

Azerbaijan National Academy of Sciences
Archaeology and Ethnography Institute

DETAILED SCIENTIFIC REPORT

Excavations on Kərpiclitəpə settlement at KP 247.2
SCPX pipeline

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1 SUMMARY

The report provides information on the archaeological excavations carried out in Karpıjlitepe settlement, discovered outside Borsunlu village of Goranboy district at KP 247.210 in the SCPX gas export pipeline project, as well as the revealed remains of tangible cultural heritage. The excavations were conducted in four stages:

Stage 1 02 to 12/11/2016;

Stage 2 07/01/2017 to 10/06/2017;

Stage 3 01/02/2018 to 30/04/2018;

Stage 4 07/05/2019 to 05/08/2019.

Furnaces, tandir ovens, stoves, household and water wells, remains of various structures, castle walls, a kiln for baking bricks, as well as abundant ceramics, samples made of metal, bones, glass and stones, together with copper coins were found during the excavations. Actual archaeological data that sheds light on the economic activities, domestic life and lifestyle, etc. of the residents of this castle-type settlement who were attributed to the feudal noble class was obtained on the site. According to the analysis of the archaeological content, a conclusion was made that the site dates to the Middle Ages and that a rural settlement existed there in the late 10th century–early 13th century.

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2 INTRODUCTION

2.1 SITE DISCOVERY

The Karpijlitepe settlement, located at KP 247.210 of the SCPX route, was recorded during the second stage*. Since the area of the monument is used for sowing and does not differ from the surrounding territory in terms of its relief, it is difficult to identify a settlement there visually. However, the researched part of the monument was located slightly above ground level and resembled a hill, which drew the attention of archaeologists. Furthermore, numerous fired brick fragments, ceramics samples and stone items found above the ground on the hill proved the availability of a potential archaeological area. Initially, the Karpijlitepe settlement was registered in compliance with the agreement reached by the Institute of Archaeology and Ethnography (IoAE) and BP (SCPX) and listed among the monuments in the SCPX corridor where archaeological excavations would be conducted.

2.2 BRIEF DESCRIPTION OF THE AREA

The Karpijlitepe monument is located in the territory of the Goranboy district at the N-403765.8; E-0464126.1 coordinates, 208-210 metres above sea level. It is situated at KP 247.210 of the SCPX route about 1 km southeast of the Borsunlu village on the left-hand side of the highway leading to the centre of the Goranboy district. The monument is curtailed by sowing areas from the north. A dried-up river ravine crosses its south part. The surrounding area has plain relief. The available soft black soil has been used for sowing for many years. Two monuments with similar titles, namely, the Karpijli I and Karpijli II settlements, are available in an area called Khinalig, which is located in Goranboy district.

2.3 TIMING OF ARCHAEOLOGICAL EXCAVATIONS

An ANSA IoAE archaeological expedition group carried out archaeological excavations in the Karpijlitepe settlement in four stages. The excavation work was done November 2-12, 2016, from January 7, 2017 to June 10, 2017, from February 1, 2018 to April 30, 2018 and from May 7, 2019 to August 5, 2019. It was overseen by PhD in History, senior research fellow Vagif Asadov and conducted with the participation of the Institute's employees, PhD in History, senior research fellow Azad Zeynalov, PhD in History, senior research fellow Rashid Bashirov, PhD in History, senior research fellow Shamil Najafov, PhD in History, senior research fellow Dmitry Kirichenko, PhD in History, senior research fellow Anar Aghalarzade, research fellow Ahliman Abdurahmanov, junior research associate Jeyhun Aliyev, senior laboratory assistant Farhad Farmanov and Seymur Farmanli, an artist. BP (SCPX) Cultural Heritage Site Construction Manager Shahin Aliyev, BP (SCPX) representatives, archaeologists David Maynard and Justin Bedard contributed to the excavation work as observers.

3 OUTCOME OF EXCAVATIONS

3.1 DESCRIPTION OF THE SITE

The Karpijlitepe monument is located in a plain area. The monument is situated at the N-403765.8; E-0464126.1 coordinates 208-210 metres above sea level. The hill was named Karpijlitepe by local residents. The title, which was granted to the monument during the SCPX excavations, may be explained by a large amount of fired brick pieces found on this hill. The monument is located at KP 247.210 of the SCPX route about 1km southeast of the Borsunlu village on the left-hand side of the highway extending to the centre of the Goranboy district.

The northern part of the castle is a sowing area. This plain territory, which has sowing areas with black soil, has been used for this purpose for many years.

While walking around the monument area and the surrounding territories one may come across numerous ceramics samples above the ground. The tangible cultural remains discovered in the mentioned areas are mainly significant in terms of the archaeological evaluation of those areas. The discovery of a great number of ceramics samples of a wide variety dating back to the Middle Ages in this territory allows making a conclusion that life was burgeoning in these areas during that period.

3.2 DESCRIPTION OF OCCUPATION LAYERS

Archaeological excavations in the territory began with the selection of the excavation area. The chosen territory was located 40 metres away from the BTC and SCP corridors in the new pipeline corridor. The major Baku-Gazakh highway extends through the northern part of Karpijlitepe, while an asphalt-paved road leading to the centre of the Goranboy district crosses its west part. There are sowing areas in the castle's northern section, while its south part is traversed by a river valley. An examination of the area revealed that the monument covers the entire territory of the mentioned hill. In order to ensure more efficient archaeological research, researchers decided to conduct excavations initially on a rather low hill where the settlement was located. The hill occupies 52m in the north-south direction and 50m in the east-west direction. Its height (the highest point) was up to 1.8m.

Archaeological excavations in Karpijlitepe were carried out in four stages. As part of Stages 1 and 2 the excavations were conducted in the northern part of the hill. A total of 18 units sized 4x4m each were designated during the first stage for this purpose. The units were set up in three rows in the north-south direction (288 sq.m.) (Photo 22).

Stage 1 and 2 Excavations

Trial pits sized 4x4m were set up for testing purposes at the east and west slopes of the hill to determine the depth of the monument area. Since the 25cm soil layer was removed with the use of machinery in the area of the trial pits, the excavations were launched at this depth. However, that particular stratum was also taken into account while measuring the depth of relevant layers.

Raw soil emerged after the excavations at the trial pit set up near the east slope (Trial Pit A) reached the depth of 1.85 metres.

The west trial pit (Trial Pit B) was excavated to a depth of 60-80cm. The occupation layer was still visible there.

Trial Pit A. Fragments of a large household jug (mainly its orifice element) were found in the southwest part of the trial pit 60cm below the ground. Moreover, two parallel burnt stripes stretching from the southeast part toward the southwest part throughout the trial pit's south wall were discerned. The first stripe was seen at the 55cm depth and the second one was tracked 75cm under the ground. The distance between the stripes was 20cm (Photo 22a).

A burnt soil layer emerged at the 65cm depth in the southeast and southwest parts of the trial pit. This layer extended from the south corner toward the northwest and east walls, descending till the 85cm depth. It occupied an area totalling 1.6m x0.9m.

The revealed burnt layer continued from the trial pit's southeast wall after going down to a depth of 1.05m. This stratum, which was located 60cm under the ground, stretched for 2.2m southward from the east part throughout the wall. The trace of a burnt stripe, which was found at this depth in the unit's southwest section and 60cm northwest of the wall, extended in the southwest

direction. During this time, a significantly burnt layer of soil stretching toward the inside part of the west wall was discovered near the trial pit's west corner (Photo 23).

Significantly burnt stripes emerged in the central part of the trial pit at the depth of 1.45m. Overall, such stripes were traced throughout the perimeter of the unit walls. They were particularly noticeable near the southeast walls. The burnt stripes in this part discerned at the trial pit's east corner and further stretched until the south corner, crossing over into the southwest wall.

Traces of significant burning were also seen at the northwest wall. The strip at the south wall started at the 85cm depth, heading downward. It descended until the depth of 1.05m, having gone as far down as 1.25m but edged up 20cm afterwards. As for the burnt strip discovered by the northwest wall, its depth reached 1.45cm.

The trial pit's stratigraphy was revealed as a grey coloured soil layer superseded by a 18cm thick yellow stratum after the 55cm depth all over the unit's perimeter. A 12cm thick pink soil layer was traced thereafter. It was followed by a yellow coloured layer, which was tracked to the end.

As mentioned above, the pink soil layer was replaced by a burnt strip only near the trial pit's south, east, southwest and northwest walls (Photo 5).

A layer of raw soil emerged in Trial Pit A after the excavations reached the depth of 1.85cm. A burnt layer of soil was discovered in the trial pit's central part at this depth as well. A large river rock was found south of the burnt layer. Small stones, animal bones and a heap of pottery fragments were also found south of that spot.

A line of little river rocks emerged in the middle of the trial pit's west wall. It continued to be seen toward the inside part of the west wall.

It is noteworthy that pottery fragments, including a large pitcher with its upper part missing (Photo 24) and a big boiler (Photo 25), were found during the excavations at this trial pit, along with animal bones, flat fired bricks (sized 23x23x6cm) and glazed wall tiles.

Trial Pit B. A line of river rocks and fired bricks was encountered at the 45cm depth in the trial pit's southeast part. The line stretched northward for up to 1.9 metres (Photo 26).

Another line of bricks emerged 85cm below the ground 80cm away from the trial pit's southeast wall. The line extended 2.7m with certain interruptions in the southwest- northwest direction, reaching the corner of the northwest wall (Photo 27).

Bricks in another line stretched northward with interruptions. The line extended for 2.3m to the northwest wall.

A round-shaped burnt spot with the diameter of 50cm was found in the south part of the trial pit. Fired bricks were also seen near the trial pit's northwest wall.

The burnt layer discovered by the trial pit's southeast wall continued to be traced until the depth of 1.25m.

A burnt layer of soil was observed at the trial pit's south corner as well. Such a layer was also tracked at this time in the northwest part of the unit. A body fragment of a large pink coloured pitcher was found close to the central part.

Cleaning of the trial pit's entire surface revealed that the previously discovered brick line stretched toward the unit's south corner and the southeast wall.

The dimensions of the small area occupied by the line equalled 1.5x1.9m. Another part of the line extended for 2.7m from the south toward the northwest part throughout the southwest wall, heading further toward the inside part of the unit's northwest wall.

No extension of this line was tracked after the excavations in the trial pit's northwest, north and northwest sections reached the depth of 1.05m. Ceramics and animal bones were also found in this unit.

The excavations in the trial pit indicated that although the occupation layer was tracked on both (east and west) sides, the main structure remains were concentrated in the north, central and west parts of the hill. As a result of further excavations, remains of structures also emerged in the south part of the hill. Afterwards, work began in the section designated for archaeological excavations. A decision was passed to descend to the same depth during the excavations throughout this territory to ensure greater efficiency of the research efforts. As mentioned above, the area was divided into units sized 4x4m. Initially, operations were envisaged in a total of 18 units. However, 9 more units were later added to the west end of the area, which brought the total number of units to 27. Ultimately, 12 units were added to the east end. These units were numbered and recorded as "1a-12a". Thus, the number of units in the area reached 39 (624 sq.m.) The units were numbered westward from the east part of the area.

Excavations in the main area started after the exploratory work was finalized (Photo 28). Sparsely scattered, large and average size river rocks, as well as fired bricks and their fragments, began to emerge as early as at the depth of 20cm. The bricks, which mainly had flat or four-cornered shapes, were sized 20x17x5cm. Although the stones and bricks were scattered in a disorderly manner, their lines were discovered in some areas. This was particularly noticeable in Units 4, 8, 9, 11, 12, 13 and 17.

Numerous ceramic vessel fragments and parts of glass bracelets were obtained during the excavations at the depth of 20cm. The finds also included little fragments of copper and bronze items. The pottery samples primarily included fragments of boiler, bowl and vase-type vessels.

Finds at 20-40cm depth:

A line of large and medium size river rocks emerged 20cm below the ground in various parts of **Unit 1**. The line in the central part stretched in three rows. It was 1m long and 0.7m wide.

A layer with traces of significant burning was discerned near the unit's northwest corner. The burnt layer, which was sized 1.4x1.2m, emerged in front and 10cm below a sparse line of stones. This heap of stones started at the unit's southeast wall, extending sparsely northward from the west part in a semi-circular shape. The extension of this line headed toward Unit 2 (Photo 28a).

Traces of burning were also encountered amid stone lines slightly to the northwest of the unit's central part. Ceramics fragments, fired brick pieces and cattle bones were found throughout the unit area.

Large and medium size river rocks were recorded on the ground in **Unit 2**. The rocks crossed the unit's central part in the south-north direction. More stones of this heap emerged at the 10-20cm depth.

A significantly burnt spot was discovered in the unit's south corner. Another trace of burning was seen 80cm northwest of that spot, along with one more burnt spot found 50cm northwest of it.

A burnt area discovered by the south wall of Unit 1 continued near the northwest wall of Unit 2. This little unit covered a total area of 2.2x2.2m (Photo 9).

A burnt layer emerged at the 30cm depth near the south and southeast walls of **Unit 1**. The layer extended toward the inside part of Unit 2. Furthermore, a line of large and medium size river rocks was found in the middle of the unit and north of that layer. Two flat cliff rocks placed one over another were found nearby. The radius of the line area equalled 80cm.

A layer of burnt soil was also recorded throughout the unit's west wall. This layer stretched over a distance of up to 2.8 metres from the southeast part toward the northwest section. In some areas, it widened eastward till 1.2m, while most of it broadened by up to 60cm. The heap extended toward Unit 4 from its west part.

A line of medium size river rocks was found in the southeast part of **Unit 3**. The 1.45m wide line stretched for 2.3m in the west-east direction. Pieces of fired brick were seen amid the rocks.

Flat fired bricks were encountered near the north corner of the unit. Another heap of small brick pieces was lined up in a row parallel to those bricks. A rotten piece of timber was discovered nearby.

A 10cm thick trace of burning emerged at the depth of 30cm in the northwest part of the unit's west wall. The trace of burning stretched toward Unit 2.

River rocks and heaps of fired bricks emerged in the unit's east, southeast and north parts. These heaps were particularly widespread in the north section. They were framed by a burnt strip underneath. The bricks found in this area had a quadrangular and flat shape. They were sized 22x22x5cm.

The stones and brick pieces, which emerged at the same depth in all the three units (1, 2 and 3) were once part of the foundations and walls of building complexes. These structures refer to the first "construction horizon" of the monument.

Dimensions of the mentioned heaps are as follows:

south line – southwest-northwest direction – 1.8m, parallel line in northwest part – 2.4m, heap in north part – 1.2x1.1m.

Pieces of fired bricks were also found near the northwest, south and southwest walls of the unit.

A semi-circular line of stones was discovered at the northwest corner of **Unit 4**. One of the heap's edges leaned against a 15cm thick burnt strip, which was traced in the wall and extended throughout the excavation area from the depth of 30cm. The heap's diameter was up to 90cm.

A heap of fired bricks emerged near the south corner of **Unit 8**. The unit-shaped bunch of bricks was apparently lined up in three rows. The line, which occupied an area of 1x1m, was 40cm high (Photo 29).

A row of river rocks was lined up north of the remains of structures previously discovered in Units 8 and 9. The line stretched 1.7m in the southeast-northwest direction and further headed southwest slightly, extending for another 1.7m.

Unit 9. A heap of river rocks emerged in the northwest part of the unit. The heap stretched in a southeast-northwest direction, heading toward the north corner. River rocks were also recorded near the northwest wall. Piles of bricks were also encountered inside this heap.

A layer of burnt soil was registered 1.4m southeast of the three-row line, which was discovered in Unit 8 southwest of **Unit 11**. Large fragments of boiler and pitcher-type vessels were found inside this burnt layer, which covered an area of 2.3x1.7m. Moreover, a line of river rocks and fired bricks discerned in the southeast part of the unit.

A furnace site (1) was discovered in the unit as well. The line of big river rocks and fired bricks, which emerged at the 20cm depth in the unit's southeast section, was located 70cm southeast of the furnace site.

The observations made after the total depth of the excavation area reached 40cm are listed below.

Some of the heaps of sparse rocks and fired bricks that emerged at the 20cm depth in the southeast and south parts of the area did not descend deeper. The stones that were found in the area of Units 3, 4, 5, 8 and 12 were orderly to some extent.

A decision was made to expand the territory of the excavation area, given the direction of the remains of structures that emerged during further excavations (Stage 2) and the abundance of the obtained artefacts. Unfortunately, it was possible to expand the excavation area only in the west and east directions due to technical restrictions, although scholars prioritized broadening the excavations in the north and south directions instead. Thus, nine additional units were designated in the west direction (Unit 19-27) and 12 new units were added in the east direction (Unit 1a-12a), which brought the total number of units in the excavation area to 39.

Total space of the site, which was 12 metres long in the south-north direction and 52 metres long in the east-west direction, reached 624 sq. m. (Photos 2, 3).

Finds at 60-100cm depth:

Heaps of pottery fragments were found in different parts of **Unit 3a**. A semi-dilapidated quadrangular line of fired bricks (Photo 30) was discovered near the southwest corner of the unit.

Another heap of ceramics fragments was located close to the south wall of **Unit 2**.

A water well (1) with an orifice plaited with river rocks (Photo 31) was unveiled in the northwest section of **Unit 5**.

A ceramic tandir oven (1) emerged near the north corner of **Unit 6**. The tandir oven's diameter was 50cm, while the height of its intact section equalled 35cm. A hole with a 5cm diameter was found below the tandir oven.

A neatly arranged line stretching northwest toward Unit 8 from the south corner of **Unit 9** was discovered. The line was comprised of flat and wide fired bricks (22x22x5cm) lined up in a single row. Initially, five rows of this heap piled one over another were tracked. It was 3.3m long, 20cm wide and 30cm high.

The north edge of the line extended 3.45 metres westward, while its south edge stretched 1.7 metres westward, crossing over into the area of Unit 12 and assuming a quadrangular shape.

It is worth mentioning that these heaps were a structure (2) with a floor located 1.6m below the ground. This conclusion was made while the heaps were being cleansed off soil during further excavations.

The east and south walls were in better condition. The height of the east wall is 60-80cm. The north wall of the line stretched eastward slightly and then turned northward in a semi-circular shape (the length equalled 1.9m). This heap, which was lined up in five rows in a rather disorderly manner, included fired bricks. It was 70cm wide and 40cm high (Photos 32-33). The fired bricks in the foundation of the structure's walls consist of two rows (15cm) and protrude beyond the wall.

A total of 10 rows of fired bricks rise at the south wall. The flat bricks are sized 20x20x5cm. Sheetrock was used during the laying of the bricks. The structure's floor was made of soil. The

partitioned foundation's stones emerged at the floor level inside the structure (at the depth of 1.6m). The foundation, which was comprised of medium size river rocks, crossed the structure's area lengthwise over a distance of 1.8m and in the northwest-southwest direction.

The bottom was the only undamaged part of the northwest line of the second structure. Large river rocks lined up in two rows emerged nearby.

A line slanted southward was found behind the south wall after the ruins of Structure 2, which were located in three units (8, 9 and 12), were completely cleaned of soil. The pile, which included little river rocks, was lined up in two rows. Parts of a furnace site (1) and fragments of a broken ceramic pitcher emerged inside the structure (Unit12) (Photo 34).

Structure 2 is 5.5m long and 1.7m wide.

A burnt soil area was recorded in the territories of **Units 10 and 11**. Ceramic vessel fragments were found in the west section of this area. The latter was sized 2.5x2m. A line of fired bricks sized 1.1x0.8m was located east of it. It is noteworthy that a quern stone and burnt wheat particles nearby were discovered at this depth in the area of Unit 11.

A small furnace site (2) was found in the middle of the unit.

A crock-type vessel with a single handle was found inside the furnace, which was 15cm deep and had a diameter of 10cm.

The stone and fired brick line discovered in **Unit 11** apparently narrowed to 40cm following the 60cm depth and stretched for 1.6m in the north direction. This pile presumably furthered a long line that emerged in Units 14 and 15 and then turned in the northwest direction.

A ceramic tandir oven (2) was found in the west part of the unit. The tandir oven's wide orifice element is bent sideways. The body is oval. Its dimensions equalled 50x60cm.

The northwest and west parts of the stone heap in **Unit 12** were tracked. A burnt soil layer stretching in the northwest direction was recorded southeast of this line throughout the southeast wall of the excavation. The burnt layer extended until the area of Unit 15. It was sized 6m in the east-west direction and 2.5m in the north-south direction. Researchers observed that this layer headed toward the southeast wall and stretched onward as a 6cm thick burnt strip.

Parallel fired bricks emerged over the burnt layer 50cm northwest of the wall. The distance between the bricks was 50cm.

River rocks lined up in a single row stretched over 2.05m in the east direction from the unit's south corner. A collapsed pile of fired bricks and river rocks was located north and west of that line.

Remains of an enclosed structure (1) were discerned in the area of Unit 12. The ruins, which occupied an area of 2.8x2.9m, were located in the west part. They stretched westward and in the south- west direction, crossing over into the area of Unit 15.

A little tandir oven (3) slanted toward the inside part of the excavation was discovered near the unit's southeast corner. Half of the tandir oven had collapsed. The clay-plaited tandir oven was 50cm high, while its orifice diameter was 55cm. A thick ash layer was found inside. Ceramics fragments and a copper coin were found on the spot.

During cleaning of the above-mentioned furnace, which was found in the area of this unit (inside Structure 2) another semi-dilapidated furnace (2) emerged west of it. Both furnaces were located close to the structure's north wall. A large, fragmented pitcher positioned side up was encountered there.

Another ceramic tandir oven's (4) orifice element fragment emerged (Photo 35) inside the excavation wall and south of the second structure wall part located in Unit 12. Another quern stone's half-part was found nearby.

A 60cm long heap lined up in one row stretched eastward in front of the tandir oven.

Another ceramic tandir oven's (5) orifice element fragment emerged in the east part of the unit. Further excavations indicated that this tandir oven was located inside the south wall of Structure 2 unveiled in Units 8, 9 and 12. Most likely, the tandir oven was used for heating in rooms during the cold season.

Sparse brick piles were found in the area of **Unit 13**. The piles, which were slanted in the northwest direction, stretched till the area of Unit 10. One of these was 1.07m long and the length of another one was 2m.

A burnt soil spot sized 60x80cm and burnt boiler fragments were found at the end of the line.

A cylindrical ceramic tandir oven made of clay (6) was discovered in the middle of **Unit 14**. The tandir oven's top had collapsed, but the remaining parts were intact (Photo 36). The diameter was 40cm, while the height of the undamaged part equalled 20cm. A hole with the 5cm diameter was made close to the bottom part, which facilitated air circulation. It is worth mentioning that such tandir ovens were frequently encountered during further excavations. Most of them were in good condition.

A furnace site (6) was discovered 1.8m south of the mentioned item. The furnace's southwest part leaned against a long line of rocks which emerged in Unit 17. The furnace was unit-shaped and sized 1.3x1.3m. The furnace's edges were plaited with river rocks with the exception of the vacant east part (Photo 37).

Another line of rocks and bricks started at the east corner of Unit 14. The partially ruined line stretched eastward, entering the area of Unit 11. It was sized 5.3x1.8m.

A line comprised of large and average size river rocks emerged in the area of **Unit 15**. The rocks were mainly lined up in two rows. The line, which started at the unit's south corner, extended in the south-north direction, ending essentially in the middle of the excavation area in Unit 14. This heap was 6.1m long and 50cm wide. Its edge at the south corner turned eastward, heading toward the inside part of the excavation walls (Photo 38).

A heap of fired brick fragments was found in the unit's southwest part essentially adjacent to the remains of a structure recorded in Unit 12. The heap was covered on top by a white coloured sheetrock. Large river rocks were found in the middle and around this pile. The oval shaped pile was sized 1.3x1m.

An orifice fragment of another ceramic tandir oven emerged in the area of this unit in the inside part of the excavation wall.

A 60cm long heap lined up in a single row stretched eastward in front of the tandir oven (Photo 40).

Two furnace sites were registered in the middle of **Unit 17** (4-5). The edges of the unit-shaped furnaces were paved with flat fired bricks. The small area where the furnaces were located extended in the south-north direction. The dimensions of Furnace 1 were 1x1m, while the second one located north of it was sized 55x50cm.

Fragments of a large ceramic vessel were found on the north side of Furnace 2.

Fired bricks and a jar-type vessel positioned side up were discovered 1.7m west of those furnaces. A little fragmented vessel was also found on the spot. There was burnt soil around the bricks and the vessels.

Two round-shaped and oval burnt soil and clay spots were also recorded in this unit. The first spot was tracked north of the mentioned Furnace 2 and vessel (its diameter equalled 50cm), while the other one (an oval item sized 60x50cm) was located 1.4m east of those items.

Another line of cobblestones emerged adjacent to the east wall of the discovered furnaces. This line, which included large and average size river rocks, stretched from the unit's southwest corner toward the northwest corner parallel to another line found in Unit 15. The heap was 5m long and 60cm wide. The distance between the parallel lines was up to 3.5 metres.

Further excavations showed that these heaps were parts of a unit-shaped structure (1). A large jug's bottom part was found east of the line's northwest edge. The jug body diameter was 37cm.

A small area sized 90x50cm and comprised of a burnt soil layer was discovered south of the furnace site, which previously emerged at the north corner of Unit 17. Fired bricks were lined up on the sides of this area. Moreover, two fragmented household jugs were found adjacent to the furnace's south section. The body diameter of one of those vessels was 60cm.

A large assembled tandir oven (7) was discovered near the northwest edge of the mentioned line and adjacent to it. The tandir oven's half-part was inclined toward the inside parts of the line. Its upper part had collapsed. The tandir oven's structure included clay layers. Fragments of fired bricks and a large boiler-type ceramic vessel collapsed into the tandir oven. Most likely, the fired bricks were part of a wall located over a heap of river rocks leaning against the tandir oven (the walls of Structure 1). The walls of the tandir oven had become fragile due to its long use (Photo 39). Its diameter was 80cm.

A layer of burnt soil was recorded in the southwest part of the tandir oven. This burnt soil was a continuation of the burnt layer that had emerged around the household jugs in Unit 20. The layer was up to 15cm thick.

A furnace site (6) was unveiled at the 50cm depth, 1.8m south of the tandir oven discovered in Unit 17. The furnace's southwest part rested against the stone line that had emerged in this unit. The edges of the unit-shaped furnace were plaited with river rocks. The east section was the only part of the furnace that remained uncovered.

The parallel wall lines of Structure 1 recorded in Units 14, 15 and 17 were linked to the area of Unit 17 with a partition. The latter was 2.4m long. Thus, two rooms were created there. One of the rooms (1) ended up in Unit 18. The unit-shaped room covered an area of 3.3m x 3.3m. Its southeast and northwest walls, which were made up of river rocks, remained intact. As mentioned above, this room was connected to the second room (2) on the northwest side with a partition.

Rubble, including river rocks and fired bricks, was found in the area of the room. Fragments of several ceramic vessels were encountered amid these items. Furthermore, a furnace site (7) was discovered at the south corner of the second room, which was located adjacent to the first one from the northwest side. The furnace, which was adjoining the southeast wall, was located in an enclosed area and surrounded by stone lines from the northwest side. The area was sized 90x60cm. A section of a cylindrical ceramic tandir oven's bottom part (8) was found in front of that furnace. The diameter of the tandir oven, which was located at the cross sections of Units 17 and 20, was 60cm, while the height of its undamaged section equalled 40-50cm.

Semi-circular lines comprised of fired bricks emerged in the territory of **Unit18**. Most likely, these were furnace sites as well. They occupied an area of 2x1.4m. Moreover, piles of fired bricks and stones were found in the north part of this unit.

Large enamelled and unglazed vessel fragments were found near the north part of this pile. The latter was located 1.4m south of the furnace that was discovered in Unit 17.

Unit 19. A pile of fired bricks was found in the northwest part of Unit 19 in the northwest section of the excavation. The pile covered an area of 1.1x 0.7m.

Unit 20. The base parts of two household jugs (Photo 41) and a small area comprised of a burnt soil layer and sized 90x50cm were discovered in the south part of Furnace Site 7, which previously emerged at the north corner of Unit 17. Fired bricks were lined up on the sides of this area (Photo 42).

Two more fragmented household jugs were found adjacent to the furnace's south section. One of the jugs had a body diameter of 60cm.

A line of fired bricks and stones stretching in the south-north direction emerged in the area of **Unit 21**. The line was 2.6m long. A large household jug and a new clay tandir oven (9) were discovered (Photo 43) 30cm northwest of that pile, 60cm away from the unit's southwest wall. The jug's upper part was missing. The body diam. equalled 54cm.

Furthermore, another room of Structure 1 emerged (3) in the unit's territory. The foundations of the northwest and northwest walls of this room, which was located adjacent to the first room's southwest wall unveiled in Unit 18, remained partially intact. The room's southeast part extended toward the walls of the excavation, while its southwest part remained uncovered. Moreover, a line of fired bricks stretching in the southeast-northwest direction was encountered in this area. Ceramic tandir ovens (10-11) were located southwest and northwest of that pile. The total area of Room 3 was 3.8x3.8m.

Another tandir oven (12) with the 52cm diameter was discerned at the south corner of **Unit 24**. A heap of medium size and large river rocks emerged in the northwest part of the unit. Fired bricks were found amid those rocks. This pile further stretched as a line in the northwest direction (from the pile's east section), traversing the area of Units 23 and 20. Although the stones were sparsely scattered, they were rather positioned as a line. The pile covered an area of 1.9x1.6m, while the line was 8.4m long and 1m wide. The line started in the east part of the pile. Some fired bricks were encountered amidst river rocks.

It is noteworthy that these lines emerged 20cm below the ground and descended until the depth of 80cm.

A decision was passed to start excavating new units set up in the east part of the area in order to equalize the depth level throughout the excavation area. Tandir ovens continued to emerge in different parts of the east section of the area at the depth of 20-40cm. The tandir ovens that were being found throughout the excavation are listed below.

near the south wall of **Unit 1a**, diameter – 40cm (15); near the west wall, diameter – 45cm (16) (Photo 46)

near the north corner of **Unit 4a**. The diameter is 56cm (14) (Photo 45)

in the east part of **Unit 5a**. The diameter is 38cm (13) (Photo 44)

A line of fired bricks was found close to the south wall of **Unit 6a**. There were traces of significant burning throughout the top of this pile, which was 1.2m long and 0.6m wide.

A line of stones stretching in the northwest-southeast direction for up to 3.55m emerged in the middle of **Unit 7a**. The stones, which were lined up in three rows, included large and average size river rocks. The edges of this pile turned in the southwest direction and stretched for 1.4m,

seemingly shaping a unit. The unit's southwest side remained uncovered. The line was 65cm wide.

Two more lines extended northwest and southeast of that unit-shaped structure.

1. The northwest line included a single row of stones. It was 3.1m long and 30cm wide.
2. The southeast line included three rows of river rocks. It was 5.2m long and 85cm wide.

Finds at 1.2-1.6m depth:

Researchers concluded after the line of stones that had emerged *in Unit 2* at this depth was completely cleaned up that this line mainly included average size river rocks and stretched 3.1m in four rows in the northwest direction. The line was 70cm wide (Photo 47).

A large jug emerged 90cm southeast of this line. A boiler with a wide orifice element decorated with patterns on top and a blue coloured, enamelled, cup-like shaped vessel were found near the jug. The latter had a body diameter of about 60cm, while that of the boiler equalled 35cm (Photo 48).

A furnace paved using fired bricks (8) was discovered in the east part of *Unit 10*. The quadrangular furnace's walls were lined up in three rows. A large quadrangular river rock was leaning against its west section. The furnace was sized 50x50cm, while its depth equalled 25cm (Photo 49).

Burnt soil and an ash layer, as well as three ceramic vessel fragments, were found inside the furnace.

Another furnace (9) emerged 50cm east of it. The excavated furnace had a diameter of 45cm, while its depth equalled 55cm.

A burnt clay layer (Photo 50) was tracked by the furnace walls. An average size pitcher's fragments and an enamelled vessel fragment emerged on the inside.

A cellar-like shaped well (1) was discovered (Photo 51) adjacent to the ceramic tandir oven 4 from the southwest side. It was found after the tandir oven, which had been revealed by the south wall of Structure 2 in the east part of *Unit 12*, was completely cleaned up. The area around the well's narrow entrance was paved with flat quadrangular bricks in the shape of a unit. The inside part broadens sideways. Presumably, the well served as food storage. The entrance is sized 40x45cm, while the dimensions of the flooring around it equal 1.2x1.4m (Photo 52).

A hole was made in the bottom part of the ceramic tandir oven for air circulation. Two fired bricks were placed vertically on both sides of the hole. A part of the wall made using 7-9 rows of fired bricks in the tandir oven's north section remained intact (Photo 53).

Unit 13. A burnt strip recorded throughout the perimeter of the excavation was seen more clearly in the west part of the unit's north wall. The strip started at the depth of 60cm, descending till 1.2m in multiple strata, and stretched westward from the unit's north wall, crossing over into the area of Unit 10.

Fired brick lines emerged in the unit area. The observations made after the surface of these lines was fully cleaned up are described below.

The line stretched in two parallel rows in the southeast-northwest direction (Photo 54). Although most of its southwest section had collapsed (the length of its undamaged section equalled only

75cm), the northwest part extended 3.6m in the northwest direction, leaning against a unit-shaped structure. The structure was sized 1.05x0.5m.

A double layer of river rocks stretching eastward was lined up in four to five rows located on top of one another from the northwest wall of **Unit 16**. It extended toward the area of Unit 13. Following a complete clean of this line, scholars concluded that it stretched 6.1m in the southeast direction from the north section of Structure 2, which was discovered in the territories of Units 14 and 18, entering the area of Unit 11. The width of the line in this part was up to 1.7-1.9m.

The walls located throughout the northwest section of the line's part that ended up in Unit 16 were set up in three rows. The pile of flat, fired and wide bricks, which were set up in two rows on top of each other, stretched in the southwest-northwest direction, leaning against the unit's north wall. The line was 2.4m long (Photo 55).

It is worth mentioning that the foundation of Structure 1 was completely unveiled at this depth and it was established that the walls of the edifice did not descend any further (Photo 56). In order to further deepen the excavation and observe safety regulations, a decision was made to break down the fully researched walls of Structure 1, as well as the sparse lines of river rocks that had emerged in the east and west parts of the excavation (Photo 57).

Another line consisting of four rows of bricks emerged when the edges of the line found in the unit's area were being cleaned up. The latter crossed the territory of Units 13, 14 and 11 in the northwest-southwest direction and its northwest tip leaned against the wall of the excavation. Two of the bricks were placed vertically. The line was 40cm high. The line was completely unveiled after the river rocks covering its surface were removed entirely. The length of the line's upper part was 2.5m, while its width equalled 55cm.

As mentioned above, the 40cm high line of bricks descended deeper and headed inside the north wall of the unit. A full cleaning revealed that a brick was put vertically in each 35cm section amidst the bricks that were placed in this line flatwise (Photo 58).

A small adjacent pavement emerged east of the line. It was also paved using fired bricks. Three rows of the pavement were recorded at this depth. The quadrangular pavement was sized 78x90cm, while height of its visible part equalled 20cm. The bricks used in both structures (the line and the pavement) were wide and flat (20x20x5cm) (Photo 59).

River rocks lined up in a single row were found in the area of **Unit 17**. The line started at the unit's east wall, extending 4 metres in the east-west direction and crossing over into the territory of Unit 14. The line turned southward at its west end and stretched for another 2.4 metres, shaping an angle. The line was 20-30cm wide.

Following a full clean of the line's south flank, it was established that it crossed Unit 18, extending for 7.1m and heading toward the south wall of Unit 21.

A line of river rocks and flat fired bricks emerged in the middle of **Unit 19**. The line stretched in the northwest-southwest direction. Its upper layer extended for 3.6m, descending by 40cm (due to its collapsing) in the territory of **Unit 20**, and further continued to stretch 1.5m below the ground. The line, which started from the central part of the unit, entering the area of **Unit 20**, stretched for 5.9m and ended in the middle of **Unit 24**. The widest part of the line was 1m wide. The other edge of the line turned in the northwest direction from the central part of Unit 19 and stretched for 2.4m until the latter's north corner. This part of the line had crumbled (Photo 60).

A thick layer comprised of a white coloured substance emerged in the east part of **Unit 27**, heading southward. This matter may have been sheetrock. It was 15cm thick and covered an area of 2.3x2.4m (Photo 61).

Researchers decided to excavate **Unit 10a** (in the northwest corner of the excavation area) as a trial pit in order to examine the depth of the occupation layer in the Karpıjlitepe monument. A grey coloured soil layer that differed from the yellow soil around it was tracked at the unit's west wall at the depth ranging from 20cm to 80cm below the ground. The layer was 70cm wide. Presumably, this was a tandir oven site (17).

A grey strip of soil stretching for 80cm in the west-east direction emerged at the 70cm depth by the unit's north wall. The strip was 20cm thick (Photo 62).

Ceramics fragments and animal bones were discovered during the excavations carried out in the unit. Moreover, a burnt layer stretching throughout the perimeter of the area from the depth of 40cm was discovered.

A total of three burnt strips were seen along the north wall of the excavation.

Strip 1 was tracked from the depth of 60-80cm. Remains of a structure consisting of fired bricks were seen upon that strip.

A grey coloured layer of 20-30cm thick fine soil extended between the first and second strips.

Burnt soil strip 2 began at the depth of 1-1.1m under the ground. The strip is 10cm thick. Its thickness in some areas (in the west part of the area) is up to 30cm.

Layers of grey fine soil and pink burnt clay were observed between the second and third strips as well.

Burnt strip 3 started at the depth of 1.4m. A soil layer of the ash colour started below that strip. The colour turned greenish in some areas.

Traces of structures paved using fired bricks and river rocks were seen essentially throughout all depths of the excavation walls (particularly at the cross section of the south wall). Side views of tandir ovens, furnaces and a household well emerged at the south wall.

Finds at 1.8-2 metres depth:

A tandir oven (18) emerged in the area of **Units 7a and 8a** at this depth. The height of its undamaged section was 30cm (Photo 63). Two broken vessels were found in the west part of the tandir oven's bottom.

Another tandir oven was discovered near the south wall of **Unit 9a**. Only a half-part of the tandir oven remained intact. A layer of ash emerged inside the oven. Its walls were plastered with burnt clay. There were fired bricks adjacent to the tandir oven, which had a diameter of 1m, from the south side. Three of the bricks were placed vertically in the shape of a unit, while the other bricks were scattered sparsely. This tandir oven was located 60cm east of the tandir oven found previously in Unit 6a (Photo 64).

A layer of burnt clay was found in the unit's east part. It covered an area of 2.6x2m. There was a crumbled quadrangular area with flat bricks above that layer. This area was a continuation of the branch that split northward from the river rock line that crossed the area of Unit 8a sidewise in the west-east direction. An ash layer whose half-part was encircled by river rocks and fired bricks was discovered 60cm northwest of that area. Its diameter was 70cm.

Another tandir oven (19) was found near the east corner of **Unit 4a**. A half-part of the tandir oven's visible section remained intact. Half of the tandir oven ended up in the area of Unit 8a. Its diameter equalled 75cm.

An elongated layer of ash was discovered in the south part of **Unit 6a**. There were sparse fired bricks on the inside. The layer was sized 1.7m in the west-east direction and 70cm in the north-south direction.

Three little oval pits stretching from the unit's east part toward its west section emerged at this depth (Photo 65). The pits were linked to one another with partitions on the upper side.

Small river rocks and fired bricks were lined up at the edges of the first pit. Total length of the pits was 2.5m.

Dimensions of the pits were as follows:

Pit 1: 55x90cm, depth - 35cm ;

Pit 2: 70x45cm, depth - 30cm ;

Pit 3: 80x50cm, depth - 30cm.

A gravel layer was recorded throughout the area of **Unit 1**. The layer started in the northwest part and stretched eastward, ending at the unit's east corner. A small ceramic stove (20) found in the unit's central part was fully cleaned up. Its height was 40cm, while the body diameter equalled 40cm and the orifice element diam. was 38cm. It had a hole in the bottom (Photo 66).

A thick burnt strip extending till the inside part of Unit 3a was tracked throughout the south wall of **Unit 3**. The strip consisted of fired bricks and traces of burning. It was 5m long and 25cm thick. A thin layer of white substance was discovered on top. The layer was 5cm thick.

A furnace made using flat fired bricks (9) was located in the east part of that strip. A structure comprised of flat fired bricks lined up at a slant in a circular shape was linked to the quadrangular furnace from the east side. The structure's diameter was 60cm, while the furnace's dimensions equalled 80x60cm.

A trace of a pole was found northwest of the furnace. Its diameter was 20cm, while its depth equalled 40cm. Burnt pieces of timber emerged on the inside.

A trace of pink coloured burnt clay was observed throughout the north wall of **Unit 7**. It was 4.5m long and 1.5m wide. Pieces of partially fired bricks were found in between.

A small area comprised of a chalk-like layer was unveiled in the middle of **Unit 10**. The layer was 30cm thick, while the area was sized 2.5x1.1m (Photo 67).

A little hollow (diam.-35cm, depth-40cm) was located in the east part of this area, along with a large one (diam.-70cm, depth-30cm) in its west section. One more small groove was found 65cm south of the large one and 70cm west of the little one. Its diam. equalled 35cm, while its depth was 15cm.

A strip of pink burnt clay and bricks extending throughout the north walls of Units 10, 7 and 4 emerged 1.9m below the ground. The thickest part of the strip was 30cm. The strip stretched in the west-east direction throughout the wall of the mentioned units.

The burnt clay-coloured (1.8m wide) soil layer seen in front of the strip expanded southward.

Burnt bricks were lined up in a single row throughout the northern part of the mentioned area, which consisted of chalk or sheetrock, extending in the southeast direction from the northwest corner of Unit 10. The length of this line was 2.3m. Bricks were lined up in a 50cm area located between that area and the mentioned line (Photo 67).

Three ceramic vessels and burnt soil emerged inside the tandir oven found in the territory of **Unit 11** when it was being taken apart. These vessels included a crock, two little pitchers and another pitcher with a cylindrical neck.

A second water well (2) emerged in the east part of **Unit 13**. Its diameter was 85cm (Photos 68-68a). The walls of the well were paved with fired bricks. The bricks in the surrounding structure collapsed into the well. A little hollow was found 30cm west of the well. This dent, which had a diameter of 20cm, could have been used to set up a pole. Furthermore, a pit was discovered 50cm south of the dent. Thin burnt strips were seen at the walls of the pit, which had a diameter of 50cm.

A pit (1) was found in the west part of the cellar, which was discovered in Unit 12 near the south wall of **Unit 15**. Traces of a tandir oven edge were observed on the pit's walls and those of a green substance were tracked at its bottom. The pit's diam. was 70cm, while its depth was 25cm (Photo 69).

A tandir oven (21) was found at the 60cm depth in the section of the 1 metre area added to the south wall of the excavation for testing purposes, which was located in **Unit 18**. Two flat bricks were placed south of the tandir oven. The tandir oven's orifice diam. was 50cm, while its height was 22cm and its body diam. equalled 60cm (Photo 70).

The large wall's part located in Unit 23 started at the northern corner of **Unit 19**, extended till the south corner and further turned in the southwest direction and crossed into the area of Units 20, 23 and 24. It was comprised of neatly arranged brick lines. The length of the lines was up to 1.3m.

The fired bricks in this line were mostly placed flatwise. However, as mentioned above, some of the bricks were positioned vertically (Photo 71).

An elongated river rock line was discerned after the bottom of this wall was dug 20cm more (in the part of the wall's brick line located in the area of **Unit 20**) at the depth of 2m. The river rocks were separated from one another with pairs of vertically placed bricks (Photos 6, 7, 72).

Thus, the river rocks separated with pairs of vertical bricks and flat fired bricks placed flatwise in five rows underneath are followed by another river rock line below them separated by more pairs of vertical bricks. All this was observed in the west part of the wall, while its east part was encircled by a pavement comprised of flat bricks. River rocks were lined up throughout the lower edge of the pavement.

A hollow with the diameter of 15cm was discovered near the west wall of the third room of Structure 1, which ended up in **Unit 21**. A pile of fired bricks was revealed adjacent to the west walls of the room's parts located in Units 17 and 20. The pile stretched eastward for 2.3m. Its widest part was 1m.

A tandir oven (22) was found at the 40cm depth in the part of the 1 metre area added to the south wall of the excavation for testing purposes that was located in the unit's area, along with the bottom part of an adjacent ceramic tank or jug. The tandir oven's diameter was 40cm, while the height of its undamaged section was 20cm. The tank's diameter was 50cm, while the height of its undamaged section equalled 15cm.

A quadrangular area paved with flat fired bricks discerned east of these structures. It was sized 1.4x1.3m (Photo 73).

A strip of burnt clay emerged in the middle of **Unit 23**. It stretched in the southwest direction, traversing the territories of Units 24 and 27. Traces of significant burning were seen over the strip, which was sized 5.5x2.2m.

Finds at 2.2-2.4m depth:

A pit (2) was discovered near the west corner of **Unit 9a** at the cross section of **Unit 8a**. The oval shaped pit was sized 1x0.8m, while its depth was 20cm. A second deep well (3) was found 25cm south of that pit (Photos 74-75). A kettle-type ceramic vessel, ceramics fragments, as well as little round-shaped and elongated river rocks were found inside the well. The well's diameter was 1.05m and its depth equalled 70cm.

A large household pit (4) was discovered at the depth of 2.4m in the area of **Units 5a and 2a** (in the northwest part of Unit 5a and the southeast part of Unit 2a). The inside part of the round-shaped pit broadens downward. The pit's orifice element diameter is 1.5m, while its depth is 80cm (Photo 76).

A wide furnace site (11) that partially ended up in **Unit 6a** was found 1.4m south of the household well at the same level. Traces of burnt clay and burning were seen at the round-shaped furnace's walls. The furnace's diam. equalled 1.1m, while its depth was 25cm (Photo 76).

Another furnace (12) was revealed in the southeast part of **Unit 3a** 60cm southwest of the mentioned furnace (in Units 2a and 6a). Traces of fired bricks and burning were tracked at the walls of this furnace, which was rather shallow and round-shaped. The furnace's diameter was 65cm and its depth was 15cm (Photo 77).

Another shallow furnace (13) emerged 80cm west of the second one. Its diameter also equalled 65cm, while its depth was 15cm.

Three tandir ovens (23-25) located adjacent to one another were discovered by the southeast corner of **Unit 2**. The tandir ovens were lined up in the west-east direction (1-3). Most of the third tandir oven ended up in the part located by the northwest corner of **Unit 3a**. Most of this tandir oven remained intact. Only halves of the tandir ovens (located in the northern part) were undamaged.

A big vertically positioned household jug was found inside the larger Tandir Oven 2. A half-part of this item remained undamaged (Photo 78).

Dimensions of the tandir ovens (in the west-east direction) are as follows:

Tandir Oven 1: diameter is 60cm

Tandir Oven 2: diameter is 100cm

Tandir Oven 3: diameter is 65cm.

Remains of a semi-circular structure with a back side heading toward the wall of the excavation emerged by the southeast corner of **Unit 6**. The structure's walls were paved using large fired flat bricks. Big river rocks were put on the sides. The structure's diameter is 1.4m (Photo 79).

A large pile of river rocks and bricks located by the south section of **Unit 8** was broken down and a brick line further emerged under those stones. A certain construction technique was traced in this line as well, i.e. large river rocks were lined up between two vertical bricks (1.2m apart). There were three rows of bricks lined up flatwise underneath (Photo 80).

The east part of these semi-circular lines spins around into Unit 5, while its west part enters the area of Unit 11. Thus, further excavations revealed that this line, which assumed an oval shape, was a fragment of a large structure's walls and curtailed a street stretching in front of it from the south (Photo 80).

Little fields comprised of fired bricks laid on the ground were revealed in front of the line at a certain distance from one another (1.4-1.7m). Such areas also emerged in front of the river rock line that curtailed the street from the north (Photo 80). The area covered by those fields varied. The largest area, which was lined up in three to four rows, was sized 1.2x1m. The smallest field, which was lined up in a single row, was sized 72x25cm. The outcome of further researches suggested that these fields were either parts of a pavement lined up throughout the wall or served as props for the walls of a large structure.

A 70cm wide, white coloured reinforced field emerged (at the 2.4m depth) in front of the north section of the east part of the oval line discovered in the unit. This area was followed northward by another field comprised of fragmented bricks. It was sized 3x2.1m (Photo 80).

Scholars concluded that the structure line that had emerged in **Units 13 and 16** descended deeper (2.2m below the ground) and that this line assumed an oval shape as well.

Given that the wall structure comprised of river rocks and fired bricks and located in the middle of **Unit 16** stretched in the northwest direction, a decision was passed to expand the excavation wall in that direction in order to uncover the structure and further track it down. Three new units were designated in the area (28, 29 and 30). Thus, total space of the excavation area reached 672 sq.m.

The brick pile in Units 20 and 23 pertaining to the big wall that ended up in the territory of **Units 19, 20, 23 and 24** descended further after the second stone line, which was located at the 2.2m depth.

A pile of fired bricks was found in the section of the big wall located in **Unit 22** (by the north corner of the wall in the unit's northwest part). The bricks, which were sparsely scattered over an area sized 2.6x2.5m, were slanted toward the northwest wall of the excavation (Photo 81).

The stone line located in the large wall's part located in **Unit 23** was followed by another line of bricks set up in five rows, ending at the depth of 2.4m. Thus, the height of the wall's undamaged section was 1.15m (Photo 82). The thickness of the layers in this line (top to bottom) was as follows:

Stone layer 1 – 25cm

Brick layer 2 – 40cm

Stone layer 3– 20cm

Brick layer 4– 30cm.

A burnt clay spot was found 90cm west of the wall. It was sized 1.1x0.5m.

A furnace site resembling the “8” digit (14) and a stove (26) were discovered (Photo 83) 90cm below the ground in the area of the newly designated **Unit 30**. The stove orifice element diameter was 40cm.

The furnace seemingly consisted of two parts. A stone was placed on the side of the dividing partitions. The furnace's first section was sized 90x30cm, while the second one was sized 80x50cm.

During the cleaning of the section that followed the structure that had emerged in Unit 16 researchers entered the territory of Unit 30. The structure, which was located in the unit's southeast part, was uncovered in the shape of a field at the depth of 1.1m. The field was sized 1.2x1.6m (Photo 84).

A small oval furnace (15) paved with two rows of fired brick fragments was located in the east part of a field. That field was situated south of the heating stove or tandir oven discovered in the unit area.

A burnt layer was observed inside the furnace, which was sized 65x55cm (Photo 84).

The large wall's part located in **Units 29 and 30** was cleaned up to remove sparse river rocks (probably the wall's collapsed stones) and further uncovered in the semi-circular shape. The semicircle's radius was 5.2m. This part of the wall was also paved using fired bricks placed flatwise and superseding river rocks lined up in one row. Pairs of bricks were put vertically on the sides of the river rocks. The semi-circular wall's width was 1m and its height was 1.05m (Photos 85-86). Reinforcing props paved with fired bricks were set up at a certain distance from each other in front of the semicircle's north section (Photo 87):

Prop 1: dimensions: 60x60cm

Prop 2: 25cm west of the first one; dimensions: 80x50cm

Prop 3: 85cm west of the second one; dimensions: 80x45cm.

Finds at 2.6-2.8 metre depth:

Another large household well (5) was uncovered in **Unit 5a**. The slightly oval well is located in the middle of the unit. A great number of ceramics fragments emerged when the inside part of the well was being cleaned. These samples included a pitcher found in its entirety. The well's diameter was 2.2x2m, while its depth equalled 1.5m (Photo 88). A disorderly line of fired bricks was found at the 80cm depth. The line was slanted toward the inside part of the well's west wall. There were brick fragments at the bottom of the well positioned in a single row toward the inside part of the south wall (Photo 89).

A household pit (6) emerged near the north wall of **Unit 1a**. The pit's diameter was 1.8m, while the depth of its undamaged section was 80cm. The pit stretched toward the inside part of the north wall of the overall excavation. Only traces of the pit's upper part were visible. Its outline that remained on the wall is oval-shaped (Photo 90). The pit's total depth under the ground equalled 3.1m. A significant number of pottery fragments and vessels found in their entirety emerged while the pit was being cleaned up on the inside. A lot of copper coins (35 items) were found there as well. Most of the coins were stuck to one another. These coins were apparently wrapped in a bundle in the past. This is also proven by the fabric fibres that remained upon them.

A relatively shallow pit (7) was discovered east of the mentioned well. A part of the second pit ended up in the area of Unit 4a (the northwest corner). Its diameter was 1.15m, while its depth was 50cm (Photo 91). A few pottery fragments were found inside the pit.

An oval trace of burnt soil was found 20cm below the level of the north wall in **Unit 1**. It stretched toward the inside part of the walls. The widest part of this spot, which expanded downward, was 1.3m. The spot's thickness equalled 1.7m.

A large pit (8) was unveiled in the area of **Unit 11**. A significant number of ceramic vessel fragments were found inside the pit. The 40cm deep pit had a diameter of 1.5m (Photo 92).

Finds at 2.9-3 metre depth:

Another furnace site (3) was discovered at the southwest corner of **Unit 11a**. Soil inside the furnace was greenish-yellow. A burnt clay strip stretched throughout the walls on the inside. The furnace's diameter was 80cm, while its depth was 25cm (Photo 94).

Another shallow pit (9) was found 1.2m west of that furnace. An ash layer and pieces of charcoal were encountered inside the pit. The latter was 20cm deep and had a diameter of 2m (Photo 93).

A tandir oven with a small edge was revealed in the territory of the unit (Photo 95).

Another large household pit (10) emerged close to the east wall of **Unit 2**. The pit's diameter was 2.5m and its depth was 70cm. Ceramics fragments and animal bones were found inside the pit.

Another tandir oven (27) was discovered in the southeast part of **Unit 3**.

Cleaning conducted at the brick lines that were found in **Unit 10** led to a conclusion that this section served as a wall. The wall stretched for 3.3m in the west-east direction and then turned northward, extending further by 3.9m in the south to north direction.

The west and north edges of the wall stretched toward the inside parts of the north walls of the excavation. Researchers concluded that this was a wall of some quadrangular structure. Traces of plastering remained inside the west and east walls of the structure. In order to fully uncover the structure, a decision was initially made to lower its bottom, which enabled a conclusion that the wall columns descended deeper. In other words, the structure's foundation was set up during soil excavations.

As mentioned above, the structure's north part extended toward the inside parts of the north walls of the excavation. The excavations were broadened in order to fully uncover and extract the structure. For this purpose, two more units were added to the excavation area and excavations further started in **Units 31 and 32**, which were located north of Units 13 and 10. Thus, total dimensions of the excavation area were brought to 982 sq.m.

It is noteworthy that five more units were designated (**33-37**) east of the mentioned units. Excavations have not been carried out in those units so far.

A complete uncovering of the structure's surface made it clear that it was actually a quadrangular room. A conclusion was made that this structure was a kiln used to bake raw bricks and ceramic vessels. This was proven by the flat bricks piled vertically in the room's southeast corner. Though the stove's walls were built with unfired, raw, mud bricks, their colour became pink under the impact of fire and heat.

It is believed that the lower part of the kiln was built inside the pit that was excavated as a dug-out, aimed at properly keeping the heat inside the stove (Photo 96).

The inside part of the structure's north section was filled with fragmented bricks. Most likely, these were the collapsed remains of the structure's dome-like shaped cover. The observations made after those remains were fully removed from the inside part of the structure are described below.

The kiln was divided on the inside by partitions that were slanted in the west-east direction and connected the south and north walls. Six partitions were recorded. The bottoms of the partitions, which had flat surfaces, were paved from the middle section in the shape of an arch. All the arches were located opposite one another. The arches were aimed at ensuring circulation of heat and its equal distribution throughout the stove area. The partitions, which had the same dimensions, were 3m long and 35cm wide. The distance between them was 27-33cm. The colour of the bricks in the partitions became green on the inside due to heat (Photo 97).

As mentioned above, the south walls of the kiln were discovered at the 1.7m depth. However, the west and north walls were in better condition, emerging 1.2m below the ground (in Units 31 and 32), i.e. they were 50cm higher than the south walls.

The kiln's east wall, to the contrary, was located 20cm below the south wall. Presumably, there was an entrance to the kiln that opened outwards into its inside part in the past. Work was suspended after the stove's inside part was excavated till the depth of 3m. This was due to both safety considerations and the challenges caused by the partitions, which were located rather close to each other. Thus, the kiln, which was sized 4.9m (west-east) x 3.4m (north-south), had six partitions. Most likely, the bricks were lined up over the partitions for further firing. The fact that a brick pile slated for firing was found over the partitions located near the east wall confirms this conclusion.

Bricks in the kiln's walls were lined up in rows. The bricks, which superseded one another in several rows, were placed vertically and flatwise (Photo 98). Plastering was applied to the stove's walls on the inside.

A semi-oval smoke duct was uncovered in the kiln's east wall at the 2.5m depth. The edges of the duct, which was 50cm wide and 40cm high, were paved with fired bricks on the outside. Traces of significant burning remained upon the edges. Perhaps, the duct was used to throw firewood into the stove (Photos 99-100).

Thus, the discovery of such a perfectly made and quite large brick kiln in the settlement indicates that in addition to the import of clay items, a certain part of this produce was made locally. Possibly, locally made products were delivered to nearby residential areas along with meeting the needs of local residents (Photos 101-101a).

Another pit (11) was uncovered by the northwest corner of **Unit 11** close to the ceramic tandir oven discovered previously in the area. There was a layer of ash on the inside. The diameter was 1.2m, while the depth equalled 20cm (Photo 102).

Another little pit (12) was discovered near the south wall of **Unit 12**. Soil was greenish on the inside. The pit's diameter was 1.1m and its depth was 30cm. Another household well (13) was found in **Unit 12 a** (Photo 103).

Another tandir oven with a margin (Photo 104) emerged in **Unit 11a**.

Lines of river rocks were found under the remains of walls discovered at the 2.8m depth in the south part of **Unit 13**. The lines descended until the depth of 3m (Photo 105).

Thus, the excavations were finalized after the depth of 3 metres was reached due to the end of the occupation layer. A conclusion was made that there had been two horizons for construction operations at the Karpılıtepe monument. The first construction horizon started at ground level and continued to a depth of 1.5 metres. The second horizon, which had emerged at this depth, descended until the 3 metre depth.

Most of the structures in the first construction horizon were dilapidated heaps and lines of scattered stones and fired bricks.

The walls of Structure 1 that ended up in Units 14, 15, 17, 18 and 21 and emerged only in the east part of the excavation were in a relatively satisfactory condition. As mentioned above, the ruins of structures in construction Horizon 1 were demolished and removed in order to deepen the excavation. Work was further launched to clear the structures off soil in Horizon 2. These operations were continued until the mentioned depth of 3 metres was reached. The observations made then are described below.

A part of a large structure figuratively called “a castle” emerged in the west half of the excavation. The west wall of the “castle” stretched for 11 metres in the southwest- northwest direction (Photo 106). The northwest edge was a semicircle with a 5.2 metre diameter (Photo 107). Having stretched for 10.7 metres in the northwest-southeast direction, it assumed a semi-circular shape again (Photos 108-199).

The diameter of this semicircle’s undamaged part is 3.5 metres. The damaged section of the semicircle headed eastward and then twisted southward, which is evidenced by the traces seen on the spot. The semicircle is traversed in the middle by two parallel 8.5 metre long wall lines extending in the southwest-northwest direction (Photo 110). The southwest edge of the lines is slanted toward the inside part of the south walls of the excavation.

It is worth mentioning that the southwest edge of the structure’s wall also leans against the southwest walls of the excavation. This clearly indicates that the rest of the “castle” (probably, the larger part) is located in the central and south sections of the Karpijlitepe monument’s part situated on the hill. Unfortunately, it was impossible to fully uncover the monument since this area was not excavated (though the archaeological excavations conducted during Stages 3 and 4 partially achieved this goal). Most likely, outposts of the “castle” other than the two revealed semi-circular towers are also present and located in the unexcavated part of the hill.

As mentioned above, the foundation edges in the inside part of the “castle’s” outside walls were plaited with a pavement comprised of river rocks.

In addition to the three stone piles recorded in front of the north outpost, three more heaps of fired bricks lined up in three to four rows at a certain distance from one another were discovered in front of the walls’ part stretching in the southeast direction. These were probably remains of structures added on in the past in order to reinforce the walls.

The inside boundaries extending parallel to the “castle’s” outside walls were comprised of a single row of average size river rocks. These boundaries, in turn, stretched 11 metres parallel to the outside wall in the southwest-northwest direction and 10.7 metres in the northwest-southeast direction. The southwest edge of this line was oriented toward the inside part of the excavation. Thus, there is an empty space between the “castle’s” inside and outside walls, which could be called “a street”. There was only yellow coloured fine soil on the “street”. No samples of tangible culture were encountered inside, i.e. this was raw soil.

As for the part located inside the “castle’s” boundaries, its soil was also yellow coloured and raw. As mentioned above, only a small tandir oven with edges and a little household pit dug on the ground were discovered there.

A fired brick pile was found inside the stone line’s part located at the south wall of Unit 20.

The “castle’s” walls were built using lines comprised of interchanging river rocks and fired bricks. The river rocks are separated from each other by pairs of vertically placed fired bricks. This type of masonry in medieval architecture was called “Ganja bandi” (Photos 6, 7).

As mentioned above, these lines were built in five rows. The highest point of the wall’s undamaged part is 1.15m. It is obvious that the remaining part of the wall was built over this architectural bond and that this section collapsed in the past. This is proven by the pieces of stones and bricks that remained on top.

Vertically positioned fired brick lines located at a distance from one another emerged at the depth of 3 metres west of the “castle’s” southwest-northwest wall.

A large kiln structure was located in the territories of Units 10, 13, 31 and 32 north of the west part of the excavation. A water well (2), a little sheetrock field, tandir ovens and household pits emerged in this area as well.

Remains of two structures (1 and 2) were removed south of the west part of the area (Photos 111-113). Tandir ovens, heating stoves and a food well emerged on the site.

It is worth mentioning that sheetrock sites were also encountered in the west and southeast parts of the excavation. Intensive seismic activity in many Azerbaijani regions necessitated the use of steadfast construction materials. More steadfast sheetrock solutions with higher plasticity were favoured over rather frail limestone solutions in case of quake tremors [16, p.49].

A layer of gravelly soil, tandir ovens and water well 1 (in Unit 5) were discovered in the middle of the excavation area. Furnace sites were also frequently encountered. Furnaces were registered in other parts of the excavated areas as well.

The east part of the excavation was abundant in terms of household wells and tandir ovens (Photo 114). In general, tandir ovens were discovered essentially throughout the excavation area. The great number of tandir ovens of different sizes, which were made using the assembly method or fired clay, was aimed at meeting the needs of local residents for bread. Another reason for this was special treatment of tandir ovens, which were not dismantled after the completion of their life-span. Therefore, tandir ovens of the first construction horizon were encountered amid the tandir ovens attributed to the second horizon. Experts believe that large ceramic tandir ovens were used for baking bread, while the small ones served as heaters for homes and other structures.

It is noteworthy that plenty of tangible cultural remains were collected during the excavations carried out in the Karpilitepe monument area. These archaeological samples, which were found in all the occupation layer strata of the excavation include pottery and ceramics items, working tools, copper coins, a small number of ornaments, glass vessel fragments and construction materials.

The working tools mainly included parts of iron tools and stone items. There were sickles, knives, spades, etc. among the iron tools, while stone items included querns.

Sparse copper coins were discovered throughout the excavation and at all depths and once a lot of them were found on the same site. Experts cleaned up and read the inscriptions on the surfaces of some coins. They made a conclusion that those coins dated back to the epoch of the Azerbaijani Atabaylar state (Eldiguzids).

The obtained ornaments mostly included glass bracelets of different colours, as well as beads of paste, glass, agate and other materials, and a bone hair pin with nice incrustation.

The glass items were fragmented, but they were apparently part of scent bottles and piyale (bowl) type vessels in the past.

A large amount of wall lines, as well as sparse and random river rocks and fired bricks (usually flat and sized 20x20x5cm or 25x25x5cm), were found throughout the site.

A sheetrock solution was used to pave the walls. Sheetrock fields were uncovered in the northwest and southwest parts of the excavation area. Two glazed tile foreparts were found (Photos 518-521) during excavations in Trial Pit A (in the east part of the monument). A few more pieces of glazed tiles were obtained (Photos 522-523) during further excavations in other units of the site.

Other finds included partially burnt wheat seeds found on two sites, timber crumbs derived from poles, pieces of timber turned into charcoal as a result of burning, as well as numerous bones of

animals and birds. The bones of animals included those of both cattle and sheep and goats. There were horse and camel bones among these items as well.

The above-mentioned burnt strip layers were observed by the south wall with the same intensity as those located by the north wall of the site. Burnt strips were seen throughout the perimeter of the site, which indicates that a major fire occurred in the past. It is possible that habitation, which continued in this area for centuries, ceased as a result of that fire.

Stage 3 Excavations

The third stage of the excavations was conducted in the central and southwest part of the hill. This part of the hill was divided into 21 units sized 4x4m and positioned in three rows (seven units in each row) and excavations were further planned in an area covering 336 sq.m. The units were numbered 38-58 in the west-east direction this time as a continuation of the work done during the previous stages. During this stage excavations were planned while applying the method of reaching the same depth throughout the area (Photo 4). It is worth mentioning that given the fact the lines stretched in the south and southwest direction, 11 more units (59-61, 66-69, 73-76) were later added to the excavation area from the south and 13 more units (45a, 52a, 52b, 52c, 59a, 59b, 59c, 66a, 66b, 66c, 73a, 73b, 73c). were added from the west. Thus, the area excavated during Stage 3 reached 544 sq.m. Total coverage of the excavation area increased to 1,494 sq.m.

Finds at 20-50cm depth:

The “castle” wall’s extension that emerged during Stage 2 of the archaeological excavations at the Karpıllıtepe monument continued at the same depth in **Unit 38**, stretching in the north-south direction and entering the territory of **Unit 45** (Photo 115). Two new units (sized 4x4m) were designated in the west part of the excavation in order to track the wall extension. The units were numbered 45a and 52a. The wall crossed the territories of these units and continued to extend in the north-south direction. A stand-alone stone line running parallel to this wall (traversing the “castle’s” inside part and creating “a street” in the space separating it from the big wall) also stretched in the north-south direction, crossing the territories of Units 39, 45 and 52 and leaning against the north wall of Unit 52. A new unit was set up south of Unit 52 to track down further direction of the stone line. It was numbered 59a. This brought the scope of the third excavation area to 384 sq.m.

A field paved with four rows of flat fired bricks emerged in the wall’s section located in **Unit 38**. This area, which was located 45cm below the upper level of the wall’s undamaged section and adjacent to the outside (west) side of the wall, was 2.3m long and 70cm wide. The height of this area was up to 30cm (Photo 116).

A little structure similar to a bedside table was uncovered adjacently to the northwest corner of the mentioned field. This protruding structure, which was paved with six rows of fired bricks, rises slightly above the field. The four-cornered structure was sized 45x37cm and its height was 40cm (Photo 116).

Total length of the wall’s newly uncovered part was 14.2m. As mentioned above, stone and fired brick lines ended after the newly unveiled section length of the wall, which stretched in a north to south direction, reached 7m. However, the previously discovered river rock line, which continued in the same direction as the wall and created “a street” between itself and the wall, continued to extend southward (Photo 115).

Unit 39. A line comprised of two rows of river rocks emerged at the 10cm depth in the southwest part of the unit. The line stretched over 13.5m in the northwest-southeast direction. It was 50cm wide (Photo 117).

A little unit-shaped field was discovered at the 20cm depth in the southwest part of **Unit 52**. Fired bricks, enamelled plate fragments and bones of sheep and goats were found in this area. The field was sized 60x60cm (Photo 118).

Flat fired bricks and fragments of a large vessel body were encountered at the 20cm depth near the east wall of **Unit 53**. These samples covered an area of 1.2x0.4m.

A round-shaped line comprised of flat fired bricks was discovered at the 30cm depth in the southwest part of **Unit 41** (Photo 119). One of the line's branches extended toward the northwest part of Unit 48.

A large tandir oven (28) was found at the 30cm depth in the east part of **Unit 48**. Half of the orifice element of this clay-paved tandir oven had collapsed. The orifice element diameter was 80cm (Photo 120). A wall was discovered almost adjacently to the tandir oven's north section. The wall stretched 1.9m in the northwest-southeast direction. It was 40cm wide. The wall was paved with two rows of fired bricks. Small river rocks were seen along with bricks only in the uppermost row. Researchers concluded after the wall's base was cleaned up to some extent that its east side descended by eight rows and its west side went down by five rows.

The wall, whose unveiled height equalled 55cm, could have descended deeper (Photo 121).

It is noteworthy that both the wall and the tandir oven were slightly bent southward.

A tandir oven (29) emerged at the 40cm depth in the northwest part of **Unit 39**. Its diameter was 50cm, while its height was 35cm. Traces of burnt clay and charcoal were seen upon the walls.

Two parallel lines were found at the 40cm depth close to the north corner of **Unit 52**. The lines consisted of a single row of fired bricks and medium size river rocks stretching all over their outside part. The lines extended in the southeast direction toward Unit 53. The length of the first and second lines equalled 1m and 90cm respectively, while their width was 40cm and 70cm respectively. They were 53cm apart (Photo 122).

The parallel lines were slightly oriented toward the east part of Unit 53. The observations made at this point are described below.

Vertically placed bricks were located in a rectangular shape in the middle of the area where the two parallel lines ended. There was a jug body and a clay lid fragment in between. The line further extended in a single row. One of the parallel line's branches (1.2m) was up to 1.5 metres long, while the line's total length equalled 3.5m. The line stretched in the northwest-southeast direction. Brick and stone lines also emerged at the 40cm depth in the territories of Units 46 and 53.

Flat bricks that emerged in the northwest part of **Unit 46** were lined up in two rows. This line also extended in the northwest-southeast direction. It was 66cm long and 35cm wide. Three fired bricks were placed vertically at the end of the line.

Units 48, 55 and 56. A large tandir oven (30) was discovered 30cm below the ground at the northwest corner of Unit 55. One of its sections ended up in the east part of Unit 48 and the north corner of Unit 56. Its diameter was 95cm (Photo 123).

A line of flat brick and little river rocks was located adjacently to the west wall of **Unit 53**. It was a slightly disorderly pile shaped similar to a circle. One of its edges crossed into the area of Unit 54. The diameter was 1.2m.

A quern stone half-part was found (Photo 104) at the 50cm depth near the northwest wall of **Unit 39**. The quern stone's diameter was 47cm.

A small tandir oven (31) was uncovered at the depth of 50cm in the east part of **Unit 40**. Its diameter was 40cm, while its height equalled 15cm (Photo 125). Another tandir oven (32) was discovered at the same depth by the west wall of the unit. Half of the tandir oven crumbled. The diameter was 45cm, while the height of its undamaged section was 43cm (Photo 126).

A line stretching in the northwest-southeast direction emerged in the central part of the unit. This line, which was positioned in three rows, included large and medium size river rocks and fired bricks placed densely and slantwise. One of the pile's branches consisting of large river rocks was leaning against tandir oven 31, which was discovered in this unit. The line was 1.8m long and 80cm wide.

Units 54 and 55. A large tandir oven (33) was found at the 50cm depth at the east wall of Unit 54. Nearly half of the tandir oven was located in Unit 54, while the other part ended up near the west wall of Unit 55. The tandir oven's diameter was 1.2m, while its height equalled 40cm.

Finds at 60-100cm depth:

A furnace made using vertically placed fired bricks (17) emerged at the 60cm depth 50cm south of the quern found in **Unit 39**. The quadrangular furnace's west side remained open. Extra bricks shaping up additional furnaces were put vertically to the north and south of that spot. A vessel with small capacity was discovered amid the furnaces. The main furnace's dimensions were 35x30cm, while the total size of the furnaces was 90x30cm.

An excavated furnace site (16) was found at the 60cm depth in the middle of the north part of **Unit 45**. Charcoal pieces and burnt soil emerged on the inside. The furnace was oval-shaped. Its dimensions were 38x50cm, while its depth equalled 30cm (Photo 127).

A tandir oven (34) emerged at the 60cm depth slightly to the east of the central part of the wall connecting **Units 45 and 52**. Plastering was applied using a grey substance inside the clay tandir oven. Its diameter was 68cm, while its height was 40cm.

A couple of vessel fragments, an iron nail and a layer of ash emerged on the inside (Photo 128).

Units 54 and 55. Two more large tandir ovens (35 and 36) were found at the 60cm depth at the cross section of the east and west walls in these units. Most of the tandir ovens ended up in the area of Unit 55. One of the tandir ovens was set up inside the other one. The old tandir oven encircled the relatively new one. The new tandir oven's diameter was 1.05m, while the height of its undamaged section was 40cm (Photo 129).

An oval pit (12) emerged at the 70cm depth close to the southeast corner of **Unit 45**. It was full of burnt soil on the inside. Yellowish substance, burnt clay and traces of burning were found on the wall of the pit after it was cleaned up. The pit was sized 1x0.8m, while its depth equalled 65cm.

Units 47 and 54. Another big tandir oven (37) was recorded at the 60cm depth at the cross section of the south and north walls in these units. Its diameter was 1.1m (Photo 130).

A clay tandir oven (38) was discovered at the 70cm depth in the northwest part of **Unit 53**. The tandir oven's diameter was 50cm, while its height was 45cm (Photo 131). Clay vessel fragments and an ash layer emerged on the inside. A line extending in the southeast direction was found in the south part of the tandir oven. The line included round-shaped and flat river rocks, as well as fired bricks. It was 3.1m long and 10cm wide. While excavating and examining the edges of this line, which emerged at the depth of 60cm, researchers observed it to a 90cm depth in four to five rows and determined that it had a wall (Photo 133). However, the line apparently descended deeper. A decision was made to uncover the wall completely with the use of a planned and synchronous lowering of the area to the same depth.

An oval pit (13) was cleaned up by the north wall of **Unit 40** at the depth of 75cm. Though a half-part of the pit had crumbled, its structure was observed at its cross section. Ceramics fragments, bricks, river rocks and rotten timber were found at the pit, which was full of greenish soil on the inside. The pit's diameter was 1m, while its depth was 90cm. Its surface was plaited with bricks with fired edges (Photo 132).

A wide furnace site (17) was discovered at the 80cm depth near the southeast corner of **Unit 44**. Charcoal pieces, animal bones, brick and pottery fragments emerged on the inside. The furnace's diameter was 1.1m, while its depth was 60cm. A hole with the diameter of 0.8cm was opened in the furnace's southeast part.

Unit 46. A line stretching toward the southeast part from the unit's west corner emerged at the depth of 70cm below the ground. There were flat fired bricks throughout the middle section of the line. Rows of river rocks extended on both sides. The line was 4.3m long and 90cm wide. Moreover, a little tandir oven (39) was discovered at the end of the line. The tandir oven's diameter was 45cm, while its height was 15cm. The stones in the tandir oven and the line leaned against the west wall of Unit 47 (Photo 134).

Two tandir ovens (40 and 41) emerged in the middle of the east wall of **Unit 50** at the 80cm depth. Tandir Oven 41 (in the north) crossed a half-part of Tandir Oven 40. The latter's diameter was 90cm, while the height of its undamaged section equalled 45cm. The diameter of Tandir Oven 41 was 90cm, while the height of its undamaged part was 40cm.

A heap of fired bricks lined up in one row was registered in the east part of Tandir Oven 41. Initially, three rows of this line were tracked.

The lower part of another tandir oven (42) emerged at the 90cm depth in the east part of **Unit 42**. A thick layer of ash remained in the bottom. Its diameter was 85cm, while the height of its undamaged section was 10-15cm (Photo 135).

Unit 53. Flooring connecting the line found in this unit that descended till the 90cm depth and another line crossing Units 52 and 53 was discovered. The flooring, which was also located 90cm below the ground, was comprised of flat fired bricks and lined up in five rows. One of its parts collapsed and the bricks were scattered. The flooring was sized 1.8x1.1m. It slightly crumbled in the middle (Photo 136).

A field paved with flat bricks was uncovered at the 1m depth in the north part of **Unit 42**. The middle section of the four-cornered field slightly crumbled. It was sized 1.9 x1.9m.

A ceramic tandir oven (Photo 137) was uncovered near the field's northwest corner at the same depth. The tandir oven was in good condition.

Another field with burnt soil in its north part and a burnt clay layer in its south part was discovered at the 1m depth in the west part of **Unit 57**. Total area of the field equalled 3x0.8m. The burnt soil layer was sized 1.5x0.8m and its thickness was 20c, while the burnt clay stratum was sized 1.5x0.8m and its thickness made up 10-25cm. River rocks and fired brick fragments were sparsely scattered over these layers.

Finds at 110-150cm depth:

Another large tandir oven (43) was unveiled 80cm east of Tandir Oven 38, which was found in the northwest part of **Unit 53**. The tandir oven leaned against the west wall of Unit 53. The south part of this tandir oven, which emerged at the 1.1m depth, leaned against the line that stretched in the northwest-southeast direction and traversed the south part of Tandir Oven 34. The tandir oven's diameter was 1m, while its height was 35cm. Flat fired bricks were lined up vertically and

flatwise adjacent to the tandir oven's northwest wall. A quern stone half-part made of a cliff rock was found on top (Photo 137a).

A short line consisting of large and medium size river rocks and fired bricks emerged near the southeast corner of the unit. The line stretched 1.1m in the north-south direction.

Pottery samples were found at the 1.2m depth below the ground in the west part of **Unit 54**. These items, which were positioned side up or over their orifice elements, included water vessels, a boiler and pitcher fragments (Photo 138).

Unit 52a. Piles that were part of a crumbled line consisting of large river rocks were recorded in the west part of the big wall section that ended up in the area of this unit. Fired brick fragments were also encountered amid the stones. These were probably the crumbled heaps of a structure built west of this wall.

Following a complete cleaning of the wall discovered in **Unit 48**, a conclusion was made that it had been paved in nine rows.

As for the short brick line located east of this wall in Unit 49, it was comprised of five rows. The west row of the line was paved using unit-shaped, wide and flat bricks (24x24x5cm), while the two rows located in the east consisted of narrow elongated bricks (22x13x5cm). The line's dimensions equalled 90x50x40cm (139).

A neat line consisting of mainly river rocks and some fired bricks was found at the 1.1m depth in the west part of the wall foundation. The line disappeared after stretching 1.9m westward and further extending 1.75m northward. The line was 75cm wide (Photo 140). Its east edge leaned against the lower part of Tandir Oven 30, which was discovered in Unit 48. An empty space was encountered close to the unit's north corner at the depth of 1.1m. Fired bricks were found at the walls in that gap, which became round-shaped when its inside part was being cleaned (Photo 141). Researchers concluded that it was a specially dug pit or well (2).

Unit 59a. The castle wall turned westward after stretching southward and continued to extend further. Therefore, a new unit numbered 59b was designated to track down the wall.

Unit 43. A large wall foundation extending in the north-south direction along the unit's entire west part was found at the depth of 1.1m. The foundation, which was paved using mainly big river rocks, was 70cm wide. Five rows of this pile were observed. Its height was up to 55cm.

Fired brick fragments were encountered amid the rocks. These were probably traces of the bricklaying technique applied on the wall.

Two intersecting tandir ovens were recorded (Photo 142) by the west edge of the wall. Parallel to that wall, a brick-paved wall (Photo 143) extended east of it in two rows. The bricks were piled one over another in three lines.

A four-cornered furnace site (18) set up using vertically placed fired bricks was discovered at the 1.1m depth in the middle of the west part of **Unit 44**. The north side of the furnace, whose three sides were enclosed, remained open. The furnace was sized 35x35cm, while its depth equalled 25cm (Photo 144).

Traces of another pit (14) were tracked at the 1.2m depth by the west corner of **Unit 46** northwest of Pit 12, which was found in Unit 45. These included traces of burnt soil, clay and charcoal, which covered an area of 2.9x1.7m and descended until the depth of 50cm. The diameter of the pit itself was 1m.

A ceramic tandir oven (44) (Photo 145) was found at the depth of 1.2m in the east part of **Unit 44**, while another little tandir oven (45) (Photo 146) was encountered 1.3m below the ground in the northwest part of the unit. The ceramic tandir oven's diameter was 50cm, while the small tandir oven's diameter was 55cm and its height equalled 20cm.

The north part of Furnace 18 was encircled at the 1.3m depth by a fired brick line in the shape of a unit. The line's part that was paved with small and fragmented bricks in two rows and stretched in the south-north direction further extended westward in a single row for 1.3m after the depth of 1.4m. There was a line consisting of vertically placed wide fired bricks throughout the furnace's south side. The length of this pile, which stretched in the west-east direction, was 1.9m (Photo 147).

A small, round-shaped, dug-out furnace (19) was located at the northwest corner of the brick lines. Half of this furnace, which was also paved using bricks, had collapsed. Its diameter was 40cm and its depth equalled 20cm.

Two small adjacent kilns (4, 5) (Photo 148) emerged at the 1.3m depth in the southeast part of **Unit 42** on the side of previously discovered Tandir Oven 40, more precisely, 15cm below its bottom part. A short line of fired bricks crossed their south parts. Dimensions of the kilns are listed below.

Kiln in west part (4) – diameter = 40cm, height = 12cm

Kiln in east part (5) – diameter = 40cm, height = 16cm.

A stone line emerged north of the kilns. The line stretched 3.2m in the northwest direction, crossing into the area of Unit 43 (Photo 148).

A medium size tandir oven (46) emerged at the 1.5m depth 75cm east of the mentioned kilns. The tandir oven's diameter was 65cm and the height of its undamaged section was 17cm and the wall thickness equalled 3.8cm (Photo 148). Three jar-type vessels of various sizes were found inside. This tandir oven was located 35cm below Tandir Oven 42.

Unit 48. Scholars concluded during cleaning conducted at Well 14, which was discovered in this unit, that the entrance to the well at the depth of 1.5m had a quadrangular shape. Flat fired bricks were laid around the entrance, which was located north of the wall previously found in this unit. This flooring was sized 1.6x1m, while the dimensions of the well entrance equalled 70x50cm and its depth was 80cm (Photos 8; 149-150). It is noteworthy that the well was the same as the cellar-type food well (1) discovered during Stage 2 of archaeological excavations in the monument area. A part of that food well ended up in the northwest section of Unit 49. A line of fired bricks stretched in two rows 20cm above the flooring and close to the mentioned wall's foundation. The line was 1.2m long and 30cm wide (Photo 150).

A small dried-up kiln apparently dating back to later time periods was located in the northwest part of the flooring near the entrance. The kiln was located 40cm above the well, i.e. at the depth of 1.1m. Its diameter was 45cm and its height was 20cm.

The castle wall stretched for 17m in the north-south direction and further leaned against the remains of a large structure. The structure was 11m long and expanded westward. River rocks, fired brick fragments, as well as traces of gypsum and sheetrock, were seen amid the debris pertaining to the structure. Its foundation was comprised of big river rocks. This was clearly seen at the excavated walls (the structure's cross section). Sheetrock and a layer of burnt clay were found under the structure.

Unit 42. Following a complete cleaning of the stone line traversing the north part of the tandir ovens and kilns discovered in the area, it was established that these were two parallel lines. The

area between the lines was mainly filled with fired bricks and little river rocks. Researchers made a conclusion that this line was a wall foundation. The latter extended eastward for 4.2m from the west, leaning against the large wall foundation stretching in the north-south direction, which was found in Units 43 and 49 (Photo 151).

The large wall stretched 9.9m in the north-south direction and then turned westward, crossing Unit 49. It further merged with the line leaning against Tandır Oven 30, which was recorded in Unit 48 and turned in the north direction in the area of Unit 41. Its length before the turn equalled 4.8m (Photo 152).

Thus, a conclusion was made after all these wall foundations were examined that they were the lower walls of a unit-shaped room or another structure (III). That structure ended up in the territories of Units 41, 42, 43, 48 and 49. As mentioned above, a large tandır oven (42) was discovered inside, along with a food well (2) 40cm below the tandır oven, along with two kilns (4, 5) and another tandır oven of average size (46). Total dimensions of the room equalled 6.5x6.5m, while the distance between the north and south walls was 4.8m (Photo 153).

Units 66-66a. As mentioned above, the stand-alone stone line (Photo 155) crossing the hill's west part parallel to the castle wall created "a street" between itself and the wall, heading toward the south wall of Unit 59. In an effort to track down a further direction of the line, a decision was made to set up two new units (66, 66a) in the southwest part of the excavation and excavations were further launched in those units.

Two tandır ovens emerged at the 1.5m depth by the east corner of **Unit 42**. The first tandır oven had a margin. The second tandır oven was made of earthenware and divided the first one in half (Photo 154). The dimensions are listed below.

Tandır oven 1– diameter = 54cm, height = 27cm ;

Tandır oven 2 – diameter = 65cm, height = 53cm.

Units 43 and 49. Another line emerged parallel to the large wall foundation found in these units and stretching in the north-south direction and 1.5m east of the wall. The line included fired bricks laid in two rows and three lines. The first row was 1.4m long and the length of the second one equalled 0.9m. Afterwards, the lines are superseded by large river rocks lined up in three rows and extending throughout their east side. The river rock line stretched southward for 1.9m (parallel to the big wall) and then turned westward, extending further for another 70cm toward the big wall. A partition consisting of large river rocks and connecting the brick part of the line with the big wall emerged as well (Photo 153).

Two adjoining excavated pits (15, 16) emerged at the 1.1m depth in the middle of the east wall in **Unit 41**. Pit 15, located in the west part, was round-shaped and its diameter was 1.1m, while its depth equalled 35cm. Pit 16, which is located in the east, was oval shaped and its dimensions equalled 1.5x1.1m, while its depth was 70cm (Photo 152 to the right).

Unit 50. The two tandır ovens (47, 48) that emerged by the unit's northwest corner at the depth of 1.1m were cleaned up completely 1.5m below the ground. Tandır oven 47 had a margin, while Tandır Oven 48 was made up of earthenware and divided the first one in half (Photo 156). Half of this tandır oven ended up in the area of Unit 51.

The diameter of Tandır Oven 45 was 54cm, while its height equalled 27cm.

The diameter of Tandır Oven 46 was 65cm, while its height equalled 53cm.

A larger tandır oven (49) emerged during a cleaning conducted in the east part of the two tandır ovens. Tandır Oven 49, which was traversed by the two previous ovens, had a diameter of 1m.

Finds at 1.7-1.9m depth:

Deep wells started to be discovered (Photo 157) at the depth of 1.7m in the southwest part of the excavation. One of these wells (17) was located southwest of **Unit 46**. Its diameter was 85cm, while the depth of its excavated part equalled 1.4m.

The second well (18) emerged in the northwest part of **Unit 52**. Its diameter was 1m, while the depth of its excavated section equalled 1.5m.

The third well was discovered at the cross section of **Units 46 and 47** (most of it was located in Unit 46). Its diameter was 90cm and the depth of its excavated section was 2m.

A significant number of ceramics fragments and vessels were found in each of the three wells.

Units 66a and 73a. In an effort to track down the stand-alone stone line, a decision was passed to excavate the territory of these units. A conclusion was made that this stone line had turned in the southeast direction and that the castle wall remains extended 2m southward and parallel to it (Photo 158).

Units 66 and 73. Excavations were launched in these units to track the direction of the stone line and the wall ruins. The lower part of a large tandir oven (50) emerged at the depth of 10-20cm, along with that of a small one (51), which was found 60cm southeast of it (Photo 159).

Dimensions of the tandir ovens are listed below.

Tandir Oven 49– diameter = 70cm, height of undamaged section = 10cm

Tandir 50– diameter = 60cm, height of undamaged section = 5cm.

The large tandir oven was located in the east part of Unit 66, while the little one was discovered in the northwest part of Unit 73 (Photo 159).

Another pit (19) was discovered at the 1.7m depth in the area of **Unit 45**. The pit, which was rather shallow, was excavated in the northwest part of Unit 45, 35cm away from Well 17, which was found in Unit 46. Its diameter was 80cm and its depth was 60cm.

Another pit (20) emerged at the same depth in the northwest part of **Unit 46**. Its diameter was 90cm. This pit was also 60cm deep.

Two large pits (20, 21) were discovered at the 1.7m depth by the south corner of **Unit 56**. The pits were excavated in the east-west direction (Photo 152 to the left). The pit in the east (20) was larger and deeper.

The diameter of Pit 20 was 1.5m, while its depth was 45cm.

The diameter of Pit 21 was 1.45m, while its depth was 15cm.

The following finds were recorded during the excavations carried out in the newly designated units:

A short stone line was registered 20-30cm below the ground in the central part of **Unit 59**. The line, which consisted of small river rocks, stretched for 1.3m in a single row in the northwest-southeast direction. A big river rock was placed in the middle of this pile.

A small furnace (20) that was dried up using vertically placed fired bricks was discovered 25cm north of this line (Photo 160). The furnace was sized 30x40cm, while its depth equalled 20cm.

Elongated and narrow timber logs emerged at the southeast end of the stone line. They stretched in the same direction as the line. Traces of timber extended till the depth of 90cm toward the southwest corner of Unit 61.

The lower part of a tandir oven (52) was found at the 20cm depth in the central part of **Unit 66**. The crumbled tandir oven was in poor condition. Its diameter was 50cm, while the height of its undamaged section was 25cm.

Remains of a collapsed structure's part were found 20cm below the ground in the northwest part of **Unit 67**. The remains included fired bricks and small river rocks. Two rows in this pile remained intact. They covered an area of 1.6x0.5m, while their height was 20cm (Photo 161).

The excavation area was expanded and excavations were launched in six more units (60, 67, 74, 61, 68 and 75) in the middle and the southern part of the hill.

A line of flat fired bricks set up in two rows emerged at the depth of 40cm in **Unit 68**. The line stretched over 90cm in the north-south direction. It was 30cm wide.

Two intersecting tandir ovens (53, 54) emerged 20cm south of this line. The diameter of the undamaged tandir oven (53) was 50cm, while that of the tandir oven whose half-part was intact (54) made up 50cm. The two tandir ovens were up to 20cm apart (Photo 162).

The lower part of a large tandir oven (55) emerged at the 60cm depth in the middle of the south wall of **Unit 61**. The tandir oven's diameter was 1.05m, while its height was 40cm (Photo 163).

Thus, Stage 3 of archaeological excavations in the Karpilitepe settlement drew to a close. The excavations were mainly carried out in the central and west parts of the monument during this stage. During the excavations, the west section of the castle wall and the line of stones extending parallel to it were uncovered. It was established that they had turned eastward. At the same time, remains of a large collapsed structure emerged in the outside part of the wall's southwest section. The finds recorded in the west and central parts of the excavation included numerous tandir ovens with margins and ceramic tandir ovens, furnace sites, a large room foundation, a food well, fields paved with flat bricks, parts of a large and wide wall, household and water wells, stones slated for hand-mills, stone working tools, as well as many ceramic vessel samples. Researchers were looking forward at this point to a complete uncovering of the monument, as well as retrieving the wall surrounding the castle and the presumed towers or their remains, during Stage 4 of the archaeological excavations.

As mentioned above, the excavation area that was designated during Stage 3 and further excavated was sized 544 sq. m. If the territory excavated during the previous stages is added to this figure, the researched excavation area in the Karpilitepe monument covered a total of 1,494 sq. m. (Photos 164-167).

Stage 4 Excavations

The next stage of the archaeological field research in the Karpilitepe settlement started in the south part of the excavation. The part of the monument designated for excavations was divided into (a total of 62) units. The excavations were further tackled in sequence by Group 1 in those units in the west-east direction. Another group carried out excavations in the units located in the east part of the area. Excavations were envisaged in an area covering a total of 992 sq. m.

Unit 66,74. The tandir ovens previously found in these units were recorded and taken apart in order to track down a further direction of the pavement rocks stretching parallel to the castle walls. Afterwards, the area of the units was excavated until the depth of 1.6m and the continuation of the pavement rocks was uncovered. This line continued after turning in the southeast direction. Initially, the surface of the line's extension was cleaned up over a distance of 8.7m (Photo 168).

Unit 59. A small ceramic tandir oven emerged at the 60cm depth near the unit's north wall. The tandir oven's diameter was 40cm and its height was 25cm (Photo 169).

Unit 61. The lower part of a large ceramic tandir oven was found 60cm below the ground in the middle of the unit's south wall. The tandir oven's diam. was 1.5m and the height of its undamaged section was 40cm.

Unit 67, 74. Two parallel lines stretching in the south-north direction from the south wall of Unit 74 emerged at the depth of 50cm (Photos 170-171).

The length of the first line was 1.85m and its width was 90cm. Its middle section was paved with flat fired bricks. Medium size river rocks were lined up along both edges of the bricks.

The second line stretched 40cm east of the first one. It was 3.3m long and 60cm wide. The line was also paved using fired bricks.

Only two rows were observed in both lines. These piles extended northward, crossing into the area of Unit 67.

Unit 67, 75. Another line was discovered at the 50cm depth perpendicular to the second of those parallel lines crossing into the mentioned unit. The line originated in Unit 67 and crossed into the area of Unit 75, stretching eastward. It was set up with the use of large and average size river rocks. This pile, which was adjacent to the north edge of the second parallel line, turned eastward. It was 1.9m long and 40-75cm wide (Photos 172-173).

Unit 92, 99. A fired brick line was uncovered at the 30cm depth. The line stretched 1.5m eastward from the southwest corner of Unit 92 and further extended 1.57m southward. The part extending southward ended up in the area of Unit 99 (Photo 174).

Another ceramic tandir oven (56) was discovered at the 70cm depth 30cm away from the east wall of Unit 92. The upper part of the tandir oven had collapsed. The height of its undamaged section was 40cm, while the diam. equalled 80cm (Photo 175).

Unit 68. Another tandir oven (57) was found in the northwest part of the unit. Small flooring paved with flat bricks was unveiled north of the tandir oven while the surrounding area was being cleaned. A quern stone was placed amid the bricks as well. Moreover, a line comprised of two rows of flat bricks stretched southward from the tandir oven. The line was 1.6m long and 60cm wide (Photo 176).

Unit 60. A four-cornered structure consisting of flat fired bricks and river rocks was found in the middle of the unit at the depth of 80cm. It was sized 75x60cm and its height was 25cm (Photo 177).

Unit 92. Flooring paved with flat fired bricks emerged 1m below the ground west of Tandir Oven 56, which was discovered in this unit. This floor stretched 2.1m in the north-south direction. It was 90cm wide (Photo 178).

Unit 90. The semi-dilapidated Tandir Oven 58 was found at the 90cm depth near the unit's southeast corner. Its diameter was 60cm (Photo 179). A flat brick was put adjacent to the northwest section of the tandir oven and two bricks were placed vertically in front of it. A short brick line extended in the northwest and southwest directions from those bricks. The line was 1.3m long (Photo 179).

Unit 59. The oval-shaped furnace 21 was discovered (Photo 180) at the depth of 1.7m in the northwest part of the unit. Pieces of burnt firewood were found inside the furnace. The latter was apparently used to prepare charcoal. It was sized 1.7x1.1m, while its depth was 60cm.

Unit 91. Fired brick lines were revealed throughout the unit's territory at the depth of 60cm. The long pile consisting of a single row stretched over 3.2m and leaned against the unit's northwest wall.

A line consisting of large river rocks and bricks stretched over 1.15m north of the mentioned pile and parallel to it. The line, which was connected to the remains of flooring paved with fired bricks, was 90cm wide. One more line of large river rocks, which was 1m long, extended southward from the area located near the unit's northwest corner (Photo 181).

Unit 60. A small pit (22) was discovered at the depth of 1.7m by the northwest corner of this unit. The pit's diam. was 70cm, while its depth equalled 50cm (Photo 182). Another trash pit (23) emerged 1.6m below the ground close to the unit's southwest corner. Fired brick and pottery fragments were found inside the pit. The pit's diam. was 80cm. Its inside part was excavated till the depth of 1m (Photo 183).

Unit 67, 75. Another pit (24) was uncovered at the 1.6m depth near the west corner of Unit 67. Its diameter was 75cm, while its depth was 65cm (Photo 184).

The observations made after Units 67 and 75 were completely cleaned are described below. The second line in Unit 67 stretched eastward, crossing into the area of Unit 75. Thus, the line's total length was 4.6m.

Another stone and brick line, which was located parallel to the second one found in Unit 67, stretched over 2.6m from the 35m depth, heading toward the wall. Thus, a quadrangular room with one open side was shaped up (Photo 185).

Two round-shaped pits (25-26) were discovered upon the room's floor. One of the pits was small and the other one was large. The pits emerged at the depth of 1.2m.

The large pit was located 60cm north of the small one found south of the east part of Unit 75.

The small pit's diam. was 57cm and its depth was 22cm.

The large pit's diam. was 1m and its depth was 20cm.

Another line stretching in the northwest direction that was connected to the south part of the line extending southward was discovered as well. The line was paved using three rows of medium size river rocks. Its south part descends further from the depth of 70cm on its way in the northwest direction. The length of this line was 2.3m and its width equalled 70cm (Photo 185).

Unit 69. A line comprised of a single row located in this unit stretched over a distance of 1.7m in the southwest-northwest direction. Its upper row was paved with fired bricks, while the row at the bottom was set up with the use of large river rocks. Flooring adjoining the line in the east was found 30cm underneath. The floor was laid using flat bricks. There was a quern stone in between. The floor was sized 1.2x85cm (Photo 186).

Unit 83. A line of fired bricks was found at the depth of 40cm by the unit's southwest corner. It stretched over 2.1m in the northwest direction. Four rows of the line were tracked 70cm below the ground. The fourth row consisted of river rocks (Photo 187).

The pavement rocks extending along the west and south perimeters of the excavation area continued from the 1.1m depth 85cm away from the unit's south corner. The stones stretched 3.8m in a single row in the west-east direction (Photo 188). A line of large river rocks located at the 1m depth between these stone rows and the unit's south corner extended in three rows in the south-north direction. It stretched toward the north corner of the unit. The length of the line's visible part was 3m and its width was 65cm (Photo 188).

The above-mentioned wall remainder rises at the 40cm depth east of this line and parallel to it. The wall's foundation was built with the use of big river rocks. There is a row of average size river rocks over the foundation, along with a fired brick line consisting of three rows on top of it. The bricks in the last, third row were sparse.

The mentioned wall twisted near the south corner and crossed into Unit 82. The length of the wall's visible part was 2.1m and the height of its undamaged section was 40cm, while the height of each of the brick piles was 20cm (Photo 188).

Average size river rocks stretched for 1.7m in one row in the west-east direction at the depth of 90cm parallel to the pavement stones and 55cm away from them. The west edge of this pile leaned against a line comprised of three rows (Photo 188).

Three adjacent four-cornered furnaces (22-24) were located 45cm north of this line, 30cm east of the line consisting of three rows. Stoves were found at the east walls of the lateral furnaces. The stove in the first furnace was completely ruined, while that in the third furnace was partially damaged.

Dimensions of the furnaces are as follows:

Furnace 1 – 30x40cm

Furnace 2 – 30x30cm

Furnace 3 – 30x40cm.

The depth of each furnace was 30cm (Photo 189).

Unit 62. Remains of a structure paved using large and medium size river rocks, as well as fired bricks, were discovered at the 20cm depth in the north part of the unit. The remains, which descended till the 40cm depth, were part of a completely dilapidated structure. Traces of sheetrock and fired clay were encountered amid the stones and bricks (Photo 190).

A line comprised of three to four rows of small and large river rocks emerged at a depth of 80cm near the west corner of the unit. The line, which stretched for 2.1m in the west-east direction, was 80-90cm wide (Photo 191).

Unit 82, 75, 76. A line comprised of average size river rocks was found 60cm below the ground by the west wall of Unit 82. The north side has a sediment. This pile slightly twisted and further stretched for 5.15m in the south-north direction, crossing Units 75 and 76. It was 60cm wide (Photo 192).

Unit 69. Researchers established that the discovered brick-paved floor continued (on the east side) close to the west wall of this unit. Thus, the floor's total area reached 1.75x1.4m. There is a depression on one side of the floor (Photo 193).

Unit 83. Ruins of a structure were discovered at the 40cm depth in the unit's east part. The debris, which included stones and fired bricks, covered an area of 3.1x0.8m and extended for 3.1m in the south-north direction.

Unit 75. A stove was recorded (60cm below the ground) in this unit by the wall of the flat brick line that stretched in the south-north direction and ended with a ceramic tandir oven. Half of the stove remained intact. Its diam. was 50cm, while the height of its undamaged section was 25cm (Photo 194).

Unit 62. A ceramic tandir oven (59) emerged at the 50cm depth at the unit's southwest corner. Half of the tandir oven remained intact. Its diam. equalled 55cm, while the height of its undamaged section was 40cm (Photo 195).

Unit 76, 83. A collapsed tandir oven (60) (Photo 196) was found at the 80cm depth by the southwest corner of Unit 76. An oval furnace site (25) was discovered east of the tandir oven at the 90cm depth at the northwest corner of Unit 83 (Photo 196).

Traces of burning were seen inside the furnace. Animal bones and ceramics fragments were found on the spot. The tandir oven's diam. was 50cm and the height of its undamaged section was 25cm, while the furnace's diam. equalled 50x75cm and its depth was 30cm.

Unit 83. A household well (24) emerged at the depth of 1.3m east of the tandir oven and furnace found in this unit. The well diam. was 1m, while its depth was 60cm (Photo 197).

Unit 76. A furnace (26) built using vertically placed bricks was found at the depth of 90cm in the central part of the unit. The furnace, which has a rhombic shape, is sized 58x48cm, while its depth equals 20cm (Photo 198).

Unit 69. A small stove was discovered at the 80cm depth near the southeast corner of the unit. There was an ash layer inside. The stove's walls were plastered with fired clay. Its diam. was 45cm, while its depth was 15cm (Photo 199).

Unit 75. Another household well (25) emerged at the depth of 50cm in the middle of the unit west of the line stretching in the south-north direction. The diam. of the well was 90cm, while its depth equalled 80cm (Photo 200).

Unit 61. Another pit (26) was discovered at the 1.7m depth near the northwest corner of the unit. Both its diam. and depth equalled 70cm (Photo 201).

Unit 63. Another pit (27) emerged at the 60cm depth 1.1m northwest of the unit's southwest corner. Its diam. was 60cm and its depth was 50cm (Photo 202).

Unit 77. A line was found at the 30cm depth close to the unit's northwest corner. The bottom row of the line, which stretched in the south-north direction in three rows, consisted of large river rocks, while the upper rows were comprised of river rocks and lines of fired bricks. The line was 2.1m long and 65-100cm wide, while its height equalled 45cm (Photo 203).

Unit 70. A pile of sparse bricks was registered at the depth of 70cm in the east part of the unit. It covered an area of 80x65cm (Photo 204).

Unit 84. A large tandir oven (61) was discovered at the depth of 1.3m in the middle of the unit's north part. The tandir oven's upper part had crumbled. It was located 1.1m away from the shallow pit found at the east wall of the unit. Its diam. was 95cm, while the height of its undamaged section equalled 40cm (Photo 205).

Unit 76. A little furnace (27) was discovered at the 1.2m depth in the south part of the unit. The furnace's diam. was 30cm and its depth was 10cm (Photo 206).

Unit 77. A deep well (28) emerged 1.7m below the ground near the northwest corner of the unit. Parts of animal bones and ceramics fragments were found during a cleaning conducted inside the well. The well's diam. was 90cm, while its depth was 1m (Photo 207).

Unit 75. A furnace site emerged at the depth of 1.2m in the south part of the unit. There were pieces of charcoal inside. The furnace's diam. was 75cm and its depth was 50cm.

Unit 91. A pear-like shaped large household jug was found at the depth of 1.3-1.6m in the northwest part of the unit. The jug's narrow orifice element is bent sideways, while its base is flat. The shoulder and the body are encircled by two protruding strips decorated with patterns. The colour is light pink. The body diam. is 50cm, while the height is 30cm. River rocks and fired brick fragments were lined up around the household jug. Fragments of other ceramic vessels were discovered while the area around the jug was being cleaned up (Photo 208).

Unit 83, 77. A three-row line paved with large river rocks was found between the furnaces consisting of three sections previously discovered in the area and wall ruins whose foundation was also comprised of large river rocks. The line was located at the 1.1m depth in the east part of Unit 83. It stretched for 6.7m in the southwest-northwest direction, crossing into the area of Unit 77. The line was 70cm wide (Photo 209).

Unit 64. A large ceramic tandir oven (62) was discovered at the depth of 30-40cm by the unit's south wall. The tandir oven's surface was ruined and only its lower part remained intact. The diam. was 95cm, while the height of its undamaged section was 50cm (Photo 210). Two (fragmented) average size jars, fragments of large jugs and pieces of bricks (two of them in their entirety), as well as river rocks, were found inside the tandir oven during its cleaning. An ash layer emerged at the bottom.

Unit 70. Two furnaces (28-29) built using vertically placed bricks were discovered at the depth of 1m in the east part of the unit. A brick line stretching for 2.8m in the south-north direction was located east of those furnaces. A pile of bricks was recorded east of the line. During a cleaning of the ceramic tandir oven (63) discovered at the unit's southeast corner it was estimated that its diameter was 50cm, while the height of its undamaged section was 25cm (Photo 211).

Unit 63. A tandir oven with margins (64) was found 1m below the ground 1.1m north of the furnace and brick line that emerged in Unit 70. The tandir oven's diam. was 80cm, while its height equalled 45cm (Photo 211).

Unit 65. Short lines of bricks emerged at the depth of 50cm in various sections of this unit. One of these (located in the unit's east part) is a vertically set-up furnace site (30). Its dimensions are 45x50cm.

Unit 72. Ruins of a structure paved using flat bricks were found at the depth of 50cm near the north wall of the unit. Presumably, this is a remainder of a furnace. A line consisting of large river rocks stretched east of that structure in the southwest-northwest direction. It was 1.2m long. The line extended as far as the northwest corner of the unit.

Unit 85. A short line comprised of two rows that was paved with the use of river rocks and flat bricks was recorded at the depth of 50cm. The line stretched for 70cm in the northwest-southeast direction. It was 50cm wide.

A ceramic tandir oven (65) was discovered at the 80cm depth in the northwest part of the unit. A furnace made up of three vertically placed flat bricks was found inside the tandir oven (31) (Photo 212).

A two-row brick line located north of the tandir oven extended in the northwest-southeast direction (Photo 212). Its diam. was 50cm. The furnace was sized 35x35cm and its depth was 20cm; the line's length was 2.3m and its width equalled 30cm.

Flooring paved with flat bricks placed in three rows emerged at the 70cm depth, 75cm east of the tandir oven. This floor stretched for 1.5m in the south-north direction and ended in a furnace set up with the use of bricks. The floor's width was 60cm (Photo 212). The vertically built furnace was sized 60x30cm, while its height was 20cm. There were two adjacent bricks in the northwest part

of the furnace area. There was a structure consisting of two vertical bricks north of those bricks. The structure was sized 40x50cm.

Unit 71. A small food well was discovered at the depth of 70cm in the south part of the unit. The bricks on one of the sides, which was set up using flat bricks, collapsed and ended up inside the well. The quadrangular well was sized 70x70cm (Photo 213).

Unit 65, 72. A dilapidated tandir oven (66) was found at the 70cm depth at the intersection of these two units. The tandir oven's diam. was 80cm (Photo 214).

Unit 78, 86. Two lines paved with the use of flat bricks emerged at the depth of 70cm in Units 78 and 86. The lines, which were set up in two rows, stretched in the southeast-northwest direction. The pile located in the south crosses into the area of Unit 78 from Unit 86. It is 2m long and 40cm wide (Photo 215). The previously recorded tandir oven (64) with a furnace inside is located over this line. A one-row pavement with three visible lines extended north of the line from the side of the tandir oven. The pavement was 2.3m long and 20cm wide, while its registered height was 20cm (Photo 215).

The bricks were still piled at the height of two rows in some areas of the second line, which was located 1.95m north of the first line. The second line was 3.8m long and 75cm wide, while the height of its undamaged section was 15cm.

A small semi-circular structure was recorded southeast of this line. The structure was built using bricks that had broken down into two halves (Photo 215). Apparently, these brick fragments were used instead of being discarded. Presumably, this structure served as a furnace.

The southeast-northwest wall extended for 80cm at a straight angle and then turned in the northwest direction, assuming a semi-circular shape. It was sized 80x90cm and its height was 25cm (Photo 215).

Unit 64. Three dilapidated tandir ovens located very close to one another (67-69) emerged by the unit's northwest corner at the depth of 1.2m (Photo 216).

Unit 78. A short pile of river rocks was found 15cm below the short brick line, which was discovered in this unit at the depth of 95cm. These lines, which stretched over 80cm in the southwest-northwest direction and consisted of two parallel branches, extended for another 1.5m in the northwest direction after a 1.8m break. They were further slanted toward the unit's northwest corner. The distance between the parallel lines was 30cm (Photo 217).

Unit 85. A river rock line stretching for 3.5m in the north-south direction from the unit's central part was uncovered at the depth of 1.2m. The line, which was 80cm wide, extended further, crossing into Unit 78 (Photo 218).

Another partially ruined tandir oven (70) was found 1.3m below the ground 1.4m south of that line. Its diam. was 75cm, while the height of its undamaged section was 30cm (Photo 219).

Unit 71. A burnt layer was spotted around the structure that resembled the well discovered earlier near the unit's south section. The 30cm thick layer started 1m below the ground, descending till the depth of 1.3m. Its radius equalled 2.8m (Photo 220).

Unit 85, 86. The remaining part of the wall found in these units was completely cleaned up. The wall stretched for 2.35m in the west-east direction. Its ruins were positioned in seven lines in succession and paved using bricks lined up in two rows. Its height was 40cm (Photo 221).

Unit 85. A well (29) was discovered at the depth of 1.3m in the north part of the unit. The colour of soil inside the well was yellowish-green and orange. Presumably, clay used for baking special

ceramics items was stored inside the well. Its diam. was 80cm, while the depth of its excavated part was 80cm (Photo 222).

Unit 79, 72. A small four-cornered field paved with flat bricks was uncovered at the depth of 90cm in the unit's north section. A part of it ended up in the area of Unit 72. It was sized 1.1x0.7m (Photo 223).

Brick-laid flooring was discovered 1.1m below the ground in the east part of the unit. The floor stretched in the west-east direction. It was sized 2.55 x 1.2m (Photo 224). A little ceramic tandir oven (71) was located at the depth of 80cm in the floor's south part. The tandir oven's diameter was 27cm, while the height of its undamaged section was 25cm. A small pit emerged at the depth of 1.2m in the northwest part of the floor. Its diam. was 65cm and its depth equalled 50cm (Photo 224).

Unit 59b, 66b, 66c, 73c, 73b, 66a. The castle's southwest tower (2nd one) emerged in this unit at the depth of 1.2m. Only the lower foundation stones of this tower remained on the spot. These included large river rocks lined up in two rows. The diameter of the semi-circular tower is 6m. The west edge is undamaged. The left (east) edge of the tower, which is linked to the castle's west wall, is connected to the wall that continues toward the west-east part of the castle (Photo 225).

Unit 66b. A well (30) was discovered in front of the tower stones at the same depth (1.3m) in this unit. A lot of ceramic vessel fragments (some of them were restored) and a clay whistle were found (Photos 225, 226) inside the well. The latter had a diameter of 80cm, while its depth equalled 90cm.

Unit 100. A structure paved using flat bricks placed in four rows was found in the unit's east part at the depth of 90cm. It was sized 100x80x40cm (Photo 227).

As mentioned above, the castle walls and the pavement stones parallel to those walls started at the second tower and stretched in the east direction. The castle walls, which ended by the third tower, extended eastward over a distance of 30m. The castle walls and the pavement rocks changed their direction, heading northwest (Photo 228).

It is beyond doubt that a fourth tower was located at the end of the wall. This finalizes the castle, which had been designed as a unit-shaped edifice.

Unit 99, 100, 106, 107. Unlike the previous two round-shaped towers, the third one is slightly oval. Likewise, only the foundation stones of this tower remained intact. The foundation was paved using large river rocks lined up in a single row (Photo 229).

The entire outline of the revealed castle site was determined during further archaeological excavations conducted at the Karpilitepe monument. A conclusion was made that the west wall stretching in the north-south direction from the castle and the pavement rocks located parallel to it extended southward for 30m and further ended in the southwest tower (2nd tower) (Photo 225).

Afterwards, the castle walls and the pavement rocks headed eastward. Another southeast tower (3rd one) emerged after they stretched for another 30m (Photo 229). Finally, the mentioned walls and pavement rocks headed in the northwest direction. It is beyond reasonable doubt that the castle's last, fourth tower will be uncovered after these wall ruins stretch for another 30 metres in the northwest direction.

Walls of a quadrangular feudal castle were uncovered as a result of the archaeological excavations conducted in the Karpilitepe monument area. Each of the walls, which linked four round-shaped towers, was 30m long, while the diameter of the towers was 5-6m. Moreover, another half-tower is located in the middle of the castle's northwest-northeast wall. Foundation and wall ruins of residential buildings were found inside the castle. Numerous samples of tangible

culture, including ceramic tandir ovens and those with margins, stoves, food wells and basements, fields paved with flat fired bricks, sheetrock areas, water wells and pottery items, iron and stone tools, glass and bone samples, copper coins, etc., were discovered in the area.

Ruins of structures slated for production were recorded outside the castle area. The most significant of those finds was a large brick-laid kiln located outside the north wall of the castle. The description of the kiln, which was in a rather good condition (only its upper cover had crumbled), is indicated above. In addition, household pits and tandir ovens were located outside the castle's northeast wall.

The collapsed remains of structures were registered adjacently and outside the west and south walls.

An overview of the excavation is provided below. The obtained samples of tangible culture were numbered on the basis on their location instead of the sequence of their retrieval. The general excavation was described in the east-west and south directions.

Overview

The stage-by-stage research conducted in Karpilitepe led to a conclusion that this monument is a feudal castle dating to the advanced Middle Ages (mid-11th century–early 13th century). The castle covers the whole area of the researched man-made hill. It is encircled by fortress walls connected by semi-circular towers. The lower parts of the fortress walls remained intact. Although the northwest tower was in a relatively satisfactory condition, cornerstones were the only parts of the southwest and southeast towers that were discovered. Most likely, the castle's northwest tower is also in satisfactory condition. This is confirmed by the half-tower in the middle section of the wall connecting the northwest and northwest tower, which was in a relatively good condition. Researchers believe that this is due to the fact that this was considered a titular part of the built structure, so to speak, and therefore had to be more steadfast and magnificent, since the castle's entrance door was located on the west side. A construction technique called the "Ganja bandi" ("Ganja bond") or the "Aran bandi" ("Aran bond"), which contributed to the firmness of the walls and also had a decorative purpose, was used on the undamaged walls of this part and for construction of the towers.

As mentioned above, auxiliary structures were essentially built adjacently in the outside part of the castle's southwest and south walls. Therefore, decorative features and firmness were unnecessary during the construction of these parts. Most likely, this is also the reason that these parts of the castle were more prone to destruction.

Thus, some of the obtained samples of tangible culture were located inside the castle (such as ruins of residential buildings, tandir ovens and stoves, basements and brick-laid floors), while other samples were found outside the castle walls (remains of structures, brick stoves, household pits and tandir ovens, a water well).

A shallow little pit (1) (diameter-90, depth-20cm) was located in the central part of the east wall in the excavation. Ceramic tandir oven 1 (d.-60 cm, height of intact section-40cm) was located 3.4m north of that pit. Another shallow but large pit (2) was discovered 90cm west of it (d.-2.2m, dep.-20cm). The third pit (d.-1.3m, dep.-25cm) was located 1.7m south of the second one, while Tandir Oven with margins 1 (semi-dilapidated; d.-80cm, height of intact section-50cm) was found 50cm north of Pit 3.

Pit 4 (d.-1.2m, dep.-25cm) was located east of the tandir oven, 20cm away from it. Tandir Oven with margins 2 (semi-dilapidated; d.- 90cm, height of intact section-25cm) was located 2m north of the pit.

A well (d.-1.15m, dep.-1.5m) was spotted 3.1m southwest of Pit 4. Pit 5 (d.-1.4m, dep.-15cm) was found south of the well. Tandir Oven with margins 3 (d.-1.05m, height of intact section-30cm) was located 40cm southwest of the pit. Tandir Oven4 with margins (in poor condition; d.-1m) was discovered 50cm east of this tandir oven. An adjacent pile of fired bricks (area-1.4x0.9m) was found south of it, while a large household well (6, d.-2.3m, dep.-1.5m) was spotted 3.5m west of Pit 5. A disorderly line of flat fired bricks was tracked inside the well. Pit 7 (d.-1.7m, dep.- 80cm) was located 80cm southwest of Household Well 6, while Pit 8 (d.-1.1m, dep.-20cm) was found 1.3m southeast of Pit 7. Tandir Oven with margins 5 (d.-70 cm, height of intact section-15cm) was discovered 70cm southwest of the last pit, while Tandir Oven with margins 6 (d.-65 cm, height of intact section-40cm) was found 2.2m northwest of that tandir oven. Tandir Oven with margins 7 (d.-80 cm, height of intact section-45cm) was located northwest of it, while Tandir Oven with margins 8 (d.-60cm, height of intact section-30cm) traversed it.

All the three tandir ovens (6-8) were semi-dilapidated. A ceramic tandir oven (2) half-part (d.-65 cm, height of intact section-50cm) was found inside Tandir Oven 7. Household Pit 9 (d.-2.4m, dep.-70cm) was located adjacent to the north parts of these tandir ovens, more precisely, 40cm below them.

The semi-dilapidated tandir oven with margins 9 (d.-90 cm, height of intact section -35cm) was discovered 1.1m north of Household Pit 7. Household Pit 10 (d.-1.7m, dep.-65cm) was located 1.4m northwest of that tandir oven. Household Pit 11 (d.-1.8 cm, dep.-10cm) was found 50cm east of that pit. Household Pit 12 (d.- 1.9m, dep.-25cm) was spotted 3.1m northwest of Pit 11, while the first water well (d.-0.8-1m, depth of excavated section-1.3m) was located 2.1m west of Pit 5. A big brick-laid stove was discovered 5.5m northwest of that well (1), while Tandir Oven with margins 10 (d.-1 cm, height of undamaged part-50cm) was located 1m south of it. Furthermore, a four-cornered structure paved with river rocks and fired bricks (area-3.9x1.7m, height-30-90cm) was found 80cm southwest of this tandir oven. An adjacent half-tower was discovered west of the structure. A path stretches in the northwest direction from the half-tower. River rocks were lined up on the roadside. Traces of wall ruins remained in the north part of the path. Another household pit (12, d.-1.3m, dep.-30cm) was located 1.6m north of the road's north line, along with the lower part of Tandir Oven with margins 10 (d.-1.05m) 75cm west of it.

Ceramic Tandir Oven 3 or heating stove (d.-40 cm, height of undamaged part -30cm) was discovered north of the pit. The 2.6m section between the tandir ovens and the brick-firing kiln is kept together by a sheetrock mass. The mass occupies an area of 3.8x2.1m and its thickness is 50cm. As mentioned above, three pits with a small circumference were dug in the sheetrock area. An adjacent water well (2, d.-85cm, depth of remaining part-1.2m) is located west of this area. Tandir Oven with margins 11 (d.-50 cm, height of intact section-40cm) was found within a 3-metre distance and above the right line of the mentioned path. Ruins of another semi-dilapidated tandir oven with margins (12, d.-35cm) were discovered west of it.

Ceramic Tandir Oven 4 (d.-55 cm, height-60cm) was located 2.35m southeast of these tandir ovens. Ceramic Tandir Oven 5 (d.-60 cm, height-67cm) was found 1.4m northwest of it. The first food cellar was located south of these tandir ovens.

The path extends for 13.6m and further turns southward (width- 1.7m), while the north part turns toward the northwest tower of the castle wall.

Tandir oven with margins 13 (d.-60 cm) was located 40cm south of the 9.7 metre point of the road.

A small clay stove (1, d.-35cm, height-15cm) was located 60cm southeast of that tandir oven. Household Pit 13 (d.-1m, dep.-70cm) was located 70cm southeast of the stove.

Two more tandir ovens were discovered at the 2.4m depth 1m east of Ceramic Tandir Oven 5. One of these was a ceramic item (6), while the other tandir oven had margins (14).

Ceramic Tandir Oven 6 (d.-65 cm, height-55cm) was found inside Tandir Oven with margins 14 (d.-55 cm, height-40cm).

A four-cornered field was discovered at the 1.3m depth south of these tandir ovens. The field was paved using flat bricks. It was sized 2x1.8m. A large wall stretches 60cm east of it at the depth of 1.7m in the north-south direction within a distance of 9m. The foundation of the wall, which was built with the use of mainly large and medium size river rocks, was 80cm wide and 60cm high.

Another wall foundation (made of medium size river rocks) was located at the 2.5 metre point of the wall (in the north-south part). It stretched for 4.1m adjacent and perpendicular to it in the southeast-northwest direction. The wall is 90cm wide.

The second wall foundation, which was 80cm wide, stretched from the south end of the north-south line in the same direction and parallel to the southeast-northwest wall. This wall turned northward after extending for 6.2m and stretched further for 90cm. Thus, the general view of the foundation walls of a large structure or room (III) became clear. Traces of flooring comprised of flat fired bricks were seen in some areas of the entire structure's wall (Photo 153).

Another food well (2) or cellar was discovered at the 1.9 metre point of the southeast-northwest wall crossing the monument's south part. It adjoined the wall from the north. There was a wall line comprised of fired bricks south of the cellar found previously in this area. This wall is located 40cm above the southeast-northwest wall of the structure. The line is 60cm wide and 1.95m long. The wall was lined up in nine rows (Photos 149-150).

Another large ceramic tandir oven (7) (d.-95cm, height of undamaged part-55cm) that adjoins the wall from the south was found at the same depth. A large ceramic tandir oven (8, d.-85cm, height-30cm) was located 30cm southeast of it (Photo 151).

The second stove (d.-40cm, height-20cm) was located at the northwest corner of Food Cellar 2.

Stove 2 (3.4) (d.-25cm, height-15cm) was found adjacent to the southeast part of the southeast-northwest wall of Structure 3 and at the same level as the latter. Tandir oven with margins 15 (d.-80cm, height of undamaged part-15cm), which previously emerged at the 70cm depth, was located 20cm south of these structures. A small tandir oven with margins (16, d.-35 cm, height of undamaged part-20cm) was located west of it and at the level of the wall (Photo 148).

Another household pit (14, d.-1.6m, dep.-40cm) was located 1.7m away from the southeast corner of the structure's wall. Another pit (15, d.-1.4m, dep.-15cm) was found 40cm west of that pit.

Another wall extends parallel to the north-south wall. The distance between the walls is 1.7m. A 2.2m section of this wall was built in the north-south direction using fired bricks lined up in three to four rows, while another 2m section was set up with the use of large river rocks. The stone line is 60cm wide and 70cm high. The foundation was linked to the first wall in three locations by partitions consisting of river rocks. The partitions were ruined in some areas (Photo 143).

Three intersecting tandir ovens with margins (16-18) were located at the depth of 90cm and 30cm east of the wall's south part. A short wall built using fired bricks was located 1.2m east of those tandir ovens and at the same level. The wall, which stretched lengthwise for 1.2m in the west-east direction, was 50cm wide. Nine lines of this wall, which was set up in two rows, were discovered (Photo 142).

Household Pit 16 was located 1.7m west of the structure wall and at the same level, while Tandir Oven with margins 16 and wall ruins were found 1.7m southwest of that pit at the depth of 20-

30cm. More tandir ovens (17-18) were discovered west of those structures, along with stoves (6-7) and furnace sites. A field paved with flat bricks (1.2x1.3m) was located 45cm south of those structures and 60cm east of the stone line on a major road. Moreover, a wall foundation consisting of large river rocks and fired bricks (len.-5.7m, wid.-80cm) was found adjacent to the field from the south as well as in the northwest-southeast direction and at the same level. Two adjacent wells were also found at the 1.7m depth in the line's south part, including Water Well 3 in the east and Household Well 17 in the west.

There were two more household wells (18-19) opposite and 1.2m southwest of those wells.

A large tandir oven with margins (19, d. -1m, height of undamaged part-35cm) was revealed at the southeast end of the wall and at the same level with it. Another large tandir oven with margins (20, d.-1m, height of undamaged part-35cm) was located 1.15m southeast of it.

One more such tandir oven (21, d.-90cm, height of undamaged part-35cm) was located 90cm south of the last water well at the depth of 1m.

A small ceramic tandir oven (9, d.-48 cm, height of undamaged part-42cm) was discovered 90cm west of those tandir ovens.

A wall line consisting of four rows was discovered adjacent to the tandir ovens from the south. The line, which stretched in the east-west direction at the 60cm depth, was 3.3m long.

Another field with a brick-laid floor was located adjacently to this line from the south at the depth of 90cm. It was 2m long and 1.2m wide. A remainder of a structure comprised of river rocks and fired bricks was located at the 40cm depth south of that field. The ruins, which extended in the west-east direction, were 3.5m long and 70cm wide.

Tandir oven with margins 22 (d.-90cm, height of undamaged part-70cm) was located 1.3m west of the field at the depth of 60cm. There was another pit (20) south of the west part of that item. Traces of burning are visible inside the pit (d.-1m, dep.-1.15m).

Another tandir oven with margins (23, d.-55 cm, height of undamaged part-38cm) was found at the same level as a similar oven located in the west part of the field and 30cm south of it.

Thus, Stage 4 of the archaeological excavations in the medieval Karpıjlitepe settlement was completed. The finds included a continuation of the castle walls and pavement stones, the cornerstones of the southwest and southeast towers, ruins of structures paved using river rocks and fired bricks, floors laid with the use of flat bricks, new furnaces and stove locations, tandir ovens, household wells, as well as numerous archaeological materials.

In total, the excavation area reached 1,888 sq.m. As a result of the excavations, the outline of a feudal castle was further defined. The location of the castle's fourth, northwest tower was determined. Researchers hope that further excavation work would facilitate the uncovering of the last tower and the wall extending toward the castle, which would finalize research on the site.

The research conducted in the Karpıjlitepe monument led to a conclusion that a residential area where habitation continued for a long time existed in the area in the past. Analysis of the obtained remains of tangible culture suggested that this monument dates to the developed Middle Ages, i.e. the 10th-13th centuries.

Castle-type walls, the abundance of archaeological samples of a great variety, structures built with the use of architectural techniques that were advanced at the time, pipe fragments pointing to the existence of a water supply system (Photos 524-525), many coins indicating the high level of commercial relations and "ink holders" that show the literacy rate (mostly found in the medium

layers) indicate that this monument was not an ordinary rural settlement, but a castle-type feudal estate.

Q. O. Bolshakov, who researched the cities of the medieval Middle East, said, "One gets an impression that according to contemporaries of the crusades, fortress walls were one of the most significant criteria that distinguished cities from large villages in case all the other conditions were equal" [14, p. 81]. This also holds true for the walls that encircle feudal castles.

Overall, "the beginning of the 12th-13th centuries is characterized by the intensifying contradictions between expanding cities and old, outdated feudal castles" [17, p.46].

Azerbaijani defensive structures dating back to the 11th-13th centuries, including the Karpilitepe castle, generally complied with the level of warfare development and successfully withstood artillery shots and wall demolishing machines.

The Gulistan Fortress near the city of Shamakhi, which was the main and most reinforced residence of the Shirvanshahs, was one of the most interesting defensive structures of the researched period. Its territory was encircled by firm walls with numerous round-shaped and four-cornered towers. The remainder of the structure leads to a conclusion that the buildings in the palace were set up in two tiers. Apparently, the everyday life of medieval feudal lords did not require a great number of hall-type facilities, since the largest room was sized about 7x10m.

The Karpilitepe castle is somewhat similar to the feudal castle discovered in the Shabran urban area. Scholars concluded that Shabran castle was built after the city's fortification structures. The area of the castle's courtyard, which was rather small, more or less, is shaped as a unit. The courtyard was girdled by walls that were at least 2 metres thick with half-towers located at their intersection. The castle's walls and towers were paved with fired bricks and large river rocks. The diameter of the towers in this area is up to 6.5 metres [35, p.93].

The Absheron Peninsula was a location where peculiar defensive structures emerged and developed, drawing the attention of many travellers and researchers due to its social, historical and natural features. The proximity of fortresses points to the small size of fiefs. This land was mainly concentrated on the northwest coast, which was the peninsula's most prolific area that was the least prone to outside attacks (17, p. 57).

The Alinja tower in the territory of Nakhchivan is located on the right bank of the Alinja river. The fortress was one of the most magnificent defensive structures of that time period. Evidently, its foundation was laid in more ancient times, but the entire range of its edifices emerged prior to the Mongol attacks. The Alinja tower retained its significance during the 14-year-long struggle against Tamerlane's army in the 14th century (17, p. 69).

Distinct features of the Aran school of architecture included the clearly visible main ensemble of structures and decorations applied upon them. The technique of scuffling with the use of decorative blocks left a certain trace in this regard. It is remarkable that the decor complied with the main ensemble of the building that was inherent to the 12th-13th centuries; the peculiarities of the composition solutions were emphasized. Fired bricks were used as the choice for the main construction material when it came to the texture of the structures' frontal surfaces [17, p.109].

The method used in the construction of Karpilitepe castle walls and towers was also applied on the wall lines of Ichqala in the Shamkir urban area, which is one of the bright examples of the Aran school of architecture. The walls of the fortress built using compiled masonry are in satisfactory condition. This brick-lay is comprised of fired brick rows, river rocks and interchanging hewn white stones. Polychrome and compiled masonry is inherent to the walls built in Shamkir [18, p. 253]. It is worth mentioning that just like the Karpilitepe tower, a wall of Narinqala, as well as the central tower of its east wall that emerged from the layer dating back to the 11th-13th centuries in the excavation area 5 during archaeological excavations in the Shamkir urban area,

were built in accordance with the mixed masonry style, using river rocks, fired bricks and white stones, which are characteristic of the Aran school of architecture [19, p. 238, Photo 7].

Another kiln traced to the same period as the brick kiln at Karpijlitepe was discovered in Kelek village of the Goranboy district. Archaeological research indicated that this kiln was used in the 9th-12th centuries. However, the Kelek kiln is oval shaped, unlike the kiln at Karpijlitepe. There were three regularly shaped tiers in its central part. More tiers shaped in a semi-circle were found north of those tiers, i.e., at the entrance to the furnace and in its south section. Columns were observed at the bottom of the tiers inside the furnace. There was a tunnel-shaped crossing half-way through the columns. Each tier of the brick-laid furnace was 5 metres long and 1 metre wide, while the distance between the tiers equalled 0.5 metres. Archaeological research suggested that bricks were produced in the kiln to meet the needs of nearby rural and urban settlements [20, p.266, Photos 1-2].

As mentioned above, remains of water pipes were also discovered during the archaeological research conducted in the Karpijlitepe castle area, which shows that a water supply system was available in this area during that period. Such pipes were encountered during the excavations carried out in a number of medieval Azerbaijani cities, including Ganja [21, p. 258], Gabala [22, p.249-250, Photo 6 a-b; 23, p.285, Photo 9], Shabran [24, p.60, Photo 14-15], etc.

A significant number of tandir ovens and furnaces were recorded during excavations on the Karpijlitepe monument. Tandır oven types include those made by using smithery, those with margins, ceramic and brick-lay tandir ovens. The outside walls of the tandir ovens was encircled by a layer that was up to 20cm thick and consisted of fired bricks, pottery fragments and charcoal splinters. Mud plastering was further applied on the surface.

A charcoal stratum processed into dust was recorded between the wall and the protective layer of one of the researched tandir ovens in Icherisheher (Old City, Baku). Ornaments featuring scratched lines, dots or dents were applied upon the inside walls of some of those tandir ovens. In addition to Icherisheher [28], such ovens have been identified in such medieval rural settlements as Dashbulag [27, p. 368-373], Bitdili [29] and Salmanbulaghi [25].

3.3 CONSERVATION EFFORTS

As mentioned above, in addition to the discovery of the ruins of numerous structures and samples of tangible culture, other activities were undertaken during the archaeological research at Karpijlitepe monument. These efforts included taking GPS coordinates, defining stratigraphy, designating dimensions and locations of the revealed structures, stage-by-stage taking of pictures and drawing sketches of the general view of the excavation area, taking separate pictures of each discovery and partially restoring some of the structures during the excavations. These activities also covered providing descriptions of the obtained archaeological materials, processing photos and graphic images, keeping inventory, packaging and submitting samples to the Institute's Archaeological Fund. From this point of view, a conclusion may be made that the Karpijlitepe monument has been fully researched from the archaeological viewpoint. Taking into consideration all this and the fact that the archaeological area is an enclosed zone that may be prone to certain natural and other impact in the future, a decision was passed with BP's mediation to carry out conservation in the Karpijlitepe monument. A special group was designated for this purpose. The conservation activities undertaken by this group are described below.

Conservation work was done in the medieval Karpijlitepe settlement, which is located at KP 247.210 of the SCPX route, from December 6, 2019 to January 11, 2020. The monument was figuratively divided into six parts for the conservation process.

Part 1 was deemed *the monument's east side* and the work was tackled toward the west side. Mainly household wells and tandir oven ruins were located in the area. Piles of soft soil were

delivered to the artefact-rich part of the monument area by hand pull wagons. Sacks were piled around the wells and tandir oven remains and lined up for their further protection with the use of sand. Machines of small size were used to transport soil to completely vacant areas.

Part 2 was deemed *the monument's north side*. The conservation efforts focused on preserving the brick-laid kiln. The area was reinforced by placing 160 sacks full of soil around the kiln. Furthermore, a firm cover was made by lines consisting of 60 reinforcing four-metre long timber logs covering an area of 30 sq.m. The timber covers were tightly fastened with nails and further covered by polyethylene cellophane. The soil filling was done around the large tower in Part 2. Soil-filled sacks were placed throughout the tower's walls and surface. Soft, fine soil without stones was piled in the area starting at the lower layer. This part is considered an area with the greatest amount of archaeological finds.

Part 3 was considered *the monument's west and southwest side*. Tandir oven parts, household wells and brick-laid areas are available there. Soil transportation was carried out in the area gradually to avoid inflicting damage to the samples of tangible culture. Machinery was used for soil-filling in the empty areas located amid the ruins of various structures.

Part 4 is located on the *southeast side*. Ruins of structures made of fired bricks and river rock-laid areas are available in this section. The conservation process in this part involved initial reinforcement by sacks filled with soil and further covering of the area with a clean soil layer with the use of hand-pull wagons. During the conservation work an emphasis was placed on removing stones from the soil layer. The entire bulk of soil was transported after a full cleaning.

The conservation of the *south side of Part 5* started with covering the tower ruins and wall sites made of river rocks that were located outside the excavation area. There were well sites and tandir oven remains amid the wall ruins. First, sacks full of soil were delivered to the inside part of the wells. Afterwards, their upper parts were covered with soft soil. As for the tandir oven parts, a soil layer was spread in sacks around them and further covered up densely.

Lastly, *Part 6* is considered *the central part of the monument*. Mostly household wells, tandir oven parts and areas paved with fired bricks were found there. These areas were initially reinforced with sacks full of sand and further covered on top by a layer of fine soil. All sections of the monument were brought into their previous condition and smoothed by a soil cover that had an upper fertile layer. Two undamaged tandir ovens located in this area and previously restored during the excavations, as well as two grain-grating quern stones consisting of a manganese coloured porous sandstone, which remained in the ruins of structures, were retrieved from the excavation area and handed over to the Goranboy district museum for the study of historical local lore in accordance with a relevant formal note.

A great number of large river rocks and fired brick fragments were found in the monument area during previous archaeological excavations and further piled and stored in the south part of the settlement. The upper fertile layer of soil was extracted while opening up a corridor for the SCPX pipeline and this section was restored on the last day. Environmental requirements were completely and thoroughly observed during all soil-related activities and no instances of environmental pollution occurred.

In conclusion of conservation activities in the monument area, employees of the Ministry of Culture and Tourism Goranboy district department, the head of the district's rural Borsunlu municipality, BP's representative for social issues and staff of the Special State Protection Service (SSPS), which was tasked with ensuring the security of pipelines, were invited to the area. Conversations with the invitees took place and relevant recommendations on safeguarding the monument in the future were issued (Photos 229 a-229 z).

4 ARCHAEOLOGICAL FINDS

It is noteworthy that a significant number of tangible cultural remains were collected during the excavations in the Karpilitepe monument. These archaeological samples, which were obtained from all occupation layers of the excavation, included pottery and ceramics items, working tools, copper coins, a few ornaments, glass vessel fragments, as well as construction materials (Photos 229s-229sh).

The ceramic vessels included both fragmented finds and those found in their entirety. They were either ordinary (unglazed) or enamelled items.

The working tools mostly included iron pieces and stone tools. Sickles, knives, spades, etc. were among the obtained iron tools, while the stone tools included querns.

Copper coins were scattered sparsely throughout the excavation and at all depths, but their concentration was discovered on one occasion. The surface of a part of these coins was cleaned up and read by experts. These items were identified as the period of the Azerbaijani Atabaylar state (Eldiguzids).

Glass bracelets of different colours were the most frequently encountered ornaments. These also included beads made of paste, glass, agate and other materials, as well as bone, nicely encrusted hair pins. Although the obtained glass items were fragmented, they were apparently part of bottle and piyale (bowl) type vessels.

Ceramics:

The ceramics items discovered in the excavation are the same as the samples found in Hajjalili, Fakhrali and Dashbulag in terms of their shape and content. These samples can be dated to the 10th-13th centuries based on their typological features.

The obtained pottery items were found both in their entirety and as fragments. The colour of these ceramic vessels was pink, red, brown, orange, creamy, yellowish and whitish. Their clay composition is either clean or has a sand admixture in it. Vessels with a special purpose were encountered as well.

The samples made of clay mostly included enamelled lamps and vessels called "ink-pots" in scientific literature, as well as lids. As a widely used material, mass ceramics items are of great scientific importance for researching the domestic life and spiritual culture of the people [33, p.73].

The discovered pottery may be divided into two types, namely, unglazed and enamelled vessels.

The unglazed ceramics, along with enamelled pottery, could be considered an indicator of the development of production capacities and the advanced process of the differentiation between urban craftsmanship and rural crafts. These samples provided a significant amount of content for studying the pottery production of medieval Azerbaijani cities [32, p.186].

The unglazed pottery items found during the excavations in the Karpilitepe monument area included jars, crocks, pitchers, boilers, pails, large jugs, buckets, lids, etc. The surfaces of the unglazed (ordinary) vessels were decorated with scratched wave-like, corrugated, stamped patterns, as well as protruding lines. These vessels often had tape-shaped or arch-like shaped handles with oval cross sections.

The enamelled vessels were decorated with polychrome and monochrome, geometric, vegetational and zoomorphic images. Shahargah [40, p.276-277]. On one occasion, an anthropomorph image (a picture featuring a Seljuq fighter) was encountered.

Both *pitchers* in their entirety and their fragments were found in the area. They had narrow (Photo 230) or wide (Photo 231) flat bases, pear-like shaped (Photo 232), convex (Photo 233), bionic (Photo 234) or spherical conic (Photo 235) bodies, narrow (Photo 236) or broad (Photo 237) necks, round-shaped orifice elements or those bent sideways. The pitchers were mainly fired with average quality. The earthenware is dense, pink, brown, coffee-coloured, brown or brick red.

One of the vessels obtained in their entirety is a large pitcher with a convex body. A part of it is torn off. It has a narrow orifice. The orifice is bent sideways. The narrow and low neck goes directly into the body. The neck's lower part is girdled by a protruding strip. Its surface was decorated by askew notched patterns. The base is narrow and flat. The colour is pink. The body diameter is 25cm, while the orifice diameter is 12.5cm, the base diameter is 11.5cm and the wall thickness equals 1.1cm (Photo 233).

Another vessel found in the area was a pitcher with average capacity and a convex body. The orifice area is round. The neck transforms smoothly into the slanting shoulder. The base is wide and heeled. The vessel was made roughly by hand. It was fired at unequal temperature. Its height is 23cm, while the orifice element diameter is 14cm, the body diameter is 21cm, the base diameter is 13cm, the neck diameter is 12cm, the neck height is 5.5cm and the wall thickness is 0.7cm (Photo 238).

The upper part of a small pitcher with a spherical body discovered on-site is broken. The vessel's walls are thin. A trace of a handle with a triangle-shaped cross section remained in the back. The base is narrow and heeled. The colour is yellowish. The surface is polished. The body diameter is 13.5cm, while the base diameter is 6cm and the wall thickness is 0.3cm (Photo 238a).

Similar pitchers with orifice areas bent sideways [30, p.226-228, inv.443, 652, 291, 421, 462] or pear-like shaped bodies [30, p.229, inv.840] were found during the archaeological excavations in the Shamkir urban area.

A small number of pitchers were also discovered during the Gabala excavations [41, p.285]. Moreover, a pitcher with a narrow neck [31, p.57-58] emerged during the archaeological research conducted at the medieval monument in the Zardab district. Pitcher fragments were also found in the course of the archaeological excavations carried out in the medieval Fakhrali settlement located in the same zone as Karpiljitepe [42, p.93; 45, p.43, Photo 14].

Large *household jugs* had round-shaped (Photo 239) or elongated bodies (Photos 1386; 1408, 240, 241); their orifice elements were round (Photo 242) or bent sideways (Photo 243). Samples with orifices inclined inward were found as well (Photo 245). Their low and wide necks smoothly transform into the shoulders or the bodies. The jugs usually have thick walls. Their bases are wide and flat (Photos 231, 369). As a rule, the bottom of the orifice elements is girdled by a protruding line (Photo 243) or a chain-like strip (Photos 246, 247).

Jugs with orifice elements decorated with spike-like patterns were also discovered (Photo 237). The surfaces of some jugs are decorated with stamped stripes with zoomorphic images (Photos 248, 249).

Jugs ornamented by model stripes were also found in the medieval Fakhrali settlement [42, p. 94].

One of the vessels discovered in Karpiljitepe is a big pear-shaped jug. Its body narrows toward the base in an elongated shape. The base is flat and slightly depressed inward. The shoulder is traversed by a stripe comprised of scratched wavy lines framed by parallel scratched straight lines. The colour is brown. The vessel's height is 47cm, while the orifice element diameter is 8.7cm, the body diameter is 34cm, the base diameter is 16.8cm, the neck height equals 8.5cm and the wall thickness is 0.7cm (Photo 250).

Another obtained sample is a big piece of a large jug (that was later partially restored). The body is pear-shaped. The low neck is bent sideways. The neck narrows downward and goes into the body. The body's upper part is encircled by two stripes comprised of parallel scratched lines. The inside part of the stripes was filled with parallel askew lines. A little hole was made in the upper part. The base is wide, flat and slightly depressed inward. There are traces of burning on the surface and inside. The colour is pink. The height is 39cm, while the base diameter is 15cm and the wall thickness is 1cm (Photo 251).

Fragments of jugs with an orifice area bent sideways and orifice bottom parts encircled by model chain-like stripes were discovered in the Shamkir [30, p.200-204, inv.845, 193, 292, 717, 590, 2, 465], Beylagan [36], Ganja [37], Shamakhi [38] urban areas and the Fakhrali settlement [45, p. 42].

Such ornaments are also inherent to the synchronous settlements in Central Asia [39]. Jug fragments with stamped ornaments and absolutely the same zoomorphic and anthropomorphic images as those discovered in Karpilitepe were found there as well [30, p. 209, inv. 611, 479, 629, 304, 610, 438, 482].

It is noteworthy that the same themes were observed on the samples found in Orenqala [32, panel VI, VII]. A vessel with a similar ornament was obtained during the excavations conducted in the medieval Dashbulag settlement [33, p. 75]. The fact that vessels made using such techniques and decorated in line with these themes are completely the same indicates that they were produced in the same centre.

Fragments of jugs with round and pear-shaped orifice elements were encountered during the excavations conducted in the Gulistan fortress [34, p.302, Photo 1].

Household jugs were also found in Fakhrali [42, p. 93; 45, p.39], as well as in the medieval Shahargah settlement located in Kurdamir district [40, p.273].

The *dopus* found during the excavations had convex (Photos 252, 1502), pear-shaped (Photo 253) or bionic (Photo 254) bodies. Their orifice elements are round (Photo 252) or funnel-shaped (Photo 255). The orifice area is either flat (Photo 252) or has a welt (Photo 256). The low and narrow necks (Photo 252) smoothly transform into the bodies. *Dopus* with cylindrical necks were encountered as well (Photo 254). The narrow bases are heeled (Photo 254) or flat (Photo 257).

The surfaces of these vessels were often decorated with patterns featuring red-painted stripes (Photos 252, 253, 255). *Dopus* with enamelled surfaces were also discovered (Photos 254, 256).

Some of the *dopus* were tiny (Photo 259). One of the obtained *dopus* samples had a convex body. The orifice is round. The orifice area is flattened. The low and narrow neck transforms smoothly into the body. The base is narrow and heeled. Red paint was applied around the neck. Askew stripe patterns were applied with red paint toward the base from that strip throughout the body. There are traces of burning on the surface. The colour is pink. The orifice element diameter is 6.5cm, while the body diameter is 9cm, the base diameter is 5cm and the height is 9cm (Photo 252).

The second vessel is also a little *dopus*. Its orifice element broadens in a funnel-like shape. The orifice area is flat. The low and narrow neck transforms smoothly into the convex body. The base is flat. The surface was decorated with askew stripes that were painted red. The colour is orange. The height equals 10.1cm, while the orifice element diameter is 6.5cm, the body diameter is 10.1cm and the base diameter is 5.8cm (Photo 255).

Another *dopus* is pear-like shaped. The base is heeled. The surface is enamelled. There are vertically interchanging dark brown and green stripes on the surface (similar to a water melon). The vessel was covered with brown enamel on the inside. The walls are thin. The clay colour is

pink. The height is 11.7cm, while the orifice element diameter is 6.5cm, the body diameter is 10.5cm, the base diameter is 5cm and the wall thickness equals 0.6cm (Photo 258).

Another dopu found in the area was also a vessel of small size. The orifice is wide and round. The neck broadens downward and goes into the faceted shoulder. The body starts to narrow down toward the shoulder. The base is wide and flat. The colour is light pink. The height is 2.8cm, while the orifice diameter is 9.2cm, the body diameter is 10.3cm and the base diameter is 6.1cm (Photo 257).

The little dopu-type vessel slightly differs from the other samples. Its orifice is broken. The cylindrical neck expands upward. The body has a bionic shape. The base is narrow and heeled. There is a trace of a handle with an oval cross section in the back. A trace of a spout with a round cross section remained in the front. The neck's upper part and its section transiting into the body are girdled by protruding lines. The walls are thin. Green enamel was applied on the outside surface. There is a trace of white engobed coating inside the neck part. The clay colour is red. The body diameter is 9.5cm, while the base diameter is 4.2cm and the wall thickness is 0.3cm (Photo 254).

Dopu-type vessels have been found in Ganja [37], Orenqala [32, panel XII, 8] and Shabran urban areas [24, p. 52], the Zardab district [31, p. 63], Fakhrali [45, p. 43], Polutepe [36, p. 117-118] and other medieval settlements.

A significant number of *jar-type* vessels were discovered during the excavations. Although some of these samples were fragmented, a lot of unbroken and restorable items were found as well (Photos 334-343).

The obtained jars, which were of different sizes, mostly had pear-shaped bodies (Photos 334, 335). However, elongated items (Photos 341-343) were also encountered. The jars had long and narrow necks and round orifice elements. The orifice area is flat. One of the samples had a grooved orifice. There were filters upon the orifice elements of some of the jars. Some of the jars had handles. As a rule, handles with tape-shaped or round cross sections connected the orifice with the shoulder or the upper part of the body. The bases are flat. Some of the jars were decorated on top with patterns.

One of the jar-type vessels has a pear-like shape. The narrow orifice is torn off. The narrow neck has a welt. There is a trace of a handle with an oval cross section in the back. The body is girdled by polished stripes from the neck downward. The base is flat and slightly indented inward. The clay colour is red. The orifice element diameter is 4cm, while the body diameter is 18cm and the base diameter is 7.5cm (Photo 334).

The second jar is also pear-shaped. The orifice element is narrow. The orifice is missing. The narrow neck has a welt. There is a trace of a handle with an oval cross section in the back. The body is encircled from the neck downward by polished stripes. The base is flat and slightly depressed inward. The clay colour is red. The orifice element diameter is 4cm, while the body diameter is 18cm and the base diameter is 7.5cm (Photo 335).

The pear-shaped jar with a large capacity has a narrow neck. The orifice is broken. The base is wide, flat and slightly depressed inward. There is a handle with a tape-shaped cross section in the back that connects the orifice with the shoulder. There is a pressed hollow in the handle's lower part. The vessel's shoulder is girdled with an embossed stripe framed by scratched lines. The colour is pink. The orifice diameter is 5.5cm, while the body diameter is 22cm, the base diameter is 13cm and the wall thickness is 0.6cm (Photo 337).

A large pear-shaped jar with a narrow neck was found as well. The orifice is broken. The base is wide, flat and slightly depressed inward. There is a handle with a tape-shaped cross section in the back that connects the orifice with the shoulder. There is a pressed hollow in the handle's

lower part. The vessel's shoulder is girdled with an embossed stripe framed by scratched lines. The colour is pink. The height is 42cm, while the orifice diameter is 6.5cm, the body diameter is 26.5cm, the base diameter is 14.5cm, the handle's cross section width is 2.5cm, the handle length is 9.5cm, the neck diameter is 6cm and the neck height is 6cm (Photo 340).

An average size jar was found in its entirety. The orifice is round. The cylindrical and narrow neck somewhat narrows downward and further goes into the slanting shoulder. The elongated body narrows toward the base. The flat base is slightly depressed inward. There are spiral-like scratches under the base. There is a narrow handle with an oval cross section in the back connecting the orifice element with the shoulder. The bottom part of the vessel's neck and the shoulder were painted red and a pattern featuring red-painted askew stripes descending from the shoulder was applied. The handle was painted red as well.

It is worth mentioning that the same decoration style was observed in the Shamkir urban area [30, p. 264, inv. 664]. The vessel shoulder's part transiting into the body is girdled by a thin stripe comprised of scratched lines. The colour is pink. The height is 25cm, while the orifice diameter is 6cm, the body diameter is 6.3cm, the base diameter is 9.4cm, the handle's cross section width is 1.5cm and the handle's length is 11.5cm (342).

A part of the orifice element of an average size jar is broken. The low and narrow neck broadens upward. The bottom part is round with a welt. There is a narrow tape-shaped handle in the back connecting the orifice with the body. The elongated body narrows downward. The base is wide and flat. The surface is painted red. The body's upper part is decorated with askew polished vertical line patterns. The colour is pink. The height is 27cm, while the orifice diameter is 4.9cm, the body diameter is 16cm, the base diameter is 8.7cm, the handle's cross section width is 1.6cm and the handle's length is 12.2cm (Photo 341).

Since jars and their fragments are the most widely used vessels in people's households, such samples are encountered in essentially all medieval monuments. For instance, such finds were recorded in the Shamkir urban area [30, p. 254-257, 261-268, inv. 227, 306, 69, 371, 442, 424, 423, 483, 482, 621, 353, 822, 223, 498, 788, 664, 205, 813, 727, 756, 503, 545, 830].

The jars dating back to the 11th century and later periods that were discovered in Beylagan do not differ significantly from those traced back to previous time periods [32, p.214-218, panel XI]. This confirms G. Ahmadov's opinion that "unglazed vessel shapes were stable, changed very slowly and sometimes remained unchanged for centuries" [32, p. 210].

Jars were also found in the Shabran urban area [284, Photo 9], Zardab [59, p. 56, panel 12], Polutepe [36, p. 117-118], Fakhrali [45, p. 39] and Shahargah settlements [40, p. 275].

A *milk pail-type* vessel with average capacity was found in the excavation as well. The bionic milk pail's narrow neck broadens upward. The orifice is broken. The neck part transiting into the body is girdled by a stripe with a welt. The body expands toward the middle, but narrows downward. The base is heeled. There is a narrow tape-shaped handle in the back connecting the neck with the body. The surface is polished. The colour is yellowish. The body diameter is 15.5cm, while the base diameter is 7.5cm, the handle cross section width is 1.4cm, the handle length is 7cm and the neck diameter is 4.5cm (344). The pipe-like shaped milk pails with spouts and grooves were also found [42, p. 93] in medieval Fakhrali settlement in Goranboy district where the Karpijlitepe monument is located.

Crocks, which are the small capacity version of jars, have round and flat orifice elements with either petals (Photo 345) or grooves (Photo 346). Their narrow and high necks cross over into the pear-shaped (347, 350), elongated (Photo 350) or water drop-shaped (Photo 345) bodies. The bases are narrow or wide, flat and somewhat depressed inward or heeled (Photo 350). Some of these vessels have narrow tape-shaped handles in the back. Patterns were applied upon the

crocks surfaces by scratching. In most cases, vertical askew stripes were drawn over the vessels with red paint.

The obtained crocks included both fragmented items and those found in their entirety. One of the unbroken crocks has a narrow neck broadening upward. Most of the orifice element is broken. A stripe that has a welt girdles the area between the neck and the body. The latter is pear-like shaped. The base is wide and flat. The surface was covered with red paint. The body was decorated with patterns consisting of polished vertical lines descending from the neck. There is a narrow tape-shaped handle with an oval cross section in the back connecting the orifice element with the shoulder. The colour is pink. The height is 19cm, while the body diameter is 12.6cm, the base diameter is 7.2cm, the handle cross section width is 1.3cm, the handle length is 8cm and the neck diameter is 4.5cm (Photo 349).

One of the obtained items is a small crock with a narrow neck expanding upward. The orifice element was pressed in front to create a groove. The body is pear-shaped. The base is flat. The neck part that goes into the body is girdled by a circle that has a welt. There is a thin tape-shaped handle in the back that connects the neck with the body. The neck was painted in pale red colour, while the body was decorated with askew stripes. The colour is pink. The height is 18cm, while the orifice diameter is 3.5cm, the body diameter is 11.5cm, the base diameter is 6cm, the handle cross section width is 1.5cm, the handle length is 8.3cm and the neck diameter is 2.5cm (Photo 346).

Another discovered crock is an average size item with a pear-shaped body and a broken orifice. The narrow neck apparently broadens upward slightly. Traces of a handle with an oval cross section remained over the neck and the shoulder. A thin stripe comprised of scratched parallel lines stretches throughout the shoulder from the lower part of the handle. The neck part that goes into the slanting shoulder is girdled by a stripe with a welt. The body narrows toward the base. The base is flat and depressed inward. There are significant traces of burning all over the vessel's surface. The colour is pink. The height is 19cm, while the orifice element diameter is 3.3cm, the body diameter is 14cm, the base diameter is 7.5cm, the neck diameter is 3cm and the neck height equals 4cm (Photo 347).

One of the interesting finds was a crock-type vessel with a narrow and long neck. Its body is elongated and oval. The base is heeled. The neck part that goes into the body is decorated with spike-like notched patterns. There is a narrow tape-shaped handle in the back connecting the neck with the body. There is a cylindrical protrusion in the vertical part of the handle. The colour is light grey. The height is 26.5cm, while the orifice diameter is 4.4cm, the body diameter is 12cm, the base diameter is 7.4cm and the neck height is 10cm (Photo 350).

The crocks obtained from the Orenqala layers dating back to the 11th century and the centuries thereafter are identical to those found in Karpjilitepe [32, p. 214-216, panel XI, 3-6].

The *flagons* found in the excavation include only the neck and handle fragments. Their narrow orifice area sometimes has a welt. Their narrow and cylindrical necks are usually high. The necks often narrow downward (Photos 353, 357, 358). They sometimes expand (Photo 355) or descend at a straight angle (Photo 356). There are wide and tape-shaped handles in the back connecting the orifice area with the shoulders or the bodies (Photos 351, 352). Some of the handles have oval cross sections (Photo 354).

One of the obtained artefacts is a flagon-type vessel's neck fragment. The narrow and cylindrical neck broadens downward. Two protruding strips girdle the surface in the shape of a tier. The round-shaped orifice has a welt. Holes used as a strainer were opened in the inside part of the neck. There is a trace of a handle with an oval cross section that was connected to the upper stripe, girdling the neck. Depressed patterns lined up in two rows encircle the neck between the orifice and the handle. The colour is pink. The neck height is 9cm, while the orifice diameter is

6cm, the handle cross section width is 1.5cm and the wall thickness equals 0.5cm (357). Flagon fragments were encountered in Fakhrali settlement [45, p. 43-44].

The discovered *cans* usually have long and cylindrical necks. The edges of their round-shaped orifice elements are either flat or have a welt. Some of these orifices broaden sideways. The bodies are convex or pear-shaped, while the bases are flat and slightly depressed inward. As a rule, the cans have an average capacity. Most of these vessels have tape-shaped handles or those with oval cross sections. Their surfaces are sometimes decorated with scratched lines or red-painted stripe patterns (359-369).

One of the items found in their entirety is a medium size can-type vessel with thin walls. A part of the cylindrical and wide neck is broken. The bottom of the round-shaped orifice is girdled by a protruding line. Another protruding line encircles the neck part transiting into the body. The latter is pear-shaped. There is a narrow tape-shaped handle in the back connecting the orifice with the body. The base is flat and depressed inward. The neck is girdled by stripes comprised of scratched wavy lines, while the body's upper part is encircled by those featuring scratched straight lines.

The neck part transiting into the body is girdled by a red-painted stripe. Askew red stripes descend below that stripe. The colour is pink. The height is 25.3cm, while the orifice diameter is 11.1cm, the body diameter is 17cm, the base diameter is 9cm, the handle cross section width is 1.7cm, the handle length is 13cm, the neck height is 8cm, the neck diameter is 11.3cm and the wall thickness equals 0.5cm (Photo 2904).

Another obtained vessel is a medium size can with a wide and cylindrical neck. It gradually goes into the convex body. The body narrows downward. The base is flat and slightly depressed inward. There is a narrow tape-shaped handle in the back connecting the orifice area with the middle section of the body. The neck part that goes into the body is girdled by a protruding line. The vessel's surface is painted red with polished lines stretching from top to bottom. The colour is pink. The height is 22cm, while the orifice diameter is 11cm, the body diameter is 15cm, the base diameter is 8.3cm and the wall thickness is 0.6cm (Photo 368).

Another item found in the area is a medium size can with an elongated body. A part of it is torn off. It has a high cylindrical neck. The neck and the slanting shoulder are separated by a faceted stripe. The body, which is slightly convex in its upper part, sharply narrows downward. There is a handle with a tape-shaped cross section in the back that connects the orifice with the shoulder. The handle descends parallel to the body at a straight angle. The neck is crossed by a wavy strip comprised of scratched lines. Another stripe consisting of straight lines girdles the vessel's shoulder. The base is narrow, flat and slightly depressed inward. Red-painted stripes cross it from the neck downward. The colour is pink. The height is 24.5cm, while the orifice diameter is 11cm, the body diameter is 16 cm, the base diameter is 8cm and the wall thickness equals 0.6cm (Photo 369).

Cans have been discovered in a number of monuments, including those in Ganja [37], Shamkir [30, p. 199, 259, 266, 271-273, inv.522, 733, 727, 247, 769], Beylagan [32, p. 214-216, panel XI, 7-10] and Gabala [22, Photo 5; 41, Photo 9-9a] urban areas, Shahargah [40, p. 275] and Polutepe [36, p.118] settlements.

Boilers are among the most frequently encountered artefacts. Both fragmented and unbroken (or restorable) boilers were found during the excavations. They have wide orifice elements and their orifice area is flat and inclined inward. The bodies are bionic or convex, while the bottom parts are semi-oval. The flank of the boilers is girdled by a faceted stripe dividing the body into two parts. The stripe was decorated on top by notched, cylindrical or papilla-shaped models. The boilers have two or four handles. The handles are shaped like hooks or vertically rising auricles. They were decorated with notched and dotted patterns. As a rule, there are pressed hollows in

the bottom parts. Traces of soot and burning remained throughout the boilers (mostly the lower parts) due to frequent use (370, 529, 372, 375).

Enamelled pottery fragments of turquoise or blue colour were usually attached to the boilers. Presumably, they served as an amulet to protect people from the evil eye.

One of the obtained vessels is a medium size boiler with a wide orifice element. The flat orifice area is inclined inward. The low neck expands sideways and further goes into the round-shaped body. The shoulder is girdled by two big auricle-shaped handles, as well as small auricle-shaped protrusions. There is a pressed indent over the protrusions. The vessel's bottom is entirely covered with traces of burns. The colour is pink. The height is 12cm, while the orifice diameter is 18cm, the body diameter is 28.5cm and the wall thickness is 0.6cm (Photo 370).

The second vessel is a boiler with a wide orifice element and a round-shaped body. The orifice area is flat and slanted inward. The neck expands sideways and further goes into the body. The shoulder is girdled by a chain-like stripe. The neck is decorated with patterns featuring little circles. There are two auricle-shaped handles and two protrusions upon the shoulder. There are protruding holes in the middle of the handles. The vessel's bottom is fully covered by traces of burning. Grooved stripe patterns were applied over the protrusions. The colour is pink. The height is 14cm, while the orifice diameter is 21.5cm, the body diameter is 30.5cm and the wall thickness is 0.7cm (Photo 371).

Another obtained sample is an average size boiler with a broken bottom and body part. The orifice area is flat and slanted inward. The bionic body narrows toward the base after broadening till the middle section. The vessel has two big vertically rising hook-like handles. There are two rather convex protrusions between the handles. The handles and the protrusions were decorated with grooved line patterns. Traces of soot remained on the surface. The colour is pink. The height is 8cm, while the orifice diameter is 20cm, the body diameter is 24.5cm and the wall thickness is 0.6cm (Photo 373).

Another discovered sample is a half-part of a large boiler body. The orifice area is flat and slanted inward. The short neck broadens sideways, crossing over into the body. The latter expands slightly and ends in an oval base. There is a big vertically rising hook-like handle upon the shoulder. Model papilla patterns extend throughout the shoulder from the handle. One of the models in between is rather large and cylindrical. Traces of soot remained on the surface. The colour is pink. The orifice diameter is 40cm, while the wall thickness is 0.9cm (Photo 374).

A part of another medium size boiler's body is broken. The orifice area is flat and slanted inward. The low neck broadens and further goes into the body. The convex body smoothly crosses over into the oval base. There are two vertical hook-like handles located opposite one another upon the shoulder. Bored askew lines stretch laterally outside the handles. More slanting lines with elongated notches extend over those lines. The surface of the vessel body is entirely covered with traces of significant burning. The colour is pink. The orifice diameter is 23cm and the wall thickness is 0.8cm (Photo 375).

A large boiler found in the area has a wide orifice element that is inclined inward. The low neck broadens downward and further goes into the body. The latter descends at a straight angle and becomes rounded near the base. The base is broken. There are four vertical auricle-shaped handles upon the shoulder. The handles were attached over a chain-like faceted stripe girdling the shoulder. Only two of the handles remained intact. A half-part of another handle is torn off. Patterns with pressed indents were applied on the outside in the lower parts of the handles. The vessel's neck is encircled by dashed line criss-cross stripes and several groups of three pressed little circles. The area in between and the inside part of the handles was decorated with ornaments using ceramics fragments of blue and silvery colours. The colour is pink. The orifice diameter is 38cm, while the body diameter is 42cm and the wall thickness equals 0.8cm (Photo 376).

Boilers are among the most frequently discovered types of pottery when it comes to archaeological excavations carried out at medieval monuments. Boilers similar to those found in Karpijlitepe were obtained during the excavations in Ganja [37], Shamkir [30, p. 235-242, inv. 376, 730, 75, 56, 711, 871, 329, 583, 259, 336, 61, 434, 720] and Beylagan [32, p.187-192, panel I-II] urban areas. Boiler fragments were also encountered during the excavation work done in Fakhrali settlement [42, p. 93, Photo 2.1; 3, 3-4; 4, 11; 45, p.46, Photos 24-27].

All of the discovered *water vessels* were fragmented. Their orifice elements are round. The orifice area is flat. The cylindrical necks narrow toward slanting or wide shoulders. The vessels have tape-shaped handles or those with oval cross sections connecting the pear-shaped bodies or the shoulders with the orifice area. The clay composition of the water vessels is usually clean (Photos 377-385).

The upper part of the pear-shaped body of a vessel similar to a water bucket was found. The narrow and cylindrical neck gradually crosses over into the slanting shoulder. The orifice is round. The orifice area is flat. There is a tape-shaped handle in the back that connects the orifice with the shoulder. The latter is girdled by a scratched wavy strip framed by scratched lines. The vessel's walls are thin. The colour is pink. The orifice diameter is 7.7cm, while the handle cross section width is 2.1cm, the neck diameter is 6.1cm, the neck height is 6.7cm and the wall thickness equals 0.6cm (Photo 382).

Another sample obtained in the area was once part of a water bucket-type vessel's body. The narrow and cylindrical neck slightly broadens upward. The orifice area is flat. The neck smoothly goes into the slanting shoulder. There is a handle with a tape-shaped cross section in the back that connects the orifice area with the body. A pressed indent was made at the bottom of the handle. The vessel has an elongated shape. The colour is pink. The orifice diameter is 8.3cm, while the handle cross section width is 2.3cm, the handle length is 16cm, the neck height is 7.5cm and the wall thickness is 0.6cm (Photo 383).

The third item found in the area is the upper part of a large water bucket-type vessel with thin walls. The orifice is round. The cylindrical neck transforms into the slanting shoulder. A thin stripe with a welt encircles the neck part transiting into the shoulder. The body's upper part is convex. The vessel has a tape-shaped handle that connects the orifice area with the body. There are finger-pressed indents in the handle's lower part. The colour is pink. The orifice diameter is 7.7cm, while the handle cross section width is 2.7cm, the handle length is 15cm and the wall thickness is 0.6cm (Photo 385). Water vessels have also been found in Shamkir [30, p. 218-222, inv.433, 587, 849, 785, 425, 505, 698, 328, 474, 584, 466, 41] and Beylagan [32, p. 210-212] urban areas, as well as in Fakhrali settlement [42, p. 93, 45, p. 39].

Pail and *sarnij-type* vessels were also found during the excavations. Their wide orifice elements are bent sideway. The low necks gradually narrow and cross into the convex bodies. The bodies narrow toward the bases. The bases are either wide and flat or narrow, ring-like and heeled. The vessels have two handles attached opposite each other. The handles are tape-shaped, hook-like shaped or have oval cross sections. As a rule, the handles connect the neck and the body. The surface of the *pails* and *sarnijes* is decorated with scratched patterns. Some monochrome painted and enamelled pails were found as well.

A part of one of the obtained pail-type vessels could not be restored. The wide orifice element is bent sideway. The neck goes into the convex body after broadening slightly. The base is wide and flat. There are short and narrow tape-shaped handles on both sides that connect the vessel's neck and the body. The body is girdled by scratched wavy and straight lines lower part of the handles. Pink paint was applied throughout the orifice area and the neck. Pink coloured askew stripes also descend throughout the body. Traces of soot remained underneath. The clay colour is yellowish. The height is 21cm, while the orifice diameter is 21cm, the body diameter is 22.5cm, the base diameter is 12.2cm and the wall thickness is 0.6cm (Photo 386).

A part of a medium size milk pail body is broken. The wide orifice broadens sideway. The neck transforms smoothly into the slanting shoulder. The convex body narrows toward the base. The base is wide and flat. The vessel has a little handle with an oval cross section connecting the neck with the shoulder. There is a trace of another handle across from it. The neck is girdled in the middle by a protruding line. A wavy stripe comprised of scratched lines extends underneath. The vessel's shoulder is encircled by a wide, red-painted stripe below that strip. Scratched lines cross the shoulder part connected to the body. The body's upper part is encircled below those lines by a stripe with embossed animal images. Traces of burning remained on the vessel. The clay colour is pink. The height is 18cm, while the orifice diameter is 17.3cm, the body diameter is 19.5cm, the base diameter is 10cm, the handle cross section width equals 1cm, the handle length is 4.5cm, the wall thickness is 0.6cm, the neck diameter is 15.5cm and the neck height is 4cm (Photo 388).

Another medium size milk pail-type vessel has a wide orifice. The orifice area is flat. The neck somewhat narrows down, crossing into the convex body. The body narrows downward from the middle. The base is narrow, ring-like and heeled. The vessel has two hook-like handles connecting the neck and the body. A protruding strip stretches vertically throughout the middle section of the handles. The vessel is covered with green enamel on the inside and outside. The clay colour is pink. The height is 15cm, while the orifice diameter is 14.6cm, the body diameter is 17.5cm, the handle cross section width is 0.8cm, the handle length is 3.8cm, the base diameter is 8cm and the wall thickness is 0.6cm (Photo 389).

One of the discovered items is an average size pail with a wide orifice. The orifice area is flat. The neck narrows in the shape of a funnel and further goes into the spherical conic body. The body narrows downward. The base is narrow and flat. There is a handle with a tape-shaped cross section in the back that connects the neck with the upper part of the body. The surface is covered with yellowish engobed coating. The upper part of the body was painted red horizontally. Askew red stripes extend downward from that strip. The neck broadens sideway. The orifice diameter is 12.5cm, while the body diameter is 11.7cm and the base diameter is 5.5cm (Photo 387).

Milk pails have been found in Shamkir urban area [30, p. 225-226, inv. 699, 523, 415] and the Polutepe settlement [36, p. 119].

The obtained artefacts include a significant number of *vase-type* vessel fragments. Only the bases and orifice elements of most of these samples were found, but entire and half-broken vessels were discovered as well. The bases of the vases are ring-like and heeled. Some vases with oval bases were also found. The low flanks gradually go into the bodies. The bodies broaden sideway and upward from the bases. The wide orifices of the vessels are bent sideway. Their orifice area is flat.

The inside part of the vases was decorated with geometric patterns of different colours (rhombi, checkerboard, rays, "Malta crosses"), vegetational (petals, branches, bindweed), celestial (stars) and sometimes zoomorphic (bird and animal) images and further enamelled.

The low flanks of an obtained vase-type vessel are inclined inward. The body narrows toward the base from the flank. The base is ring-like and heeled. The inside part was covered with enamel of whitish-golden colour and decorated with vegetational images of silvery colour. The clay colour is pink. The orifice diameter is 24cm, the base diameter is 9.2cm and the wall thickness is 0.9cm (Photo 390).

A large vase found in the area has a wide orifice. The orifice area is flat. The lateral parts smoothly transform into the body. The latter narrows toward the base, which is ring-like and heeled. The vessel was covered with dark greenish enamel on the inside. A little circle was drawn in the middle. It is inside a bigger circle. The area around the circle is girdled by semi-circles in a frame. There are little circles inside the semi-circles as well. Leaf images are seen amid the semi-circle

branches. All the patterns are of turquoise colour. The clay colour is orange. The height is 12.5cm, while the orifice diameter is 32cm (Photo 391).

Another large vase has a wide orifice as well. The orifice area is flat. The flanks smoothly transform into the body. The body narrows toward the base, which is ring-like and heeled. The vessel was covered with creamy enamel on the inside and a white spot was further applied in the middle. Patterns featuring white stripes, black dots and turquoise spots were applied on the inside along the vessel's flank. The clay colour is pink. The height is 10cm, while the orifice diameter is 27.5cm and the wall thickness is 0.7cm (Photo 392).

Another sample found in the area is an average size vase base. The base is wide, ring-like and heeled. The middle section is round and protuberant in the bottom. The body, which has thick walls, expands sideways from the base. A rabbit image was drawn with yellow paint in the middle of the inside part against the background of white enamel. Green vegetational images were drawn around the rabbit image. The entire composition is encircled by a coffee-coloured stripe. The clay colour is pink. The orifice diameter is 10.1cm and the wall thickness is 0.9cm (Photo 393).

The low flank of a large deep vase found on the site descends at a straight angle and further crosses into the body, which narrows toward the base. The base is narrow, ring-like and heeled. The inside part was covered with green enamel and decorated with spiral-like patterns featuring black lines. The lateral part is covered with white engobed coating on the outside. The clay colour is red. The height is 14.5cm, while the orifice diameter is 36cm and the base diameter is 10.5cm (Photos 394-395). Vases have been discovered at the Shabran [24, p.57] and Fakhrali [45, p.39] monuments.

The discovered pottery also included fragments of samples called *gulabdan* (rosewater vessels). Presumably, fragrance liquids (such as rosewater) were stored in such vessels. Their narrow, pipe-shaped necks smoothly cross into the slanting shoulders. Thin spouts are attached at the edge of the round orifice elements, which have a welt. The spouts are further thinning toward the edge. The part of the neck transiting into the spout is usually disc-shaped and protuberant (Photos 396, 397, 398). Rosewater vessels with spouts attached to the bodies were also found (Photo 401). Some of these vessels have handles upon their necks. Enamelled rosewater vessels were encountered along with ordinary ones (Photo 400).

One of the finds is a pipe-shaped neck fragment of a rosewater vessel. The neck is also long and narrow. A deep groove girdles the lower part of the neck, forming a stripe with a welt. The neck goes into the slanting shoulder. There is a narrow handle with a tape-shaped cross section attached to the bottom of the neck. The handle is oriented downward throughout the neck and the body. There is a small cylindrical protuberance with a cap-like edge in the upper part. The vessel's walls are thin. The colour is yellowish. The height is 9cm, while the orifice diameter is 2.7cm and the wall thickness equals 0.3cm (Photo 399).

A small rosewater vessel found on the site has a narrow and elongated neck that crosses over into the flattened shoulder. The neck is girdled in the middle by a protruding line. There is a trace of a handle with a tape-shaped cross section on it. The round-shaped body narrows slightly toward the base. The base is narrow and heeled. A trace of a pipe-shaped handle remained in front. The vessel was probably used to store fragrances. The colour is pink. The height is 11.6cm, while the orifice diameter is 2.8cm, the body diameter is 8.4cm, the base diameter is 4.4cm, the neck diameter is 2.1cm and the wall thickness is 0.3cm (Photo 401).

Spouts were the only undamaged *aftaba and luleyin-type vessel* (similar to *aftaba*) fragments obtained in the area. The pipe-like shaped spouts are thinning toward the edge. The vertically rising spouts were attached to the vessel at an angle (Photos 402-407). Such vessels have been found in Ganja [37], Shamkir [30, p. 274-278, inv. 489, 149, 825, 603, 794], Beylagan [46, Photo

7, 7] and Shabran [24, p.57, Photo 10] urban areas, as well as in Fakhrali [45, p. 39] and Shahargah [40, p.275] settlements.

Amphora-type vessels were found during the excavations as well. One of the obtained vessels is a neatly made amphora with thin walls. The orifice area is bent sideways. The neck is girdled by two scratched lines. It crosses over into the shoulder, which gradually broadens at a slant. The body goes down toward the base from the shoulder at a straight angle. It goes into the narrow and flat base as it narrows down. The bottom part of the base is indented inward. The surface is polished on the inside. The body is polished with vertical lines and covered with dark pink engobed coating. Traces of soot remained on the surface. The colour is pink. The height is 19.5cm, while the orifice diameter is 10.7cm, the body diameter is 13cm, the base diameter is 7.5cm and the neck diameter is 8.4cm (Photo 408).

The second sample found in the area is another amphora-type vessel. The bottom part is broken. The round-shaped orifice is bent sideways. The low and narrow neck goes smoothly into the shoulder. The bottom of the neck is encircled by a fringed stripe. The shoulder is faceted. The cylindrical body descends at a straight angle and expands slightly near the base. The surface is covered with turquoise enamel. Slight enamel of this colour was also applied on the inside. The clay colour is whitish. The orifice diameter is 8.8cm, while the body diameter is 13cm and the neck height is 2.7cm (Photo 409). A similar vessel was found in Shamkir urban area [30, p.376, inv. 310].

Fragments of *teapot-type* vessels were discovered during the excavations as well. Their orifice area is flat. They have short spouts below the orifice elements.

One of such fragments is a part of a teapot-type vessel body. The orifice area is flat. It has a short spout with a round cross section. There is an oval crack on the edge. Grain-like pressed patterns were applied in the bottom. There are traces of burning at the bottom part of the vessel (Photo 410).

Fragments with enamelled surfaces were also found (Photo 411). The narrow neck of a teapot-type vessel discovered in its entirety broadens upward slightly. The orifice is broken. The neck is girdled by two faceted lines. The surface of the facets was decorated with notches. Moreover, scratched line patterns were applied over the neck. The neck directly crosses over into the convex body, which is pressed on top.

A pattern similar to an octagonal star drawn with a scratched line was applied around the neck. There is a narrow handle with an oval cross section in the back connecting the neck and the shoulder. There is a protrusion shaped as a little model button in the upper part of the handle. Half of a vertical handle with a round cross section remained in front. The handle was attached essentially at the neck level. The base is wide, flat and depressed inward. The surface is covered with whitish engobed coating. The clay colour is light pink. The body diameter is 13cm, while the base diameter is 12.8cm and the neck height is 2.5cm (Photo 412).

Another vessel is a medium size convex teapot. The narrow neck goes directly into the body. The orifice is broken. There is a spout with a round cross section in front. The spout edge is broken. There is a trace of a small handle in the back. The base is wide and flat. Traces of a thin vertical stripe drawn with red paint are seen over the vessel. The clay colour is light pink. The height is 23cm, while the body diameter is 17.5cm and the base diameter is 9.5cm (Photo 413).

Earthenware pots similar to pitchers have wide orifice elements that are bent at a straight angle or laterally. Their necks gradually cross over into convex or round-shaped bodies. As a rule, earthenware pots have handles with tape-shaped or oval cross sections connecting the bodies and the necks. The bases are wide and flat (Photos 414-419). The surfaces of these vessels are usually decorated with scratched patterns and sometimes enamelled (Photos 415, 418).

One of the obtained fragments is the body of a large earthenware pot with a convex body. The orifice element broadens sideways slightly. The neck goes into the broad shoulder. The neck and the shoulder are girdled by wavy stripes comprised of scratched lines. The vessel has a little narrow and tape-shaped handle with an oval cross section that connects the neck and the shoulder. The neck part transiting into the shoulder is encircled by a red-painted stripe. Red-painted askew stripes descend below that stripe. One of the stripes begins over the handle. The vessel's walls are thin. The clay colour is light pink. The orifice diameter is 23cm, while the handle cross section width equals 1.4cm, the handle length is 7.2cm, the neck height is 4.3cm and the wall thickness is 0.9cm (Photo 414).

The second obtained sample is an earthenware pot with average capacity. The orifice is wide. A part of it is broken. The cylindrical neck somewhat expands sideways. The orifice area is flat. The body, which has a slightly convex upper part, narrows downward at a straight angle. The base is wide, flat and depressed inward. The orifice element is girdled on the outside by two parallel grooved stripes. The neck is traversed by a wavy stripe consisting of scratched lines. Another stripe comprised of straight scratched lines girdles the shoulder. The vessel has a handle with a tape-shaped cross section connecting the neck with the body. The clay is dense. Its colour is light pink. The height is 18.3cm, while the orifice diameter is 17cm, the body diameter is 17.5cm, the base diameter is 11cm, the handle cross section width is 1.3cm, the handle length is 8cm and the neck height is 4.5cm (Photo 415).

Another earthenware pot found on the site has a convex body and a wide orifice element that is bent laterally. The low neck is girdled in the middle by a faceted line. A wave-like stripe consisting of scratched lines extends below the line. The body narrows downward. Short, narrow and tape-shaped handles connecting the neck and the upper part of the body were attached on both sides. The base is flat. The upper part of the body is crossed by a stripe comprised of straight lines with a wave-like stripe extending underneath. The vessel's neck is painted red. Red stripes stretch downward from the painted spot. Red paint was also applied on the vessel's orifice and over the handles. The clay colour is pink. The orifice diameter is 22cm, while the body diameter is 23.5cm, the base diameter is 10cm and the wall thickness is 0.7cm (Photo 417). Earthenware pots were discovered during the excavations in Polutepe settlement [36, p. 119], as well as in Ganja [37] and Shamkir [30, p. 233-234, inv. 500, 798] urban areas.

The discovered *churns* were used to make butter. The obtained churns have round orifices with a welt. The narrow and cylindrical necks cross over into the pear-shaped or convex bodies. There are semi-circular handles with oval cross sections attached to the shoulders horizontally. Those handles were used to shake the vessel in order to produce butter from milk. There is a round hole next to the handles (used as an outlet for gases emerging in the course of production). The obtained churns were usually decorated with red-painted stripe patterns.

One of the samples found in the area is the upper part of a large churn. The round orifice element has a welt. The narrow cylindrical neck transforms smoothly into the slanting shoulder. The upper part of the neck is girdled by a facet. A wave-like stripe comprised of scratched lines extends underneath. A stamped stripe was applied in the semi-circular shape on a part of the shoulder. There are embossed images of dogs chasing mountain goats inside the stripe. There is a thick horizontal handle below the stripe. It is attached precisely to the section where both edges of the stripe are located. The handle has an oval cross section. There are four pressed indents positioned in a single row near both bases. There is another depressed spot over the left dent. The top of the vessel's body is encircled by straight and wavy stripes comprised of scratched lines. A red painted stripe was drawn throughout the neck part connected to the shoulder. Such red stripes also descend from that stripe (over the handle). The walls are thin. The vessel is covered with light pink engobed coating. The clay colour is orange. The orifice diameter is 11.4cm, while the handle cross section width is 3.1cm, the neck height is 12.5cm and the wall thickness is 0.7cm (Photo 424).

Another obtained sample is also the upper part of a large churn. Its round-shaped orifice element has a welt. The cylindrical neck gradually goes into the slanting shoulder. The neck's upper part is girdled by a facet. There is a wave-like stripe comprised of scratched lines below the facet. Red paint was applied on the neck part transiting into the shoulder. Vertical stripes descend from that stripe. The shoulder is girdled by straight and wave-like stripes consisting of scratched lines. The vessel's walls are thin. The clay colour is pink. The orifice diameter is 15cm, while the neck diameter is 11.5cm, the neck height is 7cm and the wall thickness is 0.8cm (Photo 426).

A churn found in its entirety slightly differs from other similar samples. It is a large churn with an elongated body. Some parts on top are missing. It has a narrow neck. The shoulder is crossed by a stripe framed by two pairs of parallel scratched lines. The stripe is decorated on the inside by askew notched patterns. There is a horizontal semi-circular handle with an oval cross section upon the shoulder. A hole was made slightly below one of the handle's edges. The body narrows toward the base. The base is wide and flat. The clay colour is pink. The height is 59cm, while the body diameter is 34cm, the base diameter is 16cm, the handle cross section width equals 4cm, the handle length is 16cm and the wall thickness is 0.9cm (Photo 425). There is a big handle with a round cross section upon the large churn body fragment. It's attached to the vessel horizontally. There is a pair of indents upon the edges. The body is girdled by three parallel stripes comprised of scratched lines. There are two wave-like stripes consisting of more scratched lines amid those stripes. The vessel is ornamented with red-painted askew vertical stripes. The clay colour is pink. The handle cross section width is 3.1cm, while the handle length is 7cm and the wall thickness is 0.7cm (Photo 427).

Churns have been discovered during the archaeological excavations carried out in Shamkir urban area [30, p. 224, inv. 846], the Fakhrali [45, p. 39] and Polutepe [36, p.119] settlements.

Decanter-type vessel necks were frequently encountered during the excavations as well (Photos 432-435). Their narrow pipe-like shaped necks broaden upward slightly. Their orifice elements have a welt. Decanters with grooved orifices are also available. The surface of the high or low necks is sometimes horizontally corrugated or encircled by grooved stripes. The necks smoothly transform into the shoulders. Tape-shaped handles are usually attached to the necks. In many cases, the orifices of the obtained decanters have filters.

One of the discovered items was a medium size, unbroken decanter-type vessel with thin walls. The body is pear-shaped. A part of the body is broken. The narrow cylindrical neck narrows downward, splits up and becomes unfragmented again, crossing over into the round-shaped shoulder. The shoulder has two tiers. The second tier is wider than the first one. The neck part connected to the shoulder is encircled by short, notched lines. The edges of the first tier are corrugated. There is a scratched wavy line over the second tier. The vessel body starts narrowing after broadening downward. The upper part of the body is girdled by little protruding circles framed with horizontally interchanging protuberant lines. The base is wide and heeled. There is a narrow tape-shaped handle in the back connecting the shoulder's second tier with the neck. There is a protrusion with a papilla-shaped tip at the edge of the handle's upper part. The clay colour is light grey. The height is 25cm, while the orifice diameter is 3.9cm, the body diameter is 14.5cm, the base diameter is 8.4cm, the handle cross section width is 1cm, the handle length is 9cm and the wall thickness is 0.5cm (Photo 436).

Flasks, i.e. water vessels, were also encountered during the excavations. The narrow necks of the flasks cross over into the slanting shoulders. Their narrow orifices sometimes transform directly into the bodies (Photo 437). The bodies are spherical and convex (Photo 438). The vessels have tape-shaped handles. The bases are narrow and flat. Their surfaces are usually decorated with red-painted vertical stripe patterns.

The orifice element of a spherical flask obtained in the area is torn off. The edge linked to the body of the handle, which is attached to the orifice area, is missing. The neck is shaped as a pipe.

The convex body crosses over into the narrow and flat base. Red-painted vertical parallel stripe patterns were applied over the body. The vessel was neatly made. The clay colour is pink. The body diameter is 12cm, while the neck diameter is 2.4cm and the wall thickness is 0.5cm (Photo 439).

The narrow necks of the discovered vessels shaped as *spherical cones* cross over into wide shoulders or their papilla-shaped orifice elements go directly into convex bodies. The bodies narrow downward. The bases are narrow and heeled. The surfaces are decorated with protuberances and stamped ornaments. Presumably, such thick wall vessels were used to store and transport poisonous liquids or mercury.

One of the discovered items is a fragment of a small spherical cone-shaped vessel body. The walls are thick. The narrow neck's part that goes into the body is girdled by a bordered stripe. The convex body is decorated with protuberances. Dashed line patterns were applied over the protuberances. Little circles featuring forged dots were engraved amid the protuberances. A white substance was applied on the vessel's inside surface. The clay colour is whitish. The wall thickness is 1.1cm (Photo 440).

Another sample found in the area is a fragment of a medium size vessel shaped as a spherical cone. The papilla-shaped orifice element transforms into the wide shoulder. The body broadens downward. The walls are thick. The surface is polished. The clay colour is greenish. The orifice diameter is 0.5cm, while the wall thickness is 0.8cm, the neck diameter is 2.4cm and the neck height is 0.6cm (Photo 441).

A small vessel shaped as a spherical cone that was found in its entirety also has a papilla-shaped orifice element. The terrace-shaped neck goes into the convex body. The upper part of the body is encircled by interchanging bud-shaped and spike-like patterns applied by stamping. The walls are thick. The surface is covered with yellow engobed coating. The clay colour is grey. The orifice diameter is 2.6cm, while the body diameter is 9.5cm and the wall thickness is 1.3cm (Photo 442). Shabran [24, p. 58].

Unlike vessels with spherical and bionic bodies, those of another type found in the area have smooth bodies that are encircled by protuberances or indents (Photo 447). Their narrow orifice elements have filters. There are high collars around the orifices. There are usually narrow, long tape-shaped handles in the back of such vessels. The clay composition is clean. The bases are narrow and heeled.

One of the obtained items of this type is a medium size vessel with a spherical body. The narrow orifice is broken. A net-shaped protrusion girdles the orifice area. The body is encircled by slanting indents. The indents are framed by a scratched line on top and a pair of grooved lines in the bottom part. There is a trace of a handle with an oval cross section in the back. The base is narrow and heeled. The clay colour is whitish. The height is 14.5cm, while the body diameter is 12.5cm and the wall thickness is 0.4cm (Photo 443).

The second little vessel also has a spherical body. The narrow orifice is torn off. The neck is girdled in the bottom by two protruding lines. A pattern with holes was applied over the line in the bottom. The base is narrow and heeled. The surface is covered with yellowish engobed coating. A trace of a handle with a triangular cross section remained in the back. The clay colour is whitish. The height is 11cm, while the body diameter is 14cm and the base diameter is 6cm (Photo 445).

A medium size bionic vessel with thin walls was found in the area as well. The upper part is broken. The body starts narrowing down after broadening till the middle. The base is narrow and heeled. A horizontal faceted line crosses the body in the middle. The body's upper part consists of protruding chunks. A part of a vertical narrow handle with a tape-shaped cross section

remained in the back. The surface is polished. The clay colour is yellowish. The body diameter is 12.6cm, while the base diameter is 6.6cm and the wall thickness equals 0.4cm (Photo 446).

An average size vessel obtained on the site has a neck with a collar that broadens upward. Most of the neck part is broken. There is a dome-like cover at the bottom of the neck's inside part that served as a filter. One hole was opened in the middle of the cover and eight holes were made on the edges. The convex vessel body was decorated by applying pressure to it. There is a narrow tape-shaped handle in the back connecting the body and the neck. The handle is divided into two parts by a groove in the middle. The base is flat. There are three short cylindrical legs in the bottom. The walls are thin. The outside surface and the neck's inside part are covered with yellowish engobed coating. The clay colour is light pink. The height is 19cm, while the body diameter is 12cm and the base diameter is 7.3cm (Photo 444).

Spherical cones have been discovered in Ganja [37], Shamkir [30, p. 282-286, inv. 458, 767, 101, 143, 641, 283, 735, 471, 143, 305, 428, 812, 923, 876, 204, 543, 97, 84] and Beylagan [32, p. 221-225, panel XIV, 1-8] urban areas. Over 200 damaged spherical cones were found near Stove 1 during the research conducted in Orenqala, along with up to 150 such samples obtained close to Stove 2 [46, p.181, Photos 7,8-16]. Such items have also been encountered in Shahargah settlement [40, p. 276].

Vessels called *silbinc* were also found during the excavations. Their cylindrical and elongated bodies narrow downward. The orifice elements, which are bent sideways widely, create a disc shape. The orifices transform directly into the bodies. The bases are narrow and flat. As a rule, the inside part and the surface of the orifices are painted (usually in green colour) and enamelled. Vessels of this type presumably served the natural needs of children at night.

One of the obtained *silbinc*-type vessels, which has thick walls, is an elongated item with a heeled base that crosses over directly into the body. The latter broadens upward. The orifice element is protuberant. The orifice is covered with engobed coating on the outside. Green enamel was applied on the vessel's inside part half-way through on top, while the rest is covered with dark green enamel. The clay colour is light pink. The orifice diameter is 11.4cm, while the base diameter is 6.1cm and the wall thickness equals 1cm (Photo 448).

Another sample found in the area is a fragment of an elongated body of an average size *silbinc*. The base is wide and flat. The body broadens upward from the base. The walls are thick. The vessel is covered with green enamel on the inside. The clay colour is pink. The base diameter is 6cm and the wall thickness is 0.8cm (Photo 449).

Another average size *silbinc* with an elongated body has an orifice element that broadens sideways widely, assuming the shape of a disc. It transforms directly into the body. The orifice is painted red. The base is narrow and flat. Protruding concentric lines were drawn in the bottom part of the base. A part of the orifice is missing. The clay colour is orange. The height is 16.5cm, while the orifice diameter is 15cm, the base diameter is 5.3cm and the wall thickness equals 0.5cm (Photo 450).

The cylindrical body of a small elongated *silbinc* narrows downward. The base is flat. The inside part is horizontally corrugated and covered with dark green enamel. The clay colour is pink. The body diameter is 9.5cm, while the base diameter is 5.7cm and the wall thickness is 0.8cm (Photo 451).

Another obtained *silbinc* has an elongated body and thick walls. A part of it is broken. The orifice element broadens sideways slightly. It goes directly into the body. The body narrows toward the base. The base is flat. Green enamel was applied on the inside and the upper surface. The clay colour is dark pink. The height is 16cm, while the orifice diameter is 10.5cm, the body diameter is 11cm, the base diameter is 6cm and the wall thickness is 1.1cm (Photos 452-453).

A part of the little silbinc-type vessel found in the area is broken. The orifice element broadens sideways. The orifice area is flat. The low neck narrows downward and crosses over directly into the body. The body narrows on its way down. The base is narrow and flat. The upper part of the body is girdled by thin parallel lines. The vessel's upper part is painted red. The clay colour is pink. The body diameter is 10.8cm, while the orifice diameter is 11.7cm, the base diameter is 5cm and the wall thickness is 0.6cm (Photo 45a). Silbinc samples have been found in such urban areas as Shamkir [30, p. 278, 353, inv. 257, 64, 75, 238], Beylagan [32, panel XII, 7], Gabala [41, p.287, Photos 10-10 (a)].

A significant number of clay *lid* fragments were discovered during the excavations. The lids are round and flat, i.e. disc-like shaped (480-485; 488; 505-508). Some oval items were encountered as well (Photos 486-487; 504). Their margins were decorated with notched and scratched patterns, while their surfaces were sometimes ornamented with stamped patterns featuring zoomorphic images (Photo 488). The edges are usually paved. More precisely, they rise upward beyond the lid surface in a slightly protuberant shape. There are cylindrical knobs or thick horizontal semi-circular handles with round cross sections in the middle of the lids (Photos 489-495). Lids with enamelled surfaces and rather convex handles were also found (Photo 482). Some lids were painted red on top. The lids are of different sizes. These items range from large tandir oven lids (Photos 496-497) to corks slated for the orifices of small and tiny vessels (Photos 498-503).

A medium size sarpush (copper lid) found in the area has a disc-like shaped handle. The handle goes into the spherical body. The body crosses over into the flat bottom parts. The edges are torn off. The body is girdled by intersecting criss-cross patterns applied amid two parallel scratched lines. The patterns consist of dashed dots. The inside part is covered with yellowish engobed coating. Traces of red paint are seen on the surface. The clay colour is red. The lid diameter is 15cm, while the handle diameter is 4.2cm and the wall thickness equals 0.7cm (Photo 504).

One of the obtained samples is a large disc-shaped vessel lid fragment with flat protuberant edges. A scratched criss-cross stripe extends throughout the edge. The crankles have punctured tips. This stripe is framed on both sides by dotted lines. Indents resembling flowers with dots drawn around them and in the middle were engraved upon the lid. Blue ceramics fragments were attached in the middle of some of these indents. There is a handle with a round cross section in the central part of the lid. A pattern with holes was applied throughout the middle section of the handle. The clay colour is pink. The lid diameter is 31cm, while the wall thickness is 1.4cm (Photo 505).

A half-part of a boiler lid with paved edges was found as well. Askew line patterns consisting of dashed dots were applied all over the edges. There is a semi-circular handle with an oval cross section in the middle. The handle's surface is decorated with patterns featuring elongated notched lines and grain-like notches. Rows of lines comprised of dashed dots stretch in four directions beyond the handle. The clay colour is pink. The lid diameter is 28cm, while the wall thickness is 1.4cm (Photo 506).

Another discovered sample was a vessel lid fragment with a flat bottom. There is a wide grooved stripe between the lid edge and its central part. Askew line patterns consisting of dashed dots were applied on the edges of the lid. There is a cylindrical handle in the middle. The flat handle surface is decorated with a blue coloured ceramics fragment encircled by dots. The middle section of the handle protrudes in the umbrella-like shape. A three-dot pattern was applied at the bottom of the handle. The clay colour is pink. The lid diameter is 21cm, while the wall thickness equals 0.8cm (Photo 507).

A part of another vessel lid is broken. The big lid is round-shaped and flat. The inner surface is girdled by two stripes filled with embossed animal, bird and tree images and geometrical figures. The central part protrudes widely in semi-conic shape. There is a short cylindrical handle with a

round cap over the semi-cone. A grooved line extends throughout the cap edges. There is a rather convex protrusion over the cap. The semi-cone part located below the lid is indented. Red paint was applied over the lid. Traces of soot and burning remained underneath. The clay colour is pink. The lid diameter is 30cm and the wall thickness is 1.2cm (Photo 508).

Lids emerged in Ganja [37], Shamkir [30, p. 244-253, inv. 749, 405, 71, 60, 796, 765, 460, 573, 600, 189, 384, 72, 149, 850, 1073, 985, 104, 326, 504, 235, 651, 701, 764, 461] and Shabran [24, p. 55] urban areas, as well as in Zardab [31, p. 61] and Fakhrali [42, p. 93; 45, p.41-42, 44-45].

The surfaces of the enamelled vessels obtained during the archaeological research in the Karpilitepe monument area were decorated with polychrome and monochrome geometrical, vegetational and zoomorphic images. On one occasion, an anthropomorph image (a picture featuring a Seljuq fighter) was encountered. The second stage of enamelled pottery production dates to the period between the 11th century and the early 13th century. The decorative techniques used in producing glazed ceramics stand out in terms of some novelties and further perfection of the artistic processing of such samples. This stage saw a peak in the diversity of applied patterns on Azerbaijani enamelled pottery, the colourfulness and brightness of their shades, the abundance of decorative features and the high quality structure of relevant compositions [30, p. 290-291].

The discovered *bowl/s* have wide orifice elements broadening sideway (Photo 260). Bowls with orifices protruding in both directions were also found (Photo 261). Their orifice area is round (Photo 273) or flat (Photos 268, 269). The round-shaped lateral parts smoothly cross over into the bodies (Photo 262). The flanks sometimes transform into the bodies after expanding downward. Samples with bodies descending at a straight angle were encountered as well (Photo 263). As a rule, the bases are ring-like and heeled. The bowls are usually covered with polychrome and monochrome enamel on the inside and sometimes both sides of their surface. Geometrical and vegetational patterns with different shades were applied on the inside part of these vessels (Photos 264, 265, 266, 267, 268, 270, 273).

One of the discovered samples is a medium size deep bowl with a flat orifice element that is bent aside. The round-shaped and low flank narrows downward and goes into the base. The base is narrow, ring-like and heeled. The vessel was covered with light creamy enamel on the inside and further ornamented by a bird image of the mustard colour with green bindweed drawn around it. A green circle was drawn on the bird's chest. The colour of one of the bird's tails is also green. This ornament is encircled by a stripe with interchanging mustard and green colours on the inside. The lateral part is covered with white engobed coating on the outside. The height is 8.5cm, while the orifice diameter is 24cm, the body diameter is 23.5cm, the base diameter is 9cm and the wall thickness is 0.5cm (Photo 264).

The second vessel is an average size shallow bowl. A part of it is torn off. The round-shaped orifice protrudes beyond the flank. The latter broadens and further crosses over into the body, which narrows toward the base. The base is narrow, ring-like and heeled. The inside part is decorated with a vegetational ornament pattern in the background of white enamel. The ornament consists of four yellow elongated petals with edges connected in the middle and green rhombic leaves located in between. This ornament is framed by light coffee-coloured semioval figures. The vessel's flank is covered with green enamel on the inside. There is a pair of light coffee-coloured vertical lines over the orifice area. Horizontal semi-circular lines were drawn amid those lines. The clay colour is red. The orifice diameter is 21cm, while the body diameter is 17.6cm and the base diameter is 7.3cm (Photo 272).

Another small bowl has a round orifice area. A part of it is broken. Its lateral part goes into the body that narrows toward the base after expanding downward. The base is narrow and heeled. The outside surface is girdled horizontally by two parallel scratched lines. One of the lines crosses

the part where the flank is connected to the body, while the other one goes through the body. The inside part is covered with green enamel over pink engobed coating and decorated with spiral-like patterns featuring black lines. The clay colour is pink. The height is 6.6cm, while the orifice diameter is 15.5cm, the body diameter is 14.2cm and the wall thickness is 0.6cm (Photo 273).

One of the discovered items is a half-part of an average size bowl. The orifice element is bent sideways. The round-shaped flank smoothly goes into the body that narrows toward the base. The base is ring-like and heeled. The inside part is covered with whitish enamel. The top of the orifice is decorated with coffee-coloured oval-like lines. The lateral part is girdled on the inside by a green stripe framed by coffee-coloured lines. The edges of four elongated yellow flower petals are connected in the middle section of the vessel. Triangular green leaves were drawn in between. The vessel's flank is covered with white engobed coating on the outside. The clay colour is red. The orifice diameter is 22cm, while the body diameter is 18.5cm, the base diameter is 8.2cm and the wall thickness is 0.8cm (Photo 274).

Another half-part of an average size bowl has an orifice element that is bent laterally. The round-shaped lateral part smoothly crosses over into the body that narrows toward the base. The base is ring-like and heeled. The inside part is covered with whitish enamel. The orifice is decorated on top with oval-like line patterns framed by a pair of coffee-coloured vertical lines. The flank is encircled on the inside by a green stripe framed with coffee-coloured lines. The edges of four elongated yellow flower petals are connected in the central part of the vessel. Triangular green leaves were drawn in between. The vessel's flank is covered with white engobed coating on the outside. The clay colour is pink. The height is 7.5cm, while the orifice diameter is 21cm, the body diameter is 18.5cm, the base diameter is 7.5cm and the wall thickness equals 0.6cm (Photo 275). Bowls have been found in Ganja [37], Shamkir [30, p. 294-316, inv. 437, 676, 149, 102, 381, 565, 604, 138, 825, 748, 811, 443, 111, 463, 877, 582, 445, 186], Gabala [41, p. 286, Photo 14], Shabran [24, p. 57] urban areas, Shahargah in Kurdamir district [40, p. 265, Photo 6a-b], the Fakhrali settlement in Goranboy district [45, p. 44, Photo 23], the Polutepe settlement in Jalilabad district [36, p.119], as well as in other medieval monuments. The bowls dating back to the 11th-13th centuries painted in polychrome and monochrome colours, which were discovered in medieval Beylagan urban area, have certain similarities with the Karpijlitepe bowls [43, p.246-280].

The obtained *piyales* (bowl-like vessels) have round and wide orifice elements. The *piyales* with orifices bent sideways have a flat orifice area. The flat orifice area protrudes in both directions from the body. The *piyales* with straight orifices have thin orifice parts. The orifices cross over directly into the oval, convex or bionic bodies. Some of these have lateral parts. In this case, the flanks transform into the oval bases. These vessels usually have narrow, ring-like and heeled bases. As a rule, the inside part and orifice area of the *piyales* were enamelled after geometrical ornaments were applied upon them.

A *piyale* obtained in the area has a thin orifice element and round-shaped flanks. The base is narrow, ring-like and heeled. The inside part is covered with green enamel. Rhombi encircled by black painted spots were drawn in the middle. The rhombi are located as chess pieces. A black stripe was also drawn upon the vessel's orifice. The flanks were covered with white enamel on the outside. There are traces of significant burning all over the top of the lateral parts. The clay colour is light grey. The height is 4.8cm, while the orifice diameter is 10.5cm, the body diameter is 10.7cm, the base diameter is 4.5cm and the wall thickness is 0.5cm (Photo 276).

A shallow *piyale*-type vessel found on the site has a wide orifice. The orifice broadens sideways slightly. The round-shaped flank goes into the oval body. The inside part is decorated with patterns featuring green rhombi and little yellow circles against the background of white glazing. Coffee-coloured three-dot patterns were applied in between. A coffee-coloured circle was drawn in the middle. The circle is filled with green and yellow stripes on the inside. A green stripe was drawn upon the vessel's orifice with a coffee-coloured line underneath. The base is narrow and

heeled. The clay colour is pink. The height is 5.5cm, while the orifice diameter is 13cm, the body diameter is 12.5cm, the base diameter is 5cm and the wall thickness is 0.4cm (Photo 277).

Another discovered piyale is asymmetrical as a part of its round-shaped body was deformed while it was being made. The base is heeled. Creamy coloured enamel was applied upon the inside part after the surface was covered with creamy engobed coating on both sides. The clay colour is light pink. The height is 4.3cm, while the orifice diameter is 11.5cm, the body diameter is 10.5cm, the base diameter is 5.3cm and the wall thickness is 0.5cm (Photo 278).

A part of another small piyale is missing. The wide orifice goes directly into the body. The body narrows downward. The base is narrow and heeled. The heel is indented in the middle. The inside part was covered with whitish-creamy enamel and a dark brown pattern resembling a comma was further applied in the middle. A dark brown stripe was also drawn throughout the inside part of the vessel's orifice. The clay colour is light pink. The orifice diameter is 11cm, while the body diameter is 9cm, the base diameter is 4.6cm and the wall thickness equals 0.4cm (Photo 279).

One of the finds recorded during the excavations is particularly interesting. These are fragments of a piyale-type vessel body made of transparent green glass. The walls are thin. The body broadens sideways from the narrow base. The orifice is wide. The low neck transforms smoothly into the shoulder. The orifice diameter is 9cm (Photo 280). Similar piyales have been discovered in Ganja [37], Shamkir [30, p. 295, 303, 304, 332, 342; inv. 577, 427, 750, 321, 259], Beylagan [43, p. 248-280, Photo 4] and Shabran [44, p. 284] urban areas, in Zardab [31, p.60], as well as in Polutepe [36, p.119] and other settlements. The piyales found in Fakhrali settlement [45, p.44] were unglazed.

Piyales were also obtained during the archaeological excavation work done in Goranboy district [21, 257].

The wide orifice elements of *plates* and *kheyres* are usually bent sideways. However, some samples with orifices inclined inward were also found (Photo 287). Their orifice area is flat. The orifices cross over directly into the shoulders or the oval bodies. The bases are heeled, ring-like heeled or oval.

The bodies of the obtained kheyres, which are bigger than the plates, sometimes narrow toward the base at a straight angle. As a rule, the plates and kheyres were ornamented with vegetational, geometrical or zoomorphic patterns and enamelled (Photos 281-288; 290; 292).

One of the discovered samples is a large and deep kheyre-type vessel. A part of it is missing. Researchers managed to restore the rest of the vessel. The orifice is wide. The orifice area is straight. The low flank is inclined inward to some extent. The body sharply narrows downward from the flank. The base is ring-like and heeled. The walls are thick. The inside part is covered with red coloured enamel. Light creamy glazing was further applied around the central part in the shape of a stripe. This shape is located inside a bigger circle. More little circles were drawn upon the edges of the big circle throughout the vessel's body. The circles are decorated in the middle with bluish enamel and coffee-coloured spots. The height is 12.5cm, while the orifice diameter is 36cm, the base diameter is 11.3cm and the wall thickness is 0.8cm (Photo 289).

A deep medium size plate obtained in the area was made neatly. The orifice area is flat and protrudes laterally. The neck narrows toward the body. The base is ring-like and heeled. The orifice element and the neck are covered with engobed coating on the outside. In addition to slanting dashed stripes of chestnut colour applied in the background of white enamel, the orifice area and the inside part are decorated with green triangular and circular line patterns. A vertical coffee-coloured stripe was applied as well. The vessel's wall thickens toward the base from the orifice. The clay colour is pink. The height is 6.5cm, while the orifice diameter is 20cm, the base diameter is 7.2cm and the wall thickness is 0.6cm (Photo 290).

Another obtained sample is a large kheyre-type vessel with a ring-like and heeled base. The body broadens upward and sideway from the base. The low flanks rise vertically. The orifice area is flat. The inside part was covered with greenish-turquoise enamel and further decorated with black coloured spiral-like patterns. The height is 14cm, while the orifice diameter is 37cm, the base diameter is 12cm and the wall thickness is 0.6cm (Photo 285).

Another large kheyre was partially broken. Its orifice is bent sideway. The round-shaped flank transforms smoothly into the body. The body narrows toward the base. The base is ring-like and heeled. The inside part is decorated with green and yellow geometrical, vegetational and zoomorphic image patterns against the background of whitish enamel. The patterns are described below.

Green and yellow triangles were drawn on the orifice element. The lateral part is girdled by green rhombi and yellow ovals. Coffee-coloured dots were applied in between. This was done in groups of three dots at a time. The central part is encircled by a green stripe framed with coffee-coloured lines. A yellow coloured image of a running horse encircled by green bindweed was applied inside the circle. The lateral part's surface was covered with white engobed coating on the outside. The clay colour is pink. The height is 12.1cm, while the orifice diameter is 37cm, the body diameter is 35cm, the base diameter is 12cm and the wall thickness equals 0.7cm (Photo 288). A great number of polychrome and monochrome painted, enamelled kheyres and plates have been found in Ganja [37], Shamkir [30, p.297, 300, 303, 306, 307, 311-313, 337-339, 343; inv. 270, 200, 665, 713, 74, 89, 416, 747, 808, 447, 794, 795, 46, 148, 548], Beylagan [43, p. 248-280, Photo 2, panel XXV, XXVIII-XXXIV] and Shabran [24, p.57; 44, p.284] urban areas, as well as in the synchronous layers of the Fakhrali settlement [45, p.46, Photos 24-27] and Polutepe [36, p.119].

Kheyres and plates were also encountered during the archaeological research conducted in Goranboy district [21, 257].

Dishes are relatively shallow in comparison with plates and kheyres. Dishes have wide orifice elements that are bent sideway. The orifice area is flat. Some samples with orifices slightly inclined inward were found as well. The convex bodies sometimes gradually narrow toward the bases. The bases are narrow and heeled. The bottom parts of the dishes are sometimes flat or slightly oval. Patterns with vegetational, geometrical or zoomorphic images were applied on the dishes on the inside and sometimes on their outside surfaces, which were further enamelled.

A part of the body of a medium size dish found in the area is enamelled on the inside. A geometrical ornament was applied on the vessel in the shape of units. There are ovals inside the units. The palette includes light green, yellowish and dark brown colours. The orifice element broadens sideway and goes directly into the body. The shoulder is covered with engobed coating on the outside, along with patterns featuring wavy coffee-coloured lines. The base is ring-like and heeled. The clay colour is pink. The base diameter is 9.1cm and the wall thickness is 0.7cm (Photo 293).

Another obtained fragment is an average size dish base. The base is ring-like and heeled. The inside part is covered with turquoise enamel. A zoomorphic ornament featuring a black coloured bird image was applied in the turquoise background. The clay colour is pink. The base diameter is 7.3cm and the wall thickness equals 0.6cm (Photo 294).

Fragments of a small dish with a flat orifice that is bent sideway were found as well. The flank expands downward, crossing over into the rounded base. The inside part was decorated with coffee-coloured and green triangle and circle patterns applied inside a light brown circle in the background of white enamel. A light brown stripe girdles the vessel's flank parallel to the circle. There is a rather wide light green stripe over it. Green and yellow semi-circles were drawn upon the orifice element. The back side of the lateral part is covered with white engobed coating. The

clay colour is reddish-pink. The orifice diameter equals 18cm and the wall thickness is 0.6cm (Photo 295).

One of the interesting samples found in the area is an average size dish orifice element fragment. The orifice area is flat and somewhat oriented inward. The lateral part broadens downward, crossing over smoothly into the base. Grooved stripes made by a finger stretch all over the inside part. There is a faceted stripe between the flank and the bottom part on the outside. The bottom part of the base is decorated with protruding grain-like patterns. The wall is thinning downward. The outside part is covered with yellowish engobed coating. The clay colour is pink. The orifice diameter is 25cm and the wall thickness is 0.4cm (Photo 296). The dishes found in Shamkir urban area are similar to those obtained in Karpilitepe [30, p. 297, 302, 342, 350; inv. 347, 856, 140, 407]. Such vessels were also found in Polutepe [36, p.119].

Small *saucers* were found in the excavation as well. The saucers have wide orifices. Their low flanks smoothly transform into the oval bodies or the bases. Some of the saucers have narrow and heeled bases. The orifices are bent laterally. The orifice area is flat. A saucer with a handle was found once as well. The inside part of the saucers is decorated with vegetational and geometrical patterns and enamelled. Some of these samples are painted in a monochrome colour and enamelled. One of the discovered saucer-type vessels has a narrow and heeled base. The inside part was covered with whitish enamel over white engobed coating and with patterns featuring triangles with edges slanted toward the middle section. Vegetational patterns were applied inside the triangles. There is white engobed coating in the bottom of the vessel as well. The clay colour is pink. The base diameter is 25cm, while the wall thickness is 0.4cm (Photo 297).

Another discovered sample is a saucer body fragment. The orifice element is bent sideways. The low flank goes into the round-shaped body. The inside part was covered with white enamel, encircled by coffee-coloured stripes and decorated with green and yellow geometrical image patterns. The clay colour is pink. The orifice diameter is 16cm, while the wall thickness is 0.5cm (Photo 298).

A part of another saucer-type vessel is broken. The rounded lateral parts smoothly transform into the body, which narrows downward. The base is narrow and heeled. The vessel is decorated on the inside with green and yellow vegetational patterns in the background of white coloured enamel. A coffee-coloured stripe was drawn inside the orifice area. The clay colour is pink. The height is 3.4cm, while the orifice diameter is 11.7cm, the body diameter is 10.5cm, the base diameter is 5.6cm and the wall thickness is 0.5cm (Photos 299-300).

An obtained saucer body fragment has a flank that crosses over into the body in a circular shape. There is a small vertical auricle-shaped protrusion upon the lateral part in the back. The inside part is covered with green enamel. The clay colour is pink. The protrusion length is 1.5m, while the wall thickness is 0.6cm (Photos 301-302).

Salt shaker-type vessel fragments were frequently encountered during the excavations as well. As a rule, the salt shakers are covered with monochrome enamel. Their colour is usually green. Their bodies are either convex or narrow downward. Salt shakers with conic bodies were also found. The wide orifices are round or bent sideways. The orifices sometimes transform directly into the bodies. The bases are broad and flat, narrow and heeled, ring-like and heeled or oval. The salt shakers are usually enamelled on the inside and sometimes on the outside (Photos 303-308; 315).

One of the finds is a small salt cellar-type vessel base. The base is narrow, ring-like and heeled. The body is slanted upward from the base in a rounded shape. The vessel's surface is covered with whitish enamel on both sides. A coffee-coloured circle was drawn in the middle. The circle's edges are decorated with line and dotted patterns. The circle is girdled by a stripe of the same

colour. The vessel's walls are thin. The clay colour is grey. The base diameter is 3.9cm, while the wall thickness is 0.4cm (Photo 309).

Three fragments of a little salt shaker-type vessel's body were found as well. The body is round. The orifice element is slanted inward. The orifice area is barbed. The base is flat. The inside part and the top of the indents are covered with blue enamel. The clay colour is whitish. The orifice diameter is 7cm and the base diameter is 0.5cm (Photos 311-312).

Another small salt shaker has a round orifice that goes directly into the body. The body assumes a flat shape after broadening downward. The base is heeled. The clay colour is pink. The inside part is covered with green enamel. The height is 3cm, while the orifice diameter is 5.6cm, the body diameter is 5.9cm and the base diameter is 4.1cm (Photos 313-314).

The orifice edges of a round-shaped salt shaker are circular and protuberant. The edges of the protrusion are barbed. The section between the body and the heeled base is faceted. Turquoise enamel was applied in the inside part and upon the protrusion. The clay colour is whitish. The orifice diameter is 5.5cm, while the body diameter is 5.2cm and the base diameter is 4.2cm (Photo 310).

Vessels of this type, which are referenced as "salt shakers" in archaeological literature, have been discovered in a number of medieval monuments. For example, a lot of vessels similar to salt shakers were found in Shamkir urban area [19, p. 241; 30, p. 317, 351, 352, inv. 138, 150, 686]. Salt cellars were also encountered in Shabran urban area [24, p. 56], as well as in Fakhrali [45, p.39, 45] and Shahargah [40] settlements.

Trays and *macmayi* (round copper trays) have orifice elements and flanks expanding sideway or those that are oval-like shaped. Their orifice area is flat. The bodies broaden sideways from the bases. The bottom parts are flat. The bases are usually narrow and heeled. The inside parts were decorated with geometrical, vegetational and zoomorphic images and enamelled (Photos 316-333).

A large *macmayi* found on the site has a wide orifice element. The orifice area is flat. The flank expands till the bottom, transiting into the body. The body sharply narrows downward. The inside part was covered with light creamy enamel and decorated with patterns featuring black semi-circles. Flower images consisting of blue spots and black dots were applied as well. Black coloured stripe patterns were applied on top of the orifice element. The clay colour is dark pink. The orifice diameter is 38cm (Photo 321).

A tray-type vessel body fragment found in the area has round flanks opening sideway. The orifice element is bent laterally. The inside part is decorated with green and coffee-coloured stripes, as well as green, yellow and coffee-coloured vegetational images, in the background of white enamel. The surface of the flank is slightly polished on the outside. The orifice diameter is 22cm and the wall thickness equals 0.9cm (Photo 333a).

Another tray-type vessel body fragment has thick walls. The inside part is decorated with green and dark yellow vegetational images in the background of white enamel. The clay is dense. Its colour is light pink. The wall thickness equals 1.2cm (Photo 330).

Similar *majmayi* and tray fragments were found in the Fakhrali settlement. Their orifice elements are round and straight and sometimes have a welt. The bottom parts are usually flat [45, p.46, Photos 24-27].

Cup-type vessels were also found during the excavations. Their elongated bodies narrow downward slightly. The bases are heeled or flat. The orifice elements are bent sideway. As a rule, cup-type vessels were enamelled in a monochrome colour on the inside and sometimes on both

sides of the surface. As for the purpose of such vessels, they were presumably used as flower bowls.

One of the finds is a fragment of a cup-shaped vessel's elongated body. The body narrows downward. The walls are thick. The wall is thinning upward. The clay colour is pink. The body diameter is 6cm, while the wall thickness equals 1cm (Photo 420).

Another cup-shaped vessel's orifice element and neck are broken. The cylindrical body narrows toward the base slightly. The base is ring-like and heeled. The surface is covered with whitish engobed coating. Turquoise enamel was further applied on both sides. The shoulder is girdled by a black coloured stripe. The upper part of the body is encircled by two parallel grooves and black patterns resembling the digit "2" inserted in a frame of two parallel lines. The body diameter is 12.2cm and the wall thickness is 0.8cm (Photo 421).

Another obtained sample is a part of a cup-type vessel with a narrow orifice. The orifice area has a welt. The low and narrow neck goes into the shoulder. The body is elongated and cylindrical. The wall is thick in the bottom. It is thinning upward. The base is narrow and heeled. Most of the body is covered with blue enamel, while the colour of the enamel in its lower part is green. The clay colour is light pink. The orifice diameter is 8cm, while the base diameter is 6.2cm and the wall thickness is 0.6cm (Photo 422).

Another item found in the area is a body fragment of a cup-type vessel. The orifice element is bent sideways. The low neck is horizontally corrugated. The neck transforms smoothly into the slanting shoulder. The section between the shoulder and the elongated body is faceted. The surface is covered with blue enamel. The neck is also enamelled on the inside. The clay colour is whitish. The orifice diameter is 8cm, while the wall thickness is 0.7cm (Photo 423).

The discovered *mugs* have low and wide or cylindrical necks that transform into the body at a straight angle. The bodies are sometimes convex. The orifice area is flat or round-shaped, while the bases are narrow and heeled. The tape-shaped handles connect the bodies and the necks.

Enamelled mug fragments were found as well. One of the discovered items is a little mug-type vessel body fragment. The low and wide neck transforms directly into the body. The orifice area is flat. The vessel has a tape-shaped handle connecting the orifice element with the body. The inside part is covered with whitish engobed coating and further with green enamel. The clay colour is greyish. The handle cross section width is 2.2cm, while the wall thickness is 0.7cm (Photo 428).

Another mug was found in its entirety. The medium size mug-type vessel's orifice element is thin. The low cylindrical neck goes into the convex body. The shoulder is girdled by a facet. Almond-like depressed patterns encircle the body in two rows. The base is narrow, low and heeled. There is a narrow tape-shaped handle in the back that connects the neck and the body's lower part. The clay colour is light grey. The height is 12.5cm, while the orifice diameter is 8.5cm, the body diameter is 14.5cm and the wall thickness is 0.5cm (Photo 429).

Another discovered sample is a half-part of an average size mug-type vessel's orifice element. The orifice area is flat. It goes directly into the cylindrical neck. The neck is girdled by a stripe comprised of thin protruding lines. There is a bird bill-like protrusion upon the orifice. The vessel's walls are thin. The clay colour is yellowish. The orifice diameter is 11.5cm and the wall thickness is 0.4cm (Photo 430).

A mug body fragment was found as well. The orifice area is round. It goes directly into the body. The body expands downward slightly and descends at a straight angle. The base is oval. Two corrugated stripes girdle the bottom of the orifice on the outside. Dark green enamel was applied upon the surface on both sides. The walls are thick. The clay colour is yellowish. The orifice diameter equals 17cm and the wall thickness is 0.8cm (Photo 431). Researchers also came across mugs in Shamkir urban area [30, p.308, inv. 670].

A significant number of clay *lamps* were obtained during the excavations. Such vessels were sometimes fragmented, but usually found in their entirety (although their spouts and some handles were broken). The Karpijlitepe lamps were rather small and made delicately. Their orifice elements are round. The cylindrical necks cross over into the flattened bodies. The bases are also flat. The vessels have slightly vertical pipe-shaped spouts in front. The spout edges were flattened and an oval crack was made in their upper part for lighting a fuse at the tip. There are semi-circular handles with tape-shaped cross sections in the back of the lamps. The handles are usually divided vertically into two parts in the middle by a thin groove. Most of the lamps were painted green on the inside and outside and enamelled (Photos 454-466). Such samples were found during the excavations in Shamkir [30, p. 321-322, 349-350, inv. 708, 81, 530, 520, 596, 513, 31, 418, 45, 434, 488] and Beylagan [32, p. 220-221, panel XIII, 1-7] urban areas. Moreover, both enamelled and ordinary lamps were encountered [24, p. 55, Photo 8] in Shabran urban area. Lamps were also found in Fakhrali settlement [45, p. 39], as well as in Zardab [31, p.63] and Goranboy districts [21, 257].

Small vessels called "*ink-pots*" in scientific literature also emerged during the excavations carried out in Karpijlitepe monument area (Photos 467-479). The cylindrical bodies of the ink-pots, which have wide orifices, narrow downward slightly (Photo 478). Their orifice area is protuberant in the disc-like shape. The edges of the protrusion are sometimes barbed or shaped as a star. Presumably, such a structure of the ink-pots was slated for placing them in special hollows. However, three-legged ink-pots were also discovered. The bases are wide and flat. Their surface was painted in a single colour on the inside and outside (mainly green or blue) and enamelled. Vegetational or geometrical patterns were applied upon some of the vessels.

One of the obtained items is a little conic ink-pot with a round orifice element. The orifice area, which was flattened, assumed a disc-like shape. The body narrows toward the base. The base is broad and flat. The inside part was covered with green and yellow enamel over white coloured engobed coating. The orifice was framed by black paint. Triangular patterns were drawn upon the orifice area with yellow and green enamel. The clay colour is pink. The orifice diameter is 2.8cm, while the base diameter is 3.2cm (Photos 467-468).

A tiny vessel similar to an ink-pot that was found in the area was presumably used to store spices, perfumery or paint. The cylindrical body broadens upward. There is a wide, round-shaped protrusion upon the orifice area. The inside part was covered with green enamel. A flower petal pattern was applied on top of the protrusion with a black coloured line. The base is wide and flat. The clay colour is whitish. The height is 2.2cm, while the orifice diameter is 5.6cm, the body diameter is 4.3cm and the base diameter is 3.4cm (Photos 469-470).

Another tiny vessel similar to an ink-pot was also presumably used to store spices, perfumery or paint. The body is cylindrical. The top of the orifice was covered with coffee-coloured enamel. There is a round wide protrusion upon the orifice area. The top of the protrusion was decorated with green and coffee-coloured vegetational images in the background of white enamel. The inside part was covered with white enamel. The base is wide and flat. There are three rectangular legs underneath at the edges of the base. The clay colour is pink. The height is 4.4cm, while the body diameter is 5.4cm (Photos 471-472).

An ink-pot with a cylindrical body and a hexangular, star-shaped protrusion outside the round-shaped orifice was found as well. The bottom is broad and flat. The inside part and the top of the protrusion were covered with light green enamel and decorated with light green, leaf-like patterns in the black coloured background. The clay colour is pink. The height is 2.7cm, while the body diameter is 4.5cm, the base diameter is 4cm and the wall thickness is 0.3cm (Photo 478).

Another ink-pot has a cylindrical body. The orifice area is girdled by a round and flat protrusion. The top of the protrusion and the vessel's inside part was covered with green enamel. Spiral-like patterns framed by a black line were applied on the protrusion. The clay colour is pink. The height

is 2.5cm, while the orifice diameter is 3.9cm, the body diameter is 4.5cm, the base diameter is 3.4cm and the protrusion diameter is 7cm (Photos 473-474).

Another sample is a three-legged vessel similar to an ink-pot with a low and cylindrical body. The round orifice element is girdled by a wide protrusion. The disc-shaped protrusion is slightly protuberant on top. There are three conic legs in the bottom. The top of the protrusion and the vessel's inside part were covered with dark green enamel. Very delicate green vegetational images were drawn upon the protrusion. The protrusion has barbed edges. The clay colour is dark pink. The orifice diameter is 2.1cm, while the protrusion diameter is 10.1cm (Photos 475-476).

An ink-pot-type vessel with a cylindrical body that narrows downward slightly was also discovered. The area around the orifice is protuberant in the flat and round shape. The inside part and the top of the protrusion were covered with light green enamel and decorated with black winding lines. The base is flat. The clay colour is pink. The height is 3.1cm, while the orifice diameter is 2.9cm, the base diameter is 4.5cm and the protrusion diameter is 7.6cm (Photo 478). Similar ink-pots have been found in Shamkir urban area [30, p.340-341, inv. 631, 698, 83, 695].

The obtained enamelled vessel fragments include parts of *earthenware* items. Their clay composition is clean. The walls are thin. The *earthenware* samples were made delicately and usually covered with monochrome enamel (Photos 509; 511-512). One of these is a part of a thin wall vessel's convex body. The orifice is bent sideways. The low neck transforms gradually into the body, which narrows from the middle section. The entire body is encircled in the middle by horizontally positioned, internally pressed protrusions. The walls are thin. The clay colour is white. The inside part and the outside surface were covered with green and turquoise enamel respectively and further polished. The wall thickness is 0.4cm (Photo 511).

Another discovered fragment was once part of a small earthenware sample covered with blue enamel. Blue enamel was also applied on the inside. The vessel's walls are thin. The orifice element is bent sideways. The slanting neck broadens toward the shoulder. The shoulder descends gradually. The surface is decorated with indented rhombic patterns throughout the body. The body is oval. The clay colour is grey. The orifice diameter is 4cm, while the neck height is 11cm and the wall thickness is 0.4cm (Photo 509).

Another sample found in the area is a medium size pitcher-type vessel base fragment. The base is narrow, high and heeled. The body broadens sideways from the base. The vessel is covered with blue enamel on the inside and chestnut-coloured one in the bottom. White enamel was applied on top of the base, while the lower part is covered with blue enamel. The inside part of the base is covered with grey engobed coating. The clay colour is whitish. The base diameter is 8cm, while the heel height is 2.2cm, the neck height is 2.2cm and the wall thickness is 0.6cm (Photo 510).

Earthenware items [30, p.371-380, inv. 238, 662, 768, 818, 773, 425, 458, 529, 200, 12, 569] were discovered in Shabran urban area [24, p.59-60, Photo 13] and in Goranboy district [21, 257].

A great number of bricks fired using clay were found during the excavations carried out in Karpijlitepe settlement, along with glazed bricks used in the decorations of walls, ceramic tandir ovens, heating stoves and ceramic water pipes.

The *bricks* are four-cornered and flat. Their dimensions are 22x22x5, 21x21x5, etc. A hole was made in some of the bricks (Photos 513-516). One of these has a trace of a dog paw on it (Photo 517). Apparently, a dog stepped on the brick when its drying was about to begin, but the baking was done to avoid wasting it.

The discovered *tiles* have a trapezoid shape. Their upper sides are flat and enamelled, while the back sides are protuberant. The surface of the tiles is covered with blue and green enamel (Photos 518-523).

Similar tiles were found during the excavations in Shamkir urban area [30, p.394, 396, inv.218, 2, 1004, 12].

Ceramic *tandır ovens* and *stoves* are cylindrical and narrow downward. Holes were usually made in their lower parts to ensure circulation of air (see photos reflecting the excavations).

The discovered *water pipes* are pipe-like shaped items with broadening orifice elements (Photos 524-525). Such pipes were also found during the excavations in Shabran [24, p.60, Photos 4-15] and Gabala medieval urban areas [22, 23].

The interesting finds recorded during the Karpijlitepe archaeological excavations are listed below.

1. A part of a flat item made of an animal backbone. It has an oval shape. One of the sides is broken. The surface is polished. There is a schematic image of a woman's face upon one of the sides. A thin line depicting eyebrows and a nose was drawn in the middle. The eyebrows are arch-shaped. Almond-like eyes were drawn below the eyebrows. The nose was depicted by a little circle. The cheeks were drawn by applying flower-like circles. The woman's hair or head-dress was engraved in the upper part of the face and on the sides with small circles that were dotted on the inside. It was probably done by pressing. Presumably, this item served as a hair pin (Photo 526).

2. A big vessel lid knob. It has a conic shape. The upper part is cylindrical. The holder is disc-like shaped. There is a rather convex protrusion upon the holder. The bottom of the knob's cylindrical part is girdled by a faceted line. The knob further splits up into three sections and broadens downward in a conic shape. There are traces of burning all over the surface (Photo 527).

3. A medium size cup-like shaped vessel with a wide body. Its orifice element is wide and flat. The body narrows after expanding downward at a straight angle. The base is ring-like and narrow. The entire inside and outside surface, with the exception of the bottom, is covered with green enamel. The body's upper part is encircled by black circles (Photo 528). It is noteworthy that a similar vessel was found in Shamkir urban area [30, p.371, inv. 662].

4. A small vessel with an elongated and cylindrical body. The narrow pipe-like shaped neck transforms into the wide shoulder. The orifice area has a welt. The neck part transiting into the shoulder is girdled by a corrugated stripe. It is encircled by a scratched petal-like pattern underneath. There is a narrow arch-shaped handle with an oval cross section in the back. The handle connects the neck and the shoulder. There is a pair of protrusions resembling eyes in the vertical part of the handle. The base is flat and slightly depressed inward (Photo 529).

5. A crock-type vessel's neck. The narrow neck is corrugated. It gradually goes into the slanting shoulder. The grooved orifice element is zoomorphic and looks like a ram head. Its horns rise from the orifice edges in an arch-like shape. The surface is painted red (Photo 530).

6. An average size vessel with thin walls. The body is round-shaped. The upper part is broken. The lower part and the wide base were decorated with protuberant, corrugated, rope-like patterns. The narrow neck smoothly goes into the shoulder. The surface is covered with blue enamel (Photo 531).

7. A large water vessel orifice element. The jar's oval-like orifice ends in a short spout with an oval cross section in front. Flat protrusions descend on both sides of the spout from the orifice area. The protrusions were decorated on top with notched triangular patterns lined up vertically in two rows. Such triangles were applied throughout the edges of a tape-shaped handle with an

oval cross section. One of the handle's edges is connected to the back side of the orifice element. Patterns featuring little enclosed circles were applied amid the triangles. There is an oval protrusion over the handle part attached to the orifice. Such a protrusion is also seen below the spout. The vessel has a narrow neck. Traces of red paint remained on the surface (Photo 532).

8. A little bowl or vase-type vessel base fragment. The narrow base is high, ring-like and heeled. The vessel is covered with white enamel on both sides. A part of the head and shoulder of a human being is seen on a picture drawn on the inside surface of the base. Unfortunately, the image could not be seen in its entirety as the whole base was not found on the site. The depicted person, who mostly resembled a woman, was wearing a felt that was typical for Turkic nomads. The facial features suggested that this person belonged to the Mongoloid racial group (Photo 533).

9. An oblong whistle. The orifice element is rather oval. The narrow and cylindrical neck goes into the pear-shaped body. The body is thinning toward the edge, assuming a convex shape. A hole was made in the orifice. Another big hole was opened at the bottom of the whistle. A pattern shaped as the letter "X" stretches on the upper side till the middle of the body from the orifice. There are small holes near both legs of the pattern on the upper side. Traces of soot remained on the surface (Photos 534-535).

10. A little disc-shaped whirligig. It has a cylindrical handle. The bottom part was painted red. The protruding section in the bottom is broken (Photo 536).

Metal items:

A great number of metal items were discovered during the archaeological excavations. These mainly included iron working tool fragments, hooks, copper and bronze ornaments, as well as copper coins. The copper coins were found throughout the excavation at various depths. On one occasion, a group of such items was found inside a household pit.

It is noteworthy that copper coins were found in groups during the archaeological research conducted in Shamkir urban area [30, p. 468, inv.936] and in Zardab district [31, p. 64-65]. Such coins were synchronous with the Karpilitepe coins and minted on behalf of the Atabaylar state leaders.

Glassware:

The discovered glass items, which mainly included bracelets, stand out for their high quality. The bracelets that were of different colours (black, yellow, green, etc.) have smooth or twisted surfaces. Fragmented glass samples were frequently encountered as well. These included parts of bottles, piyales and other vessels.

Stone items:

Quern stones, grind stones made of river rocks, grinders, mortars and pestles, etc. were found during the excavations.

4.1 SUMMARY OF TYPES AND NUMBER OF FINDS

The archaeological finds discovered in the settlement may be attributed to the following types:

working tools: the remaining parts of quern stones (Photos 622-625), stone graters (Photo 626) and hammering tools (Photos 629-632), iron sickles (549-556), little nails (537-540), rollers (572, 573, 573a) and spades (Photo 583), stone and ceramic spindle whorls or reels (Photos 640-648). Reels were also found in Zardab [31, p. 66].

household items: stone pestles (Photo 628), clay (Photos 230-512) and glass vessels (Photos 597-607), iron knives (Photos 541-548), scrapers (Photos 584-584a), sickles (Photos 549-556), chains (Photos 557-558), forks (Photos 559-559a), fasteners (Photos 561-562), horseshoes (Photos 563-569), hooks (570-571), rings (Photo 560), copper boxes (Photos 594-595), weight stones (Photos 633-638) and grindstones (Photo 627). Fasteners were found in Gabala as well [41, p.289, Photo 5].

weapons: an iron arrow (Photos 574-676) and lance tips (Photo 578), dagger blades (Photos 579-580), catapult stones (Photo 639)

ornaments: bronze bracelets (Photos 586, 590), glass bracelets (Photos 608-613), copper (Photos 588-589) and iron (Photo 581) rings, earrings (Photos 591-592), pins (Photo 593), belts (Photo 587) and earrings (Photos 591-592), glass and bone beads (Photos 614-617), glass finger rings (Photo 618) and earrings (Photo 619), a bone hair pin (Photo 526), iron belt fragments (Photo 582). Glass bracelets [41, p.289, Photos 17, 5] and glass beads were found in Zardab [31, p.65] and Fakhrali [42, p.93].

The working tools mainly include fragmented items. Mostly graters and parts of lower grindstones were discovered. The lower grindstones are boat-shaped. A very small number of such items are available. In addition, iron spades and scrapers were obtained. The discovered spindle whorls indicate that local residents were also engaged in weaving.

The domestic items were mainly used in the household and at the kitchen, as well as in farming. These primarily include clay vessels. Clay vessels differ in terms of their purpose and functions of use. These include household jugs, pitchers, boilers, saucers, salt shakers, plates and kheyres, trays, jars, crocks, piyale-type vessels, vases, cans and milk pails (Photos 230-512). Some of the clay vessels are unglazed, while a certain part of these samples are enamelled. The clay vessels were made using a potter's wheel and have a clean clay composition. These items were fired at a stable fire temperature. Some of these were painted red. The household jugs and pitchers, as well as boilers, have thick walls. Other kitchen utensils, which have thin walls, are mainly enamelled samples. The enamelled vessels are polychrome and monochrome items. Enamel or paint was applied over thin engobed coating before drying. Clay vessels accounted for most of the finds.

Ornaments are the second most frequently encountered samples next to the clay vessels. These mainly included bracelets made of black, green, brown or coffee-coloured glass, cowrie beads, made of glass, paste and bone, copper and bronze bracelets, finger rings, ear-rings, pins, belts and buttons (Photos 585-593; 608-619; 649-655; 657-662).

5 ANALYTICAL RESULTS

Overall, the archaeological excavations carried out in the settlement were very successful. Very valuable information was collected during the excavations with regard to various facets of the economic life and craftsmanship of the residents of this medieval settlement-type habitat. The Karpijlitepe population was engaged in baking bricks along with animal husbandry and sowing crops. The fact that a great number of household wells and tandir ovens were found during the archaeological excavations along with palaeontological remains of cattle, sheep and goats proves that sowing was very highly developed in the area along with cattle breeding.

The tandir ovens discovered in Karpijlitepe settlement may be divided into two groups. These include both ceramic items fired in their entirety using clay and compiled tandir ovens with margins. All the tandir ovens have walls broadening in the middle and narrowing to some extent toward the base. These and other features indicate that the Karpijlitepe tandir ovens are identical to those of the contemporary period. This similarity is observed both in the technique applied in producing the tandir ovens and the way they were used [18, p. 28].

Evidently, both large and small tandir ovens were discovered in the medieval settlement. Tandir ovens of this type were also encountered in Icherisheher in Baku and in the city of Kharaba in Nakhchivan [19, p. 51-84; 20, p. 368-373].

It is worth mentioning that such tandir ovens are considered traditional for the Karpilitepe area and the Ganja-Shamkir zone. The tandir ovens are the primary tangible proof of the highly developed bread-baking tradition that was part of the household and domestic life of Karpilitepe residents in the Middle Ages.

Tandir ovens were found during the archaeological excavations throughout the excavation and at different depths and this is not a mere coincidence. Since tandir ovens were considered sacred, demolishing or damaging them was inappropriate. Therefore, new tandir ovens were set up in the vicinity of the ones that were becoming unworkable.

Perhaps, the fact that castle walls and tower ruins were discovered during archaeological excavations in the selected parts of the medieval Karpilitepe settlement points to the availability of a feudal castle in the area. The facts established as a result of ethnographic observations and the archaeological excavations lead to a conclusion that the Karpilitepe traditions were an integral part of a nationwide Azerbaijani culture that existed in the Middle Ages.

The considerable amount of household wells and tandir ovens found as a result of the excavations allows making certain conclusions concerning the number of the population that lived inside and around the castle.

The ceramics samples dating back to the advanced Middle Ages scattered in the area of the monument cover about 2.5-3 hectares. Most of the materials available above the ground in the pipeline corridor are concentrated in an area spanning over 100m. The peculiarities of the monument's topography and the materials found on the surface are grounds to determine the nature of the medieval settlement. The excavation presumably encompassed the inside part of the castle, given that the walls of the castle and residential buildings, tower ruins and foundation sites were found in the area where the excavations were conducted. Despite the abundance of materials above the ground to the north and west of the corridor, they are very sparse to the east and south of it.

The determination of the chronological range of the archaeological complexes discovered at the Karpilitepe settlement was based on the typological and comparative analysis methods and respective scientific conclusions were made.

5.1 PALAEOONTOLOGICAL, PALAEOZOOLOGICAL AND PALEOBOTANICAL REMAINS

The palaeontological remains found during the archaeological excavations in Karpilitepe settlement include animal and bird bones. Bones of sheep and goats were the most frequently discovered items, followed by those of cattle. Researchers also came across horse and camel bones in the excavation.

Archaeological research shows that the raising of sheep and goats developed in Ganja-Gazakh region as early as in the advanced period of the Middle Ages, taking the lead in animal breeding. The research of the region's rural settlements indicates that it dominated animal husbandry in the 9th-12th centuries due to the availability of rich pastures and hayfields. The research of the animal bones found in Karpilitepe shows that sheep and goats had a special place in the raising of small-horned animals. Some of their parts, such as skulls, ribs, backbones and thigh bones, were discovered. Undoubtedly, this could be explained by the significant role of these animals in breeding and their great importance in the domestic life of people.

Horned cattle had a certain place in animal husbandry, along with sheep and goats. Cattle was also used as harnessing power. Undoubtedly, it played a certain role in the development of wheeled transport. Two-wheel wagons hauled by bulls had been used until the latest historical periods in Azerbaijan.

Horse and camel bones were scarce. However, the obtained samples indicated that horse and camel breeding played a certain role in cattle-breeding during that period. Many more horse bones were obtained in the archaeological monuments dating back to this era compared to those traced to previous periods. Iron horseshoes were discovered in the Karpijlitepe settlement.

5.2 PERIOD AND CHRONOLOGY

Determination of the chronological range of the Karpijlitepe settlement is based on stratigraphical observations and the comparative analysis of the obtained tangible cultural samples.

Karpijlitepe was a medieval habitat similar to a settlement and it has retained samples reflecting high cultural and economic development. Though the settlement has only one occupation layer, the available facts prove that habitation continued in this area for several centuries. However, it is beyond doubt that some of the obtained ceramics samples date back to the 10th century. The fact that most of the clay samples are attributed to the 11th-12th centuries enables researchers to determine the chronology of this monument more precisely. Nevertheless, comparative analysis conducted several times allows making a conclusion that habitation in Karpijlitepe started in the late 10th century and continued until the early 13th century, i.e. the Mongol attack.

Features of highly developed Ganja craftsmanship are traced in the tangible cultural samples discovered in the settlement. Undoubtedly, some of the samples found during the excavations and made very delicately were not produced locally and were delivered from nearby developed cities through an exchange of goods. Most likely, the medieval Karpijlitepe settlement, which enjoyed highly advanced economic, cultural and trade ties, faced a decline in the economic life and craftsmanship in the beginning of the 13th century.

Samples for a number of radio-carbon and dendro-chronological tests were taken in the settlement.

6 DISCUSSION

6.1 INTERPRETATION OF RESULTS

The archaeological excavations conducted on the pipeline route were designated for rescue purposes. Results of the work showing the importance of the finds resulted in a change in the design of the pipe route to avoid the feature.

The observations upon the occupation layer slope, as well as the research conducted in the excavations, lead to a conclusion that the length of the settlement in the pipeline corridor exceeds 80m and the archaeological excavations were probably carried out in the central and north parts of the monument. The production remains, household and domestic wells, furnaces and tandir ovens, glazed and unglazed pottery fragments, iron items and tools, glass vessel fragments and bracelets, as well as beads, revealed on the occupation layer slope, are attributed to the 11th-13th centuries based on the typological and analytical methods. Evidently, there was a feudal castle along with a rural settlement around it in the mentioned period. The discovery of the remains of ironworking products and metal clinkers in the excavation, as well as a brick-firing kiln, confirms that local residents were engaged in blacksmithing and making pottery along with

agriculture and that the required iron tools, bricks slated for construction work, ceramic tandir ovens and domestic items were produced in the settlement.

Habitation ceased in the settlement in the aftermath of Mongol raids. Archaeological excavations to be carried out in the future in different parts of the settlement may foster comprehensive archaeological facts regarding those attacks.

7 APPENDICES

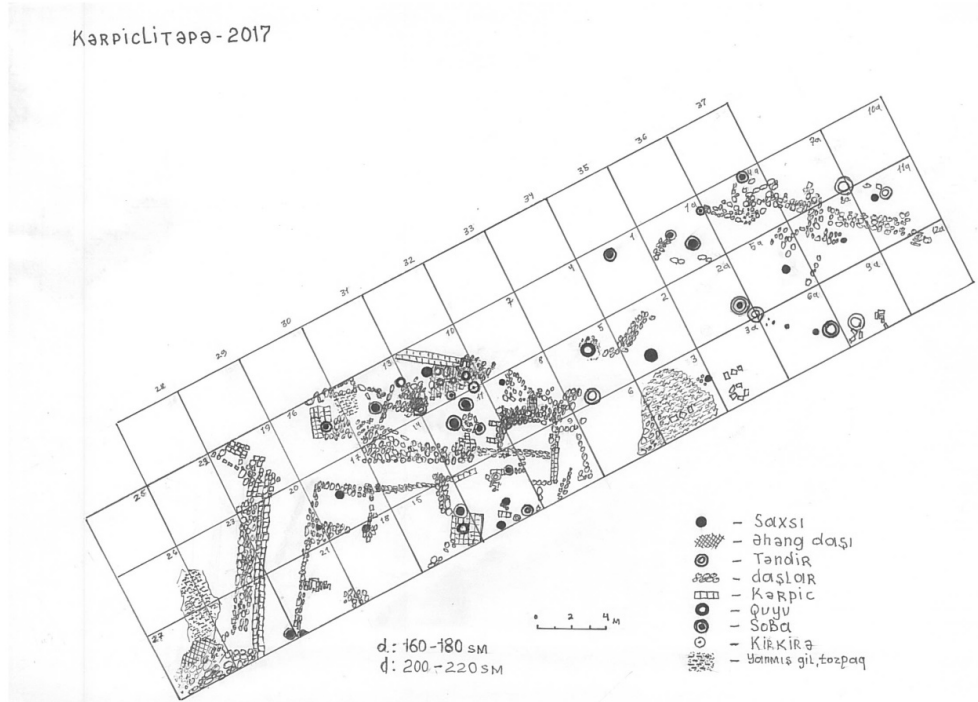
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ILLUSTRATIONS



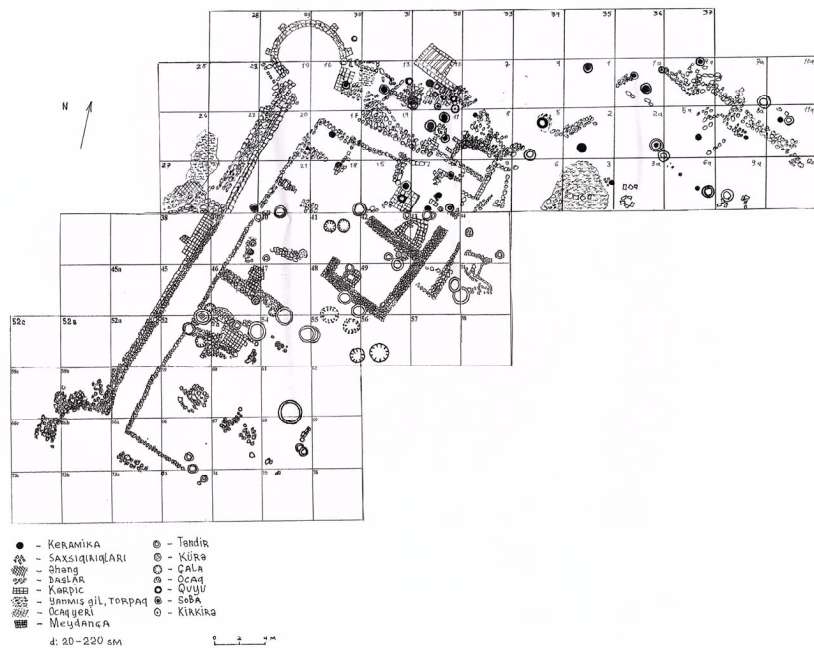
Picture 3. Schematic outline of excavation (Stages 1 and 2).



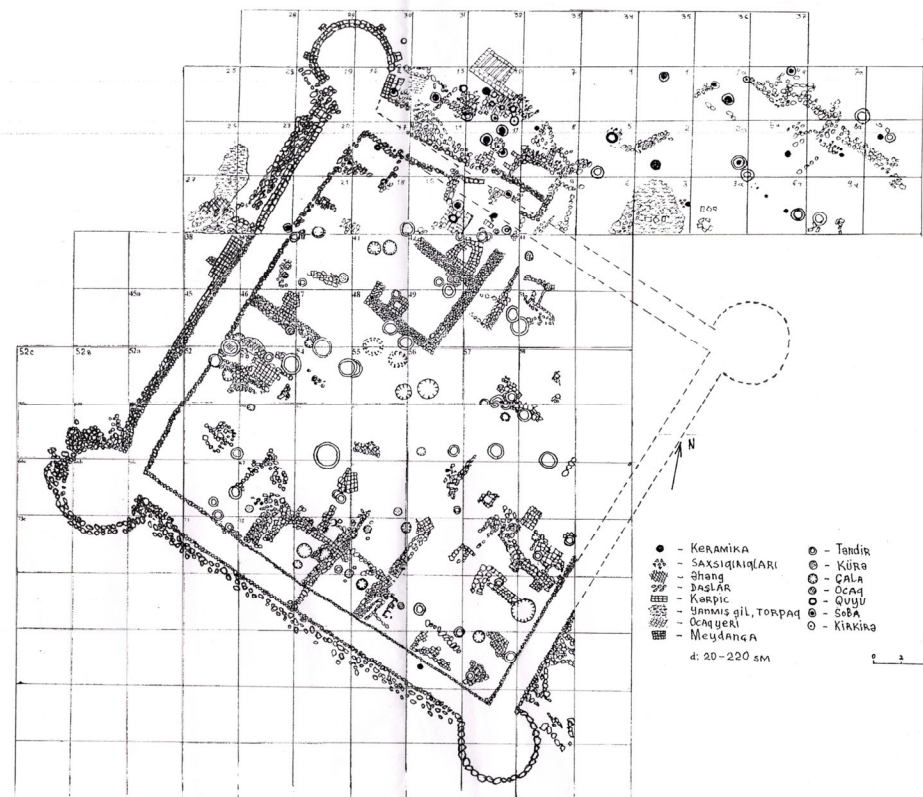
Schematic outline of excavation (Stage 3).

Picture 4

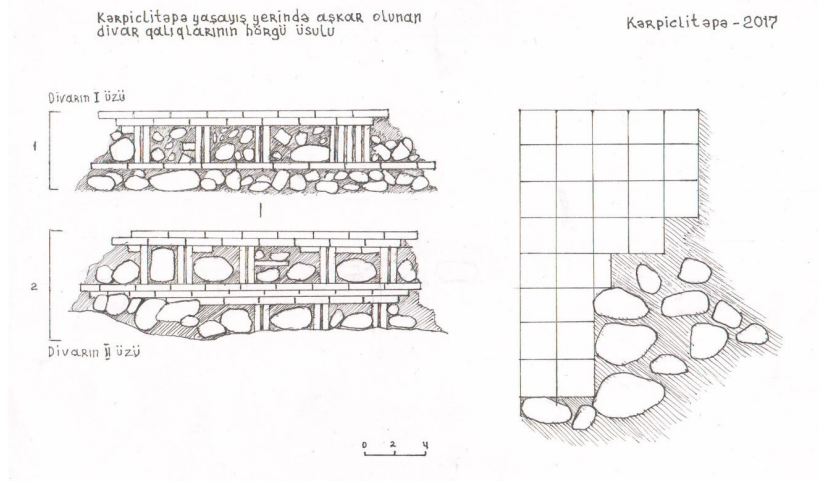
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XI – XIII əsrlər



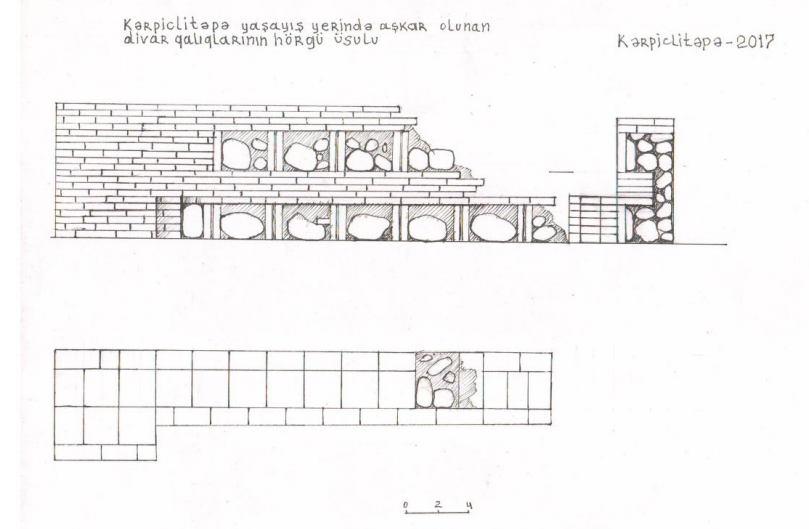
Picture 4a. Schematic outline of excavation (Stage 4-beginning).



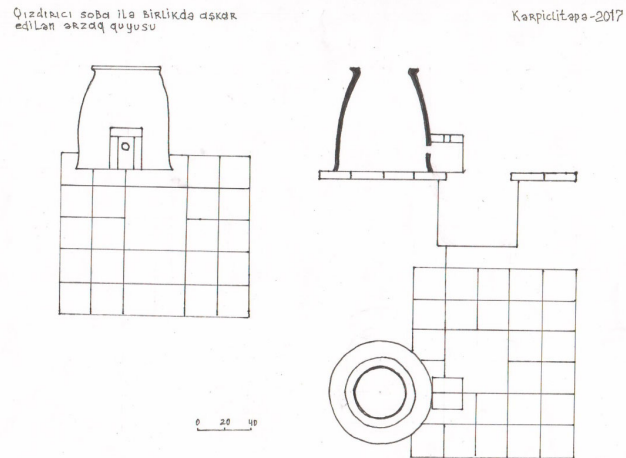
Picture 4b. Schematic outline of excavation (Stage 4-completion).



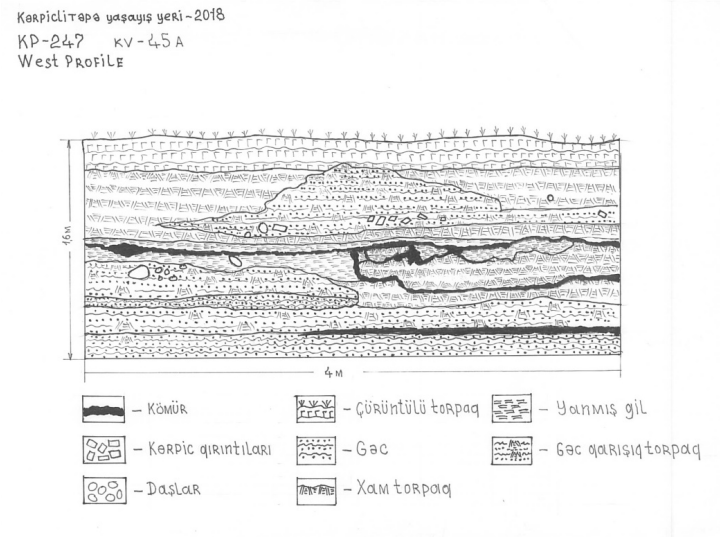
7. Illustration of castle wall. "Ganja (Aran) bandi".



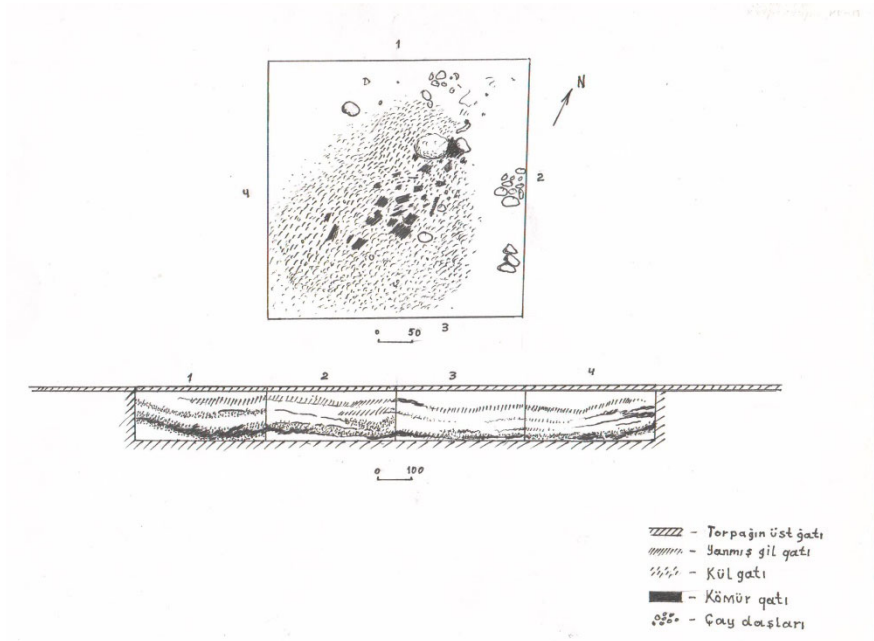
Picture 6. Illustration of castle wall.



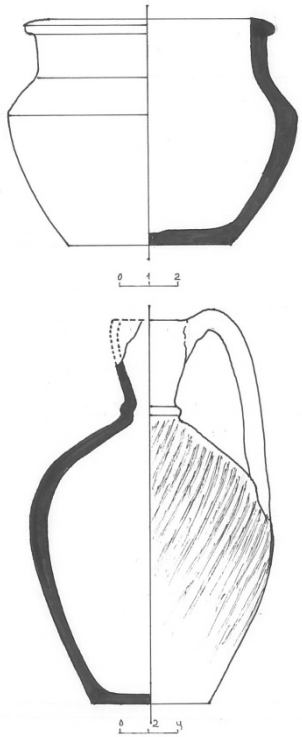
Picture 8. Typical form of food wells and ceramic tandir ovens with attached brick working areas.



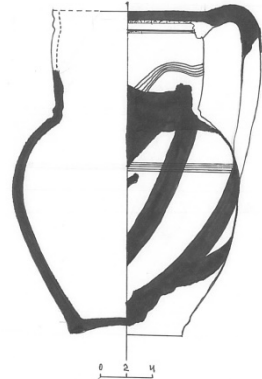
Picture 5. Stratigraphy of excavation.



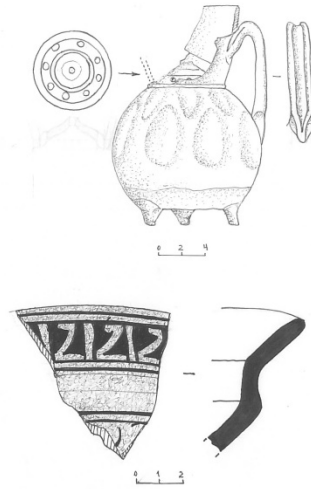
Picture 9. Test pit 1. Burnt soil area.



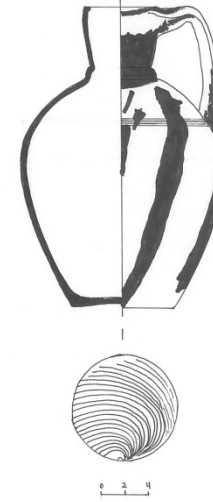
Picture 10. 1. Pail. 2. Crock.



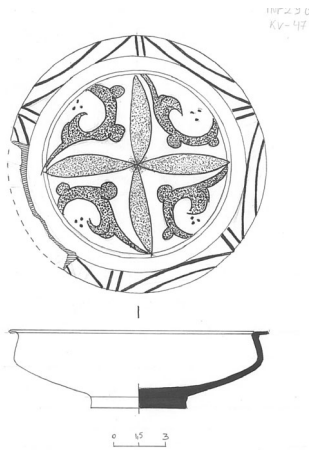
Picture 11. Can.



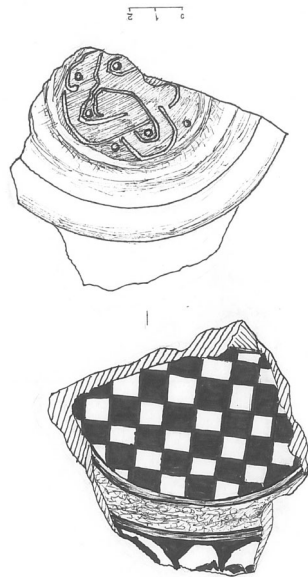
Picture 12.
1. Spherical cone. 2. Piyale.



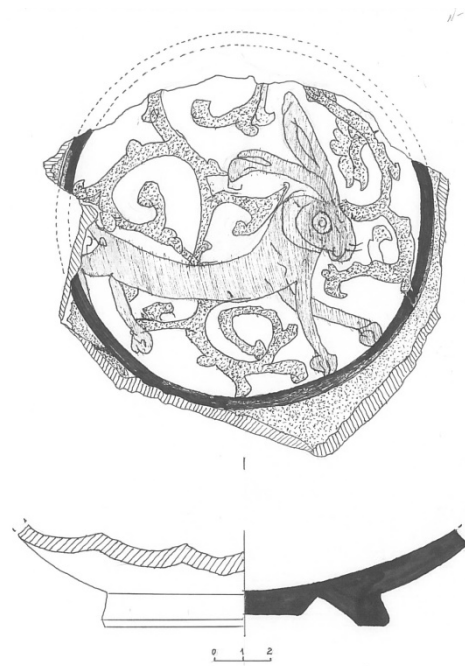
Picture 13. Jar.



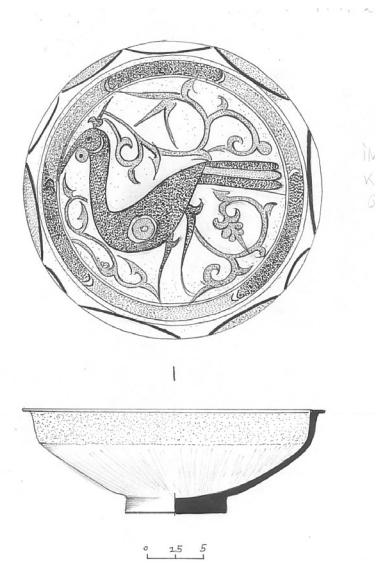
Picture 16. Bowl with vegetational images.



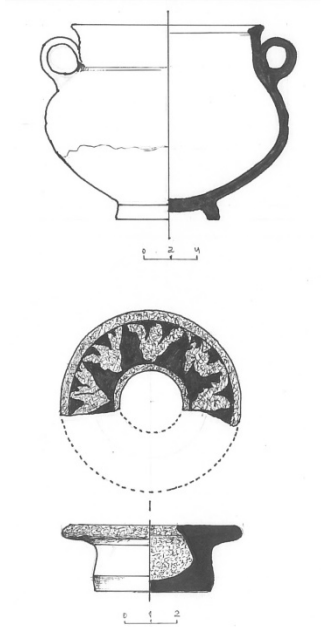
Picture 17. Plate with vegetational and geometrical images.



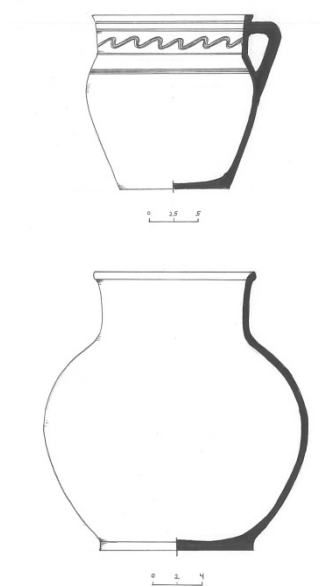
Picture 18. Vases with zoomorphic images.



Picture 19. Vase with zoomorphic images.



Picture 20. 1. Milk pail. 2. Ink-pot.



Picture 21. 1. Mug. 2. Pitcher.

PHOTOS



Photo 22. Stage 1. Early view of excavation. View to east.



Photo 23. Trial Pit A. Burnt layer.



Photo 22a. Trial pit A. Burnt stripe. View to east.



Photo 24. Trial Pit A. Jug.



Photo 25. Trial pit A Clay boiler.



Photo 26. Trial Pit B. Line of stones. View to northeast.

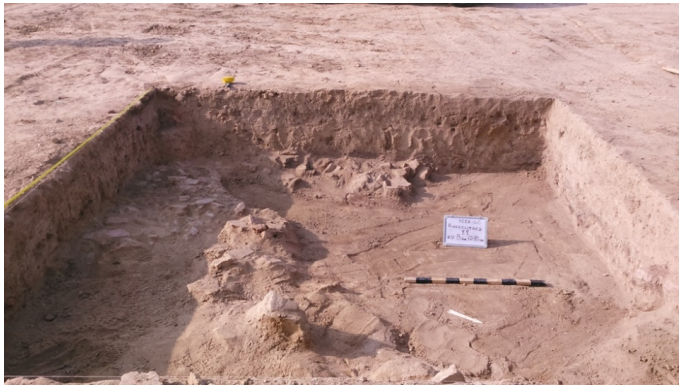


Photo 27. Trial Pit B. spread of bricks. View to north.



Photo 28. Stage 2. Excavations underway. View to northeast.



Photo 28a. Square No.1. line of stones. View to north.

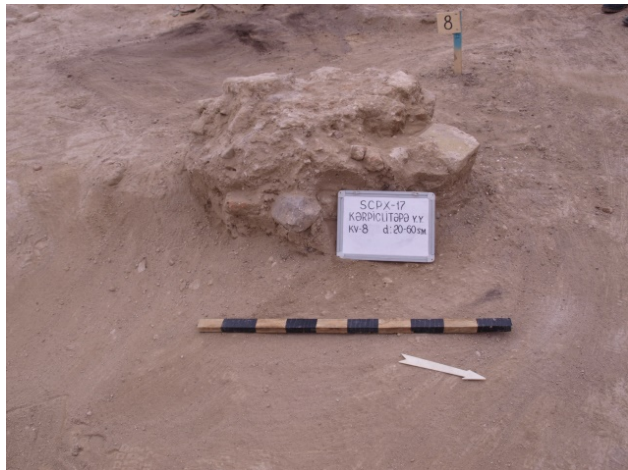


Photo 30. U8. Disturbed brick and stone. View to west.



Photo 31. U5. Water well No.1. View to south.



Photo 32. U9. Structure No.2. View to west.



Photo 34. U12. Furnaces. View to south.



Photo 35. U12. Tandir oven No.4. View to south.



Photo 36. U14. Ceramic tandir oven No.6. View to west.



Photo 41. U20. Base sherds of large jugs.



Photo 42. U19. Disturbed upper remains of castle wall. View to northwest.



Photo 43. U21. Tandir oven No.9. View to south.



Photo 44. U5a. Ceramic tandir oven No.13. view to northeast.



Photo 45. U4a. Ceramic tandir oven No.14. view to north.



Photo 46. U1a. Ceramic tandir oven No.16. View to southwest.



Photo 47. U2. Stone structure east of excavation. View to south.



Photo 48. U2. Jug, boiler and glazed cup-like vessel. View to northeast.



Photo 49. U10. Stove No.8. View to southeast.



Photo 50. U10. Stove No.9, Stove 8 in background. View to northwest



Photo 51. U12. Laid brick working area, Cellar No.1. View to north.



Photo 52. U12. Cellar No.1 Detail of working area.



Photo 53. U12. Wall of Structure No.2. View to east.



Photo 54. U13,16. Brick structure, Tower 1 brick wall to rear. View to west.

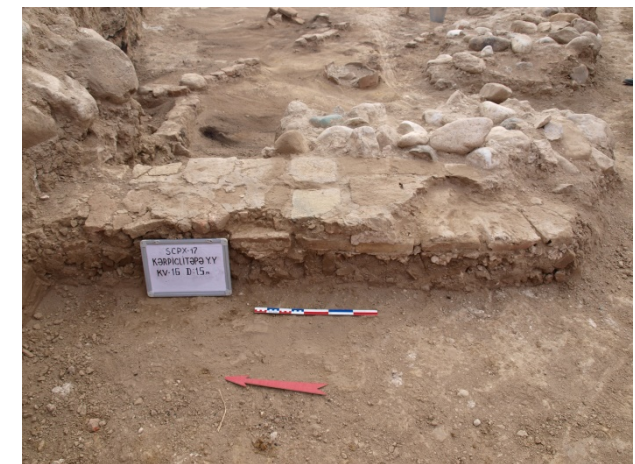


Photo 55. U16. Tower 1, brick wall. View to east.



Photo 56. U17. Walls of Structure No.1. View to south.



Photo 57. U17. Structure No.1



Photo 58. U16. Tower 1, brick wall with four rows. View to west.



Photo 59. U16. Tower 1, brick wall with four rows. View to southwest.

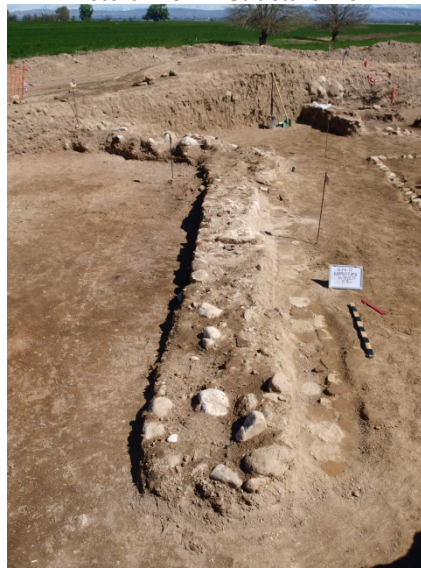


Photo 60. U16, 19, 20. Castle wall and Tower 1 being exposed. View to north.



Photo 62. U27. Sheetrock. View to southeast.



Photo 61. U10a. Small area with sheetrock. View to north.



Photo 65. U6. Oval-shaped pits View to south



Photo 63. U4a. Ceramic tandir oven No.18. View to west.



Photo 64. U6a, 9a. Tandir ovens. View to south.



Photo 66. U1a. Ceramic tandir oven No.20. View to south.



Photo 67. U10a. Small area with white sheetrock. Brick kiln south wall in foreground. View to south.



Photo 68. U13. Water well No.2. View to southeast.



Photo 68a. U13. Water well No.2.



Photo 69. U15. Pit No.1. View to south.



Photo 70. U18. Small tandir oven. View to north.



Photo 71. U19, 20, 24. External decoration on castle wall. View to east.



Photo 72. U23. External decoration on castle wall. View to east.



Photo 73. U21. Oven with brick working area, castle rampart to rear. View to west.



Photo 74. U8a,9a. Pit No.2. View to south.



Photo 75. U8A,9A. Household well No.3. View to west.



Photo 76. U5a,6a. Pit No.4 and Stove No.11. View to south.



Photo 77. U3a. Stove No.12. View to south.



Photo 78. Tandır ovens No.23-25.



Photo 79. U6,3. semi-circular structure. View to south.

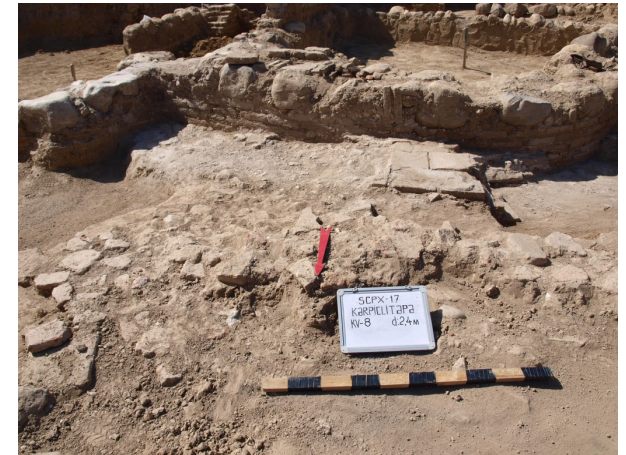


Photo 80. U8. Spread of fired bricks. Tower 2 to rear. View to south.



Photo 81. U22. Spread of fired bricks. View to north.



Photo 82. U23. Fired clay outside decorated castle wall. View to east.



Photo 87. U30,16. Tower 1, external brickwork with north wall and Tower 2 in background. View to east.



Photo 85. U30a, 19. Tower 1. View to south.



Photo 88. U5a. Household well No.5.



Photo 89. U5a. Household well No.5.





Photo 91. U1a. Household pit No.7. View to north.



Photo 92. U1. Household pit No.8. View to north.

Photo 90. U1a. Household pit No.6. View to north.



Photo 93. U11a. Household pit No.9. View to east.



Photo 94. U11a. Furnace No.3. View to east.



Photo 95. U11a. Small tandir oven. View to west.



Photo 96. U10. Brick kiln external view during excavation. View to northeast.



Photo 97. U10, 32. Brick kiln after excavation showing supports and remains of final firing load. View to southeast.



Photo 98. U10. Brick kiln after excavation showing supports and remains of final firing load. View to east.



Photo 100. U7. Brick kiln external flue in east wall. View to west.

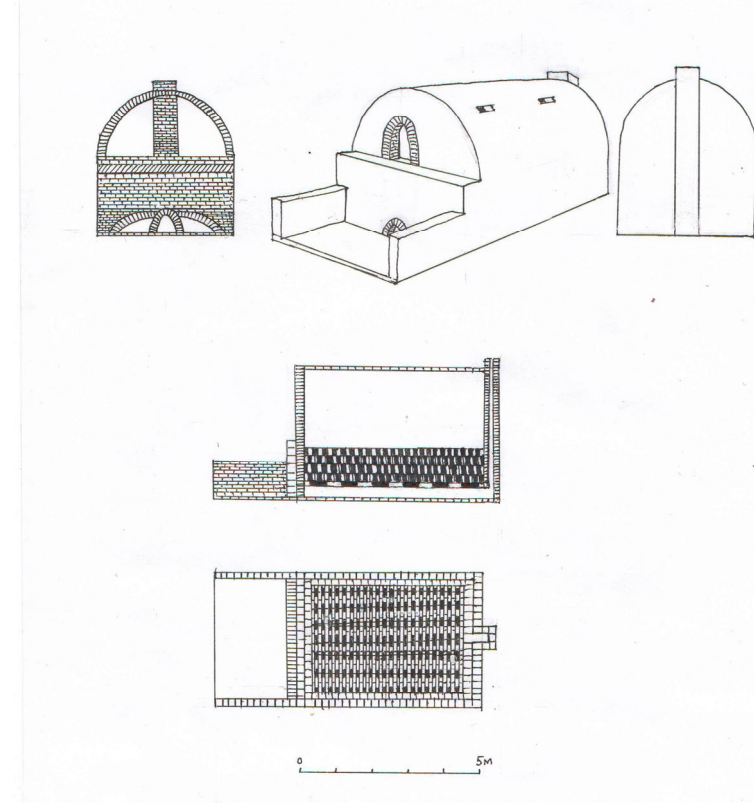


Photo 101a. Brick kiln reconstruction.



Photo 101. U32, 10. Brick kiln after excavation showing supports and remains of final firing load. Sheetrock and working area to right. View to east.



Photo 102. U11. Household pit No.11. View to east.



Photo 103. U12a. Household pit No.13. View to north.



Photo 104. U39. Broken quernstone. View to southeast.



Photo 105. U13. Foundation of river stones.



Photo 106. U19,20,21. Tower 1 and interior corner of castle. View to northwest.



Photo 107. U29, 30, 19, 16, 17. Tower 1 showing two phases of decorated external brickwork. Castle north wall and Tower 2 to rear. View to east.



Photo 108. U15. North wall of castle and east side of Tower 2. Oven and brick working area on foreground. View to northeast.



Photo 109. U9. North wall of castle and east side of Tower 2. Partially excavated brick kiln to rear. View to north.



Photo 110. U9. Detail of Tower 2. View to north.



Photo 111. U15. Tower 2, final stage of excavation. View to east.



Photo 112. U9. Tower 2, entrance to interior of castle through centre of tower. View to south



Photo 113. U9. Detail of east entrance passage of Tower 2. View to southeast.



Photo 114. U6a. Household pits in east of excavation. View to north east.



Photo 115. U38. Castle wall showing two phases of external brickwork and foundation line of stones to rear of rampart. Small outer projection (possible turret). View to east.



Photo 116. U38. Castle wall showing two phases of external brickwork and foundation line of stones to rear of rampart. Small outer projection (possible turret). View to east.



Photo 117. U39. Line of stones with two rows. View to south.



Photo 118. U52. Small area



Photo 119. U41. Circular line of bricks



Photo 120. U48. Tandir oven No.28. View to south



Photo 121. U48. Brick wall setting, Structure 3 being exposed. View to south.



Photo 122. U52,53. Brick wall setting with river stone foundations. View to west.



Photo 123. U55,48. Ceramic tandir oven No.30. View to south.



Photo 124. U39. Broken quernstone and Stove No.17. View to southeast.



Photo 125. U40. Tandir oven No.31. View to south.



Photo 126. U40. Tandir oven No.32. View to east.



Photo 127. U45. Mud-hut stove No.16. View to north.



Photo 128. U45,52. Ceramic tandir oven No.34.view to southeast.



Photo 129. U54, 55. Ceramic tandir ovens No.35 and No.36. View to west.



Photo 130. U47,54. Tandir oven No.37. View to south.



Photo 131. U53. Tandir oven No.38. View to north.



Photo 132. U40. Profile of oval-shaped pit No. 13.



Photo 133. U47. Oven brick working areas.



Photo 134. U46. Brick and stone wall line and tandir oven No. 39. View to east.



Photo 135. U42. Tandir oven No. 42. View to east.



Photo 136. U53. Brick floor and walling. View to west.



Photo 137. U42. Working area with laid bricks and ceramic tandir oven



Photo 137a. U53. Tandir oven No.43 and broken quernstone. View to east.



Photo 138. U54. Ceramic vessel group. View to north.



Photo 139. U48,49. Brick wall structures. View to south.



Photo 142. U54. Foundation of large wall and intersecting tandir ovens.



Photo 143. U50. Foundation of Structure 3 (right) and brick wall parallel to it (left). View to southeast.



Photo 144. U44. Stove No.18. View to south.



Photo 145. U44. Tandir oven No.44. View to south.



Photo 146. U44. Tandir oven No.45. View to south.



Photo 147. U41,51. Brick structures enclosing ovens. View to south.



Photo 148. U42. Furnaces No.4 and No.5 (left), tandir oven No.46 (right) with foundation line of stones. View to south.



Photo 149. U48,49. Food well No.2 with laid brick working area. View to south.



Photo 150. U48,49. Interior of Structure 3. Food well No.2 with laid brick working area. View to south.



Photo 151. Parallel line of stones by north part of tandir ovens.



Photo 152. U56. Southeast corner of Structure No.3. View to west.



Photo 153. U49. Structure No.3. Tower 1 and brick kiln to rear. View to northwest.



Photo 154. U42. Intersecting tandir ovens. View to south.



Photo 155. U52. West wall of castle. Interior structures built over interior rampart foundation stones. View to north.



Photo 156. U51. Tandir ovens No.47 and No.48. View to west.



Photo 157. U46. Household and water wells



Photo 158. U66a. Southwest interior corner of castle, formed by rampart interior foundation stones. View to south.



Photo 159. U66. Tandir ovens No.50 and No.51. View to south.



Photo 160. U59. Stove No.20. View to south.



Photo 161. U67. Brick and stone structure. View to south.



Photo 162. U61. Tandir ovens No.53-55. View to west.



Photo 163. U61. Tandir oven No.55. View to south.



Photo 164. U49. Interior of castle, Structure 3 in foreground, Tower 1 and brick kiln to rear. View to north.



Photo 165. U49. Interior of castle, Structure 3 in foreground, Tower 1 and brick kiln to rear. View to northeast.



Photo 166. U38. West wall of castle, showing two phases of brick external wall with interior rampart foundation stones to rear. The interior of the rampart has been overlaid by internal structures. View to southeast.



Photo 167. U54. Interior of castle looking towards west wall. View to west.



Photo 168. U66,74. Castle wall internal rampart foundation stones. View to north.

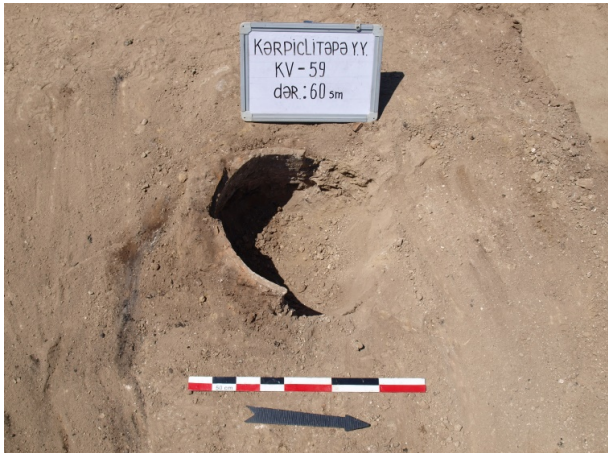


Photo 169. U59. Small tandir oven. View to west.



Photo 170. U67,74. Parallel brick and stone walls. View to east.



Photo 171. U67,74. Parallel brick and stone walls. View to south.



Photo 172. U67,75. Brick and stone wall under excavation. View to east.



Photo 173. U74,75. Parallel brick and stone walls. View to south.



Photo 174. U92,99. Line of bricks. View to south.



Photo 175. U92. Ceramic tandoor oven No.56. View to east.



Photo 176. U68. Tandoor oven No.57 and brick walling. View to north



Photo 177. U60. Rectangular structure. View to south.



Photo 178. U92. Oven with brick working area. View to east.



Photo 179. U90. Tandoor oven No.58 and vertical bricks. View to south.



Photo 180. U59. Oval-shaped Stove No.21. View to south.



Photo 181. U91. Lines of fired bricks. View to south.



Photo 182. U60. Small and large pits (No.25-26). View to west.



Photo 183. U60. Small and large pits (No.25-26). View to south.



Photo 184. U67. Small and large pits (No.25-26)



Photo 185. U74,75. Four-cornered facility. Internal rampart foundation stone line in foreground. View to north.



Photo 186. U69. Brick-paved floor. View to west.



Photo 187. U83. Brick wall being exposed. View to north.



Photo 188. U83. Row of three rectangular stoves backing on to stone wall. Castle rampart interior foundation stones forming left boundary. View to southwest.



Photo 189. U83. Rectangular Stoves and furnaces. View to northwest.



Photo 190. U62. Interior of castle, Tower 1 to centre rear. View to north.



Photo 191. U62. Line of bricks. View to west.



Photo 192. U82,75,76. Stone foundation line. View to north.



Photo 193. U69. Laid brick working area. View to south.



Photo 194. U75. Furnace site. View to west.

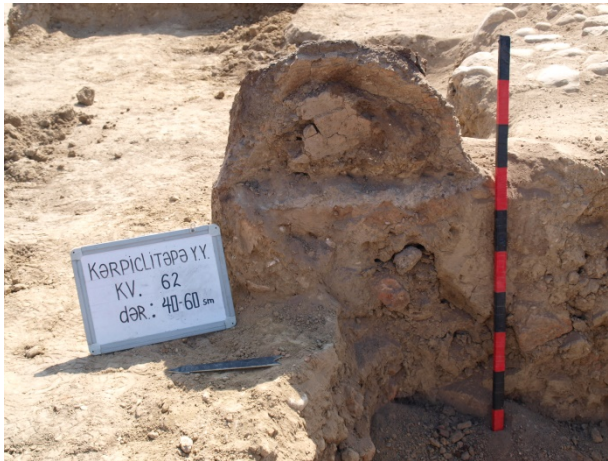


Photo 195. U62. Tandir oven 59. View to east.



Photo 196. U76,83. Tandir oven 60 and oval-shaped stove 25. View to north.



Photo 197. U83. Household well 24. View to northeast.



Photo 198. U76. Rhombic stove 26. View to east.



Photo 199. U69. Furnace. View to southeast.



Photo 200. U75. Household well 25. View to southwest.



Photo 201. U61. Household pit. View to east.



Photo 202. U63. Household pit. View to east.

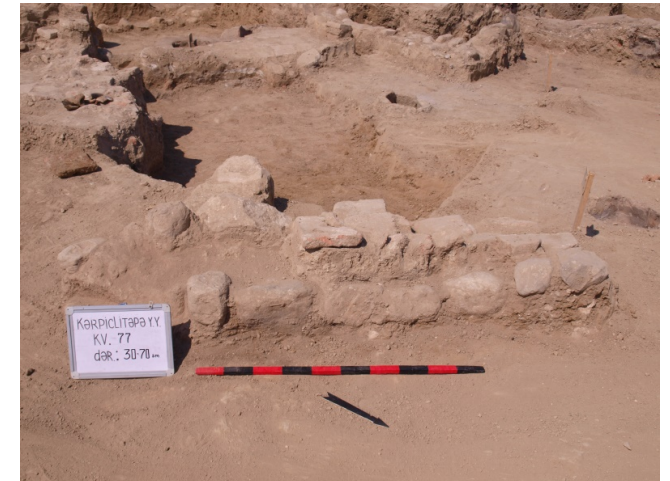


Photo 203. U77. Stone and brick line. View to southwest.



Photo 204. U70. Brick spread. View to northeast.



Photo 205. U84. Tandır oven 61. View to north.



Photo 206. U86. Small stove 27. View to south.



Photo 207. U77. Deep well 28. View to north.



Photo 208. U91. Household jug. View to north.



Photo 209. U83,77. Stone foundation line, south rampart internal foundation stone line to rear. View to south.



Photo 210. U64. Tandır oven 62. View to south.



Photo 211. U71. Stoves 28, 29, Tandır oven 63.



Photo 212. U85,86. Tandır oven 65 with stove inside, with brick wall. View to south.



Photo 213. U71. Food well. View to south.



Photo 214. U65,70. Tandır oven 66. View to north.



Photo 215. U78,85. Brick walls. View to south.



Photo 216. U64. Densely concentrated tandir ovens



Photo 217. U78. Stone wall foundations. View to northeast.



Photo 218. U85,78. Wall foundation. View to southeast.



Photo 219. U85. Tandır oven 70. View to south.



Photo 220. U71. Burnt layer. View to northeast.



Photo 221. U85, 86. Brick wall with tandir. View to north.



Photo 222. U85. Household well 29. View to northeast.



Photo 223. U72. Small laid brick area. View to southwest.

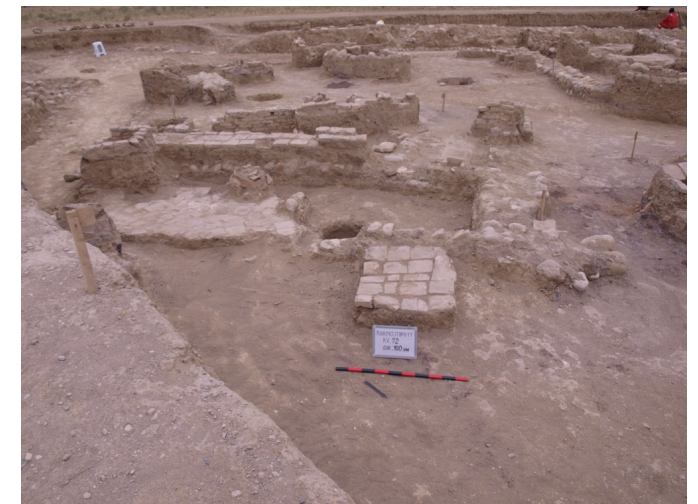


Photo 224. U72. Laid brick area, tandir oven, well and small area, south rampart to rear. View to southwest.



Photo 225. U66b. Tower 2 in southwest corner of castle. External foundation stones forming arc of tower with rampart internal stones forming the inside corner of the castle. View to north.



Photo 228. U59a. Southwest interior corner of castle, marked by rampart interior foundation stones with remains of castle external wall to left. View to north.



Photo 226. U66b. Household pit inside Tower 3. View to south.



Photo 227. U100. Brick area. View to south.



Photo 229. U100. Tower 3, external foundation stones with internal rampart foundation stones to the rear forming the southeast internal corner of the castle. View to northwest.

Conservation Work



Photo 229a. Conservation work launched in east.



Photo 229b. Conservation work in north.



Photo 229c. Conservation work in southeast



Photo 229ch. Conservation work in centre



Photo 229d. Conservation work in brick kiln



Photo 229e. Covering upper part of kiln.



Photo 229 ee. Final completion of kiln conservation



Photo 229f. Delivery of artefacts to museum



Photo 229g. Handover of artefacts to museum

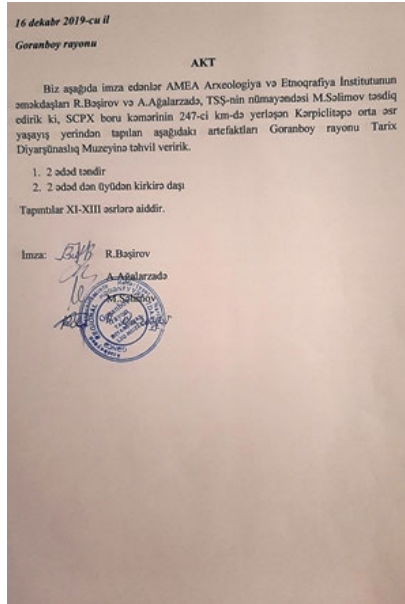


Photo 229 gg. Acceptance certificate



Photo 229h. Conservation activities in west



Photo 229x. Conservation activities in south.



Photo 229i. Soil layer piled into sacks



Photo 229 ii. Conservation work in southwest



Photo 229j. Conservation work in west



Photo 229k. Levelling upper soil layer



Photo 229q. Conservation in northwest



Photo 229e Final completion of work.



Photo 229m. Employees of Goranboy district culture department review site.



Photo 229n. Handover of area to Borsunlu municipality head.



Photo 229o. Handover of site to BP representative.



Photo 229 oo. Karpijlitepe monument after conservation



Photo 229z. Team involved in conservation activities.

PHOTOS



Photo 229s. Pottery samples from Karpijlitepe.



Photo 229sh. Pottery samples from Karpijlitepe.



Photo 230. Pitcher with narrow base.



Photo 231. Jug with wide base.



Photo 232. Pitcher with pear-shaped body.



Photo 233. Pitcher with convex body.



Photo 234. Biconic pitcher fragment.



Photo 235. Pitcher shaped as spherical cone.



Photo 236. Fragment of pitcher with narrow neck.



Photo 237. Fragment of jug with wide neck.



Photo 238. Average size pitcher.



Photo 238a. Pitcher with spherical body.



Photo 239. Jug with round body.



Photo 240. Elongated jug.



Photo 241. Elongated jug.



Photo 242. Jug with round rim.



Photo 243. Jug with rim opening outwards.

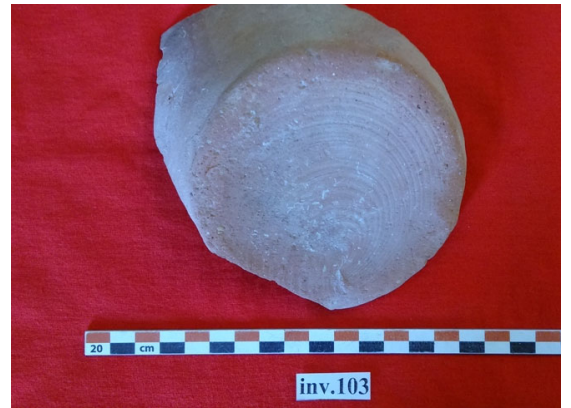


Photo 244. Jug base.



Photo 245. Jug with rim opening inwards.



Photo 246. Jugs with chain-like patterns on rim.



Photo 247. Jug with chain-like patterns on rim.



Photo 248. Jug with zoomorphic ornaments on surface.



Photo 249. Jug with zoomorphic ornaments on surface.



Photo 250. Pear-shaped jug.



Photo 251. Pear-shaped jug.



Photo 252. Dopu with convex body.



Photo 253. Dopu with pear-shaped body.



Photo 254. Biconic dopu with handle and spout.



Photo 255. Dopu with funnel-shaped rim.



Photo 256. Dopu with weltered rim.



Photo 257. Dopu with wide orific.



Photo 258. Pear-shaped enameled dopu.



Photo 259. Tiny dopu.



Photo 260. Fragment of bowl with rim opening outwards.



Photo 261. Fragment of bowl with rim opening outwards.



Photo 262. Bowl with round flank crossing over into body.



Photo 263. Bowl with body descending at straight angle.



Photo 265. Enamelled bowl with monochrome paint.



Photo 267. Enamelled bowl with geometrical and vegetational images.



Photo 269. Bowl with monochrome paint.

Photo 264. Enamelled bowl with bird image inside.



Photo 266. Enamelled bowl with geometrical and vegetational images.



Photo 268. Bowl with monochrome paint.



Photo 270. Bowl with vegetational image.



Photo 271. Bowl with monochrome paint.



Photo 272. Bowl with vegetational image.



Photo 273. Bowl with monochrome paint.



Photo 274. Bowl with vegetational images.



Photo 275. Bowl with vegetational images.



Photo 276.



Photo 277.



Photo 278.



Photo 279. Clay piyale (bowl).



Photo 280. Glass piyale (bowl).



Photo 281.



Photo 282.



Photo 283.



Photo 284.



Photo 285.



Photo 286.



Photo 287.



Photo 288.



Photo 289.



Photo 290.



Photo 291.



Photo 292. Enamelled plate and kheyres.



Photo 293.



Photo 294.



Photo 295.



Photo 296. Dish-type vessel.



Photo 297.



Photo 298.



Photo 299.



Photo 300.



Photo 301. Saucer-type vessel.



Photo 302. Saucer-type vessel.



Photo 303.



Photo 304.



Photo 305.



Photo 306.



Photo 307.



Photo 308.



Photo 309.



Photo 310.



Photo 311.



Photo 312.



Photo 313.



Photo 314.



Photo 315. Salt shaker-type vessel.



Photo 316.

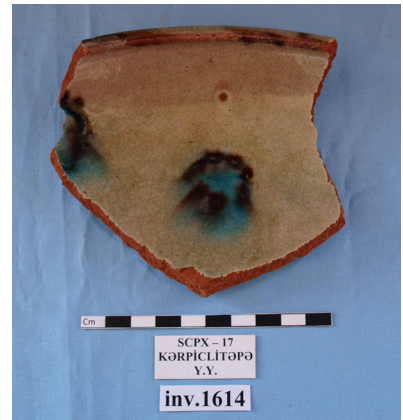


Photo 318.

Photo 317.



Photo 319.



Photo 321.

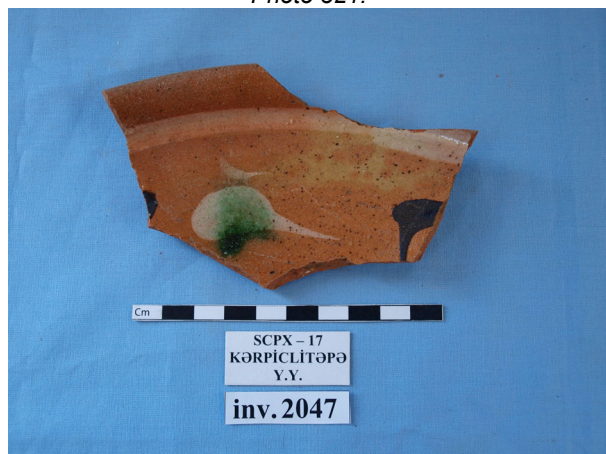


Photo 323.



Photo 320.



Photo 322.



Photo 324.



Photo 325.



Photo 326.



Photo 327.



Photo 328.



Photo 329.



Photo 330.



Photo 331



Photo 332.



Photo 333.



Photo 333a. Tray and majmayi fragments.



Photo 334.



Photo 335.



Photo 336.



Photo 337.



Photo 338 Jar with pear-shaped body.



Photo 339 Jar with pear-shaped body.



Photo 340.



Photo 341.



Photo 342 jar with elongated body.



Photo 343 Jar with elongated body.



Photo 344. Milk pail-type vessel.



Photo 345.



Photo 346. Jug with water drop-shaped body, petalled rims and grooves.



Photo 347.



Photo 348.



Photo 349. Jug with pear-shaped body.



Photo 350. Jug with oblong body and heeled base.



Photo 351. Tape-shaped jug handle.



Photo 352.



Photo 353. Jug neck.



Photo 354. Jug handle with oval cross section.



Photo 355. Jug rim.



Photo 356. Jug rim.



Photo 357. Jug neck.



Photo 358. Jug neck.



Photo 359. Can with spherical body.



Photo 360. Can with pear-shaped body.

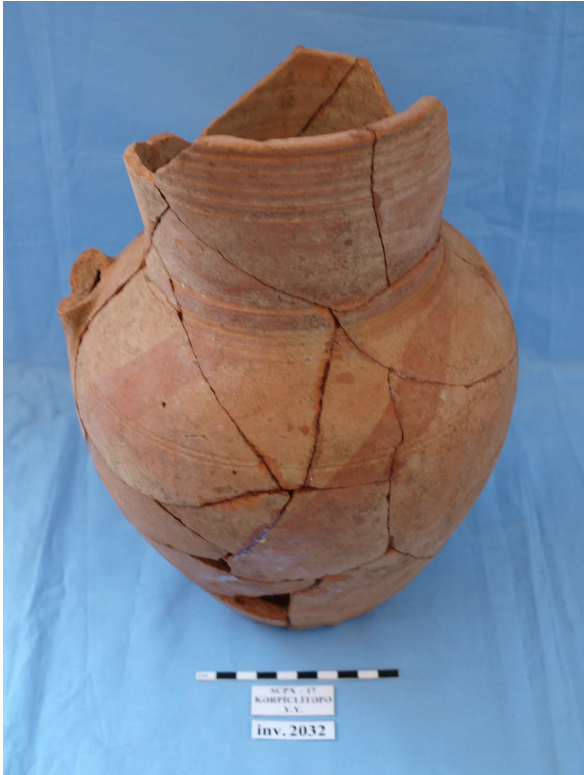


Photo 361. Can with pear-shaped body.



Photo 362. Can with pear-shaped body.



Photo 363. Can with convex body.



Photo 364. Pear-like shaped can.



Photo 365. Can with pear-shaped body.



Photo 365. Can with pear-shaped body.



Photo 367. Can with biconic body.



Photo 368. Can with elongated body.



Photo 369. Can with round-shaped body.



Photo 370.



Photo 371.



Photo 372.



Photo 373.



Photo 374.



ΚΟΡΡΙΛΙΤΟΡΘ Υ.Υ. - 2018
inv. 3113

Photo 375.



Photo 376. Clay boiler.



SCPX - 17
ΚΟΡΡΙΛΙΤΟΡΘ
Υ.Υ.
inv.455

Photo 377.



SCPX - 17
ΚΟΡΡΙΛΙΤΟΡΘ
Υ.Υ.
inv.587

Photo 378.



Photo 379.



Photo 380.



Photo 381. Handles of long jar.



Photo 382.



Photo 383.



Photo 384.



Photo 385 Long jar rim.



Photo 386 Pail.



Photo 387 Pail.



Photo 388. Milk pail with patterns on surface.



Photo 389. Milk pail with glazed surface.



Photo 390.



Photo 391.



Photo 391.



Photo 392.



Photo 393 Vase-type vessel.



Photo 394 Vase-type vessel.



Photo 395.



Photo 396.



Photo 397.



Photo 398.



Photo 400 Enamelled Gulabdan neck.



Photo 401. Gulabdan-type vessel.



Photo 402.



Photo 403.



Photo 404.



Photo 405.



Photo 406.



Photo 407 Aftaba-type vessel spout.



Photo 408 Amphora-type vessel.



Photo 409 Amphora-type vessel.



Photo 411. Kettle-type vessel fragment.



Photo 410. Kettle-type vessel fragment.



Photo 412. Kettle-type vessel.



Photo 413. Kettle-type vessel.



Photo 414.

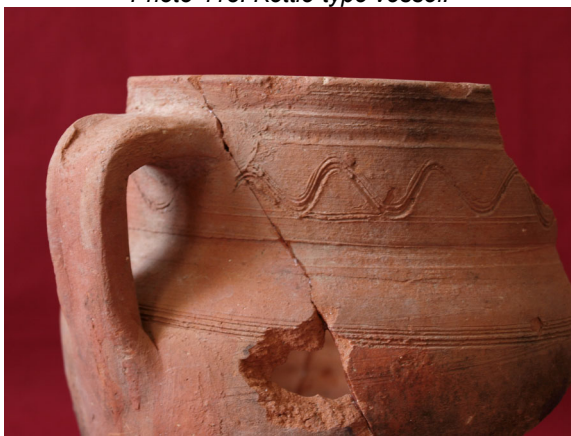


Photo 415.



Photo 416.



Photo 417.



Photo 418.



Photo 419.



Photo 420.



Photo 421.



Photo 422.



Photo 423 Cup-type fragments.



Photo 424.



Photo 425.



Photo 426.



Photo 427 Churn.



Photo 428. Mug handle..



Photo 429. Mug



Photo 430. Mug rim.



Photo 431. Mug body.



Photo 432. Decanter neck.



Photo 433. Decanter neck.



Photo 434. Decanter neck.



Photo 435. Decanter neck.



Photo 436. Decanter.



Photo 437. Flask rim.



Photo 438. Flask body.



Photo 439. Clay flask.



Photo 440.



Photo 441.



Photo 442. Spherical vessel.



Photo 443.



Photo 444.



Photo 445.



Photo 446.



Photo 447. Spherical vessel with filter.



Photo 448.



Photo 449.



Photo 450.



Photo 451.



Photo 451a.



Photo 452. Silbinje.



Photo 453. Silbinje.





Photo 463. Clay lamp.



Photo 465. Clay lamp.



Photo 465. Clay lamp.



Photo 466. Clay lamp.





Photos 467-479. Ink-pots.





Photos 480-485. Clay lids.



Photo 486. Sarpush (copper lid).



Photo 487. Sarpush (copper lid).



Photo 488. Lid with stamped surface.





Photos 489-495. Lid handles.



Photos 496-497. Tandır oven lids.





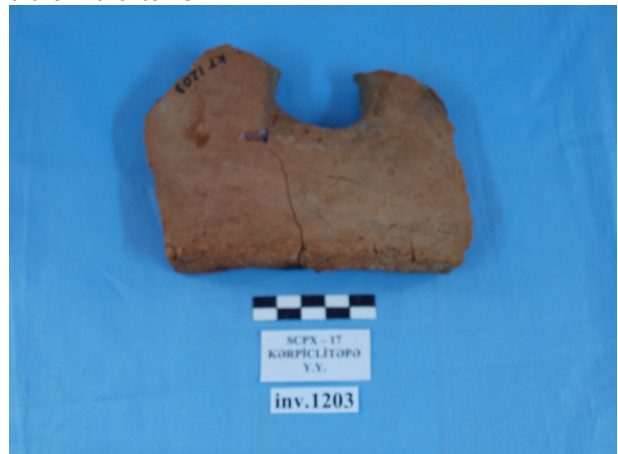
Photos 498-503. Small lids (corks).



Photos 504-508. Clay lids.

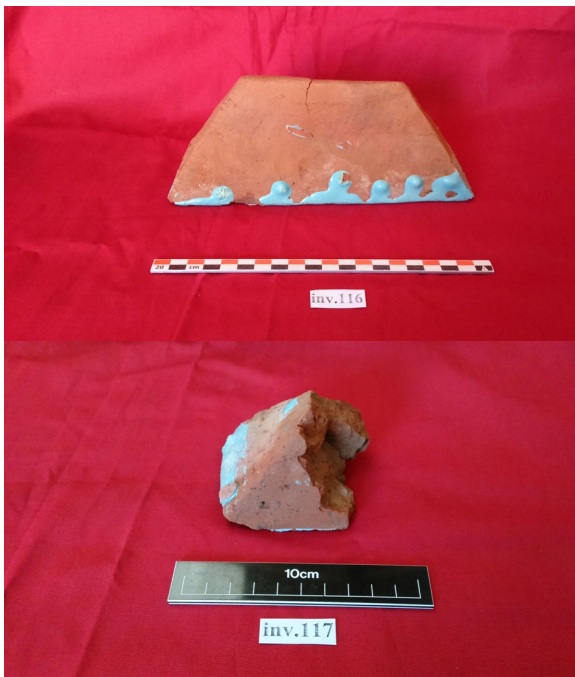


Photos 509-512.
Earthenware items.





Photos 513-517. Clay bricks.



Photos 518-523. Decorative glazed tiles.



Photos 524-525. Ceramic pipes.



Photo 526. Bone hair pin.



Photo 527. Lid handle.



Photo 528. Cup-like shaped vessel.



Photo 529. Jug with cylindrical body.



Photo 530. Lid handle.



Photo 531. Convex vessel with narrow rim.



Photo 532. Jar handle.



Photo 533. Anthropomorphic image.



Photos 534-535. Clay whistle.



Photo 536. Clay whirligig.



Photo 537.



Photo 538.



Photos 539-540. Iron-made nails.



Photo 541.



Photo 542.



Photo 543.



Photo 544.



Photo 545.



Photo 546.



Photos 547-548. Iron knives.



Photo 549.



Photo 550.



Photo 551.



Photo 552.



Photo 553.

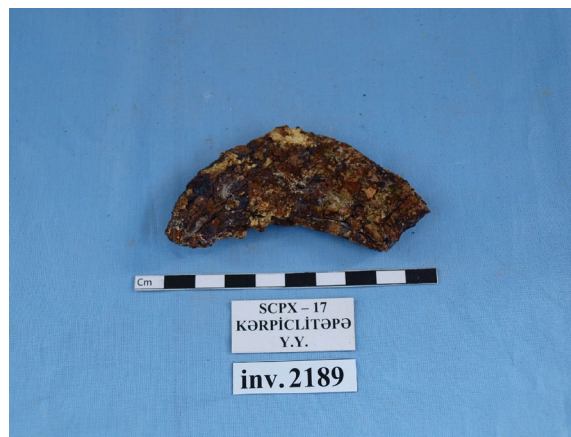


Photo 554.



Photos 555-556. Iron sickles.



Photos 557-558. Iron chains.



Photos 559-559a. Iron forks.



Photo 560. Iron ring.



Photos 561-562. Iron hooks.



Photo 563.



Photo 564.



Photo 565.



Photo 566.



Photo 567.



Photo 568.



Photo 569. Iron horseshoes.



Photos 570-571. Iron hooks.



Photos 572-573.



Photo 573a. Iron pin.



Photos 574-575.



Photos 576-577. Iron arrow heads.



Photo 578. Iron lance tip.



Photos 579-580. Iron daggers.



Photo 581. Iron finger ring.



Photo 582. Iron belt fragments.



Photo 583. Iron spade.



Photos 584-584a. Iron scrapers.



Photo 585. Round bronze item.



Photo 586. Fragment of bronze bracelet.



Photo 587. Bronze belt buckle.



Photo 588. Finger ring of copper.



Photo 589. Copper ring with stamp.



Photo 590. Bronze bracelet.



Photos 591-592. Ear-rings of copper.



Photo 593. Hair pin of copper.



Photos 594-595. Box of copper (small chest?).



Photo 596. Copper coins.



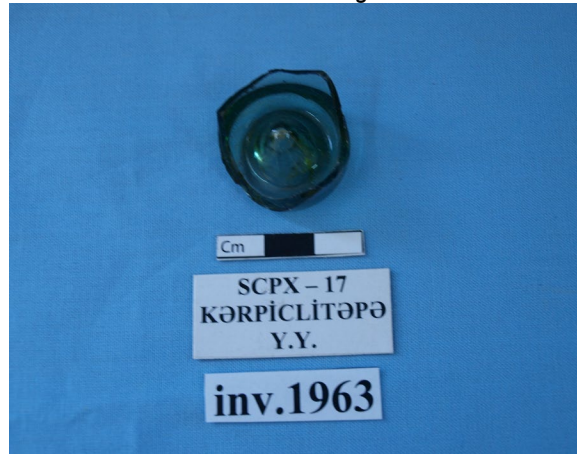
Photo 597. Glass vessel body.



Photo 598. Orifice element of glass vessel.



Photos 599-600. Bodies of glass vessels.



Photos 601-602.



Photos 603-604. Glass goblet bases.



Photos 605-606. Glass vessel spouts.



Photo 607. Glass vessel handle.



Photos 608-609.



Photos 610-611.



Photos 612-613. Glass bracelets.



Photos 614-615.



Photos 616-617. Glass beads.



Photo 618. Glass finger ring.



Photo 619. Glass earring.



Photos 620-621. Glass items.



Photos 622-623.



Photos 624-625. Top and bottom of Quernstone.



Photo 626. Stone grater.



Photo 627. Grindstone.



Photo 628. Mortar.



Photos 629-630



Photos 631-632. Stone hammering tools.



Photos 633-634.



Photos 635-636.



Photos 637-638. Weight stones.



Photo 639. Catapult stones.



Photo 640. Stone spindle whorl.



Photos 641-642.



Photos 643-644.



Photos 645-646.



Photos 647-648. Ceramic spindle whorls.



Photo 649. Paste beads.



Photo 650. Cowrie bead.



Photo 651. Bone bead.



Photos 652-653.



Photos 654-655. Paste beads.



Photo 656. Paste pendent ornament.



Photos 657-658.



Photos 659-660.



Photos 661-662. Bone buttons.



Photo 663. Bone tool.



Photo 664. Bone item.



Photo 665. Processed deer horn.



Photos 666-66.



Photos 668-669. Animal bones from excavation.