

Excavation at Barkamran Tepe (Piranshahr) north-western Iran, 2019. First preliminary report

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Abstract: Barkamran Tepe is located 22 km of Piranshahr city in north-western Iran. This site with about 400 square meters of land area is located on a natural mound. The first excavation season of the site was created as a stratigraphic trench to determine the sequence status of the cultural layers of this site. The results of the excavation in this site led to the identification of three cultural periods including: Barkmaran I belonging to the Bronze Age, which is known as the pottery of Hassan Ali. Barkmaran II belongs to the first millennium BC with pale goldenrod-colored pottery and Barkmaran III belongs to the Islamic period which has been used as a cemetery. Regarding the excavation of the stratigraphic trench, the first settlement in this hill can be considered to belong to the Bronze Age, and is known for its colorful pottery which is more commonly known as the culture of Hassan Ali or Nineveh V. The excavation results of the first season of this site have an important place in presenting the chronology of Lavin River basin.

Rezumat: Barkamran Tepe se află la 22 km de orașul Piranshahr în nordvestul Iranului. Acest sit cu o suprafață de aproximativ 400 de metri pătrați este situat pe o movilă naturală. În primul sezon de săpături a fost realizat un sondaj stratigrafic pentru a determina secvența straturilor culturale ale acestui sit. Rezultatele săpăturilor din acest sit au condus la identificarea a trei perioade culturale printre care: Barkmaran I aparținând epocii bronzului, care este cunoscut sub numele de ceramica lui Hassan Ali. Barkmaran II aparține primului mileniu î.Hr. cu ceramică de culoarea vergea de aur pal, iar Barkmaran III aparține perioadei islamică care a fost folosită ca cimitir. În ceea ce privește sondajul stratigrafic, prima aşezare din acest sit poate fi considerată ca aparținând epocii bronzului și este cunoscută pentru ceramica sa colorată, cunoscută mai frecvent sub numele de cultura lui Hassan Ali sau Ninive al V-lea. Rezultatele săpăturii din primul sezon al acestui sit au o contribuție importantă la cunoașterea cronologiei bazinului râului Lavin.

Keywords: north-western Iran, Barkamran Tepe, excavation, preliminary report.

Cuvinte cheie: nordvestul Iranului, Barkamran Tepe, săpături, raport preliminar.

❖ Introduction

The site of Barkamran Tepe is located near the city of Piranshahr and about 50 meters south of the Lavin River. This site has taken its name of a village of the same name. This hill has dimensions of 100 x 44 meters and a height of about 15 meters from the river floor. Part of the site's northern slope has been washed away and destroyed by the Lavin River over time. The surface of the site has been used as a village cemetery in the Islamic period; and today,

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relics of Islamic tombs can be clearly seen on the surface of the site. In the 2006 archaeological survey, this site was included in Iran National Heritage List with the number 16821. The first chapter of archeological excavations in this site was conducted to answer basic questions including the status of the cultural structure of this part of Piranshahr plain in prehistoric and historical times. Along with the questions raised for this excavation, it seems necessary to mention a few things: one is that the site of Barkamran Tepe is one of the suitable sites for stratigraphy of the Lavin River basin that can study the cultural situation of the region during the prehistoric period, especially the Bronze Age; another is that, by doing excavations in this area, the colorful pottery of the Bronze Age, similar to it obtained in Hassan Ali site (A. Kroll *et alii* 2004, p. 691), Vaziri Castle of Salmas, Aliabad Tepe in Bukan (N. Faraji *et alii* 2015), Silveh tepe in Piranshahr (A. Abedi, Q. Ebrahimi 2018, p. 245) to study the cultural situation and the existing relations between the northwest of Iran and the Mesopotamian societies in Bronze Age.

❖ Background of archaeological studies of Piranshahr County

Due to its geographical location, Piranshahr plain is adjacent to the areas of Lake Urmia's basin and the northern region of Mesopotamia; Accordingly, this region is considered as one of the communication way of north-western Iran to Mesopotamia. In this region, archeological excavations have been carried out by Iranian and non-Iranian groups and a general understanding of the situation of the settlement periods of this region has been published. Stephen kroll and Wolfram Kleiss have identified evidence from the Neolithic period with pottery to the Urartu period by surveying the area (W. Kleiss, S. Kroll 1979). Subsequent surveys were mostly conducted by Iranians, including Ebrahim Kharazi in 2006, Behrouz Khan Mohammadi in 2008, Nasrin Taifeh Ghahremani in 2015, surveying Silveh Dam by Afrasiab Gravand, and Lavin River basin and Kani Dam by Reza Heidari. In the surveys conducted on different sites in this area, we can refer to archeological excavations in the site of Lavin Tepe (A. Binandeh 2008), excavation of the site of Silveh tepe (A. Abedi, Q. Ebrahimi 2018), Sarbaz tepe (K. Haji Mohammadi 2017), Kasegaran 2 (E. Bodaqi 2019) and so on. Evidence from copper and stone period to Islamic period has been identified in these excavations. The Barkamran site was surveyed for the first time in 2006 and then it was archaeologically resurveyed by Reza Heidari and was registered as a site related to the first millennium BC (R. Heidari 2017). This site was first archaeologically excavated by Ebrahim Bodaqi in 2019 and the results of this excavation have an important place in recognizing the cultural layers of the site.

❖ Field methodology

In order to accurately record the excavation stages, the basis of the excavation was based on the locus-locus system. In such a way that by changing the nature, appearance or tangible feature in cultural accumulations or phenomena, a locus was assigned to each of these changes, starting from 1000. Also, based on different Locus and dates, the Registry Number method, which was abbreviated as RN for each finding and started from the registration number 100, was used. For specific findings, in addition to assigning a RN, photography was performed at the site, and length, width, and depth (X.Y.Z) were used for each finding.

Geographical location. The site of Barkamran Tepe ($45^{\circ}13'28.28''E$ - $36^{\circ}41'33.96''N$) is located at an altitude of 1300 meters above sea level in the plain between the mountains of the

Lavin River basin in north-western Iran (fig. 1). This area has formed on a natural mound. The area is 100 meters long in the east-west direction and 44 meters long in the north-south direction and 15 meters above the river level. The northern part of the site has been destroyed by seasonal flooding of the Lavin River. The location of the Lavin River on the north side of this site was probably one of the most important water sources for the inhabitants of Barkamran Tepe. The surface of the site has been used as a cemetery for the residents of Barkamran village during the Islamic era. Geographically, this site is located in a suitable location, so that it is closely related to the north of Mesopotamia and the main site of north-western Iran such as Hasanlu, Dinkhah, Lavin and can provide more information in prehistoric studies, especially in relation to Hassan Ali type pottery in the north-western region of Iran.

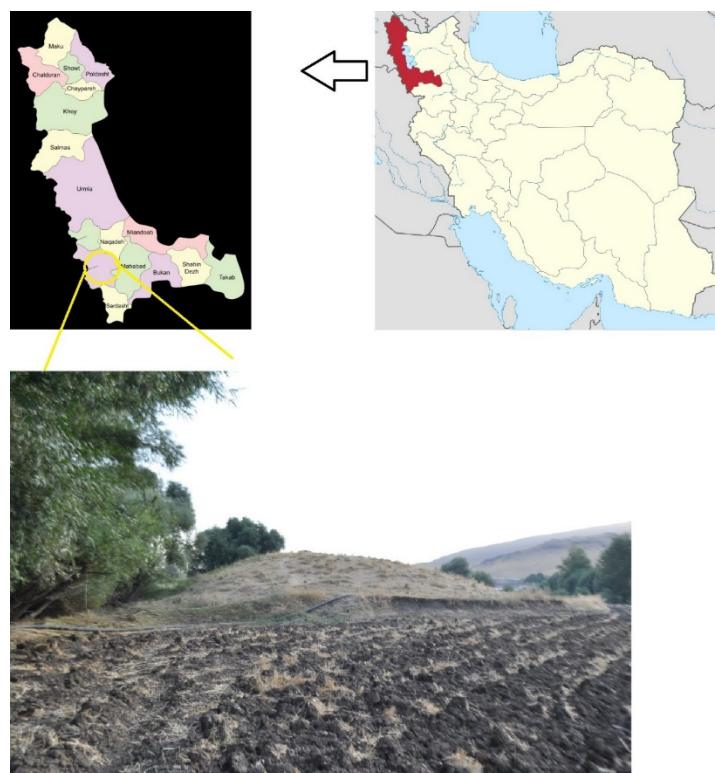


Fig. 1. Geographical location of the site of Barkamran Tepe.
Localizarea geografică a sitului Barkamran Tepe.

❖ Excavation in Trench I

After a surface survey of the site by the excavation group, a suitable site was selected for creating the stratigraphic trench. The stratigraphic trench was created on the western side of the site and the western façade of the trench was towards the Little Zab River (Lavin). It was created at the highest part of the site to provide more information about the site. It was 3 meters wide and its length varies according to the topography of the site. At first it was 2 meters, which gradually increased and in general the final length of the trench reached 10 meters (fig. 2). The highest part of trench is east corner (point A) which is used as the BM point for measuring trench depths. The other points with clockwise order include: the point B in southern corner is located at a depth of -10 relative to the fixed point, point C at a depth of -

510 cm in the western corner and point D at a depth of 515 cm relative to the fixed point of the trench. In this trench, a set of 21 Locus (locus 1001 to 1021) was identified and explored. The identified layers, from bottom to top, are: old Bronze, Historical Period and Islamic Period, respectively; These periods were named in the area of Barkamran Tepe with the names of Barkamran I (early Bronze), Barkamran II (first millennium BC) and Barkamran III (Islamic period, cemetery), respectively.

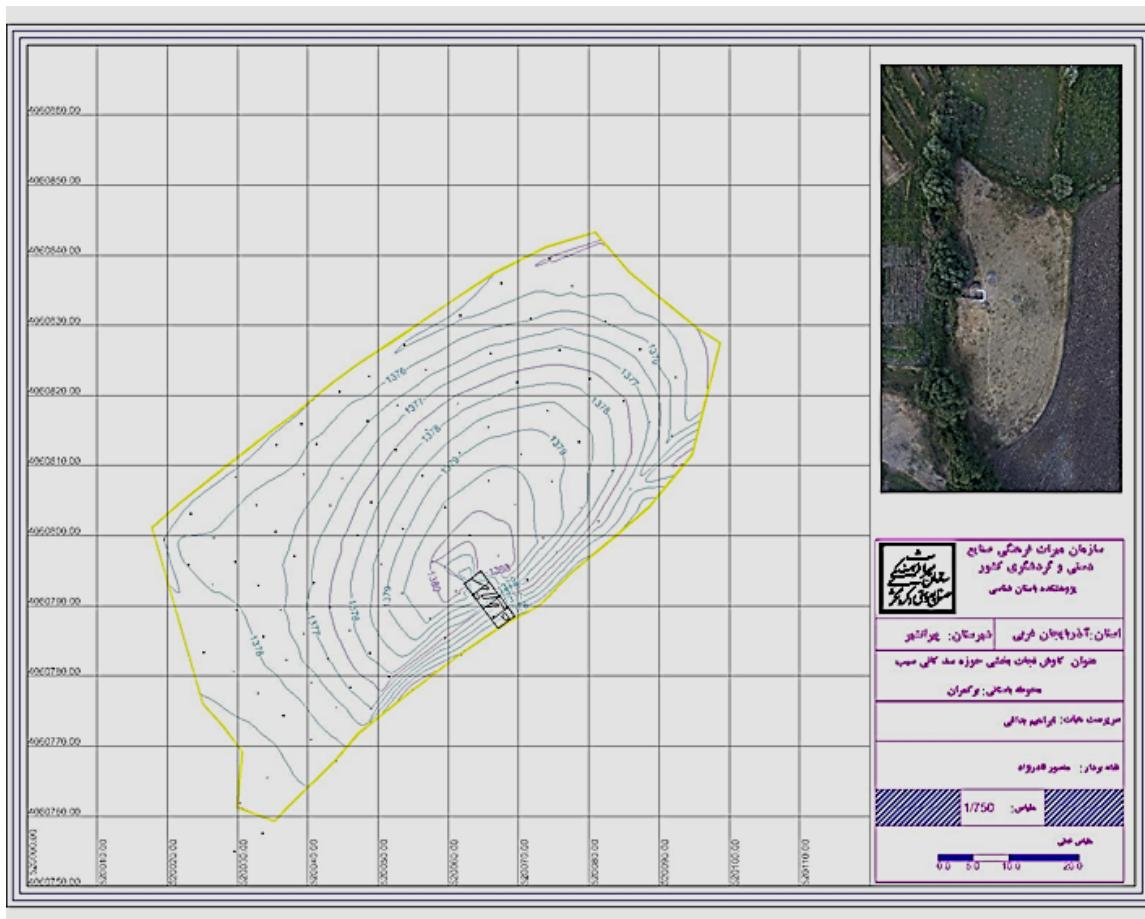


Fig. 2. Location of trench I at the surface of Barkamran Tepe.
Pozitia săntului I în cadrul sitului Barkamran Tepe.

◆ Barkamran I

This period was identified in Locus 108 to 121 to a depth of 520 cm from the BM point of the trench surface. During the excavation of these Locus, green and light brown accumulations were identified. Evidence of ash and clay remainders was identified in the contents of these accumulations. Locus 115, 117, 118, 120 and 121 were assigned as part of the cairn architectural structures. These structures are in the form of cairn with river type stones in different dimensions that have been made of dry masonry. The stones have been transported to this place from the Lavin River and have been used by the residents in the architectural structures of the site. The average width of the walls is 50 to 60 cm (fig. 3).

The remainders of broken bricks were identified of this period. These bricks are light brown in color and have a straw temper. Due to the fact that the bricks are broken, their exact dimensions are not known; However, it seems that the bricks are in the dimensions of

30 x 8.30 cm. In terms of clay data, Barkamran I is comparable to the specimens found in the site of Vaziri Castle in Salmas, Hassan Ali in Oshnavieh (A. Kroll *et alii* 2004, p. 691), Aliabad Tepe in Bukan (N. Faraji *et alii* 2015, p. 335-336) Silveh Tepe in Piranshahr (A. Abedi, Q. Ebrahimi 2018, p. 245), and Gerd Akhuran 2 Tepe (M. Sharifi 2018). Based on the absolute chronology of ^{14}C of the site of Hasanlu VII and Kul Tepe IV of Julfa, the date 3000-2500 BC can be considered for this period. This period, known as early Bronze Age in archaeological studies of north-western Iran, contains local pottery which is bounded by the Oshnavieh-Solduz valley and possibly southeast of Lake Urmia (B. Omrani 2006, p. 325). During this period, it seems that our trade-economic relations existed between the communities of north-western Iran, especially the southern basin of Lake Urmia and north of Mesopotamia, and the discovery of Uruk-type pottery in this region (A. Abedi *et alii* 2019, p. 179) strengthens this hypothesis.



Fig. 3. Architectural structures identified in Barkamran I.
Structuri de locuire identificate în nivelul Barkamran I.

❖ Barkamran II

This period was identified in Locus 104 to 107. These Locus are located at a depth of 170 cm from the highest level of the trench. This period has been reused after a two-thousand-year interruption from the Barkamran II period. The layers identified from this period are similar to an accumulation of light brown soil; Inside them, the grains of lime are visible. The remainders of some part of the architectural structures that are in the form of a cairn wall were identified from this period. The walls have a stone structure and the stones are of cobblestone type of river. The average width of the walls is about 60 cm. From this period, part of a pavement was identified (fig. 4). Interesting specimens of this type of pavement has been identified in the site of Rabat Tepe in Sardasht in the distance about 65 km of this site belongs to the first millennium BC (B. Kargar, A. Binandeh 2009, p. 122-123). The potteries of this period are more similar to the potteries of the first millennium BC in the region. It seems that this period has been reused by the inhabitants of the region after a interruption of about two thousand years.

This period generally includes 1000 to 1 BC in Iranian archeological studies. During this period, we see the formation of a large empires such as Urartu and Mana in north-western

Iran, evidence of which has remained in areas such as Hasanlu IV, V (O.W. Muscarella 1971), Aqrab Tepe (O.W. Muscarella 1973), Rabat Tepe (B. Kargar, A. Binandeh 2009), Qalatgah (M. Van loon 1975) Bardineh Castle (Y. Hassanzadeh 2009) and so on. The first millennium BC in north-western Iran is considered as one of the most important periods of study in Iranian archeology. So that this region was attacked by Assyrians during this period, especially in 714 BC. Identification of evidence from the first millennium BC in this site indicates the position of Piranshahr plain in the political developments in north-western Iran and Mesopotamia.



Fig. 4. Part of the pavement of Barkamran II.
O parte din pavajul din nvelul Barkamran II.

❖ Barkamran III

The last period of the site of Barkamran Tepe is related to the structure of the graves of the Islamic period. This period was identified in Locus 101 to 103. The graves are located at a depth of 80 cm from the highest level of the trench. These graves have been used as the village cemetery after the formation of the current Barkamran village near the site of Barkamran Tepe (fig. 5). Due to their Islamic nature, the graves were created in the east-west direction so that the face of the corpse was toward the south (Kaaba / Qibla). The graves have a stone structure and have no burial gifts. Until about 20 years ago, this area was the only village cemetery, which gradually a new place was chosen as a cemetery. However, some of the graves has been known to the villagers. Barkamran III is considered as the last period of Barkamran Tepe site and after this period, the site is completely abandoned.



Fig. 5. Islamic grave of Barkamran site; Barkamran period III.
Mormânt islamic din situ Barkamran; perioada Barkamran III.

Early Bronze Age of north-western Iran is part of a vast culture known as the Kura-Araxes culture (R. Rezalou, N. Zabanband 2015, p. 17). However, recent excavations, including stratigraphic excavation of Barkamran site shows that a local culture has been formed in the southern parts of Lake Urmia in the Bronze Age, which is different from other parts of this region. The excavation of the stratigraphic trench on Barkamran at a depth of 5.20 m from the BM point of the trench, provided a general understanding of the condition of the cultural layers of the region (fig. 6). Based on this trench, the condition of architectural and pottery structures was obtained. In early Bronze Age, this region was part of the cultural field of Hassan Ali pottery (Nineveh V); This region seems to have been influenced by the cultures of northern Mesopotamia in the Bronze Age.

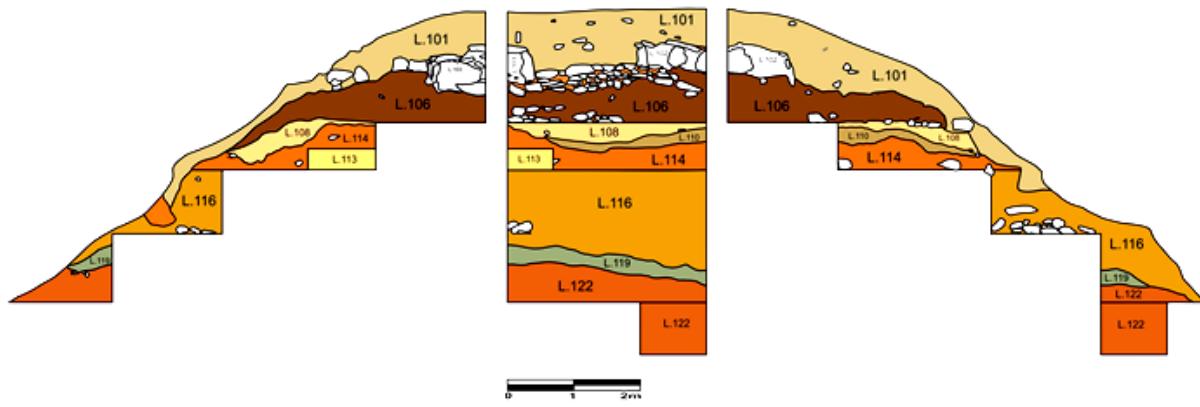


Fig. 6. The design of stratigraphic trench walls.
Stratigrafia sitului după profilurile şanturilor.

❖ Identified cultural data from the layers of Barkamran site

Pottery

The pottery of Barkamran site belongs to early Bronze Age and the first millennium BC (fig. 7). The potteries of the first millennium of the site was not very significant and distinctive. However, early Bronze pottery of the site is of the type of Hassan Ali pottery of the north-western region of Iran. These potteries were identified in the period of Barkamran I and are comparable with the specimens found in the site of Vaziri Castle in Salmas, Hassan Ali in Oshnavieh (A. Kroll *et alii* 2004, p. 691), Aliabad Tepe in Bukan (N. Faraji *et alii* 2015, p. 335-336), Silveh Tepe in Piranshahr (A. Abedi, Q. Ebrahimi 2018, p. 245). This type of pottery with painted decorations is wheel-making (tab. 1).



Fig. 7. Distinctive potteries of early Bronze Age (Hassan Ali) in Barkamran Tepe.
Ceramică specifică epocii bronzului (Hassan Ali) de la Barkamran Tepe.

No.	Part	Thickness	Diameter	Construction technique	Temper	Inside color	Temper color	Outside color	Inside covering	Outside covering	Motif
1	Edge	0.1	9	Wheel maker	Mineral	Pale goldenrod	Pale goldenrod	Pale goldenrod	Thick earthen	Thick earthen	Strip
2	Edge	0.2	—	Wheel maker	Mineral	Light brown	Light brown	Dark brown	Thick earthen	Thick earthen	Strip
3	Body	0.3	—	Wheel maker	Mineral and organic	Pale goldenrod	Pale goldenrod	Pale goldenrod	Thin earthen	Thick earthen	Geometric
4	Body	0.1	—	Wheel maker	Mineral	Brick red	Brick red	Brick red	Thick earthen	Thick earthen	Strip
5	Body	0.1	—	Wheel maker	Mineral	Brick red	Brick red	Brick red	Thick earthen	Thick earthen	Geometric

Tab. 1. Pottery features of Barkamran Tepe.
Caracteristici ale ceramicii de la Barkamran Tepe.

Stone

Five pieces of stone relics were found in the excavation of the stratigraphic trench of the site on Barkamran Tepe. The rocks are made of sand. The stone relics of the site can be classified into two categories in terms of their function including decorative relics and functional relics. Decorative relics have smaller dimensions and are mostly used as necklace. From this type of relic, two pieces were obtained in the stratigraphic trench, in which a hole with a diameter of about half a centimeter was made to pass the thread. Relics of this type are generally used for grinding grains. These stone relics have a polished surface. A hole of 10 cm deep has been created to pour liquids and sometimes grind grains on the surface of one of these stones. These stone relics were obtained from the period of Barkamran I (fig. 8).

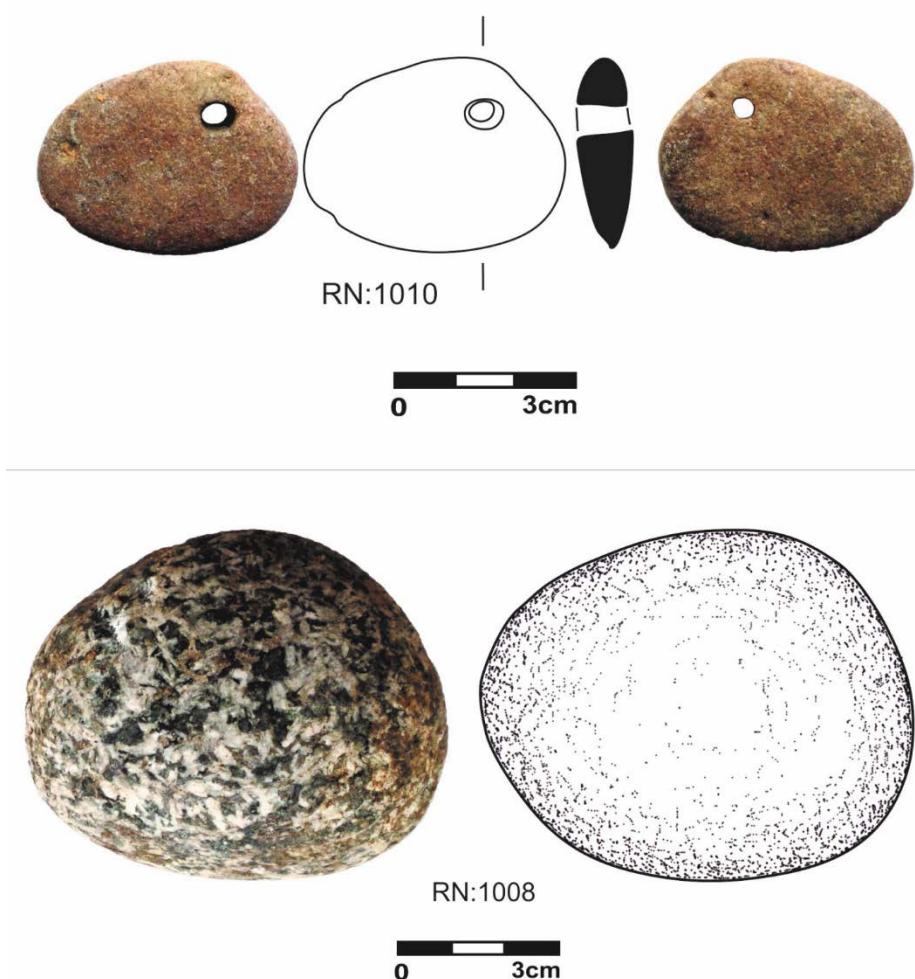


Fig. 8. Stone relics found in the stratigraphic trench of Barkamran site.
Obiecte de piatră din șanțul stratigrafic de la Barkamran.

❖ Conclusions

As mentioned, the site of Barkamran Tepe has several settlement periods; Its archeological deposits belong to the early Bronze Age, the first millennium and Islamic periods. This site is important in the archaeological studies of north-western Iran due to its proximity to the distinctive sites of Lake Urmia's basin such as Hasanlu, Haftvan, Dinkhah,

Rabat, etc. and its proximity to the areas of northern Iraq. These factors have caused the area to have a special role in the early Bronze Age and the pottery of this period is very similar to the specimens of Lake Urmia's basin in terms of decorative motifs. Due to the less information available about the status of cultural periods in Piranshahr city, the results of this research can provide a good perspective on the cultural status of the communities living in the region in prehistoric and historical times. In the first chapter, traces of the architectural structure of the communities living in the area were also obtained from the excavation which was generally focused on stratigraphy and explaining the status of the settlement periods of the site of Barkamran Tepe.

The pottery data of the type of Hassan Ali pottery obtained from the Barkamran I period increased our knowledge of the cultural status of this region in the Bronze Age. According to these potteries, the southern basin of Lake Urmia has a local culture, whose pottery has various decorations. These potteries were specific to these areas; Also, considering the proximity to Mesopotamia, it seems that in prehistoric times, there were trade-economic relations between the communities living in north-western Iran and northern Mesopotamia.

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