

## **Rock Engraving of Ghalat Niloo Cave**

**Mohammad Hossein Rezaei<sup>1</sup>, Alireza Hejabri Nobari<sup>2</sup>, Hamed Vahdati Nasab<sup>3</sup>, F. Khademi Nadooshan<sup>4</sup>**

Received: 15/2/2012

Accepted: 21/11/2012

### **Abstract**

Painted rocks may be considered the oldest manifestation of art in human society. The history of this art is estimated to be more than 30 thousand years. This art has also a long history in Iran. This article introduces one of these rock art sites. This site (Ghalat Niloo rocky designs) is located in Kazeroun County southeastern to Ghalat Niloo village. The purpose of this study was to identify and determine the location, function of concepts, the history, classification and relationship of these designs with similar samples in other areas. These designs have been engraved in the walls of the cave and include subjects such as hunting and human on horseback with a bow in hand, animal images, mostly goats and in one case a dog image. They probably date from the first millennium BC.

**Keywords: Rock Engravings, Kazeroun, Ghalat Niloo**

---

<sup>1</sup>. Assistant Professor of Archaeology, University of Neyshabur.  
[email:mohammad.1561@yahoo.com](mailto:mohammad.1561@yahoo.com)

<sup>2</sup>. Associate Professor of Archaeology, Tarbiat Modares University.

<sup>3</sup>. Assistant Professor of Archaeology, Tarbiat Modares University.

<sup>4</sup>. Associate Professor of Archaeology, Tarbiat Modares University.

## Introduction

Design on natural rocks has been probably the most common method of message transmission between humans in the past. This art with about 30000 years of antiquity first appeared in Europe and Australia and then gradually spread around the world. In some parts of Asia, including Central Asia, Caucasus, the Indian Subcontinent and the Levant, sites with rock art have been described and evaluated, but such works have not been appropriately undertaken in Iran.

Rock art studies in Iran have been sporadically performed by Iranians and also by some foreign scholars. Dusheh rocky cave art and rock shelters of Mirmalas in Kuhdasht in western Iran have been among the first sites to be considered.

Although the vestiges of this art have been identified in most parts of Iran, there are still many equivocations regarding its function and meaning, preventing from the exact determination of the artistic-historical situation of this art.

## Physiography of Kazeroon

Kazeroon County is situated in Fars province at an altitude of 732 meters above sea level

(Fig. 1). This county is surrounded Mamasani and Behbahan from north, Shiraz from east and northeast, southwest and western part by the cities of Borazjan and Bushehr and from southeast by Firouzabad.



Fig 1. Location of Kazeroon

Morphologically, Kazeroon County is located in a mountainous area surrounded by high mountains, and like other parts of Fars the mountains have north-west to south-eastern slope (Mozaffarian 1994:25). There are two Mountain Ranges in Kazeroon plain with Parishan Lake located in between. Much of the mountainous part of the region is located north and northwest direction in way that calcareous and rigid sections usually make deep valleys and impassable heights along with mountains made of soft materials

such as marl and gypsum having lower heights taking the shape of hills where it is easier to pass and access.

The Kazeroon city has warm weather in terms of climate. The maximum temperature there reaches up to 49°C and the minimum to -6°C, with an average rainfall in low rainy year to less than 500 mm, and approximately 700mm in high rainy years (Behroozi, 1967: 8).

### Site Location

Ghalat Niloo rocky designs are located in 51 5255 / 6N and 29 3010/7 E coordinates, 150 meters southeast from the village of Ghalat Niloo in a rocky shelter on a low height mountain with bed rock (Figs. 2-3) .



Fig. 2. Location of Ghalat Niloo Cave



Fig. 3. Ghalat Niloo Cave, Northern View

The shelter has an entrance 11 meters wide, 4 meters high and 5 meters deep and there is a cavity in the end of the roof cave opening upwards harboring a set of rocky designs. The designs have been engraved on flat surfaces of small and large rocks and due to limestone and old age has undergone cracking and lamination. Ghalat Niloo fortress is situated 50 meters above the cave and is probably from the Sassanid period regarding the type of architecture and pottery styles (Figs. 4-5).

The mountain has a bed of sedimentary rocks and limestone, and in some parts the stones are of solid and flat type, and in other parts there are conglomerate structure stones as integrated large and small stones. In the surface of site and the mountain

slopes, a large number of artifacts such as stone chips, planes stone and mother stone and debris are observed.



**Fig. 4.** Ghalat Niloo Fortress



**Fig. 5.** Wares of Ghalat Niloo Fortress

### **General Design Description and Style**

On the northern, eastern and southern

surfaces of this cave, a number of rocky designs in the form of single-image and group patterns have been engraved using threshing and carving technique and are probably related to pre-historic era, because in the mountains components of stone artifacts can be frequently found. Most of the designs are of carving type and have been created using different techniques. These include human and animal (often goat) stylistic designs with big rearward horns larger than the real size. Thoughts of pre-historic man has been focused on hunting, and carving of long horn ibex, to which approximately about 80 percent of Ghalat Niloo designs belong, can be deemed as the main goal of creators of these scenes.

### **Animal Designs**

Most of the animal designs are goats with a case of suspected dog mainly displaying the hunting matter. The ibex design stands higher than other animals with a high ratio (as all are engraved). Most of the animals have been shown as profile with goats having bent exaggerated horns. Ghalat Niloo designs mostly show sedentary animals with a few designs in the set showing mobile animals (running, jumping, etc.); the second case seen in most of the designs is profile representation.

### Human Designs

The human designs of the set are mainly on the northern façade of the cave and have been created using thrashing technique and show people hunting with war tools and equipment.

The only unknown design in this collection is a single partial design probably of a human created in the eastern façade using carving technique. Also, there is another design created using thrashing technique seen in northern façade different from other designs (probably in arc form).

### Detailed Description of Designs

Designs have been encoded from north to south by English alphabets and shown in Fig. 6.



**Fig. 6.** Location Plan and Topography of Ghalat Niloo Cave.

The first design (6A), situated in the northern corner of the shelter on a rough surface with  $8 \times 8 \text{ cm}^2$  dimensions, is a combined design of a man on probably horse stylistically created using thrashing technique. This design is in the western façade towards northwest. Besides this design is another one (6B) in the form of triple headed tool with  $8 \times 10 \text{ cm}^2$  dimensions that has been probably an agricultural tool and has been created using thrashing technique (Fig. 7).



**Fig. 7.** Probably an Agricultural Triple-headed Tool

Over this image the set of images showing goat hunting hunters is seen (6C). This set includes 3 human images left to the image with hunting tools in hand and has been stylistically engraved. In front of the



first design from below the image of a doglike animal is shown probably accompanying the hunter (Figs. 8&9). The image of three goats has also been carved that due to lack of space on smooth rock surface has been located far from other designs (6D). All these designs have been created using threshing technique.

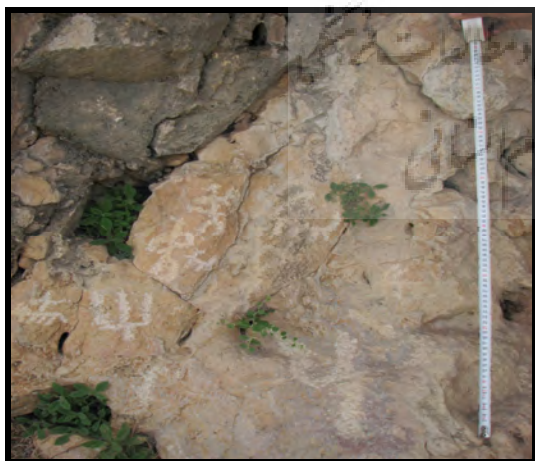
Below this set a stylistic human image with attached legs has been shown that seems to have been holding two objects over the head (6E). This design is rather larger than the other designs and has been engraved with 28×22 cm<sup>2</sup> dimensions using threshing technique. The surface of the stone has become nearly smooth due to high abrasion (Fig. 10).



**Fig. 8.** Goat Hunting, Hunters



**Fig. 10.** An Unidentified Portrait (probably human)

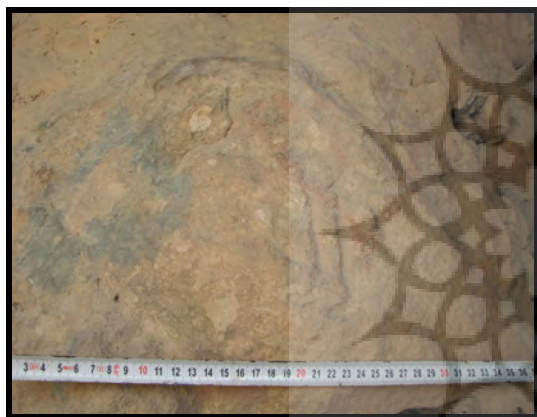


**Fig. 9.** Humans with Hunting Tools

A meter away from this set, the image of a goat has been engraved on the surface of a small rough stone and has been largely abraded due to the stone type (6F). Because of space limit this image has been carved horizontally upwards (Fig. 11).

Eastern entrance of the cave has a better position in terms of view and stone smoothness. In this part an image of a completely stylistic goat with returned

horns northwards with carving technique is seen (6G). This image is 12 cm long, 12 cm high and one cm deep (Fig. 12). At 30 cm distance south of this image there is an incomplete image probably showing a human and has been created using carving technique (6H). Below this image is the image of a goat in the same style using carving technique and is northwards (6I).



**Fig. 11.** Figure of Goat Drawn Horizontally



**Fig. 12.** Stylized Goat with Rearward Horns

South to that image there is another goat exactly in the same style with 19 cm length and height and is rather more inconsistent (6J). In the southern part of this set and on a small nearly smooth surface the image of a goat in the same style of the former group has been engraved, but unlike other images it is southwards with 14 cm length and 16 cm height and has bent horns (6K). Due to calcareous type of rocks and boulders the designs have been partially destroyed (Fig. 13).



**Fig.13.** Figure of Goat with Rearward Horns in Southern Side of Cave

In the southern façade of the shelter there is a single image design of a stylized goat (6L) with carving technique westwards

with 15 cm length and height (Figure 14).



**Fig. 14.** A Single Figure of Stylized Goat using Threshing Technique.

### **Ghalat Niloo Rocky Designs: Themes and Concepts**

It is worth noting that in Ghalat Niloo cave stone carvings, similar to Moomyan, Bardsefid and Mirmalas designs, there are images of horses and humans and domestic animals like dog together with hunting tools and weapons such as bows. The only difference in patterns of the two regions is that patterns of Lorestan mountains in areas such as Humyan, Mirmalas and Bardsefid have been designed using a kind of black, brown and natural yellow charcoal, but Ghalat Niloo designs have been certainly carved using a hard metal object (probably

steel) in depth of three to six mm.

Considering examples from different parts of Iran, the ibex image shows the extraordinary importance of this animal and its significant function in taboos and totems of the past people. Of course, perhaps with regard to existing documents, this animal can be viewed as the oldest known symbol in human history (Rafi Far, 2002 b).

In ancient Iran, the images of this animal can be seen in different frames (designs on pottery, effigy making, etc.) from the early Neolithic period onwards; these animal patterns have been found on rocks in different parts and cave walls, on clay dishes as paintings (Siyalk , Susa, Esmayil Abad) and even in the form of sculptures from the Neolithic Age settlements (treasure valley, mill, Sarab ) (Eygun 1992, Broman-morales and Smith 1990). Goat in ancient Iranian mythology has been regarded as the symbol of prosperity and abundance and also of water; it is also a symbol of moon. The image of this animal, in addition to the prehistoric works, also appears on first millennium BC brass and the Median and Achaemenid era works; the most advanced form of it can be seen on seals and containers of the Sassanid period.



In this period goat has been considered as the moon security guard (Samadi 1988:49).

### Stone Artifacts

In the short-term study conducted in Ghalat Niloo, 12 pieces of stone artifacts were collected. This collection includes various tools such as bedrock, plane types, chips and debris (Fig. 15).

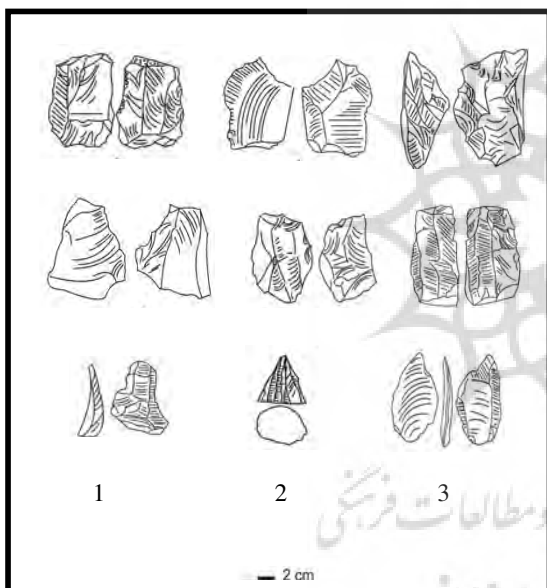


Fig. 15. Stone Tools

Planes have the highest number in the series in the form of unidirectional, end and nail type planes. A piece of bullet bedrock was also found with signs of removal of six small chips on its surface. These bullet bedrocks have been used for making fine

blades. Such tools are considered as characteristics of super Paleolithic period.

All of these stone artifacts have been made of pale gray chert and have streaks and lines caused by impurities. The surface of most of the stone artifacts of this site is covered by rust and weathering.

Table 1. Description of Stone Tools in Fig.15

Label Number	Description
1	Side Scraper, Chert, Grey
2	End Scraper, Chert, Grey
3	Debri, Chert, Grey
4	Debri, Chert, Grey
5	End Scraper, Chert, Grey
6	Core Fragment, Chert, Grey
7	Chert, Reddish Brown, Flake
8	Core Bladelet, Chert, Grey
9	Nail Scraper, Chert, Grey

### Discussion and Conclusion

An important feature of Ghalat Niloo collection is that the designs depict long horn ibexes with curved horns shown in pair and profile.

Researchers and prehistoric archeologists in interpretation of Lascaux cave designs in French Dordoni region or Altamira cave in Spain consider the reason for portraying

animals such as bulls, antelopes, horses, goats, etc. to be related to rites and rituals of prehistoric man (Jensen, 1980, P 11&12). They argue that prehistoric man, in order to provide for successful hunting, portrayed the desired animal, and through specific rituals intended to appropriate the animal; then, by killing that portrait he would assure to have killed the live spirit of that animal, and the portrayed animal would surrender to him.

In interpretation of Ghalat Niloo designs, we can ask whether the goal of engraver of these designs on stone and emphasis on repeating the design of animals like goat in an exaggerated and mixed way has been successful entrapment and hunt of it. Or has the aim of repeated design been increased hunting supply and has followed creation and not killing? Or has repetition of these designs on stone been a type of entertainment, fun or leisure for shepherds or hunters in daily course of their life in this region.

We should mention first that there are no signs indicating that these works are recent. Local anthropological studies indicate that the designs have not been created by local

people and even ancestors of them have not been involved in making such designs.

Designs of Ghalat Niloo rocks clearly show the art of a primitive society with hunting and livestock economy. Ghalat Niloo rock designs are simple, without perspective or framework and lack harmony.

In other regions of Iran also rock designs similar to ours are relatively abundant. Ibex image is also found on rocks in vast areas of Iran including examples identified in Kurdistan (southeast of Mahabad, Shahin shahr ...) (Pedram, 1994:79) and Lorestan (Myrmlas, Humyan, Bardsefid ..) (Izadpanah 1969), Yazd Province (Arnan) (Shahrzadi, 1997: 142) and also East Azerbaijan (stone image of Loqan) (Rafi Far, 2004: 111), They date back to the first millennium BC.

Mirmalas and Bardsefid historical era designs include horseman groups and fighting and animal hunting scenes by bow, and they cannot be older than 1500 B.C. This theory is posed because horse riding and taming has been devised by Iranians, and as chronologically the Iranian archeology has been introduced at this time, the design cannot be related to an earlier era (Bewley, 1984).

Therefore, the author believes that the rock engravings in Ghalat Niloo in Kazeroon also cannot be older than the first millennium BC.

## References

- [1] Izadpanah, H., (1969), "Paintings of Pre-historic Caves of Lorestan", *Journal of Archeology and Art*, No. III, Pp. 6-14.
- [2] Behrooz, MJ, (1967), *Green City* (city of Kazeroon), Shiraz: Education Association Press.
- [3] Pedram, Mahmoud, (1994). *Mahabad Civilization, Ancient Works of the Dam Castle to Takhte Soleyman*, Tehran: Hoor publications.
- [4] Jensen, Art History, (1980). *Research in Visual Arts from the Dawn of History until the Present*. Translation by Parviz Marzban Publishing and Training Organization of the Islamic Revolution.
- [5] Hatami, H., (2006), *Physiography of Kazeroon*, Qom: Amin press
- [6] Rafifar, Jalal al-Din, B., (2002), *Genesis and Evolution of Tehran..*
- [7] Fafiar, Jalal al-Din, (2004), "Rock Art in the North West of Iran (Image of Stone Design)", International Conference of archaeologists, North West Area. P. 111.
- [8] Sahrzadi, Dinar, (1997), "Stone Pictures of Mountain Arnan Yazd", *Archaeological Reports*. P. 133-142.
- [9] Samadi, Mehrangiz, (1988), *Months in Iran, the Oldest Holidays until the Advent of Islam*, Tehran: Scientific and Cultural Publications.
- [10] Mozaffarian, Manouchehr 1994. *Kazeroun reflected in culture* Navid Publishing Shiraz.
- [11] Bewley, R.H, (1984), *Excavation in the Zagros Mountains*, the Cambridge University Archaeological Expedition to Iran 1969-1981.
- [12] Broman- Morales, V and P.E.L, Smith, (1990), *Figurines and Other Clay Objects Sarab and Cayonu*, Oriental Institute Communications 25, Chicago: Oriental Institute of the University of Chicago.
- [13] Eygum, G., (1992), "les Figurines Et animals du site Neolitique de Ganj Dareh (iran)". *Paleorient*, 18/1.

## نقوش صخره ای قلات نیلو

محمدحسین رضایی<sup>۱</sup>، علیرضا هژبری نوبری<sup>۲</sup>، حامد وحدتی نسب<sup>۳</sup>، فرهنگ خادمی ندوشن<sup>۴</sup>

تاریخ دریافت: 1390/11/26 تاریخ پذیرش: 1391/09/1

صخره‌های منقوش را شاید بتوان به عنوان قدیم‌ترین جلوه‌های هنری جامعه انسانی در نظر گرفت. سابقه این هنر را بیش از 30 هزار سال تخمین می‌زنند؛ این هنر در ایران نیز سابقه طولانی دارد. این مقاله به معرفی یکی از این آثار (هنر صخره‌ای) می‌پردازد. این اثر (نقوش صخره‌ای قلات نیلو) در شهرستان کازرون و در جنوب شرقی روستای قلات نیلو واقع شده است. هدف از این پژوهش - شناسایی و تعیین موقعیت جغرافیایی، بررسی مفاهیم و کارکرد، تعیین قدمت، طبقه بندی و بررسی ارتباط این نقوش با نمونه‌های مشابه در دیگر مناطق است. این نقوش بصورت کنده کاری بر دیوار غار حک شده‌اند و شامل موضوعات شکار و تصاویر انسان سوار بر اسب با کمانی در دست، تصاویر حیوانی، اغلب بز و در یک مورد سگ هستند که قدمت آنها احتمالاً به هزاره اول ق.م می‌رسد.

واژگان کلیدی: نقوش صخره‌ای، کازرون، قلات نیلو.

1. استادیار گروه باستان شناسی، دانشگاه نیشابور.
2. دانشیار گروه باستان شناسی، دانشگاه تربیت مدرس.
3. استادیار گروه باستان شناسی، دانشگاه تربیت مدرس.
4. دانشیار گروه باستان شناسی، دانشگاه تربیت مدرس.