the body of the vessel. It is poorly baked from light brown clay mixed with sand. There is a trace of a burn inside.		Handle diam-2cm wall.th-7mm
114	Earthen ware	A fragment of a grey earthenware vessel well baked from clay mixed with sand. There is a trace of the handle on it. Its surface is covered with soot.		wall.th-8mm
115	Base	A fragment of the base of a thick-walled light red vessel. The sides of the base have protrusions.	23 depth: 50-70	wall.th-1.2cm
116	Plate	A fragment of a large plate-type earthenware vessel. The mouth edge opens sideways. It is well baked from red clay mixed with sand.		wall.th-1.5cm
117	Cauldron	A fragment of a large earthenware cauldron. The mouth edge is bent outwards. It is well baked from red clay mixed with sand.		wall.th-1cm
118	Base	A fragment of the base of a bardag or sahang-type earthenware vessel. It is well baked from light orange clay mixed with fine sand. Its exterior surface is covered with a thin layer of engobe.		Base diam-10cm wall.th-7mm
119	Sahang fragment	A fragment of a sahang-type earthenware vessel. It is thin-walled and is well baked from grey pure clay. There is a place of a wide, ribbon-like handle on the shoulder. Only its trace can be observed inside.		wall.th-5mm
120	Bowl	A fragment of a thick-walled bowl-type earthenware vessel well baked from pure clay. The mouth edge is straight. It is bent inwards from the shoulder. Its external surface is polished.		wall.th-7mm
121	Handle	A fragment of the handle of an earthenware vessel well baked from light pink clay mixed with sand. The handle is on the shoulder of the vessel and is wide and ribbon-like.		Handle width-2.2cm
122	Jug	A fragment of the mouth of a jug well baked from light orange clay mixed with sand. The mouth edge is funnel-shaped and is bent outwards. The shoulder is covered with awry patterns.		mouth.d-14cm wall.th-5mm
123	Bowl	A fragment of a thin-walled bowl-type earthenware vessel well baked from red pure clay. It has a biconic shape. Its mouth edge is thin and bent outwards.		wall.th-4mm

No.	Type	Description	Unit depth	Size
124		A fragment of a thin-walled bowl-type earthenware vessel well baked from red clay mixed with sand. Its mouth edge is bent outwards. Its body is round.		wall.th-5mm
125	Pitcher	A fragment of a long-necked pitcher. Its mouth edge is bent outwards. It is well baked from red pure clay. Its external surface is polished.		wall.th-5mm
126	Handle	A fragment of a handle round in cross section. There are awry cutting patterns on the handle. It is well baked from grey clay mixed with sand.		diam-2.6cm
127		A fragment of a ribbon-like handle in cross section. It belongs to a bardag-type earthenware vessel. It is well baked from light pink clay mixed with fine sand.		width-2.3cm
128	Balance weight	A balance weight-type tool made from grey riverstone. It is elongated and flat. Its end is broken. One side is concave because of use.		length-11.5cm width-2.7cm
129	Jug fragments	Fragments of a middle-sized vessel. The neck gradually flows into the shoulder. The clay is pure. The neck is covered with cream-coloured engobe and glazed. The surface of the vessel is decorated with parallel elongated horizontal lines. Since the lines are covered with white engobe, they stand out. The part of the neck that flows into the shoulder is covered with notched awry almond-shaped lines. A line consisting of scratched wave-like patterns passes under them on the shoulder. The vessel is well made. The clay is light pink. The walls are thin.	depth: 80cm-1.1m	
130		Fragments of the body of a middle-sized thin vessel (two pieces). The clay is pure and well-baked. Its surface is decorated with scratched lines. The colour of the clay is pink. Its surface is covered with whitish-yellow engobe and glazed.		wall.th-0.3-0.5cm
131		A fragment of the body of a middle-sized thin-walled vessel. It is well baked. Its clay is light pink. Its surface is embossed with thin scratched lines. Its surface is glazed and covered with cream-coloured engobe.		wall.th-0.4cm
132	Shoulder	A fragment of the shoulder of a thin-walled vessel. It is well made. The colour of the clay is reddish. Its surface was glazed, covered with reddish-brown engobe and separated into lines with whitish engobe. Patterns of scratched awry lines can be seen on the part of the neck that flows into the shoulder.	(Figure 38).	wall.th-0.3cm
133	Body	A fragment of the body of a small stout-bodied vessel. The clay is pure. It is strong and well-baked. Its clay is cream-coloured. Its surface is covered with cream-coloured engobe and lined with white engobe. A pattern of convex wave-like parallel lines was made on the shoulder with the help of tweezers.		wall.th-0.5cm
134	Mouth	A fragment of the mouth of a large jar. It has a wide mouth. Its wide and low neck gradually flows into the shoulder. Its clay is mixed with sand. Its mouth edge is flat and wide. Its walls are thick. Its colour is red. A wave-like pattern is engraved on its mouth edge.	25 depth:30-50cm (Figure 41).	Mouth width-5-5.5cm wall.th-1.5cm
135		Half of the body of a middle-sized kheyra. The mouth edge is straight and glazed. Its slightly concave neck is separated from the body with a rib. The clay is slightly mixed with sand. It is well baked and made, though at an unstable temperature. Its surface is polished. The colour of the clay is pink. The body starts from the rib and becomes narrower towards the bottom.	(Figure 42).	mouth.d-22cm wall.th-0.6-1cm
136	Neck	A fragment of the neck of a middle-sized narrow-necked pitcher-type vessel. Its mouth is slightly bent and opens to the side. The mouth edge is round. Its slightly tall neck gradually flows into the shoulder. Pores appeared on its surface in the process of baking. Its interior is dark and exterior pink. There are traces of soot on both sides. The composition of the clay is mixed.	27 depth: 80cm-1m (Figure 40).	neck.h-9cm wall.th-0.7cm
137		A fragment of the neck of a middle-sized jug-type vessel. The mouth opens slightly to the side. Its narrow neck gradually flows into the shoulder. The mouth edge is round. The clay contains a lot of sand. It is handmade and coarse. Its surface		neck.h-4.5cm wall.th-1cm

No.	Type	Description	Unit depth	Size
		is covered with light pink engobe. Whitish engobe traces are also visible.		
138		The part of the body of a middle-sized jug-type vessel connected to the neck. The mouth opens slightly to the side. Its edge is round. Its low neck flows directly into the body. It is well made. Its colour is light pink. There are traces of soot on it.		wall.th- 0.7cm
139	Handle	The lower part of the pipe-shaped handle of a middle-sized vessel. It is round in cross section. It is connected to the vessel vertically in a semi-circular way. Its surface is covered with awry protruding lines. The clay contains sand. It is well baked. The colour of the clay is pink. Its surface is covered with light greyish engobe.		
140	Mouth	A fragment of the mouth of a bowl-type vessel. The mouth edge is straight and bent inwards. Its concave neck is separated from the body with a rib. The body starts from the rib and suddenly becomes narrow towards the bottom. It is strong and well-baked. Its colour is grey. Its surface is polished. There are traces of soot on it.		Mouth width- 1.3cm wall.th- 0.7cm neck.h- 1.5cm

8 APPENDICES

8.1 REFERENCES

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8.2 FIGURES

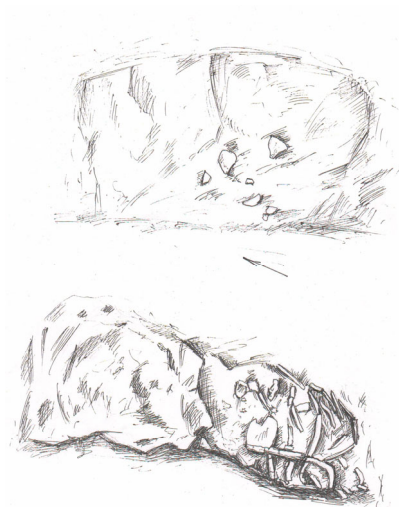


Figure 3. burnt stain; Grave 1, Unit 15.

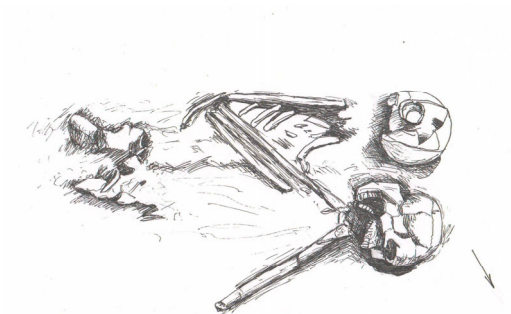


Figure 4. Grave 3

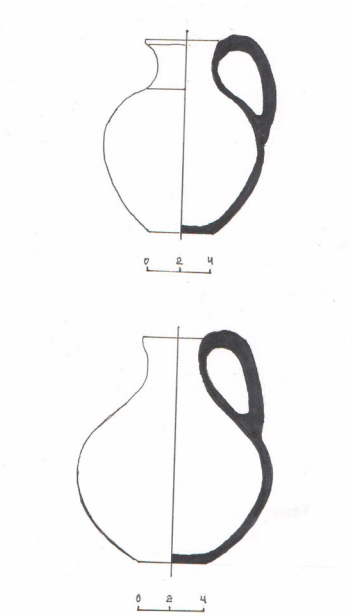


Figure 5. Narrow-necked jug and cup

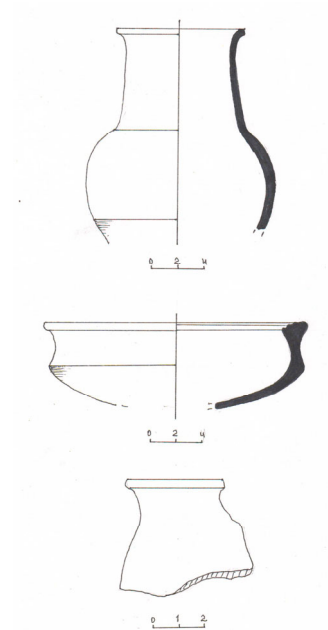


Figure 6. Pitcher, bowl and jug fragment

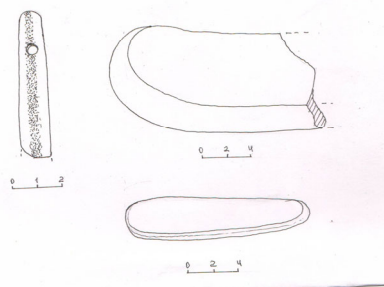


Figure 7. Grindstone and pendant.

8.3 PHOTOS



Figure 8. Stone setting, Unit 11. View to southwest.



Figure 9. Pottery concentration, Unit 11. View to northwest.



Figure 10. Jurdak, Unit 13.



Figure 11. Burn soil, Unit 15. View to southeast.



Figure 12. Grave 1, Unit 15. View to southeast.



Figure 13. Grave 1, Unit 15. View to southeast.



Figure 14. Grave 3, Unit 15. View to northwest.



Figure 15. Grave 3, Unit 15. View to northwest.



Figure 16. 1-iron knife blade (Inv 30a) 2-bardag (Inv 30). Grave 3.



Figure 17. Hearth No 1, Unit 16. View to south.



Figure 18. Jug (Inv 56) and bowl mouth fragments (Inv 57).



Figure 19. Handles; jar body fragment (Inv 60-62).



Figure 20. Hearth No 2, Unit 16. View to southeast.



Figure 21. Fragments of large earthenware vessel, Unit 19. View to southeast.



Figure 22. Large jar fragments, Unit 21. View to southeast.



Figure 23. Burnt clay surface, Unit 19. View to southeast.



Figure 24. Animal bones and river stone, Unit 21. View to north.



Figure 25. Hearth No 3, Unit 22. View to northeast.



Figure 26. Furnace No 1, Unit 22. View to north.



Figure 27. Large vessel, Unit 23. View to northeast.



Figure 28. Round burnt soil and potsherds, Unit 23. View to northeast.



Figure 29. River stones around vessel, Unit 25. View to east.



Figure 30. Bottom of large jar, Unit 25. View to northwest



Figure 31. Hearth No 4



Figure 32. Bottom of large jar, Unit 23. View to southeast.



Figure 33. inv.11,13-handles; inv.12-jug body.



Figure 34. inv.65, 67, 68-vessel mouths; inv.66 – fragment of handle; inv.69-whetstone.

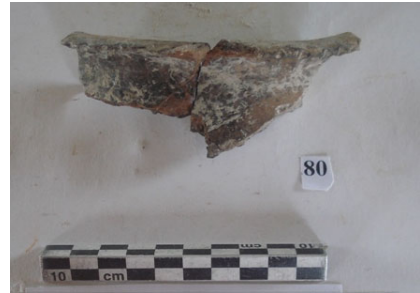


Figure 35. Jug with wide and low neck

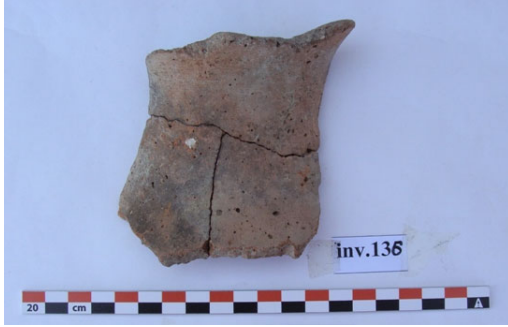


Figure 36. Jug with narrow and tall neck.



Figure 37. Vessel with wave-like patterns (Inv 21).



Figure 38. Embossed vessel (Inv 132).



Figure 39. inv.6, 8-flat bases; inv.7-vessel with notched patterns



Figure 40. Fragment of jar body (Inv 82)

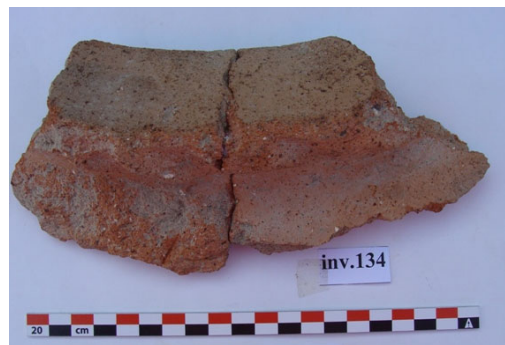


Figure 41. Fragment of jar mouth (Inv 134).



Figure 42. Kheyra (Inv 135)



Figure 43. inv.32-fragment of pitcher body; inv.33-zoomorphic protrusion



Figure 44. inv.90, 91-jug mouths; inv.92-fragment of cup body



Figure 45 . Grindstone (Inv 76).



Figure 46. Grindstone (Inv 77).

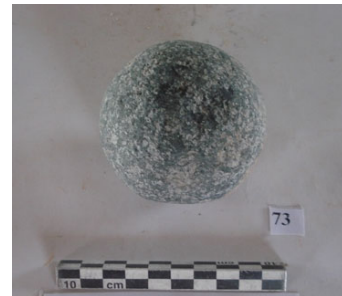


Figure 47. Grindstone (Inv 73).



Figure 48. Grindstone (Inv 31).



Figure 49. Handle (Inv 70).

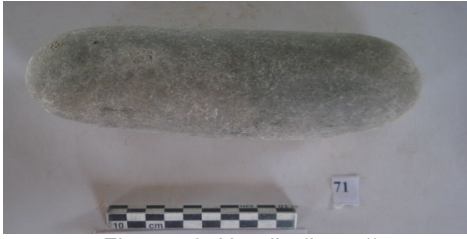


Figure 50. Handle (Inv 71).



Figure 51. Whetstone (Inv 85).



Figure 52. Whetstone (Inv 70).



Figure 53. Whetstones (Inv 36, 37).



Figure 54. Whetstone (Inv 72).



Figure 55. Balance weight (Inv 5).



Figure 56. Clay spindle whorl (Inv 78).