

## AMİSOS / AMISOS

Cilt/ Volume 10, Sayı/ Issue 18 (Haziran/ June 2025), ss./ pp. 13-32  
ISSN: 2587-2222 / e-ISSN: 2587-2230  
DOI: 10.48122/amisos.1631186



Özgün Makale/ Original Article

Geliş Tarihi/ Received: 01. 02. 2025  
Kabul Tarihi/ Accepted: 20. 06. 2025

### AN UBAID SETTLEMENT IN THE SOUTH CAUCASUS – BÜLÖVKAYA (NAKHCHIVAN, AZERBAIJAN)

### GÜNEY KAFKASYA'DA BİR UBEYD YERLEŞİMİ-BÜLÖVKAYA (NAHÇIVAN, AZERBAIJAN)

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#### Abstract

The discovery of samples of material culture associated with Mesopotamia in the South Caucasus raised great debate among the scholarly community. A group of scholars argued that the spread of Mesopotamian cultures to the South Caucasus occurred as a result of economic and cultural relations, while others believed that Mesopotamian cultures spread to the South Caucasus through migration. Newly discovered pottery from Bülövkaya provides new insight into the relationship between the South Caucasus and Northern Mesopotamia. Research shows that painted and simple ceramics from the Bülövkaya settlement can be considered a local variant of the Ubaid culture. The results of the study show that the Ubaid tribes moved north and settled in the territory of Nakhchivan

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in the first half of the fifth millennium. The movement of the Ubaid tribes to the north was associated with the rich deposits of raw materials of the South Caucasus, especially deposits of obsidian and copper, as well as abundant pastures.

**Keywords:** South Caucasus, Middle East, Nakhchivan, Ubaid culture, Bülövkaya, Urmia Basin, Painted pottery.

## Öz

Güney Kafkasya'nın eski yerleşimlerinde Mezopotamya ile ilgili maddi kültür örneklerinin bulunması, Kafkasyalı araştırmacıların büyük ilgisini çekmiştir. Bir grup araştırmacı, Mezopotamya kültürlerinin Güney Kafkasya'ya yayılmasını ekonomik ve kültürel ilişkiler sonucu ortaya çıktığını söylerken, diğerleri Mezopotamya kültürlerinin göç yoluyla Güney Kafkasya'ya yayıldığını düşünmüşlerdir. Bülövkaya'da yeni keşfedilen çanak çömlek, Güney Kafkasya ile Kuzey Mezopotamya arasındaki ilişkileri yeniden değerlendirmemize olanak sağlıyor. Araştırmalar, Bülövkaya yerleşiminin boyalı ve sade çanak çömleğinin Ubeyd Kültürü'nün yerel bir çeşidi olarak değerlendirilebileceğini gösteriyor. Yapılan araştırmaların sonuçları MÖ 5. binyılın ilk yarısında Ubeyd kabilelerinin kuzeye giderek Nahçıvan'a yerleştiği doğrulanmaktadır. Ubeyd kabilelerinin kuzeye hareketi, Güney Kafkasya'nın zengin hammadde yatakları, özellikle obsidiyen ve bakır yatakları ve ayrıca bol otlaqlarla bağlantılıydı.

**Anahtar Kelimeler:** Güney Kafkasya, Yakın Doğu, Nahçıvan, Ubeyd Kültürü, Bülövkaya, Urmiye Havzası, Boyalı Çanak Çömlek.

## 1. Introduction

The discovery of samples of material culture associated with Mesopotamia in the South Caucasus raised great debate among scholarly community (Fig. 1). Some group of scholars claim that traces of Mesopotamian cultures in the South Caucasus link to economic and cultural relationship<sup>1</sup>, and whereas others see this spread of Mesopotamian cultures the result of migration<sup>2</sup>. The spread of the Leila Tepe culture in the South Caucasus, including the lowland regions of the Azerbaijan Republic, was also associated with the tribes of Northern Mesopotamia<sup>3</sup>. Archaeological research carried out in Nakhchivan, located in the south of the Republic of Azerbaijan, made it possible to say that Mesopotamian tribes settled in Nakhchivan and economic and cultural relations were carried out with locals<sup>4</sup>. Nerimanov<sup>5</sup> suggested that the Ubaid culture spread to Azerbaijan after the Halaf culture. However, the small number of finds made it difficult to prove this claim. So, painted ceramics, characteristic of the Ubaid culture, are represented in few in the South Caucasus, including the Leyla Tepe culture. New archaeological materials, including large quantities of painted pottery, discovered during the 2024 excavation in the Bülövkaya settlement, Nakhchivan, make it possible to re-evaluate the relationship between Mesopotamia and South Caucasus.

## 2. Archaeological Excavations at the Bülövkaya Settlement

Bülövkaya settlement is located near the village of Göynük, Babek district, at an altitude of 1430-1452 m above sea level, on the left bank of a mountain river (Fig. 2). Archaeological research at the Bülövkaya settlement was carried out June-July 2024 under the V. B. Bakhshaliyev's supervision. Archaeological excavations were carried out in three areas - Bülövkaya S, Bülövkaya D and Bülövkaya E. The area of each square was 10x10 m. During the excavations, in order to preserve the houses found in area C, excavations didn't carry out, while in areas D and E continued until the virgin soil. In areas C, D and E were discovered rich

<sup>1</sup> Бахшалиев 2022, 149.

<sup>2</sup> Cucchi et al. 2013, 1-12.

<sup>3</sup> Мунчаев-Амиров 2015, 128-131.

<sup>4</sup> Бахшалиев-Марро 2024, 17-18.

<sup>5</sup> Нариманов 1985, 271; Nərimanov 2003, 32-33.

archaeological materials, consisting of tent-type rooms, household pits, hearths, ceramics, obsidian shards and animal bones.

In the course of research, it was found that it is a single-layer settlement and there are two building levels that differ from each other in color. The thickness of the cultural layer varied from 0.3 to 1.5 m. The first building level consisted of layers of grey soil, where pottery, tools, animal bones, obsidian shards and other stone tools were found. No traces of hearth remains were attested in this layer. However, the position of ceramic samples, tools and jugs, as well as the remains of floors indicate that people settled here at different periods.

### **Building remains**

The houses belong to the first building level were opened from the upper layers (Fig. 3, 1). The second building level, located below the first, was distinguished by a light color and an admixture of ash. This layer was white-yellow color with an admixture of gray ash (Fig. 3, 2, 3). However, it should be noted that it is in this layer that archaeological finds are better preserved. The location of the rooms and fireplaces was clearly visible. Archaeological excavations carried out in this layer showed that during the building of the houses for the first time the territory was leveled. Therefore the northern part of some houses was slightly deeper into the ground, about 10-15 cm. Wooden poles were used in the building of houses. For determination the location of houses in this layer, along with the remains of the floor, were also used round holes for wooden poles dug into the ground.

During excavations carried out at the settlement, it was established that ancient people lived in rectangular house in standard form. Archaeological research shows that the Bülövkaya settlement was characterized by lightly constructed houses with a quadrangular plan. During the research, the remains of five houses were discovered in the first horizon, and six houses in the second horizon. For the construction of the houses of the first horizon, were used flat stone slabs for flooring. Household jugs were found near the houses. According to research data, we can say that inside the houses of the lower horizon, were made platforms. The houses were built with the help of wooden poles and supplemented with light structures. The hearths were found mainly in household yards located outside the houses. This further confirms that people in this settlement settled in the summer months. Ancient settlers covered the floors of their houses with white plaster. There are known cases of plastering the floor of round hearths and household yards. Grinding stone and other tools were usually found in household yards. Although grinding stones were also found inside the houses. The discovery of obsidian fragments inside hearths and tools in household yards shows that Bülövkaya inhabitants made tools around the hearth, in household yards, and processed food products here. Alongside various material culture remains, there also attested assemblage of animal bones and ceramics in the settlement. It is likely that some groups of ceramics were made in the settlement. Architectural remains and finds suggest that the settlement was a single-layered and the culture went through two stages. The absence of hearth remains in the upper layer was probably due to the intensity of nomadic cattle breeding.

### **Tools**

Stone tools found in Bülövkaya consist of grinding stone. This type of tool is mainly made from grey basalt stone (Fig. 4, 1). It is difficult to say the purpose of their usage, since the grinding stones found from Bülövkaya have not been analyzed yet. However, research

conducted in Nakhchivan confirms that this type of tools was used for a variety of purposes. Alongside crushing grain, these tools were used in salt grinding and metal beneficiation<sup>6</sup>.

In 2024, during excavations in Bülövkaya, grinding stone (Fig. 4, 1), polishing (Fig. 4, 2, 3), percussion (Fig. 4, 4, 5) tools, two stone hammers (Fig. 4, 6, 7, 8) and a fragment of a tool of this type were also discovered. A hole is drilled on their head for inserting the handle. Such a tool was also found in 2023 during the survey in Bülövkaya. Unlike the stone hammers found in the Kültepe I, Khatunarkh and Duzdag mines, one end is pointed and sharp. Similar tools were found at the settlement of Nakhchivan Tepe. The presence of copper oxide on one of the Nakhchivan Tepe tools suggests that these tools were used in copper mining<sup>7</sup>. This type of tool is very convenient for digging soil.

During the research carried out in Bülövkaya, a large number of bone tools were discovered, mainly needles and awls (Fig. 5). Some of them wore out and some broke during operation.

Some of the tools found at Bülövkaya were made of obsidian (Fig. 6, 1-2, 4-10) and flint (Fig. 6, 3). As is known, in the South Caucasus there are many deposits of raw materials, including deposits of obsidian and copper<sup>8</sup>. Since there is no obsidian in the Urmia basin, the tribes located in this region used the obsidian deposits from the South Caucasus, which made it possible to establish connections between the South Caucasus and the Urmia basin. As in the Late Chalcolithic sites of the Sirabçay Valley, there are very few obsidian tools at Bülövkaya. However, interestingly, a large number of obsidian fragments were discovered at the site. Research shows that the Neolithic and Chalcolithic settlements of Nakhchivan mainly used obsidians from the Sevan basins and Zengezur<sup>9</sup>. If Sevan obsidian dominates in Ovçular Tepe, then Zengezur obsidian predominates in the Late Chalcolithic monuments of the Sirabçay Valley<sup>10</sup>.

Only a small assemblage of the Bülövkaya obsidian (74 pieces) has been analyzed so far. Analyzes shows that in Bülövkaya mainly were used Zengezur and Meydandag obsidian, since these deposits were close to the settlement.

There are few flint tools. They consist of elongated sickle blades. Some of them are formed by cleaving pyramidal and some prismatic cores. Some plates are well retouched on both sides, some without retouching. Undoubtedly, this type of tools was used as blades for sickles and other tools.

### 3. Ceramics

Most of the finds from Bülövkaya consist of ceramics. During the excavation in 2024, 8,507 ceramic items were discovered from the settlement. Among them are 1,639 shape-shaping pottery pieces. Ceramics can be divided into four groups: 69.6% of are red fired ceramics (Fig. 7), 27.4% painted ceramics (Fig. 8), 2% brown ceramics, 1% black ceramics (Fig. 9).

#### First group ceramics

The first group includes red-fired ceramics. They come in various shades of red. Ceramic products of this group are made from clay with a temper of straw, plants, from clay with a temper of straw and sand, and sometimes from clay without temper. Ceramics are fired

<sup>6</sup> Marro et al. 2010, 229-244; Baxşəliyev et al. 2012, 9-10.

<sup>7</sup> Bakhshaliyev 2021, 382-384, Fig. 10; Бахшалиев 2022, 143.

<sup>8</sup> Бахшалиев 2022, 144-146.

<sup>9</sup> Бахшалиев-Бахшалиев 2021, 189-191.

<sup>10</sup> Baxşəliyev 2023, 140-142.

in various shades of red. A mixture of coarse straw is clearly visible on the surface of some of them. They made by laying thin layers of clay on top of each other. The surface of some ceramic products is processed with a comb tool; however, this type of ceramic is rare. Pottery of this group usually was well fired, and sometimes unevenly fired. However, some of them have a black or gray layer between the core, which indicates they did not receive enough oxygen and were not burned well. The bases of vessels are flat, and sometimes they have a rounded shape with a protruding edge.

This group includes bowls and pots. Jug-type vessels are rare. Among the ceramics there are also shards of large household vessel. The vessels are predominantly thick-walled. However, there are small vessels with thin walls (Fig. 10, 3, 6, 12). Bowl-shaped vessels have a closed or open conical body (Fig. 10, 1, 1, 14). The pots have a convex body with the edge of the rim curved outward (Fig. 10, 4). The bases of the vessels are mostly flat. There are also disc-shaped and outward-protruding types (Fig. 10, 9, 19). Only a few vessels have relief decorations of various shapes, including those with knobs (Fig. 7, 16-18). A pattern with knobs and crescent-shaped reliefs is known at such settlements as Umm Dabaghiya<sup>11</sup>, Kültepe I<sup>12</sup>. Some pottery examples have fingerprint decorations on the horizontal and vertical direction of the relief belt (Fig. 10, 4, 10, 13). This type of ornamentation is not known among the Neolithic sites of the South Caucasus. Some examples of ceramics are decorated with grooves applied to a relief belt (Fig. 10, 8). Handles there are found a few in quantities. The handles are horn-shaped from (Fig. 10, 5). This type of handle is widespread in Neolithic and Chalcolithic sites. Handles of this type are known from Kültepe I<sup>13</sup>, Tell Damishiliya<sup>14</sup> and other settlements. During the Late Chalcolithic period such handles are rare. The edges of the rims of some vessels are decorated with grooves. Some vessels have a cylindrical spout (Fig. 10, 7). Traces of matting were found on only two pottery pieces. In general, ceramics with a temper of straw and sand, fired in red color, are known from the Neolithic and Chalcolithic monuments of the South Caucasus, including Azerbaijan and Nakhchivan<sup>15</sup>. However, some examples of pottery found in the settlement, are similar to ones found in the ancient Near East. Among the ceramics of this group, some bowls have a cone shape. The central part of these bowls protrudes outwards (Fig. 11, 1-4). Bowls of this type have not yet been discovered in the sites of the South Caucasus. These types of bowls are characteristic of Near Eastern cultures. Research shows that this type of bowl appeared mainly during the Middle Halaf period and was also used during the Late Halaf period. Analogies of this type of bowls are also known from the Halaf layer of Sabi-Abyad<sup>16</sup>, from the Halaf layer of Tell Arpachiya<sup>17</sup>, Yarim Tepe II<sup>18</sup>, Tell Agab<sup>19</sup>, Tepejik<sup>20</sup> and from the Ubaid period of Tülintepe<sup>21</sup>. It is important to note that according to the stratigraphy of Nakhchivan Tepe, these samples dated to 4941–4722 BC<sup>22</sup>. On the basis of the charcoal analysis, the Bülövkaya settlement dated to 5007-4353 BC<sup>23</sup>.

<sup>11</sup> Kirkbride 1972, Pl. XI, 5, 8, 12.

<sup>12</sup> Абибуллаев 1982, табло X, 13.

<sup>13</sup> Бахшалиев et al. 2017, Fig. 110-112.

<sup>14</sup> Akkermans 1988, Fig. 16, 120.

<sup>15</sup> Badalyan et al. 2010, 185; Бахшалиев 2022, 145-149; Lyonnet et al. 2012, 38-39, 42.

<sup>16</sup> Akkermans 1987, Fig. 4, 10; Akkermans 1989, Fig. IV. 28, 204.

<sup>17</sup> Mallowan-Cruikshank 1933, Fig. 54, 4.

<sup>18</sup> Amirov 2018, Fig. 7, 1, 3; Merpert-Munchaev 1987, Fig. 19, 3-4.

<sup>19</sup> Davidson-Watkins 1981, Fig. 2, 4.

<sup>20</sup> Esin-Arsebuk 1971, 121.

<sup>21</sup> Esin-Arsebuk 1982, 91.

<sup>22</sup> Бахшалиев-Бахшалиев 2021, 187.

<sup>23</sup> Бахшалиев-Mapro 2024, 10.

Relief decorations, especially knob ornaments, are known from Neolithic and Chalcolithic sites in the South Caucasus<sup>24</sup>. Vessels with cylindrical spouts used at Bülövkaya are also known from the Neolithic layer at Kültepe I<sup>25</sup>, but relief decorations, vessels with cylindrical spouts and types of handles are also well known from the sites in the ancient Near East, especially from the Ubaid culture<sup>26</sup>.

### **Second group ceramics**

Ceramics belonging to the second group are made mainly from sand tempered, and sometimes from straw and sand tempered clay, are unevenly fired and have a brown, sometimes dark red color. A poorly fired layer remains between the cores of the vessels. Some ceramic samples were made using a comb tool. The vessels included in this group mainly consist of pots, bowls and jugs (Fig. 11, 5-10). Some pots have horn-shaped handles in the middle part of the body. Some pottery of this type has heavy staining on the rim, some on the body, and some has wear on the body. The discovery of vessels of this type inside hearths during research indicates that they were used as kitchen utensils. It is still believed that this type of pottery is characteristic only of the Late Chalcolithic and Sioni culture, but research shows that this type of ceramic existed during the Early and Middle Chalcolithic periods before the formation of the Sioni culture.

Convex and cone-shaped bowls included in this group, as well as comb-shaped ceramics, are also found in the South Caucasus<sup>27</sup> is also known from sites in the ancient Near East<sup>28</sup>. Brown ceramics, known from the monuments of Nakhchivan<sup>29</sup> and Mugan<sup>30</sup>, constituted a small part of the ceramic products of the late Chalcolithic period<sup>31</sup>. One of the cup-shaped vessels included in this group has an ear-shaped handle that rises vertically upward from the edge of the rim (Fig. 11, 13). Such handles are found in Neolithic and Chalcolithic monuments. Handles of this type are known from Neolithic sites in Central Europe<sup>32</sup>. A handle of this type was found at Ilanlitepe settlement in Azerbaijan<sup>33</sup>.

### **Third group ceramics**

The third group of ceramics is fired in grey or black (Fig. 11, 11-12). Some are made from clay with straw temper, some are made from clay with sand temper, and some are made from untempered clay. Some ceramic samples are polished on both sides. The outer part of some ceramic products of this group is processed with a comb tool, and some are decorated with knob ornament. Some vessels have horn-shaped handles. The ceramics included in this group are identical in shape to the ceramics of other groups. In the Neolithic and Chalcolithic monuments of Nakhchivan there are very few vessels fired in black.

### **Fourth group ceramics**

The fourth group of ceramics discovered in Bülövkaya is painted (Fig. 12). Such quantity of painted ceramics has not yet been discovered in any site in the South Caucasus. The pottery was made clay with straw, plants, sometimes fine or coarse sand temper, and some were made from untempered clay and well fired. However, there are also poorly fired potsherds.

<sup>24</sup> Бахşəliyev 2021, 53, Şek. 40, 1.

<sup>25</sup> Бахşəliyev 2021, 57, Şek. 46.

<sup>26</sup> Jasim 2021, 407, 433, Fig. 334, 374.

<sup>27</sup> Ахундов 2017, 45, табл. 13, 2, 4; Lyonnet et al. 2012, 86-87; Бахшалиев 2019, 101, рис. 4, 3.

<sup>28</sup> Sharifi-Motarjem 2018, 91, Fig. 9.

<sup>29</sup> Seyidov et al. 2010, 63-78.

<sup>30</sup> Нариманов 1987, 125.

<sup>31</sup> Бахşəliyev 2023, 110-112.

<sup>32</sup> Титов и др. 1980, 206-217.

<sup>33</sup> Нариманов 1987, 238, Fig. 42.

Painted ceramics can be divided into two groups based on painting techniques. The largest group, which the surface of ceramic vessels is covered with yellow or orange slip, painted in brown or black. The second group is painted with brown or black paint over red slip. Painted pottery mainly consists of fragments of jugs, bowls and pots. The jugs have a short cylindrical neck and a convex body. Pots with a convex body and an outwardly curved edge of the rim. Bowl-type vessels make up the majority. They come in different types with convex and conical bodies. Some bowls with a conical body on the central part protrude somewhat outward. We talked about simple types of these bowls above. Bowls of this type are found in Tell Agab<sup>34</sup>, Yarim Tepe II<sup>35</sup>, Tell Abad<sup>36</sup>, Değirmentepe<sup>37</sup>, Tülintepe<sup>38</sup> and other monuments. All types of ceramics are known from the monuments Ubaid culture.

The motifs of the patterns of Bülövkaya ceramics are very diverse. Among them are wavy lines, straight lines, circle shapes contain the assemblage, though triangular and spike-shaped patterns predominantly used. Almost all motifs of painted pottery patterns are known from the Ubaid culture. Some pattern motifs were also used in pre-Ubaid times. These patterns probably also had a certain symbolic meaning.

#### 4. Cultural Affiliation and Chronology of Bülövkaya Ceramics

Research shows that in the VI-V millennia BC, socio-economic processes took place in the southern regions of Azerbaijan, especially in Nakhchivan. In the second half of the VII millennium, at the beginning of the VI millennium BC, ceramics belonging to the Halaf culture appeared in Nakhchivan<sup>39</sup>. At the end of the VI and beginning of the V millennium BC the Dalma Tepe culture spread in this region<sup>40</sup>. Dalma Tepe type pottery at Tell Abad, Tell Rashid, Keit Qasim, Haizalon<sup>41</sup>, Surezha<sup>42</sup> and other sites in Mesopotamia, spread with Ubaid pottery, and in the settlements of the Urmia basin<sup>43</sup>, Dalma Tepe ceramics were identified together with Ubaid ceramics. This indicates the relationship between the Dalma Tepe and Ubaid cultures. Studies show that the Dalma Tepe culture disappeared in the second half of the V millennium BC. However, some researchers associate painted ceramics of the second half of the V millennium of Julfa Kültepe<sup>44</sup>, Tepe Sarsakti<sup>45</sup> and other settlements with the Dalma Tepe culture. However, ceramics with impression ornaments, characteristic of the Dalma Tepe culture, were not found at these settlements. Red slip pottery, characteristic of Dalma Tepe, is also rare at these sites. Studies show that in Nakhchivan, impressed pottery was not found in settlements such as Uzunoba and Bülövkaya, but in Uçan Ağıl this type of pottery was found in isolated samples<sup>46</sup>. Archaeological research carried out at the Bülövkaya settlement shows that painted ceramics, which spread in Nakhchivan in the middle of the 5th millennium, are associated with the Ubaid culture. Aforementioned, most of the painted pottery at Bülövkaya is pottery decorated with brown or black on yellow or orange buff, which is undoubtedly associated with the Ubaid culture. In our opinion during the spread of Ubaid culture to the north,

<sup>34</sup> Davidson-Watkins 1981, Fig. 2, 4

<sup>35</sup> Merpert-Munchaev 1987, 33-34; Amirov 2018, Fig. 6-8.

<sup>36</sup> Jasim 2021, 266-528.

<sup>37</sup> Esin 1984, Fig. 3, 1, 3.

<sup>38</sup> Esin-Arsebuk 1982, 92-93.

<sup>39</sup> Абибуллаев 1982, 65-77; Бахшалиев 2022, 149.

<sup>40</sup> Бахшалиев 2019, 114-128; Бахшалиев-Бахшалиев 2021, 187-197.

<sup>41</sup> Jassim 2021, 19-97.

<sup>42</sup> Alden et al. 2021, 1-23.

<sup>43</sup> Henrickson-Vitali 1987, 37-45.

<sup>44</sup> Abedi et al. 2014a, 33-167.

<sup>45</sup> Abedi et al., 2014b, 101-114.

<sup>46</sup> Бахшалиев et al. 2024, 7-9.

there were interactions between cultures. The findings of the Ubaid period at Çolpan<sup>47</sup>, Yumuktepe<sup>48</sup>, Domuztepe<sup>49</sup>, Değirmentepe<sup>50</sup>, Gelinciktepe, Arslantepe<sup>51</sup>, Tülintepe<sup>52</sup> and other settlements also show the existence of this type interactions. Based on the findings, U. Esin and G. Arsebük characterized Değirmentepe as a settlement with Ubaid characteristics<sup>53</sup>. Researchers have said that this interaction is peaceful<sup>54</sup>.

Ceramics painted black on red can be considered a sign of local culture. This type of pottery existed in the Urmia basin from the Neolithic period and continued into the Chalcolithic period<sup>55</sup>. Therefore, we can say that different impulses took part in the formation of Bülövkaya ceramics. However, it should be noted that not all motifs of Ubaid ceramics are found in Bülövkaya. It is possible that the Bülövkaya culture was a local variant of the Ubaid culture, which reflects the first stage of Ubaid culture. Ceramics are of great importance for the history of this culture and defining its unique characteristics. Bülövkaya ceramics are close in shape and pattern to the ceramics of previous periods. However, painted pottery from this period is not found in Late Chalcolithic sites. In Bülövkaya, single samples of red slip ceramics, common in the Urmia basin during the Neolithic and Chalcolithic Age, were discovered<sup>56</sup>, including in the Dalma Tepe culture<sup>57</sup>. However, this type of ceramics is not found in Late Chalcolithic sites. The absence of pottery with impressed ornamentations of the Dalma Tepe type also allows the Bülövkaya pottery to be placed between Dalma Tepe and the Ovçular Tepe. The rims of some ceramic products of the first group are surrounded by a relief bent decorated with fingerprints. This type of pottery does not exist in the Dalma Tepe culture. This type of ceramics is found in Uzunoba<sup>58</sup>, Bülövkaya<sup>59</sup>, Ovçular Tepe<sup>60</sup>, VII layer of Julfa Kültepe<sup>61</sup>, also known from III layer of Tepe Gheshlagh<sup>62</sup>. We can say that this type of ceramics, which is found in Nakhchivan and the Urmia basin, appears in the middle and first half of the V millennium, which radiocarbon dating results also confirm this date. Painted pottery found at the Bülövkaya settlement is more closely related to the Ubaid layer of Tell Arpachiya<sup>63</sup>, and very similar to the pottery of Tell Abad<sup>64</sup> and Tell Rashid<sup>65</sup> of the Ubaid 2 and Ubaid 3 periods. The same can be said for simple vessels Bülövkaya<sup>66</sup>. Vessels with rims thickened on the outside<sup>67</sup> and vessels with cylindrical spouts are also known from Tell Abad<sup>68</sup>. Based on radiocarbon dating, layer II of Tell Abad is dated to  $4670 \pm 70$  BC<sup>69</sup>, and the corresponding layer of Tell Mahdur is dated

<sup>47</sup> Marro 2007, Fig. I, 1.

<sup>48</sup> Caneva et al. 2012, 353-392.

<sup>49</sup> Campbell-Fletcher 2006, 72, Fig. 5, 2.

<sup>50</sup> Esin-Arsebük 1983, 71-80; Esin 1984, 11-30.

<sup>51</sup> Balossi-Restelli 2012, 235-260.

<sup>52</sup> Esin-Arsebük 1982, 91.

<sup>53</sup> Esin-Arsebük 1983, 78-79.

<sup>54</sup> Stein 2012, 23-44.

<sup>55</sup> Abedi et al. 2015, 23-40.

<sup>56</sup> Henricson 1983, 203.

<sup>57</sup> Hamlin 1975, 111-127.

<sup>58</sup> Бахшалиев 2017, Рис. 5, 2.

<sup>59</sup> Бахşəliyev 2024, 144, Şek. 2, 3-4.

<sup>60</sup> Бахşəliyev et al. 2010, 127, Tab. XLVI, 1, 4.

<sup>61</sup> Abedi et al. 2014, Fig. 12, 9-10, Fig. 15, 5.

<sup>62</sup> Sharifi-Motarjem 2018, 95, Fig. 15.

<sup>63</sup> Mallowan-Cruikshank 1933, Fig. 3-7.

<sup>64</sup> Jassim 2021, Fig. 273, 4-8.

<sup>65</sup> Jassim 2021, Fig. 447, 5-8.

<sup>66</sup> Jassim 2021, Fig. 370.

<sup>67</sup> Jassim 2021, Fig. 272.

<sup>68</sup> Jassim 2021, Fig. 334.

<sup>69</sup> Jassim 2021, 100.



to  $4470 \pm 80$  BC<sup>70</sup>. Analysis of charcoal sample taken from the settlement Bülövkaya dated to 5007-4353 BC<sup>71</sup>, while this period in Uçan-Ağıl dates back to 4600-4350<sup>72</sup> and in Uzunoba 4620-4370 BC<sup>73</sup>. Ceramics of the Ubaid type are also known from the Nakhchivan Tepe settlement<sup>74</sup>. Analysis on the charcoal samples showed 4945-4732 BC, and the other 4686-4464 BC<sup>75</sup>. Given these dates, we firmly believe that by the middle of the V millennium BC Ubaid type ceramics spread towards the Urmia basin and Nakhchivan.

Tablo 1 *Result Analyses Coal from Early and Middle Chalcolithic Settlement of Nakhchivan.*

	<i>Sampl ID</i>	<i>Sample</i>	<i>Radiocarbon Age [BP]</i>	<i><math>\delta^{13}C</math> [‰]</i>	<i>Date BC [95,4%]</i>
1	Bülövkaya E-5035	LTL33701	5968 $\pm$ 45	-14.5 $\pm$ 0.1	4953-4723BC
2	Bülövkaya E-4015	LTL33702	6001 $\pm$ 45	-15.8 $\pm$ 0.5	5007-4782BC
3	Bülövkaya 2021	LTL21697	5611 $\pm$ 45	-24.5 $\pm$ 0.5	4508-4353 BC
4	Naxçıvan Tepe-1165	LTL18624A	5724 $\pm$ 45	-20.3 $\pm$ 0.1	4686-4464 BC
5	Naxçıvan Tepe-2095	LTL17636A	5956 $\pm$ 45	-25.9 $\pm$ 0.5	4945-4722 BC
6	Uçan Ağıl 15-2019	LTL16009A	5713 $\pm$ 45	-23.4 $\pm$ 0.4	4690-4450 BC
7	Uzunoba 15- 010	LTL16019A	5674 $\pm$ 45	-20.3 $\pm$ 0.5	4620-4370 BC

### Stratigraphic features of the sites in Nakhchivan and Urmia basin

As is known, the Kültepe I settlement in Nakhchivan was a multi-layered settlement covering a long occupation from the Neolithic period to the Late Bronze Age. However, a cultural layer dated to the Dalma Tepe culture has not been found here. However, as is known, in the Lake Urmia basin, a layer of the Dalma Tepe period is present in such settlements as Haji Firuz and Hasanlu. In the Dalma Tepe settlement, located in the Urmia Lake basin, only the Dalma culture is present. In Nakhchivan, the Dalma Tepe culture is still known from the Nakhchivan Tepe settlement. Four building horizons have been discovered in Nakhchivan Tepe. These building horizons reflect the period of formation and development of the Dalma Tepe culture<sup>76</sup>. At the Uçan Ağıl settlement there is a Neolithic layer and Chalcolithic period, however, the Dalma Tepe period has not been found<sup>77</sup>. The settlement of Uzunoba, discovered in the Nakhchivanchay valley, reflects the post-Dalma Tepe period. The finds of the Bülövkaya settlement also reflect the period of the subsequent Dalma Tepe culture<sup>78</sup>. In other Late Chalcolithic period settlements such as in Ovçular Tepe, and Yeniyo, traces of the Ubaid culture were not found<sup>79</sup>. These facts show that the Chalcolithic tribes, along with old settlements, also settled in new settlements, however, were mainly oriented towards new settlements.

### 5. Conclusion

<sup>70</sup> Roaf 1982, 41.

<sup>71</sup> Baxşəliyev 2023, 83.

<sup>72</sup> Marro 2022, 111-130.

<sup>73</sup> Baxşəliyev-Baxşəliyev 2023, 9-34.

<sup>74</sup> Baxşəliyev-Baxşəliyev 2023, 64, Fig. 12, 12-15.

<sup>75</sup> Baxşəliyev-Baxşəliyev 2023, 34; Tab. 1.

<sup>76</sup> Baxşəliyev-Baxşəliyev 2023, 31-54.

<sup>77</sup> Marro 2022, 111-130.

<sup>78</sup> Бахшалиев et al. 2024, 9-10.

<sup>79</sup> Marro et al. 2011, 53-100; Bakhshaliyev 2014, 88-95.

The study of Bülövkaya settlement shows the expansion of economic and cultural ties between Mesopotamia and Nakhchivan in the V millennium BC. The discovery of a large amount of painted Ubaid-type pottery in Bülövkaya indicates that the Ubaid tribes moved north and settled in Nakhchivan. The movement of the Ubaid tribes towards Nakhchivan was undoubtedly associated with the rich deposits of raw materials of the South Caucasus, especially deposits of obsidian and copper, as well as due to abundant pastures. The discovery of pottery characteristic of the Urmia basin among the pottery of Bülövkaya shows that this culture is also related to local cultures. The study of the settlement allows us to say that the tribes that settled in Bülövkaya were engaged in nomadic cattle breeding. Bülövkaya pottery, which differs for some of its features from the Ubaid pottery that became widespread in Mesopotamia, the Urmia Basin and Eastern Anatolia, can be considered a local variety of the Ubaid Culture.

**Yazarların Katkısı / Author Contributions:** Çalışmaya; Yazar 1: % 20, Yazar 2: % 20, Yazar 3: % 20, Yazar 4: % 20, Yazar 5: % 20 oranında katkı sağlamıştır. / To work; Author 1: 20%, Author 2: 20%, Author 3: 20%, Author 4: 20%, Author 5: 20% contributed to the study.

**Çıkar Çatışması / Conflicts of Interest:** Yazarlar, herhangi bir çıkar çatışması olmadığını beyan eder. / The authors declare no conflict of interest.

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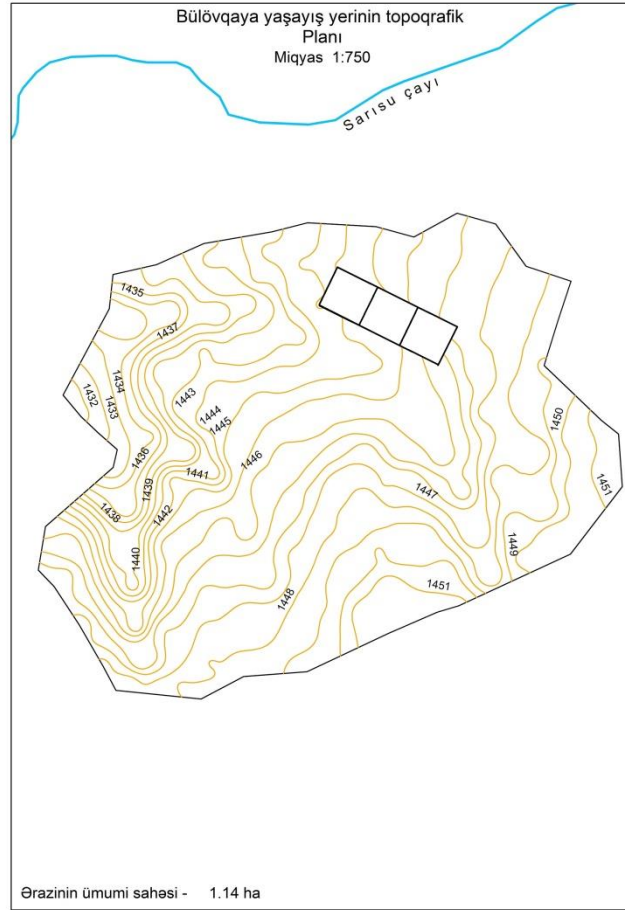
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### Figures



**Fig. 1:** Map of region.

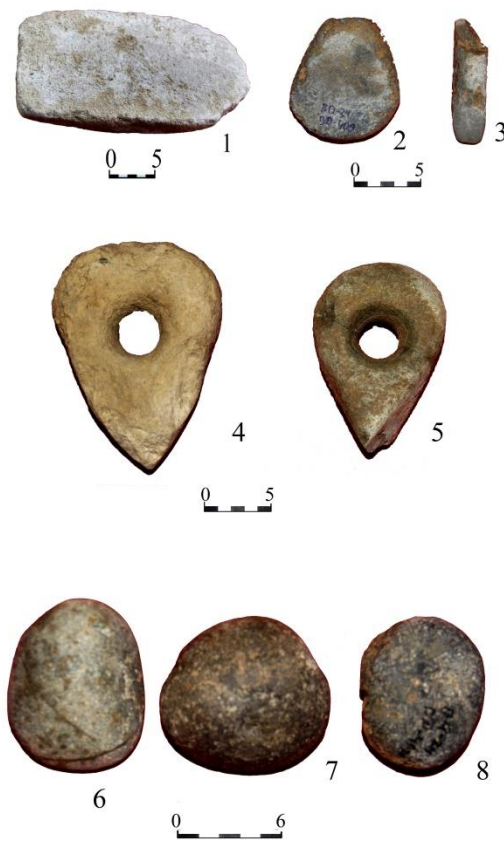


**Fig. 2:** Topographic plan and excavation area of Bülövkaya settlement (V. Bakhshaliyev).



**Fig. 3:** Drone view of the excavation area: 1-view of the house on the first building phase; 2-3- traces of houses of the second building phase (V. Bakhshaliyev).

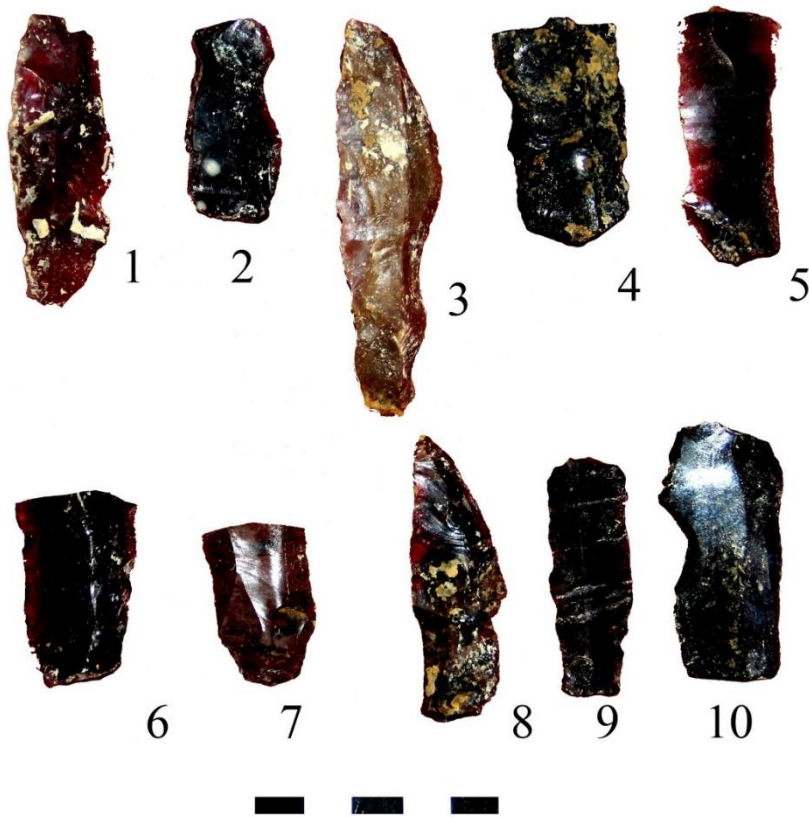




**Fig. 4:** Tools (V. Bakhshaliyev).



**Fig. 5:** Bone tools (V. Bakhshaliyev).



**Fig. 6:** Obsidian (1, 2, 4-10) and flint tools (V. Bakhshaliyev).



**Fig. 7:** Red and buff ceramics (V. Bakhshaliyev).

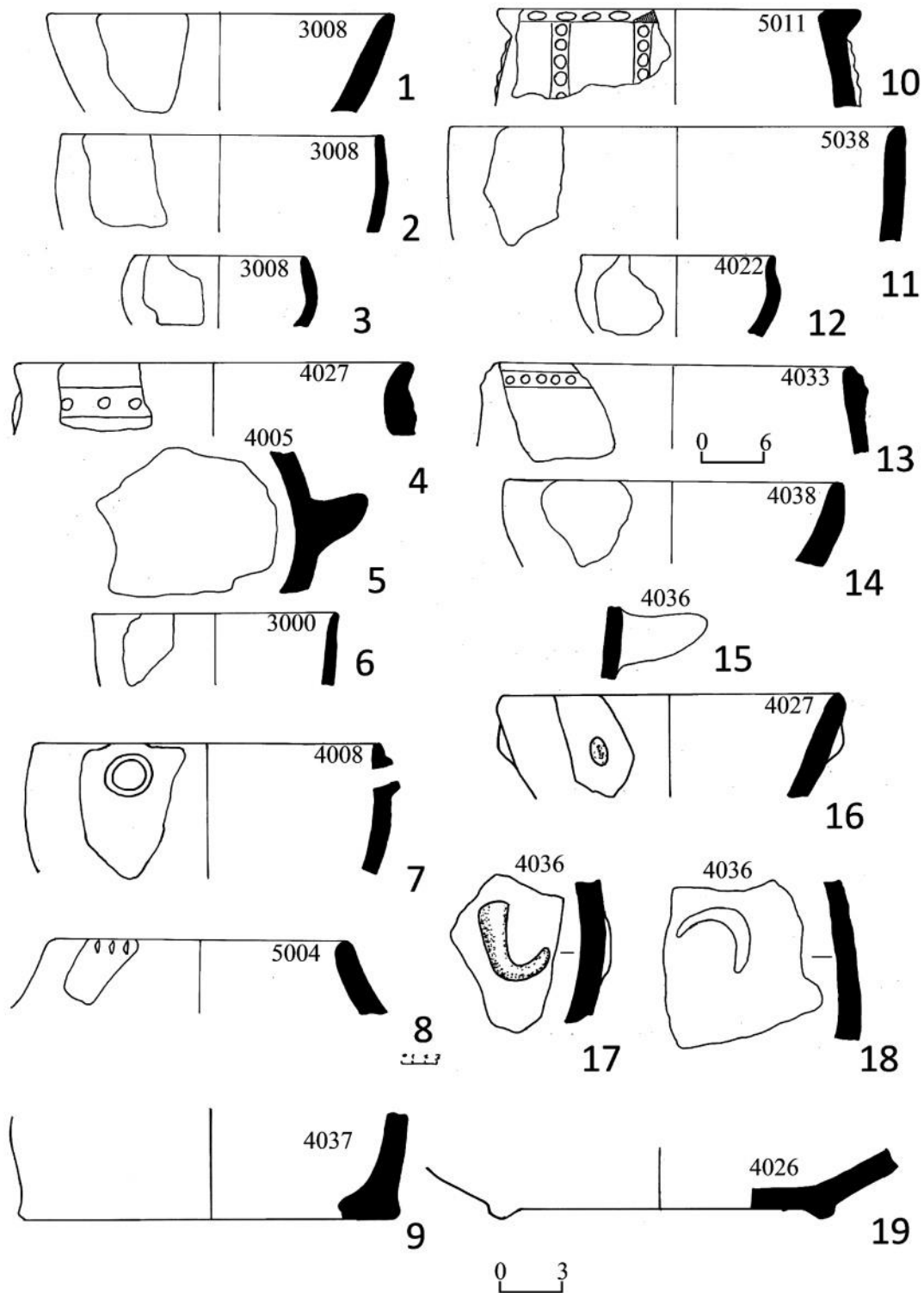




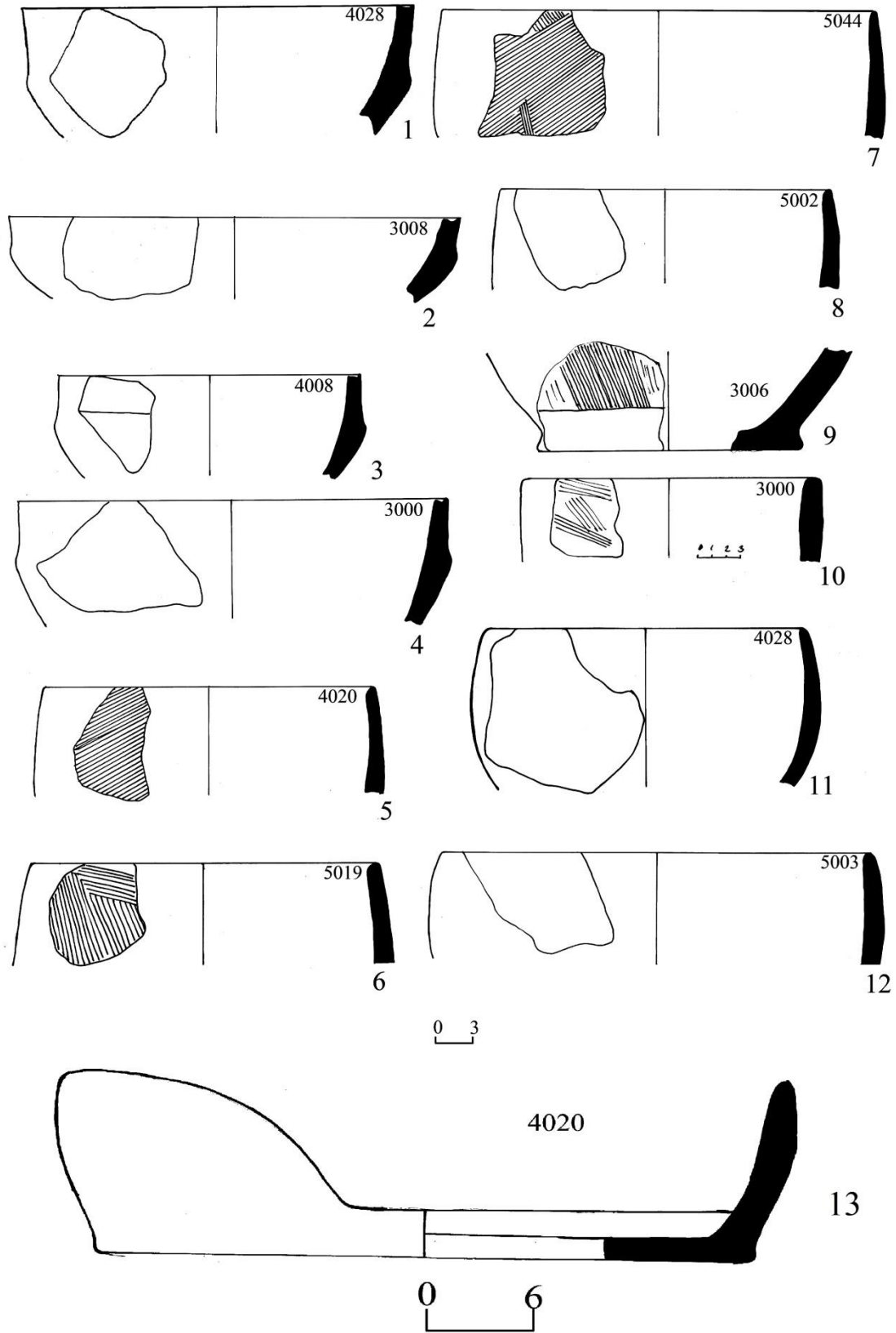
**Fig. 8:** Painted ceramics (V. Bakhshaliyev).



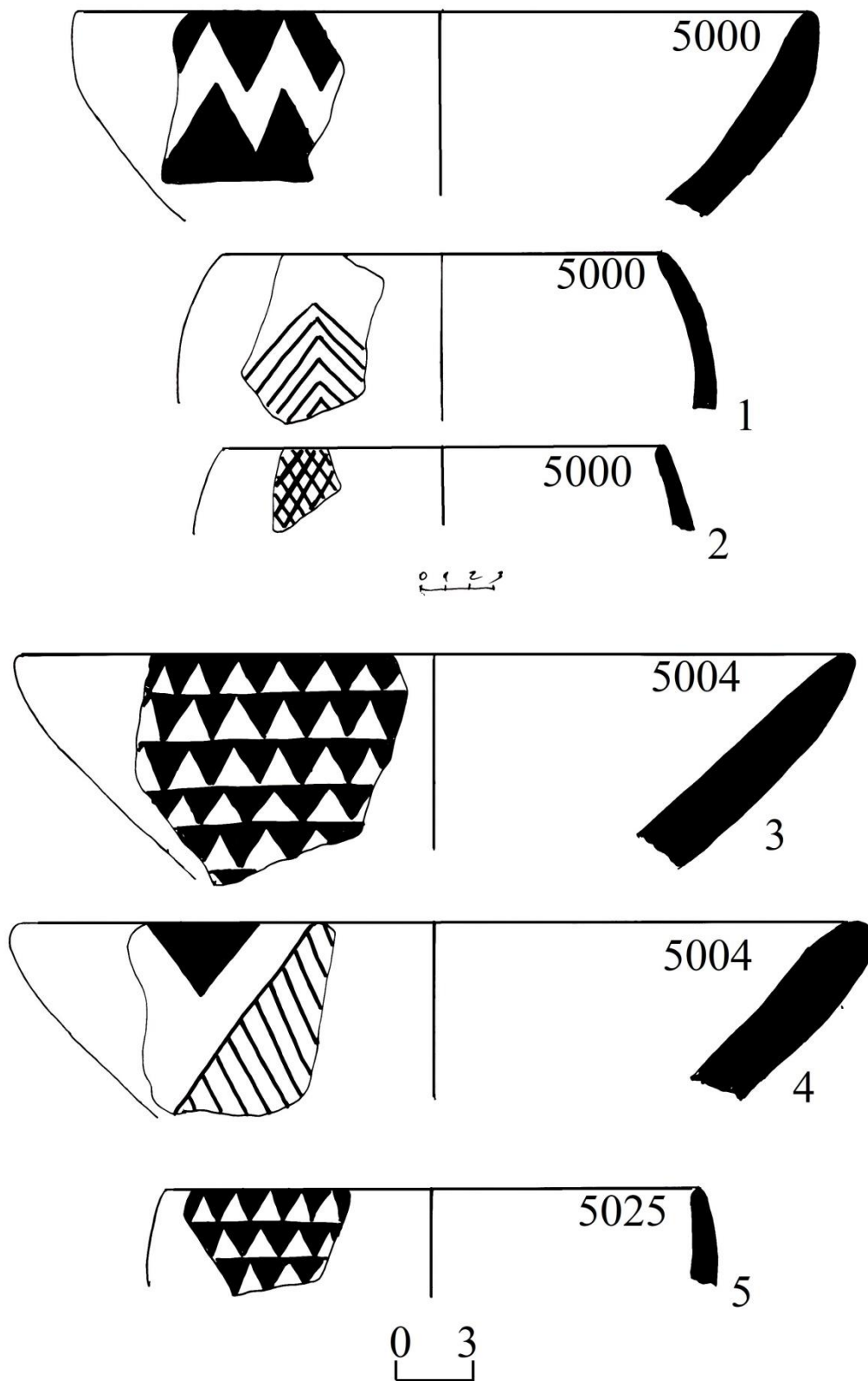
**Fig. 9:** Black-gray ceramics (V. Bakhshaliyev).



**Fig. 10:** Red pottery from the Bülövkaya settlement (V. Bakhshaliyev).



**Fig. 11:** Red, brown and gray-black pottery types: 1-4-cream-bowls type; 6-10 - brown pottery; 11-12 - gray-black pottery (V. Bakhshaliyev).



**Fig. 12:** Painted pottery of Bülövkaya (V. Bakhshaliyev).