BRIEF REPORTS

Newly discovered petroglyphs near Chamchang, Chahar Mahall va Bakhtiari, Iran

By MAHMOOD HEYDARIAN
and ALIREZA KHOSROWZADEH

Fieldwork undertaken in July 2016 led to the discovery of two rock art sites featuring 28 petroglyphs at Chamchang 1 and 2. These sites are located near Chamchang, Saman County, north-west province of Chahar Mahall va Bakhtiari, towards the centre of Iran (Fig. 1). The sites are located at a small pool, close to the road and to gardens and some 500 m from Chamchang. The region's level of precipitation is variable, reaching a maximum of 360 mm per year. The sites consist of dispersed schist blocks on the top of the rock outcrops (1971–1998 m asl). The boulders are friable with completely flat surfaces which could be easily worked on to create designs. The main technique applied in producing these petroglyphs is engraving, sometimes rubbing and very rarely hammering. Nevertheless, the foliated structure of schist and the high impact of weathering have resulted in disintegration of some motifs. Experience has shown that even walking lightly across friable rock surfaces (with or without rock art) can cause the outer 'skin' to crack and break away from the body of the rock. Therefore, the utmost care must be taken by recorders and visitors when moving around the rocks.

The methodology of research and data gathering for this paper have been fieldwork/survey, and the yielded data have been documented by the use of CorelDraw and Photoshop computer programs. The images include zoomorphs (mostly purported to depict ibexes), anthropomorphs and geometric motifs, undiscernible shapes and some Arabic names, similar to those found all over central Iran (Karimi 2013; Karimi and Ujang 2015; Naserifard 2007; Alian 2011; Zohori et al. 2011). Patination suggests that they may be of some antiquity. It seems, however, that local inhabitants have added some of the engravings to the site over recent years.

The outcrop at Chamchang 1 is 70 m wide and 55 m long. It is decorated with 19 simple motifs positioned with almost no superimpositions: 10 zoomorphs, three 'human shapes' and some ambiguous geometric and 'animal' markings (Fig. 2). The petroglyphs are located in the western, southern and eastern side of schist outcrop. This site is considered sacred by local residents who believe that the cupule-like features are hoof prints of the mule Duldul owned by Islamic prophet Mohammad or the prophet Imam Ali.

The outcrop at Chamchang 2 is 23 m wide and 37 m long. The petroglyphs are located in the western, southern and eastern sides of schist outcrop. There are 9 presumed scenes and engravings like 'ibexes' (2), 'humans' (2), 'locks and their keys' and some unknown zoomorphic and geometric motifs to be found (Fig. 3). Interestingly, there is much graffiti on this panel on the eastern side of this site, which includes the Arabic name of 'Hamed' and dates, indicating that they are no older than two decades. These graffiti may be useful for estimating the dates of petroglyphs (Bednarik 2007).

With regard to patination and weathering, the depictions at these two sites can be divided into two different groups. The first group, which seems to be the more ancient, can be found at both sites, including zoomorphs, anthropomorphs and geometric marks. The second group of depictions may relate to recent Islamic centuries and includes the Arabic name and date; it occurs at Chamchang 2.

The main 'animal' motifs on these petroglyphs are apparently ibex (or, generically, ovicaprids), depicted

Figure 1. *Map of Iran showing the location of Chahar Mahall va Bakhtiari province and Chamchang rock art sites.*

Figure 2. *Zoomorphs and geometric markings, Chamchang 1.*

Figure 3. *Zoomorphs, anthropomorphs, geometric markings, 'lock and key' and ambiguous markings, Chamchang 2.*

individually and of similar sizes. Some of their features are similar to those of 'ibex' petroglyphs in western, southern and central Iran, for example at Tange Barzgale, Tang-e Birzal, Shmsali and Gorgali Qameshlu, Howz-Māhy, Tiran and Karvan. The ibexes of the region are shown with stylised, long or short and detailed, curved horns. Among the petroglyphs is an animal with small body, short ears and long tail which resembles a fox.

The anthropomorphs are quite stylised and plain, mostly rendered in linear fashion with either narrow or thick lines. The other petroglyphs depicting human figures show them in three poses, with open arms, arms raised or arms lowered. The 'lock and key' motifs are comparable to those found at Chaleshtar (in Persian also Romanised as Chāleshtar and Chāl Shotor), a city in the central district of Shahrekord County, Chahar Mahal and Bakhtiari. One of the obsolete crafts there, which has a relatively large background in the area, is the lock-making industry. At the end of the Safavid period, the region was considered one of the industrial hubs of the time.

No scientific work has been conducted at these two new sites, and in the absence of any other archaeological evidence from the vicinity, the age of the petroglyphs remains unresolved. As with all other rock art regions of Iran, dating constitutes the most important challenge also at Chamchang.

Acknowledgments

We would like to thank Mr Hamidreza Mazaheri Chamchangi, our student and a local of the Chamchang region, for help in both finding the petroglyphs and providing information about the region.

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RAR 35-1272

Rock art site of Nakhlestān in Nehbandān, eastern central Iran

By HAMID REZA GHORBANI and MAHMOOD HEYDARIAN

Investigations conducted in Birjand in eastern Iran have shown a great potential of rock art in this region (Ghorbani 2013; Ghorbani and Sadeghi 2016). In July 2013, while conducting an archaeological reconnaissance in Birjand to locate prominent archaeological sites, we were directed by villagers to a petroglyph assemblage at this area. Hundreds of petroglyph panels have been identified and because of new permission and clearance requirements for actual visual recording of the corpus of images, none of them have been introduced yet. One of these sites, Nakhlestān, comprises three scatters of boulders that had rolled down the slopes. The petroglyphs are in danger of damage and erosion from the passage of local inhabitants and the high impact of weathering at the site. There is an urgent need to document and protect this site and this paper attempts to describe its petroglyphs.

The site of Nakhlestān is located some 5 km from the village of Doho in the Nehbandān county in south Khorāsān Province (Fig. 1). It consists of dispersed schist rocks on the hillside of the Nakhlestān range (1097 m asl). The site was well known to local inhabitants, but was first documented in 2013 by HRG.

The three petroglyph panels Nakhlestān 1, 2 and 3 are located close to the road from Chāhdāshi to Deh Salam. Petroglyphs have been engraved on surfaces of schist, located beside seasonal watercourses. The major technique applied in producing these petroglyphs is hammering, sometimes rubbing and very rarely en-

Figure 1. *Map of Iran showing the location of South Khorāsān province, Birjand, Nehbandān and Nakhlestān rock art.*

Figure 2. *Panel 2, north-eastern surface; zoomorphs, anthropomorphs, an Arabic name and geometric markings. Scale 50 cm.*

Figure 3. *Panel 2, western surface; zoomorphs, anthropomorphs and geometric markings.*

graving. Nevertheless, the foliated structure of schist and the high impact of weathering have resulted even disintegration of some motifs. The images include zoomorphs (mostly purported to depict ibexes), anthropomorphs and geometric motifs, undiscernible shapes and some Arabic names, similar to those found all over the east of Iran (Naserifard 2007; Khaniki and Bashash 1994: Rezaei et al. 2016; Saffaran and Mozhdekanloo 2014; Sigari et al. 2017; Vahdati 2012; Sarhaddi-Dadian et al. 2015). Patination suggests that they may be of some antiquity. It seems, however, that local inhabitants have added some of the petroglyphs to the site over recent years.

The research was performed in the field and library. In the field approach, after finding the site, exposed surfaces of the stone outcroppings were photographed and also all spatial data were collected by GPS, and all reliefs were recorded by Photoshop and Corel Drawing. In the library approach, we compared

Figure 4. *Panel 3, western surface; the Arabic names of Ali and Masih, some motifs enhanced with chalk by others.*

these samples and the similar ones. The first 'scene', around 120 × 60 cm, comes from all of the surfaces of the Nakhlestān 1 panel, where the majority of the more significant motifs were found.

Nakhlestān 2, around 140 × 110 cm, depicts a presumed hunting theme, including seven zoomorphs (Fig. 2). The Arabic name of Jaafar bo Saeid is also engraved in this panel. The western surface of this panel shows a presumed scene consisting of an 'ibex', a human shape and some ambiguous geometric marings (Fig. 3).

Panel 3, around 120 × 60 cm, contains some animal-like shapes, a number of ambiguous and indistinguishable geometric and human images and the Arabic names of Ali and Masih (Christ) (Fig. 4).

With regard to patination, the depictions at Nakhlestān can be divided into two different groups. The first group, which seems to be more ancient, can be found on three panels, including zoomorphs, anthropomorphs and geometric marks. The second group of depictions may relate to much more recent Islamic centuries and includes Arabic names, which can be found on panels 1 and 3. More surveys in Nakhlestān and neighbouring valleys may assist in providing a much-needed chronology. The results of ongoing work in Birjand will be discussed in detail in a further publication.

Given the lack of scientific work with the rock art and the general dearth of publications on Iranian rock art, it is impossible to estimate the age of the Nakhlestān petroglyphs. So the dating of the petroglyphs must rely on comparisons with the wider context of the Khorāsān and Sistan regions and its archaeological landscape. By comparing the patterns of rock arts in southern Khorāsān with motifs of eastern Iran we can see a lot of similarities, especially in Lakhmazar (Khaniki and Bashash 1994), Jorbat (Jajarm) (Vahdati 2012), Marzbanik (Moradi et al. 2013), Toos (Saffaran and Mozhdekanloo 2014), Negaran (Sarhaddi-Dadian et al. 2015), Bishiklik (Rezaei et al. 2016), Balandar (Sigari

et al. 2017) and Penhani (Yarabbi et al. 2017). As with all other rock art regions of Iran, dating constitutes the most important problem regarding Nakhlestān rock art. Direct dating methods may be applicable but have remained inaccessible in Iran. Our research in the south of Khorāsān is ongoing.

Acknowledgements

We would like to thank Mr Rezaei, Mr Barabadi, Mr Soroush and Ms Zafaranlo at the Southern Khorāsān ICHTO (Iranian Cultural Heritage and Tourism Organisation) for all of their help and encouragement.

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RAR 35-1273

Token exchange and beads: the problem of reliable language

By MATHIAS AESCHLIMANN

Introduction

The 'handicap principle' tells us that to be effective, signals must be so costly that cheating is unprofitable (Zahavi 1975). Because words are cheap, it has been argued that the emergence of speech is thus theoretically impossible (Zahavi 1993). No acoustic feature can tell a listener whether the speaker is lying or not. So far, no attempt to reconcile the existence of human language with Darwinian principles has been successful. In this paper I propose a simple solution. Knight (2008) recognised that words are not always cheap: if they constitute an enforceable contract, cost is present.

The problem thus understood is: how can a contract have been enforced before legal systems existed? As a solution to this problem I propose token exchange. While talk is cheap, it can be coupled with a valuable token, given by the speaker to the listener. The token can act as either a gift or a pledge. By interlinking the word with the token, the cost of the word becomes the value of the token.

This establishes a network of artificial familiarity and reliability between members of different groups. Through the profit motif dictated by basic economic logic, this solution is in accordance with Darwinian evolution. In order to be exchanged these tokens would need to be portable. Further, because having free hands is advantageous, wearable tokens are beneficial.

First contact

Assuming that token exchange enables words to become reliable, another problem arises. The exchange of a token virtually presupposes physical proximity between the giver and the taker. The giver/speaker has to approach the taker/listener. Assuming the possibility of malice in early humans, this could be interpreted as an attack by the taker/listener. What is therefore needed is a sign that reliably communicates friendly intent.

I suggest that Palaeolithic society solved this in a remarkable way, by introducing jewellery, such as a necklace or armlet. Approaching a stranger while wearing a necklace puts one at a disadvantage (cost) — foremost the possibility of losing the valued possession. An aggressor cannot copy this sign without paying the hefty price that constitutes the potential loss. Wearing ornaments could thus be a stable and reliable sign of friendly intent.

The effect can be reinforced by bringing a present (from Latin *presentare*, 'to show'). This could explain the origin of the prevailing custom to dress up (e.g. to wear jewellery) and to bring a small gift to an invitation.

The bead necklace can thus achieve two goals: signalling (a) friendly intent (when worn) and (b) reliability (when used as a gift or pledge).

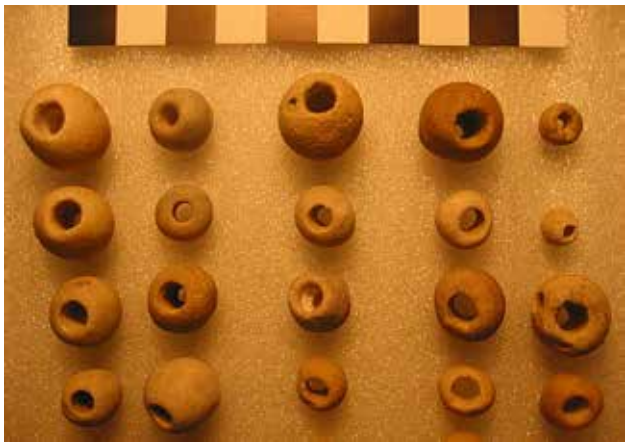

Figure 1. *Some of the earliest beads known: stone beads of the Acheulian, consisting of carefully selected fossil casts of* Porosphaera globularis *that have been modified and heavily worn while arranged on a string. Photograph by R. G. Bednarik.*

Token exchange

The importance of token transfer can be seen in customs up to the present. Wedding objects were originally such tokens. Having to give a wedding ring (or another object) to the spouse (or spouse's family) indicates earnestness.

In a society that pre-dates monopolised judicial systems, an agreement or promise would hardly be enforceable. While this is not different for contracts based on token transfers, assuming the token to be a pledge, it binds the token giver economically to the agreement. If the token giver backs off, he will lose the token, while backing off from a mere agreement or promise costs virtually nothing. If the token acts as a gift, its value signals reliability as well.

The almost global phenomenon of wedding objects bears witness to this contract theory of token exchange. The phrase 'as a token of appreciation' (and German: '*als Zeichen der Aufmerksamkeit*') when giving a small present indicates the same logic: instead of solely uttering a cost-free 'Thank you', the words are boosted with something that has a cost, like a flower bouquet or a box of chocolates.

The ubiquitous usage of beads and tokens in Palaeolithic times, as evidenced by archaeology (Bednarik 2005a, 2005b; Vanhaeren et al. 2006), can be explained by their usage as contract tokens and signs of friendly intent.

With the practice of token exchange language can develop and start to free itself from the association with the exchange token. Because people get used to 'putting one's money where one's mouth is', a culture of reduced deception emerges and the importance of the token diminishes slowly. With the introduction of monopolised enforcers of agreements or promises, token exchange loses most of its original function, but the tokens themselves commonly persist as decorative objects and traditions.

Conclusions

The rightly perceived problem of cheap speech, i.e. that speech is free of cost, does not lead to incompatibility with evolution. Instead, as I have demonstrated, this problem can be intercepted by linking speech with valuable items. I have examined the transfer of tokens regarding their ability to create contracts (binding agreements). Demonstrating its theoretical feasibility, I suggest this solves the reliability problem of human language: the development of language started when for the first time someone made a gift to a stranger.

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RAR 35-1274

Why not leave intangible aspects of Fennoscandian Stone Age hunters' rock art alone?

By OTTO BLEHR

> *When it comes to rock art studies the answers one looks for are so uncertain and difficult to test that articles where the authors present their most subjective proposals for interpretations cannot necessarily be said to be further away from the truth than proposals from other [rock art researchers]* (Wold 2002: 13, my translation).

Some years ago I wrote an article where I claimed that the rock art purportedly picturing elk (*Alces alces*, moose in America) once had a role in communal hunting of this cervidae in northern Sweden during the Stone Age (Blehr 2014). In writing the article I relied on two rather simple ethnographic analogies: first, since lithic artefacts found at Stone Age campsites in the area (Lundberg 1997: 28) had been identified as

arrowheads due to the fact that almost similar forms were known ethnographically, I could take archery for granted. Next I presumed that the effective range of the Stone Age hunters' arrows was more or less the same as for more recent archers known from the ethnography, roughly 23 metres. Of crucial importance was that I also had insight in the elk's flight behaviour and the possibilities and limitations that this behaviour would have offered the ancient hunters, with their particular weapons technology. To a certain degree, this made me able to share the Stone Age hunter's cognition as to the effectiveness of various hunting strategies (Blehr 1991: 362). It became apparent that due to the short range of the arrow, the elk would on most occasions have saved itself by flight, before the archer would have been able to come within the range where he could release his arrows with any hope of success. Thus, communal hunting was a necessity, if people were to rely on elk as prey. It was carried out by driving them to their death over precipices, or into lakes or rivers where they respectively would be outmanoeuvred by hunters in boats or killed by hitting rocks in the swift running water. The drives took place in the autumn (Blehr 2014: 238), when the meat was at its fattest and the hair on the elk skins had the length suitable for clothing (cf. Balikci 1964: 53). Elks, as other cervidae, are known to close ranks when pursued, and the hunters may have made the petroglyphs and paintings of them in the belief that this would lure the elks to join with the, from the point of view of the hunters, strategically located depiction of them. If this were the case, it means that they practised a kind of hunting magic predicated on the physical proximity of the real prey to their engraved or painted counterpart (Blehr 2014: 236). This can never be anything but a hypothesis. However, since rock art purportedly depicting elk so far has only been found at localities suitable for communal drives, it seems defensible to claim that a connection between communal drives and rock art of elk has been established. During the heyday of post-processual archaeology, the link between rock art and procurement of elk was rejected, and the rock art was instead interpreted as shamanistic. Let me illustrate this with excerpts from three articles that at present are found at a reading list (ARK112 pensum vt 2017) at the University of Bergen, Norway. They illustrate what the rock art researchers who today set the tone at the department of archaeology want their students to acquire:

> ... the Finnish rock paintings can be interpreted as an expression of a shamanistic system of beliefs. Their iconography appears to reflect experiences of falling into trance, of summoning sprit helpers, of changing one's physical form, and of journeying to the Otherworld. The elk, we may suggest, is pictured not as prey but as a spirit helper or a soul animal of special importance (Lahelma 2005: 43).
>
> It is here suggested that the most frequently depicted motifs [elks, boats and humans] can be related directly to potency in societies practising shamanism during the Neolithic and Bronze Age. The close relationship between rock carvings/paintings and water is emphasized as important when understanding the mythological message expressed in the rock art (Bolin 2000: 153).
>
> ... the reason that rock carvings were located along the shore might be connected to a common fundamental concept in all northern belief systems and practice. The liminality argument might connect the carvings to cosmology, shamanism and shamanic practices over northern Scandinavian … (Helskog 1999: 75–76).

How can interpretations like these be assessed? It seems as if the researchers never scrutinise their respective interpretations, neither their own ones nor those put forward by others. While they certainly share a common source of inspiration, manifested, not least, in a number of canonical texts, they do not engage in a scholarly discussion of how to best evaluate or defend their conclusions. What they share, on the opposite, is a dedication to pluralism or even non-intervention in the scholarly process. When Goldhahn (2008: 16) asked several colleagues about the works that had made most impact on their own research, the answers he got were rather consistent. One of the three works singled out was by Tilley who in his book about Nämforsen (1991) likened the rock art with a text with just as many possible readings as readers.

Coming as I am from a scientific tradition committed to ideals of testing, probing and challenging the data, methods and findings of colleagues, Tilley's anti-scientific argument left me puzzled. While I was able to point to a relationship that can be falsified, between rock art pictures of elk and communal hunting, I cannot see how the interpretations of the rock art presented by the authors of these articles I excerpted from can ever be refuted. The same goes for the interpretations of hunter's rock art by their colleagues, focusing, as they all do, on immaterial, esoteric and generally intangible aspects of former life-ways, as ritual, religion, cosmology, identity or ideology (cf. Fahlander 2004: 204).

It should be added that, with a few exceptions, the Fennoscandian archaeologists focusing on the interpretation of rock art do not themselves claim that their work is scientific. Goldhahn for instance states 'that there is no safe and "objective" way to gain absolute knowledge about the rock art of the Neolithic hunter-gatherer in the northern part of Scandinavia today' (2002: 56, author's quotation mark). And Holly Martelle states that 'when making inferences [one] should go beyond the visible data and attempt to make speculations and cultural reconstructions. This since people rather will read a story book than a laundry list' (1994: 41). And indeed, storybooks are what we are getting (Bednarik 2016). Ethnographic analogies from near and far are used to illustrate the rock art archaeologists' most fanciful hypotheses that at the same time are transformed from just illustrations to the status of facts (cf. Fahlander 2004: 189).

The interpretation that the painted or engraved apparent pictures of elk in Fennoscandian have had

a connection to communal hunting of this cervidae differs very markedly from the ones given to the 'elk' images by rock art researchers. Whose interpretation then, is the right one, theirs or mine? Is it mine since it is possible to falsify it? Or is it my opponents' for whom this is not possible? Obviously my questions are rhetorical. When I was young and worked as a folklorist I told the guru at a folklore institute that the term they used for a particular form of folk belief communication did not have any empirical content. I was then told that they had invested so much in the term that they could not reject it. Are not the present members of the Fennoscandian rock art milieu now in the same situation as the folklorist I contacted back in the 1950s? Have they not by now invested so much in their imaginative interpretations of rock art that they have reached the point of no return?

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RAR 35-1275
