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Original Research Article

The Relative Chronology and the Function of Rock Arts in the Eastern Hurānd of Karadagh, Northwest of the Iranian Plateau

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Abstract

Along with the archaeological survey program of Karadagh, which started in 2008, the expedition team of authors succeeded in recognizing, reporting, and documenting three archaeological sites including 1571 human and animal abstract petroglyphs from the three villages of "Gutānlu", "Lighlān", and "Noghādā" in the east of "Hurānd" County, East Azerbaijan province. In addition to naked humans, some dogs and camels, and a number of quasi-geometric motifs were identified. It should be noted that most of their animal motifs are similar to the genus of *Capra* and *Gazella*. They are comparable to the Nakhichevan, "Gegham-Jingirdagh", and "Gobustan" collections of rock art in "South Caucasia" and they even have similar examples in the Italian rock art collection of "Valcamonica". This research is based on field surveys, documentation, and the ethnological interpretation of these petroglyphs. The data were categorized into three groups: "Gutānlu", 700 motifs, "Zardarasi", 171 motifs, "Dāshlisārāy" of "Noghādā", 300 motifs, and "Qishlāghdarasi" of "Noghādā", 400 motifs. The authors attempted to examine relative chronology and the function of the Eastern "Hurānd" petroglyphs based on two hypotheses: a) the relative dating of this rock art is late prehistory, circa 6th-5th millennium BCE; and b) the function of them should be interpreted based on the theory of hunting magic associated with forager bands. Ethnographically, the belief in hunting magic is recorded from forager people of Australian "Aborigines" and African "Bushmen" (Sans). Additionally, the evidence of Shamanic rites, which have been recorded/hypothesized during the 1997-2002 surveys, are re-recorded from the rock art in Eastern "Hurānd" of Karadagh.

Keywords: *Northwest of the Iranian plateau, Karadagh petroglyphs, Relative chronology, Hunting magic, Shamanism.*

Introduction

In 2013, the author's expedition, in the continuation of the field surveys within the archaeological project of Karadagh (Qarādāgh/Qaradāgh), which commenced in 2008 (Ajorloo, 2023; Ajorloo & Tirandaz-Lalehzari, 2020), succeeded in recognizing, reporting and documenting three ancient rock art sites, including 1571 petroglyphs of human and animals, from the three villages of "Gutānlu" (N 718105, E 4302402), "Lighlān" (N 715745, E 4304270) and "Noghādā" (N 710209, E 4304505) located in the east of "Hurānd" county (Fig. 1). Of these petroglyphs, in addition to naked humans, a few camels and a number of pseudo-

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Fig. 1. The location map of petroglyphs in NW. Iran and S. Caucasia: 1. Eastern Hurānd 2. Gobustan 3. Gamiqāyā 4. Gegham-Jingirdagh. Source: Authors based on Google Earth map.

geometric motifs, the majority of animal figures seem genus *Capra*, which are comparable with the south Caucasian collections of "Gamiqāyā" in Nakhichevan (Bəxşəliyev, 2004, 185-261; 2007, 168-170; 2008, 108-110) "Geghām-Jengirdāgh" (Rafifar, 2002a) and "Gobustan" (Джафарзада, 1999). The relative chronology and function of the petroglyphs of Eastern "Hurānd" is the main research objectivity of the present authors.

"Hurānd" County is located 52 kilometers northeast of "Ahar" town, the center of Karadagh, and it is watered by three rivers: "Aliābād", "Qālāsichāy", and "Selinchāy" (Rafifar, 2004a). The mountainous land of Karadagh in the north-west of the Iranian plateau, is 240 km long from east to west and 70 km from north to south, and is located in the current province of East Azerbaijan. It is limited and leads from the south to the plains of Tabriz and Marand, from the east to the "Sabalān Mountain" and the valley of the "Karasu River", and from the west to the "Jolfā" plain, and from the north to the "River Valley of Araxes", Southern Caucasian Mountains and "Caucasian Karabakh" (Ajorloo, 2019, 2023). Karadagh has two climates: forest in the north (Arasbārān) and steppe in the south. While, relatively, the mountain peak of Sheyvar (2570 meters) is the natural border of these two climates (ibid.). The climatic features of Karadagh and the access to permanent freshwater sources of "Araxes", "Aharchāy", and "Karasu" rivers in prehistoric times provided a suitable environment for the life of "hunter-gatherer" communities as well as nomad transhumant, from the "Late Neolithic" to the "Iron Age" and even the "pastoral-nomad" livelihood continued until the formation of "Shahsevan" tribal confederation during the Islamic centuries (Ajorloo, 2023; Ajorloo & Tirandaz-Lalehzari, 2020).

Regarding the petroglyphs of Eastern Hurānd, two preliminary questions require answers. First, when is the relative chronology of these petroglyphs? And secondly, how could their function be explained? Initially, in response to these questions, the authors hypothesized that the relative chronology of these petroglyphs could get back to the Late Neolithic, probably the sixth-fifth millennia BC because the reason is that archaeological data related to the pre-Neolithic settlements have not yet been reported from Karadagh (Ajorloo, 2016, 2019, 2023). But their second hypothesis to explain the function of these petroglyphs is based on the cult or tradition of hunting magic, which ethnographic reports have confirmed its prevalence among primitive hunter-gatherer groups.

Research Background

The background of the archaeological expedition to the petroglyphs of the Karadagh region in East Azerbaijan province, northwest of the Iranian plateau, dates back to 1997. In 1997 an archaeological expedition under J. Rafifar recognized and documented a number of rock arts in the big rock of Qoshādāsh in Süngün and four sites in the village of Lighlān well-known as the mine of Lama Ghulāghey, Jeyrān Darasi, Zildāshi of Tāzā Kent in Gutānlu and Gutānlu. His studies have found all of them comparable with the south Caucasian groups in Geghām-Jengirdāgh and Gobustan. J. Rafifar (2002a & b, 2004a & b) also has presented a shamanic interpretation of the meaning and concept of the animal and human abstract motifs from Süngün and Lighlān. It should be noted that the petroglyphs from Gobustan, Absheron peninsula near Baku, and Geghām-Jengirdāgh, Yerevan, have been recognized, reported, and documented by the Academies of Sciences from

Yerevan and Baku (Mellaart 1975, 195-200; Rafifar, 2002a, 2004a & b; Джафарзада, 1999). Additionally, the Nakhichevan Academy of Sciences reported a similar group of rock art from the Gamiqāyā mountain (3400 m) in Nakhichevan and postulated its date as either the Late Neolithic or the Early Bronze period (Bəxşəliyev, 2004, 185-261; 2008, 108-110; Marro & Bakhshaliyev, 2009, 23-24 & 51-54). The main reason to postulate a Neolithic Age for the Nakhichevan group is the comparison of its motifs with the rock artworks from southeastern Anatolia (Özdoğan, 2007, 455; Marro & Bakhshaliyev, 2009, 24). It is worth remembering that James Mellaart (1975, 164, 195-200) also has compared the Gobustan group with the Anatolian groups of the Palanli cave in Adi Yaman and the Shat Mountain in Hakkari Province, Southeastern modern Türkiye. Accordingly, he proposed two Paleolithic and Kura-Araxes horizons for the group of Gobustan. Another group of Karadagh petroglyphs have been recognized and reported during 2007-2013 from Navāsar village in the riverside of Karasu (Karimi, 2007).

Theoretical Framework

Despite the background of Rafifar's shamanic interpretation of Karadagh petroglyphs (Rafifar, 2002a, 2004a & b), the theoretical framework applied in this research to explain the function of these petroglyphs is derived from the hunting magic tradition which is theorized by Abe-Henry Breuil (Breuil, 1952; Breuil & Berger-Kirchner, 1961, 26-28) and André Leroi-Gourhan and Salomon Reinach to interpret the cave art/cave paintings reported from the Solutrean and Magdalenian Upper Palaeolithic cultures, western Europe (Hartt, 1985, Ch. I; Rafifar, 2002b; Dortier, 2012, 251-296; Kleiner, 2011, 17-23; Cooke et al., 2014). Such a theory is applied by Lucien Lévy-Bruhl and Claude Lévi-Strauss to explain the hunting traditions of primitive people as well. This means that primitive hunters, who were called prelogical people by Lucien Lévy-Bruhl, had to draw/incise the image of the desired animal before it should be hunted. The reason is that in their prelogical mentality, the favorite animal cannot be hunted unless its soul is enchanted by magic. The prelogical and delusional mentality of such primitive people is mixed with the animism of nature and the delusion of the presence of supernatural forces around them. Therefore, it is always necessary to perform magic rites for the animals and plants that they should be eaten. Because they consider successes in hunting and fruit-picking not as an outcome of their own intellect and actions, but as a consequence of the will of the soul of an animal or plant that should be hunted or picked to eat. Therefore, the soul of that animal or fruit/plant definitely should be captured by magical rites (Lévy-Bruhl, 1926, Ch. I & VI). In Lévi-Strauss's structuralism, primitive hunters - who, of course, prefers to call them natural people - before hunting, by means of magic rites, first ask permission from the animal that should be hunted (Lévi-Strauss, 1962, Ch. I). Marcel Mauss (2001) has also reported that witchery rites have social functions for primitive people and in their belief, increasing the quantity and quality of hunting and fishing requires performing magic rites. Further, for example, ethnographers have reported and confirmed the belief of current Australian Aborigines and African Bushmen (San people) in the tradition of hunting magic through painting or incising the images of desired animals (Dortier, 2012, 251-296; Campbell, 1986; Spencer & Gillen, 2003, Ch. I, IV & VI; McGranaghan & Challis, 2016).

Methodology

This research is based on the field survey, recognition, and documentation of these petroglyphs and their ethnological interpretation. Of course, the author's relative chronology method was based on the indirect evidence of zoo-archaeology as well. In this way, the realization of a given animal genus and species and the study of its domestication background in archeological data and findings from prehistoric Western Asia allows the relative date of a group of petroglyphs to be hypothesized. For example, the recognition of a domestic dog in a group of petroglyphs can allow one to date it

back to the Zarzian horizon. Animals such as goats, sheep, and camels also have their past of domestication. This is the same method that James Mellaart (1975, 195-200) and Rafifar (2004a) applied for the relative chronology of the petroglyphs of Gobustan in the South Caucasia, Palanli in Anatolia, and Süngün and Lighlān.

Research Data

The main body of data of this research is a group of 1571 human and animal abstract petroglyphs that were recognized in the field surveys of 2013 by the present authors in the east of Hurānd county of Karadagh region from the villages of Lighlān, Gutānlu, and Noghādā (Salmanpour & Abtahiforoshani, 2012). These petroglyphs are incised on black granite stones. The data body of this research can be classified into three groups: Gutānlu, Zardarasi and Noghādā. It should be noted that the rock art of the Noghādā group is distributed in Dāshlisārāy and Qishlāghdarasi areas (Fig. 2):

1) Gutānlu group (518 m a.s.l.) located 2.4 km northwest of Gutānlu village and 11 km east of Hurānd, includes 700 human and animal petroglyphs distributed approximately in 3 hectares area. This group is set above a valley whose depth is 100 meters. The main image of this group is a buck depicting elongated and recurved horns. Near here, J. Rafifar (2002a, 2004a & b, 2005) recognized a group of rock art in Tāzā Kent part of Gutānlu. In Gutānlu, the number of stones that have been incised several times is more than in other groups, which relatively shows the importance of this site. Also, another noteworthy point in Gutānlu petroglyphs is the increase of group motifs (19) compared to individual motifs.

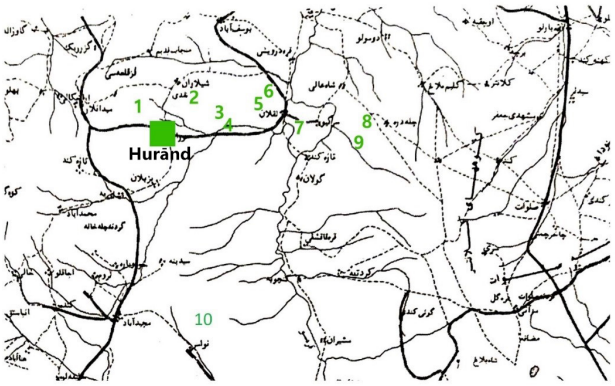


Fig. 2. The location map of Karadagh petroglyphs: 1. Hurānd 2. Noghādā group 3. Dāshlisārāy (300 samples) 4. Qishlāghdarasi (400 samples) 5. Lighlān 6. Bālādāgh 7. Gutānlu group (700 samples) 8. Zardarasi group (171 samples) 9. Tāzā Kent 10. Navāsar. Source: authors based on Rafifar, 2004 b.

2) The Noghādā group is a collection of 700 human and animal petroglyphs distributed in two districts of Qishlāghdarasi and Dāshlisārāy:

- Qishlāghdarasi group (717 m a.s.l.) located 2.7 km south of Gutānlu village and 7.6 km east of Hurānd, includes 400 human and animal petroglyphs distributed approximately in 5 hectares area.
- Dāshlisārāy group (716 m a.s.l.) located 1.5 km east of Noghādā village and 6 km east of Hurānd, includes 300 human and animal petroglyphs distributed approximately in 11 hectares area.

3) Zardarasi group (866 m a.s.l.) located 2.5 km northeast of Gutānlu village and 14 km east of Hurānd, includes 171 human and animal petroglyphs distributed approximately in 8 hectares area. This group, like the group of Gutānlu, is located above a valley whose depth is 50 meters. The main image of this group, like the group of Gutānlu, is a buck depicting elongated and recurved horns.

Once again, it should be remembered that Rafifar (2002a, 2004a & b, 2005) recognized a group of *Gazella* motifs on the rocks above a cliff in Süngün and Bālādāgh of Lighlān.

Analysis and Results

As mentioned above, the present authors have categorized the abstract petroglyphs of Eastern Hurānd into three main forms: human, animal, and pseudo-geometric, and of course, mythical and hybrid animals have not yet been realized/reported. The animal genus whose motifs have been realized and categorized by the authors are:

- *Capra*; perhaps buck (male *Capra aegagrus hircus*)
- *Gazella*; maybe W. Asian black-tailed gazelle (*Gazelle subgutturosa*)
- *Canis*; because of its accompanying by humans, it might be a domesticated dog (*Canis lupus familiaris*)

- Camel

The *Capra* group includes 1500 of the total of 1571 abstract figures. So, it is the largest and most numerous groups of animal petroglyphs in Eastern Hurānd. Of course, due to the lack of bone data, as well as the abstract nature of these figures incised on rocks, it is impossible to make a correct and well-considered judgment about the given species of *Capra*. Thus, generally speaking, authors have recorded them as genus *Capra*. Anyway, it must be recalled that Karadagh is one of the natural habitats for the buck (*C. e. hircus*) and gazelle (*G. subgutturosa*) in the plateau of Iran and J. Rafifar (2002a, 2004 a & b) also introduced them as buck and gazelle in Süngün and Bālādāgh of Lighlān. Of course, according to him, one can only see bucks in Lighlān. Moreover, transversely rigged and elongated horns present buck. The representation of three forms of horn, including the elongated, rigged arch, and short crescent, indicated the age of a buck (Table 1, No. 1-3). Overall, the size and representation of the *Capra* in the Eastern Hurānd group are the same as the *Capra* that Rafifar documented in Süngün and Lighlān. The representation of legs gives the observer the feeling of the herd moving to the right, and we rarely see the bucks facing each other. The members of *Capra* group are represented in sizes smaller than their wild size. The size of the incising of the wild goat group is much smaller than their natural size, and we do not see any incising in large and natural sizes. The average size of the motifs is 20 cm and generally oscillates from 10 to 60 cm, but the biggest motif is a buck in Zardarasi that has a 60 cm length. Among the 1571 motifs in East Hurānd, merely five of them represent *Gazella*. Furthermore, due to the lack of zoological information as well as the abstract nature of these figures, it is impossible to accurately classify the species of the genus of *Gazella*. However, the short and relatively lying horns of these quadrupeds indicate an animal different from *Capra*. It may be a species of gazelle descended from the genus of *Gazella*. Also, their short tails are downward, unlike the upward tails of the *Capra* (Table 1, No. 4-5). It is worth remembering that in one of the petroglyphs of the Gutānlu group, an animal can be seen with long legs, a long snout, and a short, shed antler-like a deer. If this motif does not represent an old buck, it may depict a deer: *Cervus elaphus maral* (Table 1, No. 4-5). Nevertheless, if we regard the rock art in Gobustan as the basis of our argument, we must admit that the image of deer (*C. e. maral*) is not seen in the East Hurānd collection. Because the antler shapes of some of the animals of Gobustan clearly and without any doubt represent the deer (Джафарзада, 1999, Фиг., 1, 4, 13, 14, 32, 66 & 92). Like *Capra*, the size of the figures of *Gazella* is much smaller than the natural size of them.

Among the 1571 petroglyphs from Eastern Hurānd, in Dāshlisārāy of Noghādā and Gutānlu, two figures of genus *Canis* can be seen, which are small in body and have a long and drooping tail and short ears. Although these two characters are more like foxes, the accompanying one of them with a human makes it possible that it is a domestic dog: *C. l. familiaris* (Table 1, No. 6 & 7). It goes without saying that the date of the domestic dog reaches the end of the 13th millennium. Genetically, the dog bone recorded from the archaeological excavation at the Magdalenian site of Bonn-Oberkassel, Germany, belongs to a domesticated species (Thalmann et al., 2018). Also, the archeological records from the PPNA village of Hallan Çemi, southeast of Anatolia, near the foothills of the north Zagros, have proven that the domesticated dog existed before the 11th millennium BCE (Matthews, 2003, 82-84; Rosenberg, 2012, 66-67; Zeder, 2012). This can be used as indirect evidence for the relative chronology of petroglyphs depicting dog motifs. Additionally, one must pay attention to the fact that rock art evidence has not yet been recorded from the Zarzian horizon of the Northern Zagros, 20th-11th BCE (Matthews, 2000, 26-29). Archaeological evidence concerning the Zarzian horizon has not yet been recorded from Karadagh as well (Salmanpour & Abtahiforoshani, 2012, 2013; Ajorloo, 2016, 2023). In the group of petroglyphs from Eastern Hurānd, also in Qishlāghdarasi of Noghādā, seven humped animals

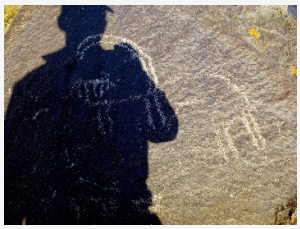
with humans and a *Canis* can be seen, and these humped animals must be camels (Table 1, No. 8). Because, regardless of the hump, they have short ears and a long snout like a camel, and it seems that a human is holding the reins of one of them, while the second camel is coming from behind. This scene reminds the caravan of camels and cameleer and his dog. In another scene, a human is seen jumping on the hump of a camel. Maybe the person who invented this image is annoying to show a person sitting on a camel bench. There is no doubt that these animals are camels. Because in Gobustan, we see a camel caravan with a cameleer driving a train of 19 camels tied together with ropes (Джафарзада, 1999, Фиг. 155). The domestication of camels for carrying dates back to the second millennium BCE (Matthews, 2000, 10). This allows one to propose a relative dating for such petroglyphs. However, it should be reminded that camel farming and the depiction and representation of camels in Azerbaijan prior to the 13th AD and at the time of the migration of Turkmen pastoral-nomad tribes and later Safavid Shahsevan still have no archaeological evidence and historical documents (Ajorloo, 2023). The present authors have also recognized 12 human or dummy figures from Gutānlu, Qishlāghdarasi, Zardarasi, and Dāshlisārāy, most of which have cruciform postures. Once more, Rafifar (2002a, 2004a) has a shamanic interpretation of these cruciform postures of the dummies who sometimes raise one fisted hand and down the other hand. The animals depicted next to these figures are camels, *Capra*, and dogs. Also, pseudo-geometric signs are incised in Dāshlisārāy (Table 1, No. 9-13). Overall, the Eastern Hurānd dummy can be seen in six positions:

- Boxer: one fisted hand is raised while another is down
- Prayer: two hands raised
- Two hands down
- Cruciform: horizontally, two hands straight
- Cameleer/convoy captain
- Shaman? A man wears a horn-like hat

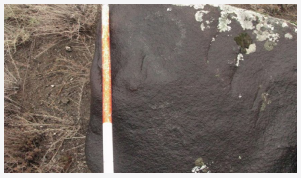
Formerly, Rafifar (2002a & b, 2004a & b, 2005) had recognized a number of figures from Lighlān, Jeyrān Darasi, and Tāzā Kent in Gutānlu. These groups can be compared with the group of Gamiqāyā in Nakhichevan (Bəxşəliyev, 2004, 185-261; 2008, 108-110). The boxer and cruciform figures can be seen in all three groups of Karadagh, Nakhichevan, and Gobustan, and they are more or less the same. It should be noted a difference in Eastern Hurānd: except for one case, all the human figures of Noghādā and Gutānlu are shown from the front and full face, mostly standing on an animal or foot. It should also be mentioned that, like Eastern Hurānd, Gobustan, and Nakhichevan, in Valcamonica of Italy one also realizes figures with a praying posture or two hands facing upwards (Anati, 2009). If one compares the group of dummies from Eastern Hurānd with those from Gobustan, a clear difference can be realized: In Gobustan, we have several group dance scenes similar to the Azerbaijani "Yālli" or the Kurdish "Halparaka" (e.g. Джафарзада, 1999, Фиг. 29, 46 & 86). Such scenes are absent in Eastern Hurānd. Once again, if one applies the Gubostan dummy as the basis of the argument, the gender of the Eastern Hurānd dummy should be male. Regardless of similarities between naked dummies from Eastern Hurānd and Gobustan, Steatopygia representation has not yet been recorded from Eastern Hurānd. Contrary to Eastern Hurānd, the Steatopygia figures represent the female gender in prehistoric art (Hartt, 1985, Ch. I; Kleiner, 2011, 17-22) is recorded in Gobustan (Джафарзада, 1999, Фиг. 33). Such a difference means that there is no female representation in Eastern Hurānd and there are only men figures those are comparable with Gobustan (e.g. Джафарзада, 1999, Фиг. 24, 15).

It is worth reminding that in Qishlāghdarasi the petroglyph of three men stand with a buck, which the present authors have named this scene the "Shaman of Qishlāghdarasi" or the "Shaman of Karadagh'', is very important in their interpretation to understand the function of the petroglyphs of Eastern Hurānd. Here, we see three naked men standing with open hands and paws next to a buck, as if they are pushing that buck toward the game drive system (Fig. 3). Encircling and scaring and driving the

Table 1. Photo & drawings of selected examples of petroglyphs from Eastern Hurānd. Source: Authors.

Sample No.	Group	Motif	Drawing	Photo
1	Zardarasi	Capra		
2	Gutānlu	Capra & dummy		
3	Noghādā	Capra		
4	Gutānlu	Gazella		
5	Gutānlu	Gazella & dummy		
6	Noghādā	Canis		
7	Gutānlu	Canis & Capra		

Rest of Table 1.

Sample No.	Group	Motif	Drawing	Photo
8	Noghādā	Camel & dummy & Canis		
9	Noghādā	Capra & dummy		
10	Zardarasi	Capra & dummy		
11	Noghādā	Dummy & quasi-geometric		
12	Zardarasi	Capra & dummy		
13	Gutānlu	Capra & dummy		
14	Noghādā	Quasi-geometric		

hunting herd towards a deadly precipice has been one of the common techniques of hunting in prehistoric times. The technique of hunting a herd with an ambush and encirclement and then scaring and driving the herd towards the game drive system or sometimes big trap has been one of the common prehistoric technics in which dogs were also used. Historical documents, as well as archaeological and ethnographic data and records, have reported that Colorado Indians, North Siberian natives, and Australian Aborigines used this strategy to hunt large herds (Benedict, 1975, 2005; LaBelle & Pelton, 2013; Raymond, 1982) and it has even been suggested that the hunters of the Neolithic village of Umm Dabaghiyah in the Upper Mesopotamia hunted large herds of gazelles and onagers in the same way (Betts & Helms, 1987). The petroglyphs that are now known by the authors as the "Shaman of Karadagh" once again confirm Rafifar's shamanic interpretation of the petroglyphs of Karadagh. One of these three men seems to be wearing a hat with horns or merely animal horns (Fig. 3). It goes without saying that self-pretention with animals has been interpreted and introduced as one of shamanic beliefs and behaviors (Dortier, 2012, 251-296).

A petroglyph, which may represent a scene of pastoral life, is located in the Dāshlisārāy of Noghādā. In this petroglyph, one realizes a man standing behind a goat or a cow as if he stretched one of his hands from behind towards the horns of this animal; as if he wants to guide it with something like a stick or a whip, or maybe he has put an instrument like Shepherd's reed close to his lips to play it (Fig. 4). This scene has two similar examples in Gobustan and Europe. In Europe, it is very similar to the Valcamonica rock art in Italy, which depict farmers with oxen and plows plowing the land (Fig. 5). Due to the representation of cows, sheep, and cattle, the Valcamonica petroglyphs date back to the Neolithic Age of Southern Europe and the 5th to 4th millennia BCE are suggested (Anati, 2009; Renfrew & Bahn, 2016, 182). In Gobustan, rock painting No. 39 shows a goatherd playing a reed. A dummy with something like a stick near his mouth is standing behind a goat. It seems

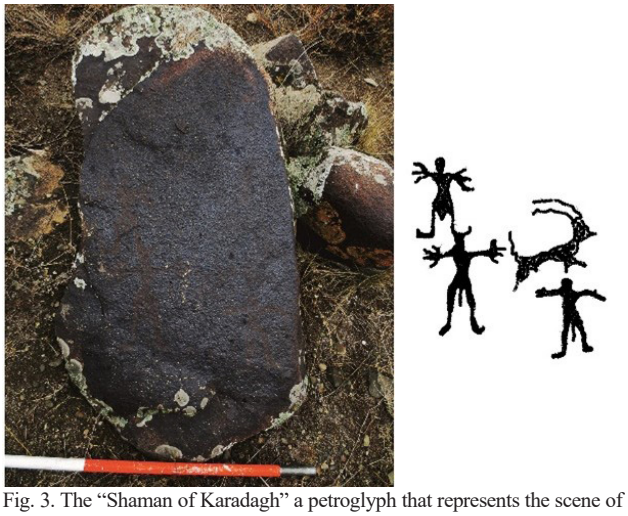


Fig. 3. The "Shaman of Karadagh" a petroglyph that represents the scene of scaring and driving a buck towards the game drive system of Qishlāghdarasi, Noghādā. Source: Authors archive.

Fig. 4. Up: the petroglyph depicts either a reed playing goatherd or the plowing land by domestic cattle? From Dāshlisārāy, Noghādā. Source: Authors archive. Down: a reed playing goatherd from Gobustan. Source: Джафарзада, 1999, Фиг. 39.

Fig. 5. The petroglyph depicts plowing land by domestic cattle, Valcamonica, Italy. Source: Anati, 2009.

that he is a goatherd who plays the flute for his goats (Джафарзада, 1999, Фиг. 39). Therefore, the scene that we see in the petroglyphs of Dāshlisārāy, whether it is a representation of domestic goats and goatherds or oxen and plowing, shows the rural life familiar with adapted stock breeding and agriculture. Such an idea has archaeological support. Because the archaeological evidence of the late Neolithic settlements, Shomo Tepe and Hajji Firuz horizons, was recorded from the field surveys and archaeological excavations in Karadagh (Ajorloo, 2009, 2016, 2019). Archaeologically, one also knows that goats are domesticated from the Early Neolithic, 9th millennium BCE (Zeder, 2012). At first glance, one has no direct evidence to assign the motif of reed-playing shepherds of Gobustan and East Hurānd to the Neolithic Age, and perhaps such a motif could be regarded as the Islamic one. However, if one compares such a motif in the framework of the *Capra* genus in both Gobustan and East Hurānd, it is more likely to be Neolithic. One of the bases for this argument is the obvious nudity of men in both the Gobustan and Eastern Hurānd groups as well as the dummies that Rafifar has proposed Shamanic interpretation for them. Overall, the majority of the scenes incised on the rocks of the Eastern Hurānd are more related to the hunting of *Capra* and *Gazella* than agriculture and animal husbandry. It is worth saying, these scenes related to hunting do not necessarily indicate a nomad hunter-gatherer community. Because, based on the analysis of the archaeological findings from the Neolithic villages of Umm Dabaghiyah and Abu Hureyra, the process of transition from hunting to farming and animal husbandry was slow and gradual and the settled farmer continued to feed on the meat of hunting animals such as *Gazella* and *Capra* (Mathews, 2000, 57-60; 2007, 79-80 & 86-89). The final group of petroglyphs from Eastern Hurānd are considered by the present authors as the pseudo-geometric ones. Because one cannot understand what their meaning and message are. This group has been recognized in Qishlāghdarasi (Table 1, No. 14). It goes without saying that in the Karadagh mine area, J. Rafifar has recognized and reported comparable petroglyphs (Rafifar, 2004a, Fig. 2). Such motifs have not yet been observed in Eastern Hurānd and the South Caucasian group, Gamiqāyā in Nakhichevan and Gobustan near Baku. In Gamiqāyā and Gobustan, in addition to human and animal figures, incised nested and twisted circles are remarkable. Academies of Baku and Nakhichevan, by an analogical argument, have attributed them to the EBA Kura-Araxes horizon, the 4th millennium BCE. They suppose such nested and twisted circles are very similar to the incised spiral motifs on the Kura-Araxes potteries (Джафарзада, 1999, Фиг. 143; Bəxşəliyev, 2004, 185-231).

Conclusion

As mentioned in the introduction of this research, the author's method for the relative chronology of Eastern Hurānd petroglyphs is based on the relative realization of wild and domestic animal species and the study of the archaeological background of domestic species. Even though human and animal petroglyphs have not yet been recognized from the horizon of Zarzian, one may want to attribute the human and dog petroglyphs of the Noghādā group to the Zarzian horizon only on the basis that the dog has been domesticated since the end of the 13th millennium. Despite this argument, one must note that the archaeological evidence and material culture of Zarzian from Karadagh have not yet been reported. Therefore, the hypothesis that dates these works as pre-Neolithic still remains problematic. Furthermore, the animal species recorded on the rocks from the Eastern Hurānd indicate two different times: the Late Neolithic, 6th millennium BCE and ancient Iran and perhaps Islamic centuries. The petroglyphs of a dog accompanying a human and a human plowing the land by driving an ox, or perhaps a goatherd playing the flute, suggest the Late Neolithic period. The acceptance of this idea, according to the archaeological evidence from the Neolithic settlements of the 6th and 5th millennium BCE Karadagh, is more logical than attributing these petroglyphs to the pre-Neolithic

millennia. Once again, it should be remembered that the emergence and expansion of rural life based on farming and herding as well as abandoning hunting and fishing was a slow process. Also, the camel motif indicates the fact that a small number of petroglyphs from the Eastern Hurānd collection were incised on rocks several millennia after the end of prehistory. Because the representation of the camel's motif can only be interpreted and explained based on the migration of pastoral nomad peoples, especially the Shahsevan of Azerbaijan, who have camel farming. Regardless of the theory of Shamanism for the interpretation of the human and animal petroglyphs from Karadagh, which was mentioned earlier, and of course is re-approvable in Eastern Hurānd, the hunting magic can explain and interpret the function of such petroglyphs, whose relative chronology is proposed to be the Late Neolithic period. As mentioned, in the prelogical mentality of a number of primitive or natural people, performing hunting magic rites is the necessary prelude to the act of hunting. One of the techniques of these rites is to draw or incise the image of the same animal that must be hunted. Remember that, in Qishlāghdarasi, one observes a Shaman and two men holding a buck with open hands as if they are performing rites or scaring that animal. Moreover, in the rock shelters of Qoshādāsh in Süngün, Bālādāgh of Lighlān, Gutānlu, and Zardarasi, one also finds a collection of petroglyphs of *Capra* and *Gazella* on rocks overlooking deep and dangerous mountain precipices. And so, it seems that the hunters of Karadagh, after performing the rite of hunting magic, hunted them by scaring and driving the herds of *Capra* and *Gazella* to these game drive systems.

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