An Archaeological Analysis of Ruined Rural Settlements around a village near Ardabil City (Case Study: Viyand Settlement, Guran Site and Yel Suyi Site).

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Abstract: Ardabil province, with its North-South expansion in North-Western Iran and the Eastern part of the Azerbaijani plateau, includes intermountain plains and high mountains. Due to its diverse ecosystem and various latitudes, this province has been a suitable platform for human settlement in different periods of human life. According to archeological evidence, the region of Ardabil has been inhabited since the 1st millennium BC. The whole area is covered with ancient hills, or in other words, settlement areas, which were once fortresses or towns or villages. According to the existing ancient monuments, this region was one of the leaders of this civilization in the early days and the beginning of the formation of human civilizations, especially in the field of pre-historical civilizations, and this situation has continued during historical periods. As information and historical documents show, this region has played an effective and important role in attracting civilizations and transferring it to the other side, as well as spreading its civilization to the adjacent areas, as this has been one of the most important centers of civilization during the Sassanid era. In the Islamic era, it had a special position. In any case, although the evidence from this area is very rare, there is no doubt that today, a wide variety of ancient monuments from each of the past civilizations cover the entire plain. Considering the above points, it seems that the Ardabil region is a hidden and covered page of the history of Iran and will be the solution to deciphering ambiguous events, being seen as a possible means of communication among known events. The purpose of this paper is to show the physical and archeological nature and the dark and hidden corners of rural and urban settlements such as Viyand, Guran and Yel Suyi (which unfortunately have only a few traces left today). This research is a descriptive-analytical study based on library, documentary, and field studies.

Keywords: Ardabil, Viyand, Guran, Yel Suyi, Settlement Pottery.

Introduction
Although the preservation of cultural heritage has gained a global reputation and dependent organizations are trying to restore and preserve

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them by establishing headquarters, there is no doubt that today, nations and people need to know each other more for dialogue and consultation, and therefore, the cultural heritage and historical monuments of each region are among the most important tools of this dialogue. The civilization heritage of any land is like a gate which opens to the spirits, moods and customs of the inhabitants of that land. It is compulsory for everyone to know and recognize the effects of civilization and bright faces everywhere. Therefore, from every gate, in order to see the culture of the people everywhere in the world, we see a very clear message from the heart of history engraved on the inscription of time, and that is the future belongs to a nation that knows its past better than the others. The generation that forgets its distant past perishes, and the only way to escape from this deadly path is the awareness and consciousness of common people who understand and comprehend the importance of ancient monuments. In fact, the purpose of this study is to provide a clear picture of the historical past of this region to future generations and to give the impression that in the archaeological equations of a region, each ancient monument is unique like a human being and has its special message or it is like a book that opens a new meaning of the past to us every time it is read.

This research is basic, but its information and results can be used to recover the original Iranian identity and the developmental one and the macro-planning in the field of the methodology of touristic activities and issues such as the growth of global cultural awareness, and to provide study structures to identify the cradles of civilization and world culture and pay special attention to the effective and privileged role of Iranians in establishing world culture and recognizing the legacies left in this ancient land and the cultural riches of the ancient nation as one of the practical strategies (application of design). Based on this, the results of the plan are responsive to the legitimate needs of society, especially universities and scientific and research centers of the country and other relevant agencies in the present and future.

VIYAND

Two kilometers away from the village of Kalkhvoran-e Viyand, there is a high sedimentary hill, the Southern side of which has become a high wall due to the erosion of the bed of the Balkhlo River. A Dakhma stone (cemetry) with an entrance door and an absolutely simple room, with no decorations and junctures, has been excavated at the height of approximately 50 meters above the bed of Balkhlo Chai on its slope. From the meandering body of the mountain, one can enter the old site in front of the door of Dakhma. The opening of Dakhma is 1-meter-wide and 1.23 meters high and
its approximate diameter is 0.7 meters\textsuperscript{1}. The general view of the Dakhma outside the village has been shown in Image 1.

![Image 1](https://via.placeholder.com/150)

**Fig 1. Wind Kalkhoran Village, Crypt outside the Village**

Inside the Dakhma, there is a space in the shape of a triangle pyramid with an incomplete and long base and the sides of the base of the pyramid or the floor of Dakhma are as it follows: surrounding side of entrance door is 0.7 m, East side 3 m and West side 3.8 m. The Eastern angle of the doorway is close to right and the sharpest angle is the Northern angle. The highest height of Dakhma is right behind the gate, which is 1.8 meters.

A picture was engraved in the South-Western corner of the Dakhma, which may be linked to the inability to present a magnificent exterior majesty or indifference to exterior views due to the use of elaborate stratum carvings. This image, which has the general shape of a triangle, is a zigzag margin with the length of 1.26 meters on the right side of the triangle and 1.06 meters on the Western side, the base of which is 0.96 meters.

Inside it, a smaller triangle is with the base of 0.55 m and the Eastern and Western sides are engraved at 0.85 and 0.75 m, respectively, having an echo, although weak, which can be discerned from the artist's conception. The man-molded "decoration" is engraved with a series close to the shape of a triangle and the hands, feet and the body that surround the triangle cover almost its entire space. There are also letters engraved on the margins, most of which have been destroyed. The triangle is the only shape

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that can be oriented, and its upward or downward direction affects its meaning, and it is clear that the first point in the magical triangle is Pythagoreans; Tetrakys. Expressing and declaring is like revealing and bringing the concept, desire and thought to the material world. In addition to what has been said, the manifestation form is the complete unity of the constituent factors of the work of art, which includes: subject, content, material and form. In addition, the form specifically refers to the internal relations and the sensory-perceptual aesthetic structure of the totality of the work of art (or its form in general). Such a design, which is almost symbolic, tends to be interpreted as an element of Islamic architecture, because in a religious atmosphere, the Muslims' undeniable opposition to pictorial decorations, accompanied by idolatrous inspiration, encouraged the architect to focus heavily on abstract decorations.

In addition, houses in most cases are composed of several spaces with different niches and doorways at the floor of the neck between the two hills, most of their roofs have collapsed, but the entrances and stone walls remained intact. Numerous works of stone houses have also been erected on the Northern ridge of the village's sedimentary mountain, the walls of which are perpendicular to the base and, above it, it takes the form of a complete pyramid with a hole at the top. In the map of all these examples, no considerable order can be seen, and the rooms are specifically rectangular or square, wide or narrow with back and forth walls, or deformed, arranged without special attention. The general view of the Dakhma inside and the Eastern side of the village has been shown in Images 2, 3 and 4.

Fig 2. Wind Kalkhoran Village, Eastern Dakhma of the Village
The unique and diverse pottery of different Islamic periods of Oltan castle is noteworthy and very prominent. In the castle’s surroundings, there are some hills which were small building units. The major and main
buildings of the castle are in its Eastern side in which its major part has been destroyed due to the intense overflow of Araxes on this side. 

Although it is not yet possible to talk certainly about the structural cause of these architectural spaces, the study of the limited works obtained from this area suggests that such a pleasant and important area has many ancient remains belonging to the historical period, especially the Parthian, early, and middle Islamic periods.

In the Persian dictionary, “Dakhma” means the place of graves, the underground house, the place of the dead body, the basement or the building above the mountain and far away from the city, where the bodies of the dead are placed; Hence, the most natural interpretation which can be deduced from this ruined place is to consider it the only disturbed survivor of pre-Islamic burial architecture. But whether it can be recognized as a burial basement today, and whether it is correct or not, it cannot be verified by the available information. It is worth noting that there is no significant tradition of free burial houses in pre-Islamic times. The Tomb of Cyrus in Pasargadae is an exception that proves there is a rule. The next Achaemenid kings were placed in carved pits in the heart of the cliffs. It seems that these tombstones continued until after the fall of this dynasty. The habits of the Parthians of Iran - by judging the graphic descriptions of Greek sources - did not accept the establishment of tombs. For the Sassanid kings, although they were not all equally supporters of Zoroastrianism, there were unique personal arrangements in that religion about the bodies of the dead. According to Zoroastrian teachings, the corpses of the dead pollute the earth because of the filthiness and satanic pollution caused by death. As a result, the religion undermines any desire to sanctify the dead and the burial architecture associated with it. The corpses were placed on raised platforms or in tombs located in remote locations.

At the same time, it is enough to note that the force of struggle and resistance was one of the principles of the religion of Mithraism. In addition, one of the pillars of this religion has been based on the invincibility and immortality of this phenomenon. Worshippers of Mithras believed that the sun is invincible and eternal, and this invincibility and immortality led man to the sanctification of the mountains. Hence, the worshippers of Mithras believed that Mehr was born of stone- because it is invincible, permanent and eternal. Given this fact, it is obvious that the presence of such human-made spaces, if we do not say that it is an expression of religious symbolism, it is definitely an emphasis on a religious center. In addition, such houses, regardless of its primary role, may have been built to meet the needs of indigenous peoples who did not need permanent houses, such as a group of

2 Fehervari, Ceramics of the Islamic world, 2000, p. 89.
farmers, or shepherds and herdsmen who stop there for a short period of time to use the surrounding pastures in certain seasons of the year or as a place for gatherings and temporary settlements, while migrating from one area to another.

Of course, on the one hand, it is necessary to note that the location of some of these temporary settlements and communities may have gradually become a permanent community and village⁴.

On the other hand, this place could have functioned as a place of human life or permanent settlement in certain circumstances. In this way, special political conditions shape the architecture of these structures inside the rocks. However, it is highly unlikely that these structures were essentially public buildings. Because, given the existence of inter-montane plains in the region, the intelligent human of the past could never easily leave the calm and peaceful environment of the plains and take refuge in the hard and impassable and mountainous areas.

Moreover, on the one hand, it is also noteworthy that in the Islamic period, the development of rock architecture with the use of worship or burial place was closely related to the spread of Sufi ideas. In such a way that after the devastating Mongol invasion of Iran, devastation and calamity made Sufism the most important spiritual and intellectual source of the people, and many turned to it. On the other hand, it did not take a long time, given the fact that the Mongol Ilkhans were fascinated by Sufism. The flourishing period of Timurid continued until the emergence of the Safavids. In this case, it is possible that the safe and secret facilities of this remote point for the Sufi community from the 7th century onwards were a cozy and ideal environment. Whether this recognition is correct or not, it cannot be proved by the available information.

A variety of potteries have been collected by archaeological excavations of this place and around it, most of them belong to pre-Islamic (Parthian and Sassanid) and medieval Islamic century. The design of the pottery samples collected in the archaeological studies of this place and its surrounding site has been included in Images 5 and 6.

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⁴ Negahban, Archeology of Iran, 1997, p. 351.
Fig 5. The settlement of Kalkhvoran-e Viyand village, 1, 2, 3, 4. parts related to medium bowls
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Fig 6. The settlement of Kalkhvoran-e Viyand village, 1, 2, 3, 4. pieces of jar-shaped pottery with large volume and capacity. 5, 6, 7. Fractures of bowl containers.
In general, the potteries of this area are divided into two groups: unglazed and glazed. In terms of material, these potteries include delicate and semi-rough types, and according to the different parts of the edge and floor, and in terms of shape, they include small and large vessels. Some vessels have a dense and firm texture with a paste of fine particles of sand and minerals, but others have a breakable and porous texture and in addition to sand, they also have plant materials. The common color of unglazed pottery is pale goldenrod and black, and as far as decoration is concerned, they are divided into two categories: simple and painted. The second group of pottery documents are glazed specimens. The piece of glazed pottery is generally delicate, and in most cases, both the interior and exterior level are decorated with light brown, red brick, green, brown, and light blue glazes.

Since the effects of smoke are seen on some semi-rough parts, a number of first type pottery can be placed among kitchen dishes. The pottery of the first group can be divided into two groups, handmade and wheel made, and their cooking is mostly complete.

The pottery of Sassanid period of this area is completely different from the pottery of the Parthian period in terms of the shape of vessels edge. In Parthian’s pottery vessels, the edge is still thin and slightly turned outwards, while the pottery of the Sassanid period has a short or long neck and the edge is fixed vertically on the neck and is thick and flat. The quality of Sassanid pottery, like the Parthian period, is relatively rough and there is a noticeable heaviness in it. In general, the pre-Islamic pottery of this ancient place was limited to vessels in order to meet their daily needs. Apart from pre-Islamic pottery, glazed pottery pieces of various colors belonging to the Islamic period have been obtained from the lands around the village, the hill levels of Chelleh Khaneh, as well as from the inside of rocky houses, which are mostly comparable to the samples observed in adjacent ancient sites. The pottery pieces show that the pottery vessels used in this place is of poor quality, non-luxurious, and merely functional, and that its motif pattern is different and seldom exactly the same. The potteries obtained from this place, despite the differences in forms in the details of the cross-sectional shape, are technically and in terms of cooking divided into three parts: delicate, ordinary and rough dishes.

Considering the traces and remnants of pottery found in this area, they can be mainly classified in the chronological table of the region as it follows:

(a)- Historical periods, especially the Parthian period
(b)- Early and Middle Islamic period

The pottery materials of this settlement are divided into the following types in terms of variety of form, color, glaze and the whole structure of pottery:

1- Glazed pottery with clear blue glaze
2- Glazed pottery with green glaze and carved motifs. Their chamotte was made of gravel, soft sand and plant materials.

3- Simple glazed pottery in red groundmass color

4- Pale goldenrod pottery to light cream brown with light brown glaze on the edge and inside the body

5- Spherical urns without neck or with a neck having an edge inclined to the inside or an edge turned outwards with a groundmass of light brown and decorations of orange colored plant motifs

6- Pieces of simple and rough handmade black pottery vessels that are made of fine sand chamotte.

7- Unglazed pale goldenrod pottery with an edge inclined inside, the edge of the vessel being decorated with three horizontal strips from the outside and the pottery paste is soft and its chamotte is made of plant.

**GURAN SITE**

The ancient site of Guran, with the geographical coordinates of 48 degrees, 10 minutes, and 6.01 seconds East longitude and 38 degrees, 18 minutes and 8.08 seconds North latitude, is located at a distance of approximately 12 km Northwest of the center of the province and in the lands of Baruq village of the central part of Ardabil city, its height from the sea level is 1448 meters.

The site consists of a prehistoric cemetery and an ancient hill, located on the top of a high natural hill, and its highest point from the level of the surrounding lands on the Eastern slope is about 15 meters. The hill looks almost like an ellipse, and the effects of destruction caused by natural factors are seen in the form of cracks and grooves of water passing. Also, the excavation of several holes by unauthorized explorers at the top and slopes at all four main directions has caused further destruction of this hill and has somewhat reduced it from the scope of scientific use.

The Northern front of the hill has a very steep slope and has given it a completely natural shape and an impenetrable position. This situation also dominates the Eastern front of the hill; in addition to the many natural beauties and having a very steep slope, in the part that is connected to cliff, due to the special situation of the region, stone distension has appeared, which is the source of production of floods from this region. However, the Western side of the hill, with a gentle slope and without any special complications, gradually ends in a hard and strong rocky slope where the ancient cemetery is located. The remained scattered archaeological evidence

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5 Habib Shahbazi Shiran, Analysis of causal or explanatory: Archaeological and architectural monuments Ardabil region in the Islamic period, 2014, p. 49.


7 Habib Shahbazi Shiran, Analysis of causal or explanatory: Archaeological and architectural monuments Ardabil region in the Islamic period, 2014, p. 49.
represents the reality that the settlement deposits in this area are not unique to the hill itself, and that the traces of human settlement can be clearly seen on the rocky slopes of its Northern, Southern, and Eastern sides. From a chronological point of view, it completely introduces several settlement periods (from prehistoric times to the Islamic Middle Ages), and the stratigraphy of ancient deposits (reserves) in a region does not guarantee the recognition of macro-cultural and artistic horizons of the whole range of this ancient site. Undoubtedly, the specific geographical position, the ease of access to water resources of the land and the ideal strategic location of these lands have been the most important effective factors in the formation of human groups and their continuity throughout history.

On the hill and close to the Southern slope of the hill, the remains of a two-stack defensive wall about 2 meters in diameter can be seen, which is made of dry stone (dry stack) with small and medium carcass stones and no mortar has been used in its construction and strengthening. The construction method of this defensive wall is that of placing two rows of stones along the wall boundary, the foundation stones are installed in a good condition on the ground, in such a way that it has the stability of standing in the soil. It seems that the layer-by-layer wall (period to period) has been built to the desired height and its width has always been reduced as it rises, and the spaces between the two walls have been carefully packed with smaller stones. Despite the defensive potential of the site and the special conditions of this hill regarding a strategic position, there has been no evidence of the existence of the tower on the works and remains of this wall so far, which in addition to the defensive aspect also plays the role of supporting the wall. Considering the structure of this architecture and the special physiography and topography features of this site, it seems that the existing evidence tends to interpret it as - a small fort or castle, or a guard station - a road toll-house (Rahdarkhaneh), or a small castle among the towers and fortifications of the city, or it may be in the middle of a large castle, but without new evidence, it is not possible to finalize the matter, and to arrive at more facts to determine this and to properly allocate it, for this purpose requires in-depth and extensive research and in detail archeological excavations. Of course, except for the Southern slope wall, all the walls of this structure have also disappeared due to the lack of reinforcement of the structure, its construction on dilapidated sloping slopes or accumulation of soils from illegal excavations in the area with the old idea of achieving treasure and also due to excavation operations in order to dig a canal.

Despite the serious damage to the body of the hill and the destruction of parts of it along the water canal, the pieces of evidence from archeological

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studies and major excavations carried out by antiquity robbers in previous years, emphasize that:
1. The architecture discovered from the heart of this area is based on the use of stone in the foundation and walls.
2. Ovens and stoves were used to create heat, their fuel of which was wood.
3. The walls were mainly in the form of dry stones (without the use of mortar) and the level of foundation of the stone is wider than the walls on which it is placed.
4. In terms of form and type of architecture, the structures do not follow a single pattern.
5. Archaeological evidence and various other factors indicate that the slopes and margins of the Northern, Southern and Eastern sides of the settlement areas and the Western slopes of the hill surround the cemetery located here and it seems that the hill itself was used as a fortress or residential castle.

Pottery, as the most important and major data in archaeological studies, has the highest frequency among the ancient remains of this site. Pottery pieces can be seen on the entire surface and slopes of the hill, as well as in flat lands, most of which are handmade, and with a polished surface in terms of material including delicate, relatively delicate and medium types, and given to different pieces of edges, bodies, and floors in terms of shape, they have containers including bowls, plates, large trays, and rarely large pottery vessels at a large scale including jars. Baking pottery is mostly complete, and fine grained and medium sized minerals have been used for their chamotte.

Pottery with engraved motifs technique in a slip known as Sgraffiato (Aqkand type), belonging to the 11th and 12th centuries AD, and pottery with Slipware (Slip) cover, belonging to the 8th, 9th and 10th centuries AD are among the good samples of this area. The abundance and distribution of pottery with engraved motifs technique in a slip known as Sgraffiato (Aqkand type) in this place and other ancient hills of this valley shows well that Ardabil has been one of the most important centers for the formation and development of this method. In this type of pottery, whose source of production is considered by scholars to be from Egypt and its growth in Mesopotamia, Syria and then Iran, engraved motifs had been done on colorful glazes such as green, yellow and purple, and then private places of the vessel had been painted. The purpose of using this technique was to prevent other paints from being sprayed or escaped. These types of vessels were generally delicate and polychrome, and they had yellow, brown, green, and sometimes red to brown colors.

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10 Fehervari, Ceramics of the Islamic world, 2000, p. 49.; Lane, The Early Sgraffito Ware of the Near East, 1937, p. 8.
The designs and motifs on the pottery are mostly scrolls and plants. Animal motifs and rarely human motifs are another part of the decoration of these potters. In the engraved motifs on these pottery vessels, it seems that separate colors were also used to follow metal vessels used in the excavated parts of wire with different colors from the vessel ground. Samples of one-color vessels made of stone-paste were also obtained from the Guran site, the most common of which were broken bowl vessels belonging to the Seljuk period. The multi-chrome glazed pottery design of the site, obtained through field research, has been shown in Images 7 and 8.

Fig 7. Guran, polychrome glazed pottery, pieces related to bowls or plates, pottery samples with engraved technique in a slip known as Sgraffiato (Aqkand type), Seljuk period of the 11th and 12th centuries AD.

Fig 8. Guran. 1. polychrome glazed pottery, pieces related to bowls or plates, pottery samples with engraved technique in a slip known as Sgraffiato (Aqkand type), Seljuk period of the 11th and 12th centuries AD. 2. polychrome glazed pottery, pieces related to bowls or plates, pottery samples with Slipware (Slip) cover, belonging to the 8th, 9th and 10th centuries AD.
It is also noteworthy that the oldest Iranian pottery found with a stone-paste belonging to 1139 AD and the first example of this type of pottery found in Egypt dates back to 1290 to 1295\textsuperscript{13}. Scientific studies on the works and documents of the terrestrial surface of the hill, which is considered one of the most important sites of this valley in terms of the extent and variety of works, show the continuity of settlement and living in this place from ancient times to the Islamic Middle Ages; but the subject cannot be finalized without systematic archeological excavations and new evidence.

**YEL SUYI SITE**

The ancient site of Yel Suyi Castle, with the geographical coordinates of 47 degrees, 45 minutes, 6 seconds East longitude and 39 degrees, 45 minutes, 33/05 seconds North latitude, is located at a distance of approximately 3.7 km from the village of Abbas Ailiu, in Anguti district, in the North-West of Ardabil, and its height from the sea level is 895 meters. This ancient site consists of a small castle, located on a high natural hill, and a residential area, located in the Southeastern part of the hill, as well as three sites of cemetery located on the West, Southwest and the North-East sides of the castle. The building of the castle had been built on top of a high natural hill, part of its peak is rocky and separated from the surrounding mountains by the water flowing adjacent to the Sumbar River, valleys and deep grooves, and the height of the highest point of the hill relative to the bottom level of the Sumbar River on the North-Eastern shore of the castle is about 132 meters.

The Northern front of the hill has a very steep slope that gives it an impenetrable position in a completely natural way. This situation also exists on the Eastern front of the hill, and in addition to its abundant natural beauty and very steep slope, rocky distention or swelling have appeared in the part that connects to the cliff due to the special situation of the region, which is the source of floods in this area. The access road to the castle is also blocked from the south side due to the presence of deep cliffs, and only in the Western part, which leads to the residential area, the hill has a gentle slope that reveals the access road to it. Undoubtedly, the specific geographical location, the ease of access to water resources of the land and the very suitable strategic location of these lands have been among the most important effective factors in the formation of human groups and their continuity throughout history. The location of the Southern and Northern sides of the castle, the architectural spaces that have been revealed as a result of unauthorized excavations, the water reservoir (ab anbar), and the wells

\textsuperscript{13} Morgan, *Islamic pottery*, 2005, p. 137.
created in the heart of the rock have been shown in Images 9, 10, 11, 12 and 13.

Fig 9. Yel Suyi, the South side of the castle.

Fig 10. Yel Suyi, the Northern side of the castle.
Fig 11. Yel Suyi. 1, 2. Architectural spaces that have been revealed as a result of unauthorized excavations.
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Fig 12. Yel Suyi, a space that was probably a water reservoir.

Fig 13. Yel Suyi, a well formed in the heart of the rock.
On the high natural hill, there is no evidence of the defensive function of the castle (the walls surrounding the castle and the guard towers) and application of the name of the castle to this place is due to the defensive potential of the place and the special settlement conditions of this hill in a strategic situation.

Although no traces have been left on the main fortifications and structure of the castle, the major excavations carried out by the antiquity robbers in previous years have revealed little evidence of the structural signs of the spaces related to the period of expansion of the building, which include:

1- Large carcass and rubble stones that are the remains of various architectural structures.
2- The lower layers of the wall and the remains of scattered bricks with dimensions of 23 × 23 × 6 cm, and Sarooj mortar obtained from unauthorized excavation, which indicates the existence of a large brick building with a regular design.
3- Works on the wall of a room with dimensions of 0.8 × 1.5 m.
4- The works of a quadrangular hole from Northwest to Southeast and with dimensions of 6 × 2.9 m, which is carved from the heart of a piece of hard rock and is located in the highest point of the hill and the distance of its Southern wall from the cliff edge is about one meters. This carved hole created a pond that may have been used as a water reservoir.

- The traces of a well on the Eastern side of the hill and at a situation where relatively steep parts of the earth's surface begin, the well is carved up to a depth of 5.5 meters in the integrated rock and the diameter of its almost circular mouth measures 2.7 meters.

Pottery, as the most important data in archaeological studies, has the highest frequency among the ancient remains of this site. Throughout the entire surface and all the slopes of the hill, as well as in the surrounding flat lands, pottery pieces can be seen, 79.3% of the samples are handmade and 20.7% of them are wheel made and have a thick or thin clay covering the color of the pottery itself. The baking of potteries is mostly complete, and mineral of large grain sand (32.8%), fine grain sand (31%), medium grain sand (31%) and a combination [vegetable + large grain sand] (5.2%) has been used for their chamotte. Potteries not completely cooked usually show a brown pottery core and lighter brown tonality. The percentage diagram of the type of collected pottery construction has been shown in Image 14.
In terms of material, these potteries include medium types (inner wall 77.6% - outer wall 60.3%), delicate (inner wall 12% - outer wall 27.6%) and rough (inner wall 10.4% - outer wall Exterior 12.1%), and considering different pieces include edge (69%), body (13.8%), pipe (5.3%), ball-shaped pottery (3.4%), pottery piece (3.4%), stamp (1.7%), cover (1.7%) and token (1.7%). In terms of shape, they mainly contain vessels including bowls, plates, drinking vessels and rarely include pottery vessels of large dimensions such as jar. In terms of decoration, two groups of simple and painted pottery can be identified among the unglazed pottery. Simple and ordinary pottery, which is mostly brown (inner wall 32.7% - outer wall 27.6%), cinnamon (inner wall 27.1% - outer wall 18.9%), lateritious (inner wall 10.3% - outer wall 12%), dark gray (inner wall 8.6% - outer wall 10.3%), black (inner wall 6.9% - outer wall 8.6%), pale goldenrod (inner wall 5.2% - outer wall 6.9%) and rarely light gray (inner wall 3.5% - outer wall 1.7%), plum (inner wall 3.5% - outer wall 5.2%), beige (The inner wall 1.7% - the outer wall 3.5%) and cinnamon and black (outer wall 5.3%), allocate the largest number of pottery in this settlement to themselves. Sometimes, signs of genius and partial skill can be seen in these potteries. Two types of thick clay glaze (Slip) and thin clay glaze (Wash) have been used for beauty, impermeability and strength of this type of pottery in the outer and inner parts of them and in some cases, their surface is a bit polished and the hand effect is also evident on their surface. The quality diagram of the collected pottery has been shown in Image 15.
According to the data obtained from this hill and in terms of cooking quality, about 84.2% of the data have a suitable degree of cooking and 15/8% have incomplete or insufficient cooking. The cooking quality diagram for the collected pottery has been shown in Image 16. It indicates the control of potters on the kilns of making pottery and their mastering and skill in their work. Also, about 19% of the pottery is painted and the motifs on the potteries are carved decorations (45.4%), hot (36.4%) and rarely grooved (18.2%), which usually include geometric linear decorations and wave and plant stripes on some potteries. Pottery with engraved motifs technique in a slip known as Sgraffiato (Aqkand and Gerrus type) belonging to the 11th and 12th centuries AD, pottery with slipware (Slip) cover belonging to the 8th, 9th and 10th centuries AD, monochrome glazed pottery belonging to the 11th and 12th centuries AH, and sprinkled glaze pottery and boiled beet Kashk belonging to the 8th, 9th and 10th centuries AD, are among the pottery samples of this site. The percentage diagram of simple and engraved pottery has been shown in Image 17.
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Fig 16. Yel Suyi, Quality diagram of baking collected potteries

Fig 17. Yel Suyi, Percentage diagram of simple and painted potteries
In general, the potteries of this site had been built in terms of decoration and shape, and in terms of physical characteristics such as form and motif, they are somewhat different from the other potteries of the Islamic sites of this region. The design of multi-chrome glazed pottery and pieces related to the bowl or plate of the site, obtained through field research, have been shown in Images 18, 19, 20, 21, 22, 23, 24, 25, 26 and 27.

Fig 18. Yel Suyi. 1, 2, 3. Polychrome glazed potteries, pieces related to bowl or plate. Pottery samples with engraved motifs technique in a slip known as Sgraffiato.
Fig 19. Yel Suyi. 1. Polychrome glazed potteries, pieces related to bowl or plate, pottery samples with slipware (Slip) cover belonging to the 8th, 9th and 10th centuries AD. 2. A piece related to a plate, lusterware of Ilkhanid type, 14th century AD.
Fig 20. Yel Suyi. 1. A piece related to a plate, pottery sample with slipware (Slip) cover belonging to the 8\textsuperscript{th}, 9\textsuperscript{th} and 10\textsuperscript{th} centuries AD. 2. Polychrome glazed pottery, a piece related to plates, pottery sample with slipware (Slip) cover belonging to the 8\textsuperscript{th}, 9\textsuperscript{th} and 10\textsuperscript{th} centuries AD.

Fig 21. Yel Suyi. 1, 2, 3, 4. Polychrome glazed potteries, pieces related to bowl or plate, pottery samples with slipware (Slip) cover belonging to the 8\textsuperscript{th}, 9\textsuperscript{th} and 10\textsuperscript{th} centuries AD.
Fig 22. Yel Suyi. 1. A piece related to a plate, pottery with sprinkled glaze and engraved motif, 10th and 11th centuries AD. 2, 3. pieces related to plate, pottery samples with engraved motifs technique in a slip known as Sgraffiato, 10th, 11th and 12th centuries AD.

Fig 23. Yel Suyi. 1, 2, 3. Pieces related to bowl or plate, pottery samples with engraved motifs technique in a slip known as Sgraffiato (Aqkand type), 10th, 11th and 12th centuries AD.
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Fig 26. Yel Suyi. 1, 2, 3, 4, 5, 6, 7, 8. Pieces related to bowl or plate, pottery samples with slipware (Slip) cover belonging to the 8th, 9th and 10th centuries AD. 9, 10. Pieces related to bowl or plate, monochrome glaze (azure), Seljuk period. 11. A piece related to plate, pottery sample with engraved motifs technique in a slip known as Sgraffiato (Aqkand type), 11th and 12th centuries AD. 12. A piece related to plate, monochrome glaze (green), Seljuk period. 13. A piece related to plate, monochrome glaze (turquoise), 6 Seljuk periods. 14. A piece related to a bowl, a sample of a monochrome vessel made of stone-paste, Seljuk period.

Fig 27. Yel Suyi. 1, 2, 3. Pieces related to bowl or plate, pottery samples with sprinkled glaze, the 9th and 10th centuries AD. 4, 5. Pieces related to bowl or plate, pottery samples with boiled beet Kashk galze belonging to the 9th and 10th centuries AD.
Scientific studies on the works and evidence of the terrestrial surface of the hill indicate the continuity of settlement and living in this place from ancient times to the Islamic Middle Ages. But the subject cannot be finalized without systematic archeological excavations and new evidence.

**Results**

From ancient times, this region has been a place of life and residence of people, and the remnants of them show the way of their life and residence. The valley’s historical background and records are evident in numerous artifacts and things found during numerous archeological excavations. The industry and art reflected in these artifacts show that historical events have strongly influenced this technology and art. The presence of abundant water and boiling springs in this area is reminiscent of the coexistence of water and settlement, and the combination of special and magnificent architecture with water is a manifestation of purity, birth and life. According to history, Ardabil region was one of the oldest settlements of humans and the place of great historical events in Iran, and the abundance and diversity of the discovered objects and countless traces of material culture, its settlements, castles and ancient settlements explicitly show the ancient greatness of this region of Iran.

Old rural and urban settlements have maintained their existence in this area both during the period of nomadic development and in the Middle Ages and modern times. Research on human settlements in Ardabil between the 5th-15th centuries AD (Middle Ages) suggests that the texture of the old mountain settlements in this area was irregular, but sometimes the topography of the earth has given them a regular shape. Most of the houses are square and muddy, and the difference between the houses sometimes consists in the position of the land or its size, in other cases in the shape of the ground and sometimes its slope and roughness are different. The architecture of such settlements is such that they easily adapt to these special conditions. Flexibility is not only in forms and shapes, but also in the way spaces are combined, in size, in geometry, and so on. The houses are sometimes scattered and separated from each other, and sometimes they are like stack, and the size of the space in them is proportional to human dimensions.

The open and scattered settlements are almost indicative of the security of the mountains or impenetrability and invasion of nomads. However, in the places where villages have constantly been attacked and invaded by nomads, they have taken the shape of castles. The houses inside the castle are mostly interconnected and are built towards the inner front of the castle wall. The diversity in the appearance of the castles suggests that, the existence of the castle before it arose from the necessity of adapting to a
particular geographical environment or as a result of the intensification of insecurity, it was influenced by a particular architectural style, which could have been adapted to very different requirements.

The investigations of the author of these lines show that the structure of the settlement system in the rural areas of the study area have been formed due to its relation to natural foundations while being influenced by human foundations, and there is a direct and significant correlation between land type and distribution of settlements and an inverse and significant correlation between height and distribution of settlements. Also, factors including height, slope, pasture cover and proximity to the river have been more effective than other natural factors in the distribution of abandoned rural settlements around the city of Ardabil.

The abundance and scattering of various samples of pottery with engraved motif on the surface and around the sites of Guran and Yel Suyi clearly shows that Ardabil is one of the most important centers of formation and distribution of these vessels known as Aqkand. In this type of pottery (whose source of production was considered by scholars to be from Egypt and its growth in Mesopotamia, Syria and then Iran), engraved motifs had been done on colorful glazes such as green, yellow and purple, and then private places of the vessel had been painted. The purpose of using this technique was to prevent other paints from being sprayed or escaped.

Overall, the results of this study show that the rocky spaces of Kalkhoran-e Viyand, in addition to being an expression of religious symbolism, are certainly an emphasis on a religious center. In addition, such houses, regardless of their primary role, may have been built to meet the needs of the natives who did not need permanent accommodation, such as a group of farmers, or shepherds who stay for a short time in such houses to use the surrounding pastures in special seasons of the year or as a place of temporary gatherings and settlements where they moved from one area to another. Scientific studies on the works and documents of the terrestrial surface of the sites of Guran and Yel Suyi, which is considered as one of the most important sites of this valley in terms of the extent and variety of works, show the continuity of settlement and living in this place from ancient times to the Islamic Middle Ages but the subject cannot be finalized without systematic archeological excavations and new evidence.

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An Archaeological Analysis of Ruined Rural Settlements around a village near Ardabil City
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