# Azerbaijan National Academy of Sciences of <br> <br> Institute of Archaeology and Ethnography 

 <br> <br> Institute of Archaeology and Ethnography}

## BRIEF SCIENTIFIC REPORT

## Excavation of the Garajamirli settlement at KP 299.9 SCPX pipeline

Report Author:
VAQIF ARIF OGHLU OSəDOV
Institute of Archaeology and Ethnography
Leading fellow,
PhD in history

Baku-Azerbaijan
2018

## 1 SUMMARY

The report contains information on the course of archaeological excavations and cultural remains that were recorded in the period 19 January - 4 February 2016 at the Garajamirli settlement located at 299.920 km of the SCPX main export gas pipeline corridor outside the Garajamirli village in Shamkir District. During the archaeological excavations, hearths, layers of ashes, as well as ceramics, metal and stone artefacts were discovered. Archaeological materials that clarify the economic activity and lifestyle of villagers were obtained here. Based on the analysis of the archaeological materials, it was established that the settlement belonged to the Middle Ages and a village-type settlement existed here in the 11th and 12th centuries. The excavated area is approximately 64 m southeast of the area that was excavated as Garajamirli I in 2005 as part of the BTC project (Agayev, 2006).

## Contents

1 SUMMARY ..... 1
2 INTRODUCTION ..... 2
2.1 SITE DISCOVERY ..... 2
2.2 BRIEF DESCRIPTION OF THE SITE ..... 2
2.3 TIMING OF THE EXCAVATIONS ..... 2
3 RESULTS OF ARCHAEOLOGICAL EXCAVATIONS ..... 2
3.1 GENERAL DESCRIPTION OF THE SITE ..... 2
3.2 GENERAL DESCRIPTION OF CULTURAL LAYERS ..... 3
4 ARCHAEOLOGICAL FINDS ..... 5
4.1 GENERAL SUMMARY OF TYPES AND NUMBERS OF FINDS ..... 8
5 ANALYTICAL RESULTS ..... 9
5.1 COLLECTION OF RESULTS ..... 9
6 DISCUSSION ..... 9
6.1 INTERPRETATION OF RESULTS OF EXCAVATIONS ..... 9
7 INVENTORY ..... 10
8 APPENDICES ..... 15
8.1 REFERENCES ..... 15
8.2 ILLUSTRATIONS ..... 16
8.3 PHOTOS ..... 19

## 2 INTRODUCTION

### 2.1 SITE DISCOVERY

The Garajamirli settlement located at KP299.92 of the SCPX line was registered in the first and second stages. Archaeological excavations were carried out and rich archaeological material was found at this monument when the BTC main export oil pipeline was being built nearby in 2005. These revealed occupation debris of the fourth to sixth century AD (Agayev, 2006). Therefore, archaeologists were aware that this was an area of high potential. Since the area of the monument is still used for sowing crops, as in previous years and its relief is not different from the surrounding area, it is difficult to visually identify the existence of a settlement here. Only surface ceramics and stone show the possible presence of an archaeological site here. The Garajamirli settlement was originally registered on the basis of an agreement between ANSA and BP (SCPX) and listed as a site for archaeological excavations in the SCPX corridor.

### 2.2 BRIEF DESCRIPTION OF THE SITE

The Garajamirli settlement is located in Shamkir District at an altitude of 208-210 metres above sea level, at coordinates N-4524275.776; N-4524237.982; E-8606286.686; E-8606250.962. The settlement is surrounded by sowing areas on all sides. The monument is surrounded by hills and inaccessible valleys. Soft black soils have been used as sowing areas for many years.

### 2.3 TIMING OF THE EXCAVATIONS

The ANSA IoAE archaeological expedition team conducted archaeological excavations in the Garajamirli settlement from 19 January to 4 February 2016 under the leadership of the PhD in History and leading fellow Vagif Asadov and with the participation of employees of the Institute PhD in History, leading fellow Dmitry Kirichenko and junior fellow Ahliman Abdurahmanov and chief laboratory assistant Farhad Farmanov. 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 area where the Garajamirli settlement is located is hilly. The monument is 208-210 metres above sea level, at coordinates N-4524275.776; N-4524237.982; E-8606286.686; E-
8606250.962. The name given to the settlement is of a general character and is administratively part of the village of Garajamirli in Shamkir District. The name was given to the monument during BTC excavations. The settlement is located on the SCPX route KP -299.920. The surface of the settlement is a sowing area. About 2.5 km southwest there is a sparse forest in the form of a strip. This lowland area, where chernozem sowing areas are available, has been used as a planting area for years.


Figure 1. Schematic plan of excavation.
When visiting the area where the settlement is located, as well as the surrounding areas, surface ceramics may be encountered. The artefacts found in the areas mentioned above are important in terms of the archaeological evaluation of these areas. But in general, these areas are reminiscent of the typical ceramics of the Garajamirli settlement. Thus, in general, the territory of Garajamirli is taken as a single archaeological zone. The diverse range of ceramic samples that have been around for hundreds of years in the area allows us to come to the conclusion that it was inhabited during that time.

The location of the settlement is favourable in terms of town planning. There is a fertile land fund and a water source for farming in the vicinity of the settlement. It is possible that cattle breeding was more important for residents of the settlement. But the artefacts prove that there were very favourable conditions for farming too.


Figure 2. General view of excavation. View to east.

### 3.2 GENERAL DESCRIPTION OF CULTURAL LAYERS

During the exploration work and inspection on SCPX Pipeline KP -299.920, sherds of pottery were found here. It was decided to carry out trial excavation work at this section of the pipeline for a more precise inspection of the site.

The excavations were carried out using machinery under the supervision of archaeologists in a strip 50 m long and 1.3 m wide. The depth of the excavation was increased to 1 metre. A cultural layer was observed on both walls of the excavated strip during the excavation. This layer was almost from 50 to 60 cm deep from the ground level. Only at a depth of 1 metre from the ground level, were traces of clay burned in the excavation wall (in the form of a thin strips) and obsidian fragments found (Figure 15).

During the excavations, hearths, ceramic vessel fragments (sometimes in the form of small balls) and remains of burnt animal bones were found in various locations (Figure 16). Thus, the inspection established that there was a settlement here and it was decided to carry out largescale archaeological excavations in the part of the settlement bisected by the pipeline, using the information provided by the trial excavation.

The territory where the excavation site was selected was in the new pipeline corridor, 40 metres from the BTC and SCP pipeline corridor. The length of the excavation site was 68 metres and the width was 4 metres. 13 units ( $4 \times 4 \mathrm{~m}$ ) were laid out. The units were numbered in the north-east-south-west direction and excavations in the form of a chessboard were planned. Initially, the 20 cm thick top soil layer of the site was removed by machinery and placed on the edge of the excavation site. Although planting has been done here for many years, surface ceramics have been encountered. This indicates the presence of a cultural layer here. The 52-metre excavation strip was also within the cultivated area. Some ceramic samples, fragments of baked bricks and animal bones were found inside the $20-\mathrm{cm}$ soil layer.

During excavations it was found that the Garajamirli settlement has one layer and the thickness of the cultural layer is between 60 and 70 cm . Observations revealed that the 25 cm thick upper layer of the cultural stratum is not rich in material cultural remains. Naturally, this was due to the fact that the topsoil had been cultivated for many years. The layer of the cultural stratum rich in coal, ash, fragments of earthenware vessels, animal and bird bones starts at 20 cm and continues to a depth of 70 cm . Several hearths were explored in the excavation.

The depth of the excavated units at the excavation site was as follows:
Unit 1 - 80cm deep
Unit 2 - not excavated
Unit 3-80cm deep
Unit 4-100cm deep
Unit 5-80cm deep
Unit 6-100cm deep
Unit 7-100cm deep
Unit 8-40cm deep
Unit 9-100cm deep
Unit 10-40cm deep
Unit 11-90cm deep
Unit 12-40cm deep

Unit 13-90cm deep
Excavations first started in Units 1, 3 and 5. Fragments of pottery, baked bricks and animal bones were discovered from the first layer. In addition, coal fragments were found in Unit 1 and iron blades in Unit 3.

In Unit 3, a large hearth was discovered at a depth of 50 cm from the surface of the earth, 1.5 metres from the southeast wall of the unit (No. 1). The diameter of the hearth was 1 metre (Figure 17). Although the site of the hearth was completely burned, it consisted of a thin layer. This indicated that the hearth had not been used for a long time.

In Unit 4, another hearth was found at a depth of 50 cm from the surface of the earth (No. 2). The hearth was located 50 cm from the north wall of the unit and 1.5 metres from the southeast wall (Figure 18).

In addition, a similar burnt layer was observed on the northeast wall of the unit. The burnt layer stretched 1 metre southeast from the northeast corner of the unit. The length of the layer was 60 cm and thickness 0.7 cm (Figure 19). Another hearth (No 3) was found (Figure 20) when this layer was cleared.

A small hearth (No 4) was discovered in Unit 7, 1.3 metres from the southeast wall of the unit, 50 cm below the surface (Figure 21).

## 4 ARCHAEOLOGICAL FINDS

## Ceramics:

The ceramics found in the excavation site are identical with Fakhrali and Dashbulag materials in terms of form and content. We can attribute these materials to the 11th-12th centuries based on typological features. There are more unglazed earthenware items than glazed ones and they greatly outnumber them.

Glazed earthenware items have also been found among surface materials, and they are mainly rims, shoulders and bodies of clay vessels. There are more pure clay well-polished vessels.

Items from the excavation site are even more perfect and very varied. These samples are jars, pitchers, mugs, pots, cups, plates, bowls, fins, vases, salt cellars, and basin-type clay vessels. Fragments of lids were also discovered.

Among the ceramic samples, the most commonly found items are fragments of pink, red and grey dishes. Sometimes brown, orange and cream-coloured clay vessels are also found.

Some of the fragments found at the excavation site belong to jug- and jar-type vessels. Their broad mouths are folded to the side (Figure 3; 22-23). The low and wide necks gradually flow into the shoulder (Figure 24-25). The bases are wide and flat (Figure 26-27). Sometimes, narrow bases are also found. Jars differ from jugs only in size. One of the jug fragments is part of the mouth of a mid-sized jug-type vessel. Its mouth opens to the side. The edge of the mouth is broken. The wide and low neck gradually flows into the shoulder. The neck is covered with a strip in the middle. It is thin walled $(0.5 \mathrm{~cm})$. The clay is pure, the colour is dark pink. There are traces of soot on it (Figure 24). Another find is part of the mouth of a large jar. A wide and flat mouth folds to the side. The small and wide neck gradually flows into the shoulder. It is thick walled. The surface is polished on sides and is covered with brown engobe. The clay is mixed with shells and
sand. Its colour is dark pink. The width of the mouth is 6.5 cm , the height of the neck is 5 cm (Figure 25).

Bowls are wide-mouthed. The surface of the bowls is usually glazed on both sides. One of the discovered fragments is part of the mouth of a bowl-type vessel. Its body goes up, starting from the base. The edge of the mouth is framed by thin parallel lines from inside. Its colour is pink. The interior is covered with engobe and decorated and glazed in green and whitish colours. The thickness of the wall is 0.8 cm (Figure 28). The second fragment is part of a small shallow bowl. Its side flows into the oval base. The edge of the mouth is wide and a little thick. Its clay is pure, its colour is red. The edge of the mouth and the interior are decorated with brown lines on a greenwhite background and glazed. Its back is polished. The width of the mouth is 1.6 cm , the thickness of the wall is 0.6 cm (Figure 29).

Handles belonging to clay cooking pots have been found at the excavation site. They are flat and triangular-shaped and ribbon-like or oval in cross-section. They are connected to the vessel horizontally. Sometimes, there is a furrowed line in the middle along the handle. One of the fragments obtained is the handle of a large cooking pot. The handle is shaped as a triangular auricle. It is connected to the vessel horizontally. It is flat and ribbon-like in cross-section. It goes to the side and upwards and becomes forked at the top. At the bottom there is a depression made by a finger. From the depression, a furrowed strip goes on both sides. The cooking pot is thinwalled. Its clay is grey, its surface is light pink. The size of the handle is $10 \times 4.5 \mathrm{~cm}$ and the thickness of the wall is 0.7 cm (Figure 30). The second fragment is also part of the handle of a cooking pot. It is flat and shaped as an auricle. There are two furrows on its surface along the handle. It is connected to the vessel horizontally. Its clay is grey, its surface is dark pink. The size of the handle is $8 \times 3.6 \mathrm{~cm}$, and its width is 1.7 cm in cross-section (Figure 31).

Fragments of a plate discovered reveal that their wide mouths are slightly bent to the side. Their bottom is wide and slightly oval or flat. Plates are usually polychromed on both sides and decorated with geometric and floral patterns. Monochrome painted plate fragments are also sometimes encountered (Figure 32). One of the fragments obtained is a fragment of the bottom of a shallow plate. Its bottom is wide and slightly oval. Its clay is pure and its colour is red. Its interior is decorated with green and yellow spots on a white glazed background. In addition, the centre of the dish is framed by two brown parallel lines. The interior of the circle is decorated with scratched crescents and perpendicular ornaments, and these scratches are also filled with brown colour. It is thick-walled. Its bottom is polished. The thickness of the wall is $0.5-1 \mathrm{~cm}$ (Figure 33). The second fragment is also part of a shallow plate body. Its bottom is wide and slightly oval. It is thick-walled. The surface was covered with whitish engobe on both sides, and the interior was decorated and glazed with brown and light green stripes. The thickness of the wall is 1 cm (Figure 34).

During the excavation, fragments of a can-type vessel were also discovered (Figure 9; 13). This is the upper part of the body of a can-type vessel. It has a narrow neck. The mouth is folded to the side. The edge of the mouth is broken. Its neck flows directly into the pear-shaped body. In the back, there is an oval ribbon-like handle that connects the neck to the body and is oval in cross-section. It has thin walls. The clay is mixed with fine sand and is dark pink. Its top is covered with yellowish engobe, is polished and decorated with vertical red ray-shaped stripes. The body diameter is 14 cm , neck height -7 cm , wall thickness -0.5 cm (Figure 35).

Another find is a fragment of a pitcher-type vessel. It is part of the neck of a large pitcher-type vessel. Its narrow mouth flows directly into the neck. Its neck is narrow and long. Its lower part is shaped as a staircase. On the back there is a trace of a wide ribbon-like handle, which connects to the mouth of the vessel and is oval in cross-section. Undoubtedly, the other end of the handle was attached to the body of the vessel. The pitcher is thin-walled. This was done to make it lightweight during transportation. The clay is mixed with fine sand and is pink. The surface is
polished. The width of the handle is 5.1 cm in cross-section and wall thickness is 0.6 cm (Figure 36).

At the excavation site, fragments of a tray-type vessel were also discovered. The bottom is wide and flat. Its low sides begin from the base and open towards the top and sides. Sometimes the mouth is edged. The surface of the trays are decorated with polychrome geometric and floral patterns. However, fragments of simple unglazed trays are also occasionally encountered. One of the pieces is part of the body of a tray-type vessel. Its bottom is wide and flat. Underneath there is an elongated crooked ornament made by drilling. The interior is divided into squares with notched lines. The inside of the line that frames the squares and passes through mouth edges is covered with white glaze. Underneath, the edge of the mouth is glazed with whitish-green colour from the bottom. It is thick-walled. Its clay is pure and pink. The thickness of the wall is 1 cm (Figure 37, inv.13). It is part of the bottom of a tray-type vessel. Its bottom is wide and flat. The inside is painted green on the engobe, the edges are framed and glazed in light and dark colours in parallel. Its bottom is polished. Its wall are thick. Its clay is pure and pink. The thickness of the wall is 0.9 cm (Figure 40).

During the excavations, a fragment of a salt cellar vessel was also found. It is a fragment of the base of a small-sized salt cellar vessel. The base is narrow and heeled. The body becomes wider from the base to the sides. Its clay is pink. The inside is glazed with dark green colour. Its bottom is covered with whitish engobe. It has thin walls. The thickness of the wall is 0.4 cm (Figure 37, inv.15).

Clay lids. From the lid fragments, it is clear that the lids are disc-shaped, have flat bottoms and bulgy tops. No decorative elements were found on them. One of the samples obtained is part of a large lid. It is disc-shaped. Its middle is bulgy on the top. Its edges are smooth. It is thick-walled. Its surface has yellowish engobe. Its clay is mixed with sand, its colour is pink. The thickness of the wall is 2 cm . The second find is a fragment of a small container and has thin walls. It is discshaped. Its edges are smooth. Its clay is mixed with sand, its colour is pink. The thickness of the wall is 0.5 cm (Figure 38-39).

One of the interesting finds obtained during the excavation of the Garajamirli settlement is a fragment of a medium-size clay pot. Its bottom is oval-shaped and is bent inwards. The edge is decorated with printed patterns. It is thick-walled. The clay is mixed with sand and is pink. The surface has yellowish engobe on both sides. The diameter is 2.4 cm , mouth width -1.8 cm , wall thickness -1.5 cm (Figure 41). The second find is part of a clay hook. It is pipe-shaped and bent. The middle of the pipe-shaped part has a hole. The hole extends upwards. The part where reed is attached is edged. Its clay is pure, its colour is pink. Its top is painted in red. The diameter is 1.7 cm (Figure 37, inv.16). Note that similar hooks have been found near the Dashbulag settlement in the SCPX pipeline project and away from the pipeline, in the Shamkir town excavation site. Another interesting find is a fragment of stone considered to be a weight for a plumb line used in construction. It is cone-shaped. The inside is carved. It gets thinner towards the top. The top is covered with two parallel notches. In the middle, there are engraved patterns made from elongated carved lines in one row under vertical notched lines in two rows. Its top and interior are polished and covered with white engobe. Its diameter is 7.7 cm (Figure 44).

Most of the earthenware vessels are made on a pottery wheel. Their clay is pure or mixed with sand. Sometimes they are decorated with scratches, notches, printed patterns, sunken dots, and sometimes covered with red paint. Some of the earthenware vessels have handles that are ribbon-like, round and oval in cross-section. Often, the middle of the handles has furrows. Most of the discovered earthenware containers are polished and covered with grey or yellowish engobe. The fragments of glazed vessels that were discovered mainly belong to trays, plates, salt cellar and bowls. Inside they are covered with polychrome geometric or floral patterns, or completely covered with monochrome glazes.

## Metal items:

During the archaeological excavations, several bronze and iron items were found. Most are represented by fragments. One of the samples found during the excavation is a flat and semicircular ornament made of bronze plates. There are holes at the tops. Their width is 0.7 cm , diameter -4 cm . Among the iron items, it is possible to point out an item that is likely to have been the corroded tip of a lance. It becomes thinner towards the tip. On the opposite side there is a hole inside. One stalk remains intact. Its length is 6.2 cm , width -2 cm . Knife blades can also be added to them. Knife blades made from thin iron plates become thinner towards the tip (Figure 42).

## Glass items:

One glass item was found. It is a fragment of the body of a clear, blue-coloured glass vessel. It has thin walls. The thickness of the wall is 0.4 cm (Figure 43).

### 4.1 GENERAL SUMMARY OF TYPES AND NUMBERS OF FINDS

Archaeological finds from the settlement can be attributed to the following types:
Stone tools: a level made of stone (levelling instrument) (Figure 44), made of red tufa, a grindstone with a flat surface and bulgy bottom (Figure 45), a square grater made from river stone (Figure 46) and an elongated knife whetstone made from river stone with one tip flattened and the other tip pointed (Figure 47).
household items: these include clay and glass vessels, iron knives and whetstones.
weapons: One lance tip made of iron.
ornaments: these include one flat semi-circular bronze piece.
The tools are mainly represented by fragments. Mostly fragments of graters and grindstones were found. The grindstones are boat-shaped. There are very few of them.

The household items were mainly used at home, in the kitchen and at farms. They include primarily clay containers first of all. The clay vessels vary depending on their purpose and functions. They include jars, jugs, boilers, bowls, salt cellars, plates, trays, cups and pitchers, vases, lids, basins (Figure 3-14; 22-41). The vast majority of the clay vessels are glazed, and some are unglazed. Clay products are mainly made on a pottery wheel and have pure clay content. They were baked at a constant fire temperature. Most of them are covered with greyish or yellowish engobe. Jars and jugs, as well as boilers are thick-walled, while cups and pitchers are thin-walled. Other kitchen utensils are thin-walled, mostly glazed. Glazed vessels are polychrome, i.e. multicoloured, or monochrome, i.e. one-coloured. There is a glaze on the thin layer of engobe, which was then dried. The clay vessels make up the vast majority of the finds.

Only one weapon - the tip of a lance - was found at the settlement. It becomes thinner towards the tip. On the opposite side there is a hole opened inside. One stalk is intact. Its length is 6.2 cm , width -2 cm .

Among decorations, only one bronze pendant was found.

## 5 ANALYTICAL RESULTS

It should be noted that the archaeological excavations at the Garajamirli settlement were successfully completed and some of the settlement was excavated. These excavations provide us with a wealth of information about the nature, peculiarity, 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 medieval village.

### 5.1 COLLECTION OF RESULTS

Early and developed medieval ceramic items scattered around the monument cover about 1 hectare. The area where surface materials are more widespread in the pipeline corridor is more than 50 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 medieval settlement. The excavation is likely to show the settlement had a seasonal nature, because no walls or foundations of dwelling houses were discovered in this excavation site. The establishment of the chronological framework of the archaeological materials discovered in the settlement of Garajamirli is based on typological and comparative analysis methods, and scientific findings were made.

## 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 RESULTS OF EXCAVATIONS

The archaeological excavations at the site of the future trench for the pipeline were of a rescue character. The observation of cultural layers, as well as studies carried out at excavation sites allow us to conclude that the length of the settlement is more than 80 m in the pipeline corridor and the excavation is most likely to have been carried out in the central and northern parts of the monument.

Fragments of glazed and unglazed earthenware vessels, iron items and tools, fragments of glassware, bracelets and stone tools found in the cultural layer are attributed to the 11th-12th centuries based on the typological and analysis method. Apparently, during this period, there was a seasonal village-type settlement here.

It is very likely that life in the settlement ended as a result of Mongol invasions. Perhaps, archaeological excavations to be performed in different parts of the settlement in the future will provide more detailed archaeological facts about these invasions.

## 7 INVENTORY

| No | Unit | Type | Description |
| :---: | :---: | :---: | :---: |
| 1 | $\begin{aligned} & \hline 1 \\ & 20-40 \end{aligned}$ | base | Fragment of the base of a medium-sized thick-walled vessel. The base is wide and flat. Its body is lifted upwards from the base and bends slightly to the side. Its surface is polished. There is a red stripe drawn vertically on it. The clay is dense. |
| 2 | $\begin{aligned} & \hline 1 \\ & 20-40 \end{aligned}$ | handle | Half of the handle of a large vessel. It is wide and ribbon-like in cross-section. It is connected to the vessel vertically. Its surface is painted in red. |
| 3 | $\begin{aligned} & \hline 1 \\ & 20-40 \end{aligned}$ | Vase body | Fragment of the body of a vase-type vessel. The body opens from the base to the sides. It is decorated with floral patterns on a green glazed background. It is thick-walled. |
| 4 | $\begin{aligned} & \hline 1 \\ & 20-40 \end{aligned}$ | Jug base | Fragment of the base of a medium-size thin-walled jug. It is wide and flat. Its surface is polished. Figure 27. |
| 5 | $\begin{aligned} & 1 \\ & 20-40 \end{aligned}$ | handle | Fragment of the handle of a small vessel. It is circular in crosssession and has a semi-circular shape. |
| 6 | $\begin{aligned} & 1 \\ & 20-40 \end{aligned}$ | quip | Handle foundation. It is oval in cross-section. In the middle, there is a deep furrow along the handle. It is baked at a high temperature. |
| 7 | $\begin{aligned} & \hline 3 \\ & 20-40 \end{aligned}$ | Jug rim | Fragment of the mouth of a medium-size jug. Its mouth is bent to the side. Its small and wide neck gradually flows into the shoulder. Its surface is polished. Figure 22. |
| 8 | $\begin{aligned} & \hline 3 \\ & 20-40 \\ & \hline \end{aligned}$ | body | Fragment of the body of vessel. There are two small and two elongated notches on its surface. It is thick-walled. |
| 9 | $\begin{aligned} & \hline 3 \\ & 20-40 \end{aligned}$ | Jar rim | Fragment of the mouth of a large jug. It has a wide mouth. The mouth bends to the side. The edge of the mouth is flat. Its low and wide neck gradually flows into the shoulder. Its surface is covered with yellow engobe. Figure 23. |
| 10 | $\begin{aligned} & \hline 3 \\ & 20-40 \end{aligned}$ | Boiler handle | Fragment of a boiler handle. It is flat and auricular. There are two furrows on its surface along the handle. It is connected to the vessel horizontally. Its clay is grey, surface is dark pink. |
| 11 | $\begin{aligned} & \hline 5 \\ & 20-40 \end{aligned}$ | Jug base | Fragment of the base of a mid-sized jug-type vessel. It is wide and flat. Beginning from the base, the body is bent to the side and goes upright. It is thick-walled. There are red paint marks on it. |
| 12 | $\begin{aligned} & \hline 5 \\ & 20-40 \\ & \hline \end{aligned}$ | handle | Fragment of the handle of a large-size vessel. It is ribbon-like in cross-section. In the middle, there is a furrow along the handle. |
| 13 | $\begin{aligned} & \hline 5 \\ & 20-40 \end{aligned}$ | Tray body | Fragment of the lower part of the body of a tray-type vessel. It is wide and flat. Underneath there is an engraved elongated awry ornament. Its interior is divided into squares with notched lines. The inside of the line, which frames the squares and pass through the edge of the mouth, is covered with white glaze. Underneath, the edge of the mouth is glazed with whitish-green paint. It is thick walled. Figure 37. |
| 14 | $\begin{aligned} & \hline 5 \\ & 20-40 \end{aligned}$ | mouth | Fragment of the mouth of a small vessel. The mouth is slightly bent to the side. Its low neck gradually flows into the shoulder. Its surface is polished. Figure 37. |
| 15 | $\begin{aligned} & \hline 5 \\ & 20-40 \end{aligned}$ | Salt cellar base | Fragment of the base of a small salt cellar-type vessel. It is narrow and heeled. The body extends from the base and widens to the sides. Its interior is covered with dark green glaze. The bottom is covered with a whitish engobe. It has thin walls. Figure 37. |
| 16 | $\begin{aligned} & \hline 5 \\ & 20-40 \end{aligned}$ | Pipe fragment | Fragment of a clay pipe. It is pipe-shaped and bent. The middle of the pipe-shaped part has a hole. The hole becomes wider towards the tip. Surface is painted in red. Figure 37. |
| 17 | $\begin{aligned} & \hline 5 \\ & 20-40 \\ & \hline \end{aligned}$ | Knife blade | Fragments of a knife blade. It is flat and dual. it becomes thinner towards the tip and is sharp. Figure 42. |
| 18 | $\begin{aligned} & \hline 1 \\ & 50-60 \\ & \hline \end{aligned}$ | handle | Fragment of the handle of a mid-sized vessel. It is circular in crosssection. It is connected to the vessel vertically. |
| 19 | $\begin{aligned} & \hline 1 \\ & 50-60 \end{aligned}$ | Stone weight | Cone-shaped stone. Its inside is carved. It gets thinner towards the tip. The tip has two parallel furrows. There are patterns consisting of several elongated carved lines engraved on its middle under parallel vertical short, notched lines. Its surface and interior are polished and covered with whitish engobe. Probably a stone plumb bob for hanging on a string. Figure 44. |
| 20 | $\begin{aligned} & \hline 5 \\ & 50-60 \\ & \hline \end{aligned}$ | Grindstone | A grindstone made from red tufa stone. Its surface is flat and bottom is convex. One tip goes upwards. Figure 20. |


| No | Unit | Type | Description |
| :---: | :---: | :---: | :---: |
| 21 | $\begin{aligned} & \hline 3 \\ & 50-60 \end{aligned}$ | Jar rim | Fragment of the mouth of a large jar. Its wide and flat mouth folds to the side. Its small and wide neck gradually flows into the shoulder. It is thick-walled. After its surface was polished on both sides, it was covered with brown engobe. Figure 25.. |
| 22 | $\begin{aligned} & \hline 3 \\ & 50-60 \end{aligned}$ | handle | Fragment of the handle of a large vessel. It is ribbon-like in crosssection. It is connected to the vessel vertically. There is a crescentshaped notched pattern on it. |
| 23 | $\begin{aligned} & \hline 3 \\ & 50-60 \end{aligned}$ | Jug neck | Fragment of the neck of a mid-size jug-type vessel. Its mouth opens to the side. The edge of its mouth is broken. Its broad and low neck gradually flows into the shoulder. The neck has a stripe in the middle. It has thin walls. There are traces of soot on its surface. Figure 24. |
| 24 | $\begin{aligned} & 3 \\ & 50-60 \end{aligned}$ | Tray fragment | Fragment of a tray-type vessel. Beginning from the flat and wide base, its sides open upwards and sideways. Its mouth is broken. Its interior is decorated with brown lines on a background of green and blue glaze. Its clay is grey and surface is brown. A grey stripe is made from grey engobe on its back. |
| 25 | $\begin{aligned} & \hline 3 \\ & 50-60 \end{aligned}$ | Jug base | Fragment of the base of a medium-sized thick-walled jug-type vessel. Its base is narrow and flat. The body becomes wider towards the sides beginning from the base. Its surface is polished. |
| 26 | $\begin{aligned} & \hline 3 \\ & 50-60 \\ & \hline \end{aligned}$ | body | Fragment of the body of a vessel. It is covered with white glaze from inside. Its surface has gold engobe. It has thin walls. |
| 27 | $\begin{aligned} & \hline 5 \\ & 50-60 \end{aligned}$ | Jug base | Fragment of the base of a large jug. It is wide and flat. Its body extends upwards, becomes wider to the side. It is thick-walled. Its surface is covered with grey engobe. |
| 28 | $\begin{aligned} & 5 \\ & 50-60 \end{aligned}$ | handle | Fragment of the handle of a large vessel. It is ribbon-like in crosssection. In the lower part, there is a depression made with a finger. It is vertical. It has thin walls. Its surface is covered with whitish engobe. |
| 29 | $\begin{aligned} & \hline 5 \\ & 50-60 \end{aligned}$ | Tray fragment | Fragment of a small-sized tray-type vessel. Its edge is sharp. It goes upwards from its wide and flat base. |
| 30 | $\begin{aligned} & \hline 5 \\ & 50-60 \end{aligned}$ | handle | Fragment of the handle of a middle-sized vessel. It is circular in cross- section. It is vertical. In the middle, there is a pattern from concave dots arranged in a row along the handle. Notched lines are made to the right of the patterns. Figure 70. |
| 31 | $\begin{aligned} & \hline 5 \\ & 50-60 \end{aligned}$ | mouth | Fragment of the mouth of a small wide-mouthed vessel. Its neck is low and wide. The mouth is edged to the side. It has thin walls. Figure 10. |
| 32 | $\begin{aligned} & \hline 1 \\ & 70-80 \end{aligned}$ | Jug base | Fragment of the base of a medium-sized jug-type vessel. It is wide and flat. Its body becomes wider from the base towards the top and the sides. |
| 33 | $\begin{aligned} & 1 \\ & 70-80 \end{aligned}$ | handle | Fragment of an auricular handle. It is flat and oval in cross-section. It is connected to the vessel horizontally. It is covered with creamcoloured engobe. There are also traces of soot on it. |
| 34 | $\begin{aligned} & 1 \\ & 70-80 \end{aligned}$ | Wash basin fragment | Fragment of a medium-sized washbasin. Its bottom is oval and is bent inwards. Its edge is decorated with printed patterns. It is thickwalled. Its surface is covered with yellowish engobe on both sides. Figure 41. |
| 35 | $\begin{aligned} & \hline 3 \\ & 70-80 \end{aligned}$ | base | Fragment of the base of a medium-size vessel. It is wide and flat. Its body becomes wider from the base upwards. It is thick-walled. The colour of the clay is grey and the top surface is pink. |
| 36 | $\begin{aligned} & 3 \\ & 70-80 \end{aligned}$ | Plate base | Fragment of the bottom of a shallow plate. Its bottom is broad and slightly oval. Its interior is decorated with green and yellow spots on a white glazed background. In addition, the centre of the vessel is framed by two brown lines. The inside of the circle is decorated with a crescent and perpendicular ornaments, and the inside is also brown. It is thick-walled. Its bottom is polished. Figure 33. |
| 37 | $\begin{aligned} & \hline 4 \\ & 70-80 \end{aligned}$ | handle | Fragment of the handle of a medium-size vessel. It is ribbon-like in cross-section. In the middle there is a furrow along the handle. It is vertical. Its surface is uneven. |
| 38 | $\begin{aligned} & 5 \\ & 70-80 \end{aligned}$ | base | Fragment of the base of a medium-size vessel. It is wide and flat. Its body becomes wider from the base sideways and upwards. It is thick-walled. Its surface is covered with whitish engobe. Figure 38. |


| No | Unit | Type | Description |
| :---: | :---: | :---: | :---: |
| 39 | $\begin{aligned} & \hline 5 \\ & 70-80 \end{aligned}$ | handle | Fragment of the handle of a vessel. It is ribbon-like and oval and thick in cross-section. In the middle, there is a furrow along the handle. It is vertical. Its clay is grey, its surface is pink. |
| 40 | $\begin{aligned} & \hline 7 \\ & 20-40 \end{aligned}$ | Bowl rim | Fragment of the mouth of a bowl-type vessel. Its body is upright starting from the base. The edge of the mouth is framed by thin parallel lines from inside. The interior is decorated and glazed in green and light colours after it was covered with engobe. Figure 28. |
| 41 | $\begin{aligned} & \hline 7 \\ & 20-40 \\ & \hline \end{aligned}$ | Body | Fragment of the body of a vessel. The surface is covered with patterns from elongated lines with notches. The surface is polished. |
| 42 | $\begin{aligned} & 7 \\ & 20-40 \end{aligned}$ | Knife blade | The tip of a knife made from flat iron plates. The blade becomes thinner towards the tip. |
| 43 | $\begin{aligned} & 9 \\ & 20-40 \end{aligned}$ | handle | Fragment of the handle of a large vessel. It is vertical. It is ribbonlike in cross-section. |
| 44 | $\begin{aligned} & \hline 11 \\ & 20-40 \end{aligned}$ | base | Fragment of a medium-size vessel. It's flat. The body becomes wider from the base to the sides. There are traces of red paint on it. |
| 45 | $\begin{aligned} & 11 \\ & 20-40 \end{aligned}$ | body | Fragment of the body of a vessel. Its bottom is flat. Its surface is covered with engobe and painted red. Its interior is decorated and glazed with black floral patterns on a green background. It is thickwalled. |
| 46 | $\begin{aligned} & \hline 11 \\ & 20-40 \end{aligned}$ | mouth | Fragment of the mouth of a small vessel. It belongs to a narrowmouthed vessel. Its surface is polished. Thin walls. |
| 47 | $\begin{aligned} & \hline 7 \\ & 50-70 \end{aligned}$ | Jug base | Fragment of the base of a medium-sized jug-type vessel. The vessel is thick-walled. Its base is wide and flat. Its body becomes wider to the sides beginning from the base. Its colour is pink from the inside and light pink from the outside. Its surface is polished. |
| 48 | $\begin{aligned} & \hline 7 \\ & 50-70 \end{aligned}$ | handle | A latch-shaped handle. It is circular in cross-section. It is connected to the vessel horizontally. Its surface is polished. |
| 49 | $\begin{aligned} & 9 \\ & 50-70 \end{aligned}$ | base | Fragment of the base of a medium-sized vessel. The base is oval and wide. Its body opens to the sides from the base. It is thickwalled. Its surface is polished. |
| 50 | $\begin{aligned} & \hline 9 \\ & 50-70 \end{aligned}$ | Bowl rim | Fragment of the mouth of a small shallow bowl. Its sides flow into the oval base. The edge of its mouth is wide and a little thick. The edge of the mouth and the inside are decorated with brown lines on a green-white background and glazed. Its back is polished. Figure 50. |
| 51 | $\begin{aligned} & 9 \\ & 50-70 \end{aligned}$ | grater | A grater made from river stone. It is square-shaped. Figure 46. |
| 52 | $\begin{aligned} & \hline 11 \\ & 50-70 \end{aligned}$ | Pitcher neck | Fragment of the neck of a large-capacity pitcher-type vessel. Its narrow mouth flows directly into the neck. Its neck is narrow and long. Its lower part is shaped as a staircase. On the back, there is a trace of a ribbon-like handle, which is connected to the mouth of the vessel and is oval in cross-section. The vessel is thin-walled. Its surface is polished. Figure 36. |
| 53 | $\begin{aligned} & 11 \\ & 50-70 \end{aligned}$ | handle | Fragment of the handle of a small-size thin-walled vessel. It has a ribbon-like shape and is oval in cross-section. The colour of the clay is grey, the surface is pink. Its surface is polished and covered with cream-coloured engobe. It is connected to the vessel vertically. |
| 54 | $\begin{aligned} & \hline 7 \\ & 80-100 \end{aligned}$ | mouth | Fragment of the mouth of a large vessel. The mouth folds to the side. Its edge is round. The mouth flows directly into the shoulder. The surface of the mouth is polished from inside. |
| 55 | $\begin{aligned} & 9 \\ & 80-100 \end{aligned}$ | Plate body | Fragment of the body of a shallow plate. Its bottom is wide and slightly oval. It is thick-walled. After its surface was covered with white engobe on both sides, its interior was decorated with floral patterns inside brown and light green strips and glazed. Figure 55. |
| 56 | $\begin{aligned} & \hline 11 \\ & 80-90 \end{aligned}$ | mouth | Fragment of the mouth of a small vessel. The mouth is edged in the form of a square and folds to the side. It has a wide mouth. Its low and wide neck gradually flows into the shoulder. Its surface is polished. |
| 57 | $\begin{aligned} & 4 \\ & 50-60 \end{aligned}$ | body | Fragment of the body of a vessel. There are elongated awry notched patterns on it. It has thin walls. |
| 58 | $\begin{aligned} & \hline 4 \\ & 50-60 \\ & \hline \end{aligned}$ | Lid fragment | Fragment of the lid of a small vessel. It is disc-shaped. Its edges are smooth. Figure 39. |
| 59 | $\begin{aligned} & \hline 6 \\ & 50-60 \end{aligned}$ | body | Fragment of the body of a vessel. There are elongated awry notched patterns on it. |


| No | Unit | Type | Description |
| :---: | :---: | :---: | :---: |
| 60 | $\begin{aligned} & 13 \\ & 50 \end{aligned}$ | neck | Fragment of the neck of a small vessel. The neck gradually flows into the shoulder. The edge of the mouth is smooth. The neck has a convex strip in the middle. Under the strip, there are two thin parallel lines. It has thin walls. Its surface top is polished. |
| 61 | $\begin{array}{r} 13 \\ 50 \\ \hline \end{array}$ | body | Fragment of the body of a small thin-walled vessel. Its surface has a horizontal cannelure. Its surface is polished. |
| 62 | $\begin{aligned} & 4 \\ & 70-80 \end{aligned}$ | Lid fragment | Fragment of a large lid. It is disc-shaped. Its middle is stouter from the top. Its edges are smooth. It is thick-walled. Its surface is covered with yellowish engobe. Figure 38. |
| 63 | $\begin{aligned} & 4 \\ & 70-80 \end{aligned}$ | base | Fragment of the base of a small vessel. The vessel is rough. The base is wide and flat. It is thick-walled. |
| 64 | $\begin{aligned} & 4 \\ & 70-80 \end{aligned}$ | Plate base | Fragment of the lower part of a plate or tray-type vessel. It is thickwalled. It is painted green from inside and is covered with a transparent glaze. Its bottom is wide and flat. Figure 64. |
| 65 | $\begin{aligned} & \hline 4 \\ & 70-80 \end{aligned}$ | Tray base | Fragment of the base of a tray-type vessel. Its bottom is wide and flat. Its interior is painted green over engobe. Its edges are covered with light and dark green paint in parallel and glazed. Its bottom is polished. Figure 39. |
| 66 | $\begin{aligned} & \hline 4 \\ & 70-80 \\ & \hline \end{aligned}$ | body | Fragment of the body of a transparent blue-coloured glass vessel. It has thin walls. Figure 66. |
| 67 | $\begin{aligned} & \hline 6 \\ & 70-80 \end{aligned}$ | Pitcher body | Fragment of the body of a pitcher-type vessel. It has a narrow neck. Its mouth folds to the side. The edge of the mouth is broken. Its neck flows directly into the pear-shaped body. On its back, there is an oval ribbon-like handle that connects the neck to the body. It has thin walls. Its surface is covered with yellowish engobe, is polished and has vertical patterns decorated with red radial stripes. Figure 35. |
| 68 | $\begin{aligned} & \hline 6 \\ & 70-80 \end{aligned}$ | body | Fragment of the body of a thin-walled vessel. There are patterns of thin parallel lines on it. The lines cover the body in a horizontal direction. Its surface is covered with pink engobe on both sides. |
| 69 | $\begin{aligned} & 6 \\ & 70-80 \\ & \hline \end{aligned}$ | Whetstone | Elongated and thin river stone, used as a whetstone. One end is flattened, the other is pointed. Figure 69. |
| 70 | $\begin{aligned} & 13 \\ & 60-70 \end{aligned}$ | Boiler handle | Handle of a large capacity boiler. The handle is shaped as a triangular auricle. It is connected to the vessel horizontally. It is flat and ribbon-like in cross-section. It goes upright and sideways and splits at the tip. At the bottom there is a depression made by finger. From the depression, there is a strip going in both directions. The boiler is thin-walled. Its clay is grey, its surface is light pink. |
| 71 | $\begin{aligned} & \hline 13 \\ & 60-70 \end{aligned}$ | handle | Fragment of the handle of a large-size vessel. It is wide and ribbonlike in cross-section. The middle of the upper part at the foundation has a short notch. It is connected to the vessel vertically. The colour of clay is grey, the surface is pink. There are traces of burns on it. |
| 72 | $\begin{aligned} & \hline 4 \\ & 90-100 \end{aligned}$ | body | Fragment of the body of a vessel. The body is circled by polished lines horizontally. It is thick-walled. |
| 73 | $\begin{aligned} & 6 \\ & 90-100 \end{aligned}$ | Boiler handle | Fragment of the handle of a boiler. It is connected to the vessel horizontally. It is shaped as a ribbon and is oval in cross-section. The colour of the clay is grey, the surface is pink. There are traces of burns on it. |
| 74 | $\begin{aligned} & \hline 13 \\ & 80-90 \end{aligned}$ | mouth | Fragment of a small wide-mouthed vessel. The edge of the mouth is flat. It flows into the neck and body vertically. It is thick-walled. |
| 75 | $\begin{aligned} & 13 \\ & 80-90 \end{aligned}$ | Lance tip | A product likely to have a lance tip. It becomes thinner towards the tip. On the opposite side there is a hole opened from inside. One handle has survived. |
| 76 | $\begin{aligned} & \hline 8 \\ & 20-40 \end{aligned}$ | handle | Fragment of the handle of a small vessel. It is ribbon-like in crosssection. It is connected to the vessel vertically. It belongs to a narrow-mouthed vessel. One end joins the mouth of the vessel. Its surface is polished. |
| 77 | $\begin{aligned} & \hline 8 \\ & 20-40 \end{aligned}$ | body | Fragment of the body of a thick-walled vessel. There are parallel ornaments made of scratched lines on it. Its clay is grey, its surface is light cream on both sides. Its surface is polished. |
| 78 | $\begin{aligned} & 10 \\ & 20-40 \end{aligned}$ | Vase base | Fragment of the base of a small vase or plate-type vessel. It is made roughly. Its base is low-heeled. The inside is painted green and is covered with a transparent glaze. |


| No | Unit | Type | Description |
| :--- | :--- | :--- | :--- |
| 79 | 10 <br> $20-40$ | body | Fragment of the body of a thin-walled vessel. There is a trace of a <br> handle on it. Its surface is polished and is covered with whitish <br> engobe. |
| 80 | 10 <br> $20-40$ | Decoration | Flat and semi-circular hanging decoration made of a bronze sheet. <br> There are holes at the tips. |
| 81 | 12 <br> $20-40$ | Boiler <br> handle | Fragment of the handle of a medium-size boiler. It is ribbon-like in <br> cross-section. It is connected to the vessel horizontally. In the <br> middle, there is a cracked furrow towards the foundation. Its clay is <br> grey, its surface is light pink. There are traces of soot on it. |
| 82 | 12 <br> $20-40$ | base | Fragment of the base of a small vessel. The base is narrow and flat. <br> The body of the vessel becomes wider from the base to the top. Its <br> clay is grey, its surface is light pink. Its surface is covered with <br> creamy engobe. |

## 8 APPENDICES

### 8.1 REFERENCES

Расулоглы Т. Циклопические сооружения на территории Азербайджана. Баку, 1993, 145 c .

Azərbaycan arxeologiyası. VI cilddə. VI cild (orta əsrlər), Bakı,"Şərq-Qərb", 2008, 632 s.
Велиев С.С., Мамедов А.В., Работина Е.Н. Основные природно-климатические события голоцена Азербайджана / Междун. Конф. «Проблемы голоцена», Тбилиси, 1988, с. 70-71.

Agayev, G., 2006. Short Report on Excavations of Garajamirli I Settlement Site KP321. ANAS report for BTC Co. https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-10571/dissemination/pdf/Phase 3 and 4 Mitigation/321 Garajamirli I/321 Garajamirli I Final.pdf

### 8.2 ILLUSTRATIONS



Figure 3. Fragments of jar rims.


Figure 5. Fragments of vessel bodies and mouths



Figure 4. Fragments of vessel bodies and rims.


Figure6. Fragments of vessel bodies and mouths


Figure 7. Handle and neck fragments.


Figure 9. Pitcher.


Figure 8. Stone tools and handle.


Figure 10. Fragments of rims, handles and bases.



Figure 11. Fragments of rims and bodies; clay pipe.


Figures 13. Mug, pitcher, bowl and handle fragments.


Figure 12. Fragments of rims and bodies.


Figures 14. Mug, pitcher, bowl and handle fragments.

### 8.3 PHOTOS



Figure 15. Burnt clay strip.


Figure 17. Unit 3, Hearth No 1


Figure 19. Unit 4, Burnt layer


Figure 21. Unit 7, Hearth No 4


Figure 16. Hearth.


Figure 18. Unit 4,Hearth No 2


Figure 20. Unit 4, Hearth No 3

inv. 7


Figures 22. Fragment of jug rim


Figure 24. Fragment of jug neck


Figure 26. Fragment of jug base


Figures 23. Fragment of jug rim


Figure 25. Fragment of jug neck


Figure 27. Fragment of jug base


Figure 28. Bowl fragment

inv. 70


Figure 30. Boiler handle


Figure 32. Plate fragment


Figure 34. Plate fragment


Figure 29. Bowl fragment


Figure 31. Boiler handle


Figure 33. Plate fragment


Figure 35. Upper part of pitcher body


Figure 36. Fragment of pitcher neck

inv. 13


14

inv. 15

inv. 16


Figure 37. Inv 13 tray fragment;14-jug fragment;15-salt cellar fragment;16-clay pipe.


Figure 38. Clay lid fragment


Figure 39. Clay lid fragment


Figure 40. Tray fragment


Figure 41. Clay washbasin fragment


Figure 43. Glass vessel fragment


Figure 46. Stone grater


Figure 45. Grindstone


Figure 47. Whetstone.

