

**Excavation Works carried out by  
Archaeological Expedition of  
the Institute of Archaeology & Ethnography, ANAS  
in 2003 at the Zayamchai Historical Site  
along the BTC Pipeline Route**

**R E P O R T**

BAKU -2004

## **1. SUMMARY OF NON-TECHNICAL ISSUES**

Excavation works were carried in 2003 at the Zayamchai necropolis as part of the Phase 3 of archaeological activities implemented under the BTC Pipeline Project. The width of excavation area was limited to 24m within the BTC Right of Way. The graves on the right and left sides of this strip remained untouched. 130 graves found inside this 24m by 100m area were excavated and studied throughout the expedition. Archaeological findings identified by the expedition team date back to 13-8 centuries BC and belong to the Khodjaly - Gedabey culture.

Additional archaeological excavations have been carried out on the part of the Zayamchai ancient settlement some 300m east of the necropolis, which is crossed by the pipelines. Although the top of the monument's cultural layer has been completely destroyed due to cultivation of the area before, it was possible to obtain explicit scientific information.

The Zayamchai excavations were one of the largest activities ever carried out by the Institute of Archaeology and Ethnography, and the material cultural remains collected during these excavations are significant in terms of understanding the ancient history of Azerbaijan and the whole Caucasus.

## **2. DESCRIPTION OF THE SITE**

The monuments are located on small hills to west of Shamkir District, east bank of the Zayamchai River between Bayramly and Duyarli villages, 310m above the sea level. GPS coordinates for the main part of site are 8574747 4534070 (KP 356). The subsoil composition is formed of gravel and alluvial sand mixture.

## **3. SCOPE OF PROJECT**

The Zayamchai site attracted attention at the Phase 1 of project, which proposed the study of baseline conditions, field studies and the analysis of aerial photos for several significant properties. The pipelines were routed beyond the main part of local ancient settlement. The necropolis was identified by expedition of the Institute of Archaeology and Ethnography during the archaeological

appraisal excavations at the Phase 2. Full field excavation works have been carried out as part of Phase 3 of archaeological expedition along the export pipelines.

#### **4. ARCHAEOLOGICAL AND HISTORICAL DATA**

The Zayamchai site is distinguished by its rich set of ancient settlements and burial monuments dating back to complete range of historical periods from the Bronze Age till Middle Age. Majority of these monuments have been identified for the first time as part of the BTC Pipeline Project. The areas attached to the necropolis have been lately used as croplands thus damaging historical assets.

The Zayamchai necropolis refers to the Bronze-Early Iron Age or 13-8 centuries BC, which cover a significant period of the ancient history of Azerbaijan and the South Caucasus, in general. This period is remarkable with revolutionary changes the lifestyle of native population and progressive development of the region. Particularly, the production of bronze becomes one of the widely popular industrial areas and the production of bronze weaponry, adornment and domestic materials has especially increased at that time. Cultural and economic relationships between countries have expanded; rapid development of cropping, cattle breeding and crafts has led to accumulation of excessive products. This period is remarkable with the development of early urban culture and deepening of equitable sharing of assets in Azerbaijan. All these factors resulted in the establishment of state bodies in the region. A wide use of iron since the outset of I millennium BC has facilitated the progress of all these processes. Being quite a new and more quality metal of that period, iron has played a significant role in the development of military and various spheres of economy.

Rich archaeological monuments holding the above historical information have been identified at the Ganja-Gazakh region as well as the basin of the Zayamchai River. Furthermore, hundreds of grave monuments, which include Late Bronze - Early Iron barrows, soil tombs, stone box tombs, etc. have been

excavated at the upstream Zayamchai and scrupulously studied since the 19<sup>th</sup> century.

An ancient settlement and necropolis identified and excavated at the right bank of the Zayamchai River (KP 356) along the BTC pipeline route have enriched the capacity of archaeological findings and especially those found in Azerbaijan. A group of the Zayamchai graves discovered at this area has been an innovation for the Azerbaijani archaeology.

## **5. OBJECTIVE OF FIELD WORKS**

The objective of archaeological excavations was to study the monuments affected by the construction of the pipeline. Although the studies were carried out within the BTC pipeline corridor from 44m to 24m width of the ROW, significant scientific findings and evidences of material culture have been found at the necropolis. Due to previous farming activities on the area of ancient settlement and erosion of the hill where this settlement is located the results of excavations were not successful.

## **6. FIELD WORKS METHODOLOGY**

The manual archaeological excavation technique has been applied at the Zayamchai necropolis. The plan and photos of excavated graves have been taken. The excavated soil has been screened and therefore, allowed the team members to collect even the smallest findings. The staff of both the Institute of Archaeology and Ethnography and BTC keep the archaeological records. BTC was responsible for taking the plan and photos of archaeological findings. The staff of the Institute of Archaeology and Ethnography has provided initial treatment of findings, developed a written description of them and taken their photos.

## **7. METHODOLOGY OF POST FIELD WORKS**

Following initial treatment and packaging the archaeological findings have been delivered to the Ganja Guest House and further transported to the Baku office of the Institute of Archaeology and Ethnography. The bronze findings have undergone chemical analyses at the Laboratory of Archaeological

Technology and relevant Material List has been prepared. A photographer has taken the photos of archaeological findings while the painters have developed a possible number of graphic illustrations of the above findings. Leading experts of the Institute have developed a large scientific report on these findings including the above lists, photos and graphic illustrations. The report provides a detailed description of each grave monument and ancient settlement including specific findings identified on the above locations.

### **8. MAINTENANCE OF ARCHIVE MATERIALS**

All archaeological findings identified during the excavations will be delivered to the Archaeology Collection of the Institute. The best samples will be displayed at the exhibition that will also be arranged at the Institute. A copy of this report will be submitted to BTC Co. while the other copy will be maintained at the IAE archives.

### **9. COPYRIGHTS, PUBLICATIONS AND MONITORING**

All rights of this scientific report belong to BTC Co. and the Institute of Archaeology and Ethnography. Neither of these parties may submit this report to any third party without a prior written permission of the other. the report will be made ready for publication and will be published by the permission and support of BTC Co. All national scientific interests of the Institute of Archaeology and Ethnography as well as all international interests of BTC Co. will prevail throughout the publication of report.

The IAE management has carried out an internal monitoring on the development of this report. BTC staff has provided required assistance regarding certain aspects of the work and supervised the progress of development process. Regular meetings have been held to discuss any matter of concern.

## 10. TEXT OF REPORT

### I N T R O D U C T I O N

According to the Contract of Century a special attention has been paid to study of archaeological monuments identified on the route of the Baku-Tbilisi-Ceyhan oil pipeline. The first such archaeological research was the study of the Borsunlu barrow, Goranboy in 2002. This monument is representative of several archaeological periods and has a special place in the row of Azerbaijani archaeological monuments. The second object of archaeological researches was the Zayamchai historical site on the route of the oil pipeline.

The Zayamchai necropolis located on the territory of Duyarli village of Shamkir, along the right bank of the Zayamchai River, near Bayramly village and the section of the Kura flowing into the Zayamchai River, on the medium-size hill and an ancient settlement located 300-400m east of this hill, were found to be interesting objects for archaeological researches, as they both were situated on the route of the Baku-Tbilisi-Ceyhan pipeline. The archaeological researches at the Zayamchai historical site started on 15 November 2003 and continued till 20 November of the same year with an interval of 45 days.

Initial archaeological researches have been carried out at the Zayamchai necropolis. The following employees of the Institute of Archaeology and Ethnography, ANAS and BTC participated at these researches:

Employees of the Institute of Archaeology and Ethnography, ANAS:

Nadjaf Museyibli

Gahraman Aghayev

Vilayat Kerimov

Victor Kvachidze

Fuad Huseynov

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Bakhtiyar Djalilov

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Shamil Nadjafov

**BTC staff;**

1. David Maynard
2. Richard Moor
3. Fikret Orudjov - interpreter
4. Jeyhun Mukhtarov - supplier

This report has been developed by authors of archaeological excavations under overall management of the Director of the Institute of Archaeology and Ethnography Mr. A. A. Abbasov and Responsible Person for Communications of the same Institute at BTC Mr. Goshgar O. Goshgarly.

## **NECROPOLIS**

The Zayamchai necropolis is located on the medium-size hill along the from west to east of the right bank of the Zayamchai River. The highest point at the excavations site is 305m above the sea-level. The researches have been conducted within 24 meters of the Right of Way. 120 grave monuments have been identified and studied within this strip during the excavations. Almost in each grave provided archaeological artefacts. One of the interesting features of these grave monuments was a layer of big or small cobble stones laid on the top of tomb chambers. In some of the graves we have found three or four layers of such a stone covering.

Initial excavations have started within the 9m x 9m square at the centre of necropolis. Then this excavation area has been expanded further. It should be also mentioned that dimensions of grave monuments is provided according to the space occupied by clay pottery vessels identified in tomb chambers.

## ARCHAEOLOGICAL STUDY OF THE ZAYAMCHAI SETTLEMENT

One of the archaeological monuments on route of the Baku-Tbilisi-Ceyham oil pipeline is the Zayamchai settlement. It is located on the territory of Duyarli village of Shamkir, Azerbaijan, on the right bank of the Zayamchai River, 400-500m south of the necropolis. Concurrently with archaeological excavations at the Zayamchai necropolis the archaeological team has done the pit sampling at 5m x 5m area and during reconnaissance excavation identified that this area was an ancient settlement.

As opposed to archaeological excavations done at the Zayamchai necropolis the researches at the above settlement located on route of the BTC oil pipeline have been carried out within the 44m ROW. Initial archaeological researches started on the excavation area of 20m x 25m.

The above area has been subsequently divided into 20 squares (or boxes each of 5m x 5m), which are numbered as follows: A-1, A-2, A-3, A-4, A-5, B-1, B-2, B-3, B-4, B-5, C- 1, C- 2, C- 3, C- 4, C- 5 və D – 1, D-2, D-3, D-4, D-5 (see Figure 1). Initial archaeological excavations have started at the previously used Box A-5. As a continuation of previously selected boxes, these boxes have been numbered as follows: Y-1, Y-2, Y-3, Y-4, Y-5, Y-6, Y-7, Y-8; Z-1, Z-2, Z-3, Z-4, Z-5, Z-6, Z-7, Z-8; A-1, A-2, A-3, A-4, A-5, A-6, A-7, A-8; B-1, B-3, B-4, B-5, B-6, B-7, B-8; C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8; and d-1, d-2, d-3, d-4, d-5, d-6, d-7, d-8 (Figure 2)<sup>1</sup>.

It should also be mentioned that a large portion of the cultural layer identified on the territory of monument recorded as an ancient settlement has been destroyed due to farming activities on the area. Please find below a detailed description of boxes identified as a result of archaeological excavations.

Box Y-1. Location: south of archaeological site along the BTC oil pipeline, south part of excavation area, west angle of excavation area. No artefacts found except several pieces of pottery vessels. These are pieces of various black and grey pottery vessels. Total depth of box: 0.15m.

<sup>1</sup> As the added two boxes have been expanded to the west along the oil pipeline route, Boxes Y and Z precede Box A.



Box Z-1. Adjacent to and southeast of Box Y-1. No artifacts found. Depth of excavation: 0.15m.

Box A-1. Location: southeast of Box Z-1. No artifacts found. Depth of excavation: 0.20m.

Box B-1. Location: southeast of Box A-1. No artifacts found except several fragments of grey pottery vessels.

Box C-1. Location: adjacent to and southeast of Box B-1. No artifacts found. Depth of excavation: 0.20m.

Box D-1. Location: adjacent to and southeast of Box C-1. No artifacts found.

Box Y-2. Location: adjacent to and northeast of Box Y-1. Remnants of black and grey jug- and jar-type pottery vessels found from depth of 0.20m and 0.35m south of Box Y-2. Depth of excavation: 0.35m.

Box Z-2. Location: adjacent to and northeast of Box Z-1. No artifacts found. Depth of excavation: 0.25m.

Box A-2. Location: adjacent to and northeast of Box A-1. No artifacts found. Depth of excavation: 0.25m.

Box B-2. Location: adjacent to and northeast of Box B-1. No artifacts found. Depth of excavation: 0.25m.

Box C-2. Location: northeast of Box C-1. Remnants of various black and grey pottery vessels found from depth of 0.15m south of the box. No additional artifacts found in the box. Depth of excavation: 0,20m.

Box D-2. Location: adjacent to and northeast of Box D-1. Several fragments of grey pottery vessel found at the northwest corner of the box. Depth of excavation: 0,20m.

Box Y-3. Location: adjacent to and northeast of Box Y-2. No artifacts found. Depth of excavation: 0.20m.

Box Z-3. Location: northeast of Box Z-2. Fragments of various pottery vessel found at a depth of 0.20m. They consist of remnants of black jug vessel. Depth of excavation: 0.20m.

Box B-3. A-3. No artifacts found in this box. Depth of excavation: 0,20 m.

Box C- 3. Location: adjacent to and northeast of Box C-2. No artifacts found. Depth of excavation: 0.25m.

Box D-3. Location: adjacent to and northeast of Box D-2. No artifacts found. Depth of excavation: 0.20m.

Box Y-4. Location: adjacent to and northeast of Box Y-3. Grey fragments of various pottery vessels (jars, jugs, pots) found in the central part of the box. Depth of excavation: 0.25m.

Box Z-4. Fragments of various grey and black pottery vessels found at a depth of 0.20m and 0.35m. Depth of excavation: 0.40m.

Box A-4. Location: adjacent to and northeast of Box A-3. Two black jugs found at a depth of 0.80m. Throats of both jugs are broken up to the body. Depth of excavation: 0.90m.

Box B-4. Location: adjacent to and southeast of Box A-4. Various fragments of pottery vessels found at different depths. A fireplace found northeast of box. The base of the clay pot is smutted due to burning on the fireplace. The neck of the pot is broken. The depths of pot and fireplace were 0.80m and 1m, respectively. The second fireplace was identified south of the Box (at a depth of 1.10m). Diameters of fireplaces: 1<sup>st</sup> – 0.80m, 2<sup>nd</sup> – 0.75m. Depth of excavation: 1.20m.

Box C-4. Location: adjacent to and northeast of Box C-3. No artifacts found. Depth of excavation: 0.35m

Box D-4. The excavation stopped at 0.15m, as no cultural layer has been identified. Depth of excavation: 0.15m.

Box Y-5. Location: adjacent to and northeast of Box Y-4. Ceramic-pottery vessels found southeast of this Box. They consist of fragments of black vessels (jars and pots). Depth of excavation: 0.45m.

Box Z-5. Location: adjacent to and southeast of Box Y-5. No artifacts found except several pieces of ceramic pottery. Depth of excavation: 0.40m.

Box B-5. Location: adjacent to and southeast of Box A-4. Two big jugs found at the centre of the box. It has been identified during reconnaissance

excavations at 5m x 5m area before the current archaeological researches. This finding was the main reason to start large-scale researches at this area. As mentioned above, the top layer of the monument was destroyed due to previous farming activities. Therefore, there was a part of jug which broke away from the body and lost. Diameter of this big jug is 1.10m.

There is an 8cm wide prominent strip around the body of this black jug. It has been ornamented with three parallel slope dashed lines. The base of jug has a 10cm wide prominent strip around the body. The centerline of this strip consists of flexuous ornaments. A fireplace location ( $D = 0.60\text{m}$ ) was found southwest of the jug's location. Diameter of the fireplace is 0.95m. Depth of excavation: 1.10m

Box A-5. Location: adjacent to and southeast of Box Z-5. A black jug found at a depth of 0.50m. The neck of this jug was broken. Its shoulder was concave and slope while the base had an ornament formed of three horizontally parallel slope dashed lines. A fireplace ( $D = 1.50\text{m}$ ) was found at the crossing of southeast part of this box and northwest part of Box B-5. This fireplace was found at a depth of 0.60m. Depth of excavation: 0.65m.

Box C-5. No fragments of material culture found. Depth of excavation: 0.35m.

Box d-5. Location: adjacent to and southeast of Box C-5. Some black and grey fragments of various pottery vessels (remnants of jugs, jars, tureens, pots, churns) were found at this box. A piece of bronze plain ring was found at a depth of 0.60m at the centre of the Box. Two pieces of obsidian were found nearby. Depth of excavation: 0.85m.

Box Y-6. Location: adjacent to and northeast of Box Y-5. Some grey and black fragments of pottery vessels (jugs and pots) found at a depth of 0.45m of the Box Y-5. These fragments were found at a depth of 0.35m at south corner of the Box. Depth of excavation: 0.50m.

Box Z-6. Some fragments of pottery vessels found at a depth of 0.40m of the northwest corner of the Box adjacent to northeast part of Box Z-5. Depth of excavation: 0.60m.

Box A-6. Some grey fragments of pottery vessels (jugs and tureens) found at a depth of 0.40m of the south corner of the Box. Depth of excavation: 0.45 m.

Box B-6. Location: adjacent to and southeast of Box A-6. Some grey fragments of pottery vessels (jugs and tureens) found at a depth of 0.40m of the north corner of the Box. Depth of excavation: 0.45m.

Box C-6. Location: adjacent to and northeast of Box C-5. The fragments of various pottery vessels (jugs, jars, pots, and tureens) found at a depth of 0.45m at the northwest corner of this Box. Several obsidian stones found at the central part of the Box. Depth of excavation: 0.50m.

Box D-6. The excavation stopped at 0.15m, as the cultural layer has lost after that depth. Depth of excavation: 0.20m.

Box Y-7. Location: adjacent to and northeast of Box Y-6. Grey and black fragments of pottery vessels and three pieces of obsidian found at depths of 0.45m and 0.50m. Depth of excavation: 0.55m.

Box Z-7. Location: southeast of Box Y-7. Grey and black fragments of pottery vessels (jugs, tureens, and pots) found at a depth of 0.35m of the northwest corner of the Box. Several obsidian stones found at a depth of 0.44m at the central part of the Box. Depth of excavation: 0.55m.

Box A-7. Location: adjacent to and northeast of Box A-6. Grey fragments of pottery vessels (jugs and pots) and several pieces of obsidian found at a depth of 0.30m. Depth of excavation: 0.45m.

Box B-7. Location: northeast of Box B-6. Grey and black fragments of clay jugs and jars found in central part of the Box. All these fragments were found at a depth of 0.50m. Depth of excavation: 0.55m.

Box C-7. Location: adjacent to and southeast of Box C-6. Light brown clay jug found at a depth of 0.30m. It was not possible to establish dimensions of this thin-wall jug, as it was broken. Some grey and black fragments of pottery vessels and two pieces of obsidian found around the jug. Depth of excavation: 0.45m.

Box D-7. Location: adjacent to Box C-7. A reddish jug found near the jug excavated at the depth of 0.30m of Box C-7. The second jug found a little far

(south) from this jug. It was not possible to establish their dimensions as both of them were broken. Certain dimensions of these jugs will be provided below within the description of artifacts found at the settlement area. Depth of excavation: 0.50m.

Box Y-8. Location: northeast of Box Y-7. Sufficiently big number of pottery found. They consist of grey and black fragments jugs, pots, tureens found at a depth of 0.40m. A piece of obsidian found at the central part of the box. Depth of excavation: 0.50m.

Box Z-8. Adjacent to and located southeast of Box Y-8. No artifacts found.  
Excavation depth: 0.45m.

Box A-8. No artifacts found.

Box A-8. Adjacent to and located northeast of Box B-7. Grey pottery found at a depth of 0.35m and include pieces of tureen, pot and jug type pottery vessels. Excavation depth: 0.45m.

Box C-8. Northeast of Box C-7. No additional artifacts found except several pieces of pottery. Excavation depth: 0.45m.

Box d-8. Two pieces of obsidian and several pieces of ceramics found at a depth of 0.45m. Excavation depth: 0.45 m.

As mentioned, it was not possible to obtain a clear stratigraphic picture of the area, as it has been previously used for farming purposes.

Classification of artifacts found during the archaeological excavations:

1. Black big jug – A-5. The throat is broken. The broken pieces show that the throat was large. A small slope notch on the shoulder is decorated with dashed lines. Below that point is a 0.85m prominent circle embossed around the vessel. It is made of three parallel dashed lines. Little below it is a 10cm prominent strip going around the vessel. This strip consists of three parallel dashed lines forming an angle.

Dimensions:      Body diameter: 1.10cm    Base diameter: 20cm  
                          Wall thickness: 4cm

2. Black big jug. Box B-5. The throat is broken. The broken pieces show that

the throat was large. There are two 8cm and 10cm wide prominent circles around this thick-wall vessel. One of these circles consists of three slope dashed lines while the other two are formed of flexuous lines.

Dimensions:      Body diameter – 1,10m      Base diameter – 0,15cm  
Wall thickness – 3cm.

3. Black jug. Box A–4. Simple shape. Dimensions cannot be identified due to collapse.

4. Black jug. Box A–4. The body and base dimensions of this simple, thick-wall jug could be determined.

Dimensions:      Body diameter – 80cm      Base diameter – 21cm  
H-break size – 80cm.

5. Black jug. Simple. 5cm prominence near the throat, handles on both sides.

Dimensions:      D of body – 90cm      Base diameter – 21cm  
Wall thickness – 3cm.

6. Light brown jug. Box C–7. Simple. Dimensions could not be established due to complete collapse.

7. Reddish jug. Box D–7. Simple. Dimensions could not be established due to extreme collapse.

8. Black pot. Box B–4. Shape: Plain. Wall thickness: Thin. Throat is broken. Base and part of vessel is smutted.

Dimensions:      Throat diameter – c. 50cm      Body diameter: 35cm  
Base diameter – 23cm

9. Bronze ring. Box B–4. Location depth: 0.20m. Shape: Plain.  
Diameter: 1.7cm.

According to archaeological materials and general stratigraphy of the excavation area we assume that this ancient populated territory near the BTC pipeline and widely known as Meshetepe (Forest Hill) was a farming area.

Based on local archaeological findings and stratigraphic data we can suggest that in 14-7 centuries BC this area was used as large farming lands.

## S U M M A R Y

Archaeological excavations carried out by the staff of the Institute of Archaeology and Ethnography at the Zayamchai historical site along the Baku-Tbilisi-Ceyhan oil pipeline have provided rich artefacts of material culture. As mentioned above, these excavations can be considered as one of the large-scale excavations carried out by Azerbaijani archaeologists. Evidently, findings from the Zayamchai site will be scrupulously researched and new ideas will be suggested in future. However, we have decided to include some aspects of researches in this report.

**1. Type of graves.** 87 of 130 graves excavated at the Zayamchai necropolis draw particular attention. Thus, the structure of these graves distinguishes from that of other grave monuments ever identified in Azerbaijan. The distinguishing feature is the cobblestone cover laid just over the top of graves. Sometimes the height of cobblestone installation is more than 1m. The cobblestones used in the construction of grave covers have been taken from the nearby (300m) Zayamchai valley. Such features of graves should be considered a new event in the Azerbaijan archaeology. Nadjaf Museyibli and Qahraman Aghayev, experts who found these graves, referred to them as **stone graves** or **stone covered graves**. It should be mentioned however, that artefacts found in these graves refer to the Khodjaly-Gedabey Culture, as there are similarities with specimens of material culture found in other Azerbaijani monuments of the same era. Apparently, this area used to be a natural habitat for tribes with specific funeral traditions or ancient Azerbaijani tribes living along the midstream Kura used such a funeral practice at certain period.

Other graves of necropolis are soil graves with specimens of material culture of similar stone covers.

The graves on natural, low hill of excavations are more densely spaced. The top east slope of the hill is formed of a sequence of saline and sandy soil and a mixture of sand and clay layers while the west slope is formed of gravel level.

These features of natural hill have not allowed the archaeologists to do accurate tracking of the boundaries of grave chambers. Therefore, the dimensions of soil graves have been identified based on the area occupied by equipment put in the graves. The dimensions of stone graves have been determined by boundaries of stone installations. However, it was not possible to identify precise boundaries of some soil graves in the necropolis.

Another interesting feature was the absence of human skeletons in majority of graves. This condition has been observed in both grave types. A number of empty (without skeletons) graves have been studied during the excavations carried out on the territory of Azerbaijan throughout the years. The empty graves of Zayamchai demonstrate the diversity of funeral traditions once practiced by the ancient population of Azerbaijan.

Even at the beginning of 19<sup>th</sup> century, the archaeological literature has suggested various propositions on the nature of graves found without skeletons in them. One of these propositions is based on the hypothesis that such graves have been established in honour of those who died during natural disasters and their corpses have been lost. The second proposition suggests that these graves are the final abode of persons who have fallen in battle or been captured and died in enemy state. Finally, the third and the last proposition says that the graves belonged to persons who have constructed them *pro vito* but after a while have moved to another country and died there. However, the recent studies prove the inconsistency of the above propositions regarding the necropolises without skeletons or which have some graves without skeletons. The popularity of such graves as well as the situation at the Zayamchai necropolis is a signpost of a concisely designed funeral tradition that involved the bury of dead bodies in the graves. The faith of not buried corpses could be different, e.g. they could be disposed of in rivers, cremated outside the tombs, etc.

The excavations showed that some graves have been robbed yet long ago.

**2. Pottery.** Pottery is the primary material identified among the specimens of material culture found at the Zayamchai necropolis. They are dark grey, grey



and black pottery vessels available at the site. Sometimes it is possible to find vessels of brown colour as well. Except pot-type vessels, all other vessels are made of strong clay with occasional samples containing fine sand mixture. Clay of pots contains cobble and sand except occasional instances. In a number of cases, the surface of vessels has been levelled or grinded. Except several specimens, all pottery vessels have been accurately finished on potter's wheel. There are extremely various types of potter vessels: tureen, cauldron, jar, jug, small jar, churn, bowl, cylindrical vessels, etc.

**3. Adornments.** A big number of adornments prepared of different materials have been found during excavations. Bronze pendants contain elements of disk-shaped tracery panels, animal and bird figurines and bells. One circlet and one pectoral draw attention. Other bronze adornments include various bracelets, rings, beads, earrings, and random size buttons. Bracelets, earrings and rings are made of round and flat cut bronze. Beads are of different colours. The quantity of agate beads is more than that of other types of beads. They are made of crimson, semitransparent and transparent agates of spherical, pear, tubby and other shapes. In addition, the expedition found some cowrie (alike coffee beans), pasta and glass beads that have not been actually manufactured by local residents and have been imported from other centres of civilisation of the Ancient East.

**4. Weaponry.** Some specimens of ancient weaponry were also found in the necropolis, which include spearheads, arrowheads and daggers. It is interesting that not any obsidian arrowheads typical for the above historical period have been found in the Zayamchai graves. The only iron product was a fragment of a spearhead.

**5. Instruments of labour.** This category of findings includes stone-made hoes and a spindle-head as well as bronze needles and awls.

**6. Excavation of settlement.** It has been identified that top layers of the monument has been completely destroyed due to agricultural activities. The bottom layers contained some fragments of bottom parts of jugs, fireplaces and

storage pits. The expedition identified that the area of excavations has been previously used as storage sector of such a large settlement.

**7. Historical period of archaeological findings.** Archaeological findings found in both necropolis and settlement, are typical for Late Bronze – Early Iron period of the West Azerbaijan. Archaeological findings of the Zayamchai site are the closest analogues of the same-period monuments identified at Mingechevir, Gazakh, Gedabey, Dashkesen, Garabagh, Shamkirchai, etc. areas of Azerbaijan and the materials found at barrow of Borsunlu crossing the BTC pipeline route. All comparative analyses show that the Zayamchai monuments appear to be a part of the Khodjaly-Gedabey archaeological culture dating back to 13-8 centuries BC. Indeed, future researches will allow scientists to clarify more precise historical period of these monuments.

Evidently, the archaeological excavations carried out on the crossing of the BTC pipeline with the Zayamchai site have resulted in identifying rich specimens of material culture that are significant in terms of understanding the history of Late Bronze – Early Iron period of Azerbaijan and the whole South Caucasus. These findings established a valuable scientific basis for studying burial, farming and cattle breeding, potter trade, metalworking, jewellery and other craft traditions of ancient people living in this region.

# THE ZAYAMCHAI NECROPOLIS

## Results of Spectral Analyses on Metal Items

Chemical composition, %														
№	Grave	Item	Cu	As	Fe	Co	Au	Sb	Pb	Sn	Ni	Bi	Ag	Zn
1.	grave №19	Bronze item 1 g. 500mg.	main	0,3	0,2	0,1	0	0,1	0,2	4,7	0,02	0,05	0	0,05
2.	grave №27	Tubular piece of adornment, 3g.	-	0,1	0,2	0	0	0,2	0,1	0,7	0,03	0,1	0	0,2
3.	grave №27	Pendant with embossed animal figurine, 80g.	-	0,3	0,12	0	0	0,1	0,3	0,7	0,05	0,7	0	0,05
4.	grave №27	Pendant with embossed animal figurine, 2,2g.	-	0,1	0,2	0	0	0,1	0,1	0,7	0,02	0,05	0	0,3
5.	grave №27	Bracelet 29g.	-	0,1	0,12	0,03	0	1,2	1,2	5,3	0,3	0,7	0	0,3
6.	grave №39	Piece of metal: 16g.	-	0,3	0,2	0	0	0,1	1,2	0,7	0,05	0,7	0	0,05
7.	grave №41	Needle 1.200 g.	-	0,1	0,1	0	0	0,1	0,3	0,7	0,01	0	0	0,3
8.	grave №41	Earring 2g. 500 mg.	-	0	0,05	0,005	0	0,1	0,05	2,05	0,005	0,005	0	0,2
9.	grave №45	Awl 5g.	-	0,3	0,12	0	0	0,3	1,2	0,7	0,05	0,7	0	0,3
10.	grave №46	Infant bracelet 4g. 8 mg.	-	0,3	0,2	0	0	0,3	0,2	0	0	0,05	0	0,2
11.	grave №48	Button 2 g. 100mg.	-	0,1	0,12	0,1	0	0,1	0,3	5,2	0,02	0,1	0	0,2
12.	grave №60	Pendant, 25mg.	-	0,1	0,12	0,005	0	0,1	0,3	4,7	0,002	0,01	0	0,2
13.	grave №60	Dagger 110g. 500mg.	-	0,3	0,15	0	0	0,5	0,2	0,5	0,01	0,05	0	0,2
14.	grave №60	Goat figurine 49g.	-	0,3	0,1	0	0	0,2	0,2	0,3	0,05	1,2	0	0,3
15.	grave №60	Infant bracelet 24g.	-	0,3	0,15	0	0	0,1	0,2	0,3	0,05	0,7	0	0,05
16.	grave №60	Arrowhead 25g.	-	0,3	0,5	0	0	0,1	0,3	0,7	0,02	0,7	0	0,2
17.	grave №61	Fragment of necklace 35.5g.	-	0,05	0,2	0,1	0	0,2	0,7	4,2	0,05	0,05	0	0,2
18.	grave №61	Button 5g. 500mg.	-	0,02	0,2	0,01	0	0,3	0,2	5,7	0,02	0,05	0	0,2
19.	grave №61	Bracelet 24g. 400mg.	-	0,3	0,2	0	0	0,1	0,3	4,2	0,05	0,05	0	0,3

## Results of Spectral Analyses on Metal Items

Chemical composition, %														
№	Grave	Item	Cu	As	Fe	Co	Au	Sb	Pb	Sn	Ni	Bi	Ag	Zn
20.	grave №61	Pendant, 28 g.	main	0.4	0.2	0.03	0	0.1	0.3	5.2	0.01	0.5	0	0.05
21.	grave №61	Pendant, 84 g.	-	0.1	0.2	0.2	0	0.3	0.3	6.3	0.02	0.05	0	0.2
22.	grave №61	Pendant, 5 g.500 mg.	-	0.1	0.2	0.01	0	0.3	0.3	7.2	0.01	0.05	0	0.3
23.	grave №61	Pendant, 7 g.400 mg.	-	0.3	0.12	0.1	0	0.5	0.7	4.2	0.05	0.05	0	0.2
24.	grave №61	Pendant, 31 g.	-	0.05	0.2	0	0	0.2	0.7	1.2	0.02	0.03	0	0.3
25.	grave №61	Bracelet 74,2 g.	-	0.03	0.12	0	0	1.2	1.2	2.06	0.05	0.05	0	0.3
26.	grave №77	Pincers 12g.	-	0.5	0.2	0.03	0	1.2	0.3	4.7	0.05	0.05	0	0.2
27.	grave №77	Ring 2g.	-	0.5	0.12	0	0	0.3	0.2	1.68	0.03	0.7	0	0.3
28.	grave №71	Bracelet 28g.	-	0.1	0.2	0	0	0.1	0.3	0.7	0.05	0.1	0	0.2
29.	grave №73	Bracelet 12g.	-	0.3	0.2	0	0.2	0.1	0.3	0.3	0.01	0.03	0.1	0.03
30.	grave №76	Tool of labour, 7g.500	-	0.03	0.12	0.01	0	0.5	0.7	4.7	0.001	0.1	0	0.2
31.	grave №83	Bracelet 7 g.500 mg.	-	0.1	0.05	0.05	0	0.1	0.3	4.2	0.02	0.05	0	0.2
32.	grave №88	Bracelet 13.500 mg.	-	0.1	0.2	0	0.1	0.2	0.7	0.03	0.05	0.1	0	0.2
33.	grave №89	Bracelet 19g.	-	0.3	0.2	0	0.1	0.2	0.3	0.7	0.05	0.05	0	0.3
34.	grave №95	Bracelet (fragment) 35g.	-	0.05	0.2	0	0	0.01	0.3	0.7	0.02	0.01	0.1	0.02
35.	grave №102	Needle 3g.	-	0.3	0.2	0	0	0.3	0.3	0.7	0.01	0.01	0.1	0.05
36.	grave №111	Awl 7g.500mg.	-	0.1	0.2	0.03	0	1.2	0.5	0.5	0.02	0.1	0	0.3
37.	grave №117	Spearhead 150g.	-	0.3	0.12	0	0.03	1.2	0.7	0.7	0.05	0.7	0	0.2
38.	grave №130	Fragment of infant bracelet 5g.	-	0.3	0.2	0.1	0.2	0.1	0.2	0.3	0.05	0.05	0.1	0.03