

Rock Scenes of Goats and Herders in Dhofar: An Analogy with the Dhofari Traditional Goatherds

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Abstract: *This study aims to address goat scenes in the rock art in Dhofar region and looks for any similarity with the practices of present goatherds in the same region. The researcher investigates and compares images presented in this rock art with the traditional goat herds management practices in Dhofar. Al Shari (1994) has documented rock scenes of goats in the mountains of Dhofar in southern Oman. The study revealed some similarity between the goat rock scenes examined and the present-day conditions. Consequently, it is achievable to establish a reasonable analogy with the current traditional goat management in Dhofar. The similarity in some respects between the rock scenes and the traditional practices is in fact a form of reasoning based on the assumption that if two things are known to be alike in some respects, then they are probably alike in others. The details of these characteristics show that goats are always guarded and in the company of men. Moreover, the rock scenes portray prominent goat udders and small number of goats depicted on the rock scenes.*

Keywords: Rock Scenes, Goats, Herders, Dhofar, Oman.

Introduction

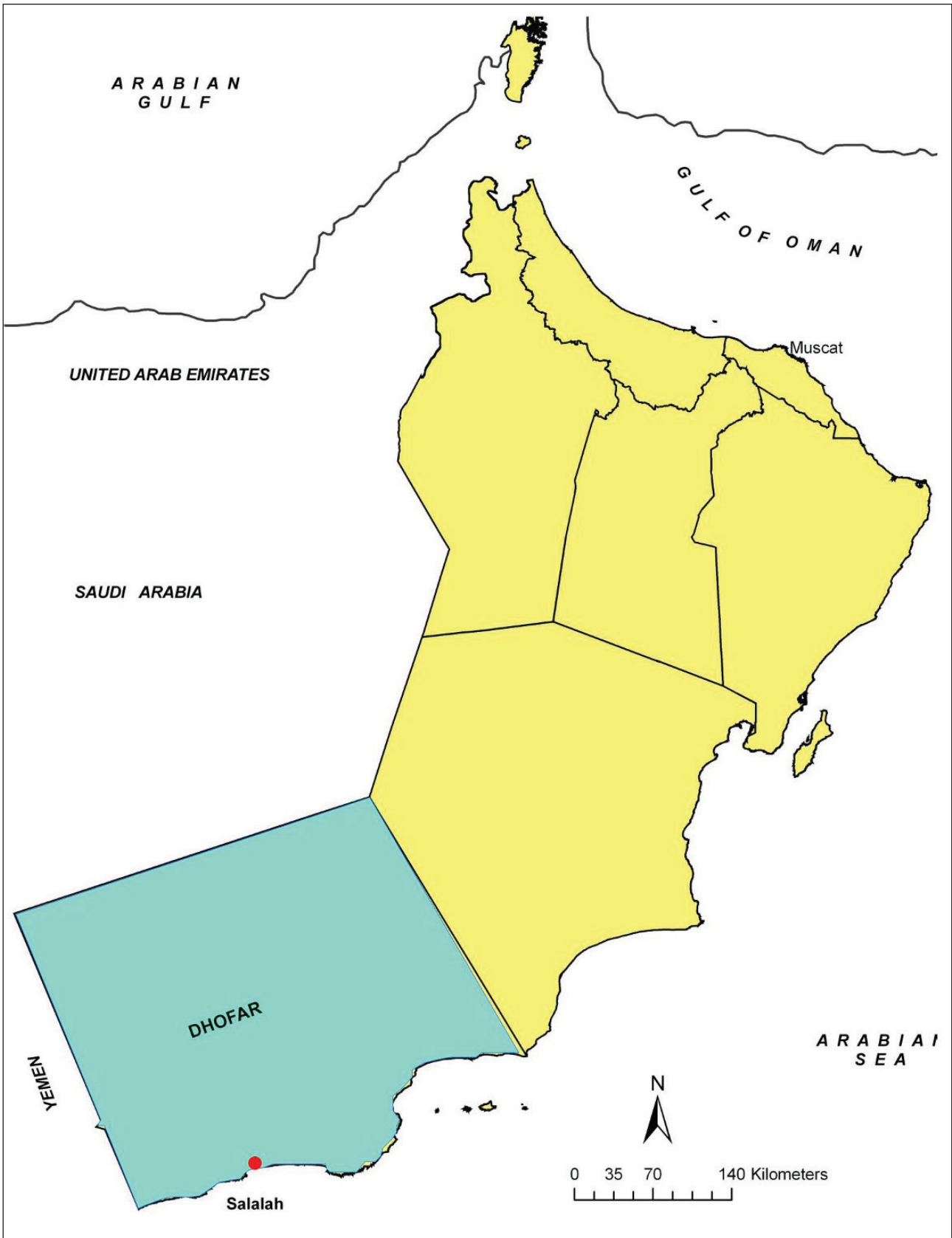
In Oman, rock art sites, including cave paintings, petroglyphs and sculpted rock reliefs have been the attention and focus of several researchers (e.g., Clarke, 1975; Preston, 1976; Jäckli, 1980; Jäckli, 1980; Janzen, 1986; Johnson & Earle, 1994; Insall, 1999; Al Shahri, 1994; ElMahi, 2001 & 2013; Fossati, 2009 & 2013 ; Al Jahwari & ElMahi 2016). For instance, Al Shari (1994), has primarily documented rock art scenes in Dhofar. Rock art in Dhofar reflects remarkable paintings in the caves and rock shelters.

Nonetheless, the dating rock art remain a difficulty for archaeological investigations. Therefore, it is possible that rock art dates can possibly extend from the early Stone Age to historical time.

This paper examines rock art of Dhofar

and focusses on depicted scenes of goats. Accordingly, this study is an attempt to examine goat rock scenes in order to establish reasonable analogies with the traditional contemporary goatherds in Dhofar. Again, rock art in Dhofar presents clear images of pastoral groups, which indicates that pastoralism was an ancient practice and adaptation practices.

However, thus far, there is no absolute verification of the earliest date of pastoralism in the region of Dhofar. In the absence of such a Neolithic archaeological evidence, Zarins (2001) compared the archaeological material recovered in Dhofar region with the evidence retrieved from Eastern Arabia and other parts of Oman. This comparison indicated the possibility that Neolithic in Dhofar equally progressed in three periods based on its stone technology (cf. Zarins (ibid.). Moreover, these periods must had come into existence in the following dates



Map 1: Study Area: Dhofar, Sultanate of Oman.

as suggested by Zarins (2001 415):

- A. The fir BC.
- B. The second Neolithic period between 5000-3800 BC.
- C. The third Neolithic period between 3500-2300 BC.

Furthermore, the archaeological material recovered by Zarins (ibid.) in Ayun, Wadi Dhahabun, Dauqabun, Danqa, Hailat Araqa, and Matafah do not contain evidence of fauna remains. In addition, archaeological records do not contain any evidence or absolute dates of domestic animals in Dhofar. Consequently, substantial evidence of faunal archaeological remains significantly need to determine the date of the early happening of pastoralism in Dhofar. Hence, the early happening of pastoralism in Dhofar will remain unknown until verified and validated by archaeological evidence.

Furthermore, archaeological and environmental investigations focused on the study of pastoralism in the Dhofar region (cf. Horisk et al. 2023, Rose 2022 and 2023, McCorriston et al. 2020, McCorriston 2023 and Newton and Zarins. 2019). This has cast light on the archaeology of prehistoric pastoralists in Dhofar.

Additionally, the current paper duly looks into the results of the field investigations carried out by El Mahi (2000, 2001, 2011 and 2013) in Dhofar region. The investigations by El Mahi (ibid.) focuses on the Dhofari traditional pastoral groups, their ways and the management of their animals and resources. This ethnoarchaeological investigation interviewed the pastoralists and closely examined their methods and practices. Therefore, reasonable analogical analyses can possibly cast light on both: the time of the traditional pastoralism's ways and methods and the prehistoric pastoralism in Dhofar region.

Indeed, the traditional pastoralism in Dhofar can aid in explaining and clarifying some of the rock scenes.

As stated above, the current paper focusses mainly on goat scenes in the rock art in Dhofar, and reasons that analogy can be an effective course in this attempt. However, before proceeding with this endeavor, it would be useful to the reader to set out and describe the environmental conditions of Dhofar region as the context of the study.

Dhofar Region

The region of Dhofar in the south of Oman near the western boundaries of Yemen (Map 1). All the way through history, Dhofar has been an element of spacious trade, tribal connection across the sea and over the desert of the Empty Quarter (Rub al-Khali). From prehistoric times in the Stone Age, human groups inhabited Dhofar and a range of archaeological evidence of stone technology has confirmed the antiquity of Dhofar region.

In Dhofar, the environmental conditions are characterized by annual Monsoon winds, which set up a unique ecological biotope in southern Arabia. Annually, between June and September, Monsoon winds and its thick fog generates heavy rains, which support the thick woodland, flourishing, and booming vegetation cover in the region.

The topography and vegetation cover in Dhofar are embodied in six ecological zones as stated below, which stretch from the Arabian Sea to the desert (Fig. 1). Significantly, some of these zones are under the influence of the Monsoon winds and the following vegetation cover (cf. Miller and Morris 1988; Ghazanfar 1992 and ElMahi 2011).

Zone 1: The Coastal Plains

In Dhofar, scattered trees, low sub-shrub

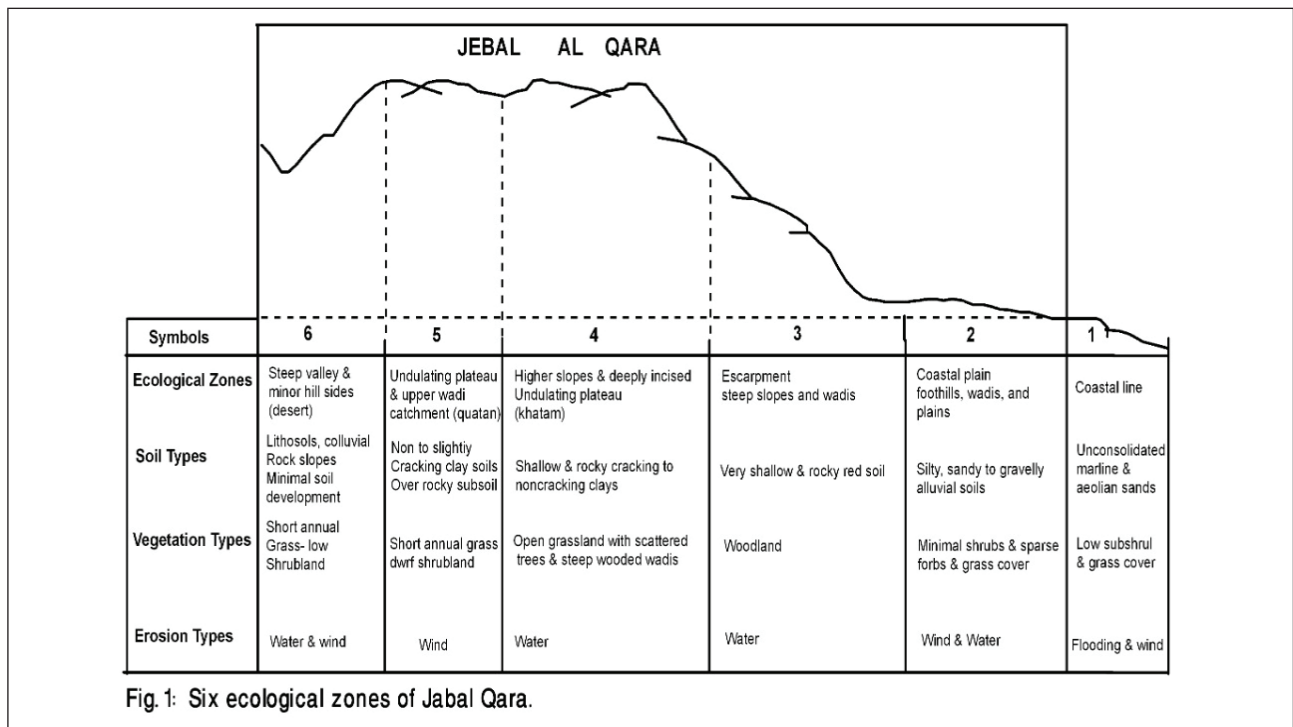


Fig. 1: Six ecological zones of Jabal Qara.

Fig. 1: The Six Ecological Zone of Jabal Qara, Dhofar. (After Miller and Morris 1988: Fig A-B and Hag Bahit (n d) in ElMahi 2001: Fig. 1.).

and grass characterize the zone, and the plant species common in this zone include the following: *Avicennia marina*, *Acacia tortilis*, *Zizihus teucadermis*, *Tamarix aphylla*, *Cadaba baccarinil*, *Cadaba farinose*, *Caesalpinia erianthera*, etc.

Zone 2: The Foothills

Minimal shrubs, sparse forbs and grass cover are common in this zone and these plant species include *Boscia arabica*, *Commiphora* spp., *Grewia* spp., *Croton confertus* and *Jatropha dhofarica*.

Zone 3: The Escarpment

It is a woodland characterized by the following: *Acacia Senegal*, *Commiphora* spp., *Mytenus dhofarica*, *Croton confertus* and *Blepharispermum hirtum*, *Delonix elata* *Anogeissus dhofarica*, *Stereocutia africana lanea* sp., *Cissus quadrangularis*. *Ficus* spp., *Ziziphus-spina-christi* and *Acacia nilotica* trees.

Zone 4: Khatam

It is an open grassland with scattered trees and steep wooded wadis, and the common plant species include *Euphorbia balsamifera* and *Commiphora* spp.

Zone 5: Qatan

This zone contains short annual grass and dwarf shrubs such as *Acacia etbalica*, *dracena serulata* and *Commiphora serulata*.

Zone 6: Al Najed

Al Najed is a desert land with short annual grass- low shrub land such as *Boswellia sacra*, *Acacia etbalica* and *Nonorhops richiana*.

Goat Herding Tribal groups in Dhofar

In Dhofar, eighteen tribes practice herding goats and spread all over this region in southern Oman. They are listed in Table 1 (Janzen, 1986 and ElMahi, 2013 25):

No.	The Tribe	Area of Occupation
1	Bait Mashani	This tribal group occupies the eastern parts of Jabal al Qara and Jabal al Qamr.
2	Bait Shahrah	This group inhabits the mountains of Jabal al Qara and al Qamr.
3	Al Mashieki	These are Jabalis and occupy the area east of Jabal al Qara.
4	Al Kathir	This group are also Jabalis and live west of Jabal al Qara.
5	Al Mahra	They are Jabalis and live in the Barbazoon area, which is in al Najd. The al Mahra also occupy the eastern parts of Jabal al Qara. A related group is also in the western parts of Jabal al Qara.
6	Bait Khathir	These people dwell in Dhaboon and some western parts of the areas in al Najd. They have camels and goats.
7	Al Barama	This is another Jabali group, living in central and north Jabal al Qara. They keep camels, cattle and goats.
8	Bait Al Awayid	Members of Bait al Awayid live in the eastern parts of Jabal al Qara. Their herds comprise camels, cattle and goats.
9	Bait Hardan	Bait Hardan members keep camels, cattle and goats and live in the western parts of Jabal al Qamar.
10	Bait Shamas	In central areas of Jabal al Qamar, Bait Shamas members herd their camels, cattle and goats.
11	Bait Akak	Members of this group occupy central area of Jabal al Qamar. They keep camels, cattle and goats.
12	Bait al Amri	The al Amris live in eastern areas of Jabal al Qara and herd camels, cattle and goats
13	Another group of Bait al Amri	This group lives in the western parts of Jabal al Qamar. Their animals are also camels, cattle and goats.
14	Bait Said	The Bait Said people inhabit the western parts of Jabal al Qara. Their animals are camels, cattle and goats.
15	Bait Qatan	Members of the Bait Qatan group live in central parts of Jabal al Qara. Their animals are camels, cattle and goats.
16	Bait Tabook	The central parts of Jabal al Qara are where the Bait Tabook people live and herd their camels, cattle and goats.
17	Bait Keshob	The Bait Keshob people also live in the central parts of Jabal al Qara and keep camels, cattle and goats.
18	Bait Jabooob	Bait Jabooob group members live in the central parts of Jabal al Qara with their camels, cattle and goats.

The seasonal ecological conditions in the six ecological zones have formed an ecoregion of lush vegetation. Seasonally, Dhofar region has abundant and dense amounts of vegetation. The Monsoon winds provide this ecological setting with seasonal heavy rains and dominate the characteristic of the plants in this region. The

flora in this ecosystem is densely and rich grassy terrains during a season known locally as Al karef. Continuously, these seasonal conditions have been suitable for various animal species. Henceforth, seventeen Dhofari tribes have been found engaged in goats and other domesticates herding.

The Goat Herder Tribes in Dhofar:

No.	Tribe	animal	Mountain
1	Bait Mashani	Goats	Jabal al Qara
2	al Mashieki	Goats	Jabal al Qara
3	al Kathir	Goats	Jabal al Qara
4	al Mahra	Goats	al Najd and Jabal al Qara
5	Bait Khathir	Goats	al Najd
6	al Barama	Goats	central and north Jabal al Qara
7	Bait al Awayid		Jabal al Qara
8	Bait Hardan	Goats	Western parts of Jabal al Qamar.
9	Bait Shamas	Goats	Jabal al Qamar
10	Bait Akak	Goats	Jabal al Qamar
11	Bait al Amri	Goats	Jabal al Qara
12	Another group of Bait al Amri	Goats	Jabal al Qamar
13	Bait Said	Goats	Jabal al Qara
14	Bait Qatan	Goats	Jabal al Qara
15	Bait Tabook	Goats	Jabal al Qara
16	Bait Keshob	Goats	Jabal al Qara
17	Bait Jaboob	Goats	Jabal al Qara

As can be seen from the table above, seventeen tribes herd goats in Dhofar. These tribes inhabit two mountain areas Jabal Al Qara and Jabal Al Qamar in Dhofar region. These Dhofari pastoral groups have a well-adapted cultural ecology that enables them to survive the environmental conditions in the region.

Thus, in such geographical and ecological conditions, goats can be found in two zones of Dhofar:

- I. The coastal plains and foothills.
- II. Al Najd zone.

The coastal plains and foothills zone is characterized with shrubs such as *Croton confertus* and *Jatropha dhofarica*, *Grewia* spp. and *Comintphora* spp. Moreover, trees of *Boscia arabica* are widespread. As for Al Najd zone, it is in the southern region of Dhofar, which is mainly a desert area. It also includes

spacious plains, including certain plants species such as *Acacia etbalica*, *Nonorhops richiana* and *Boswellia sacra*.

The seasonal conditions in the ecological zones have formed an ecoregion of the lush vegetation and green landscape. These seasonal conditions have been suitable for various animal species. Consequently, seventeen tribes have directed their adaptation and economy towards goat herding.

Rock Goat Scenes in Dhofar

At present, the main source of goat scene in the rock art in Dhofar is the publication by Al Shari (1994 - in Arabic *يرحشلا* 1994). In the following table, Al Shari 1994 (*يرحشلا* 1994), has documented the rock scenes of goats in Dhofar:

No.	Plate	Goats	Plates (after Al Shari 1994)
I	1	~	174
II	2	~	173
III	3	~	175
IV	4	~	75
V	5	~	172

It is evident that this ruminant mammal appears only in five scenes in the whole of the rock art in Dhofar (cf. plates 1,2,3,4 & 5) as documented by Al Shari (1994: 75, 172, 173, 174 and 175).

Discussion

Rock art has always remained one of the most challenging research areas in archaeology. Up to the present, rock art has not been subject to dating by absolute dating methods. Additionally, the complexities and complications in understanding rock art raises questions yet to be answered; for example, was the prehistoric artist depicting and representing images and scenes from what they see directly in their environment or it is from their memory

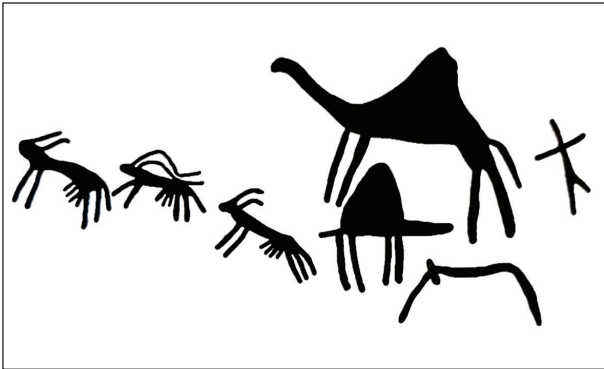


Plate 1: Goats and Camels. After Al-Shari (1994: plate 174).

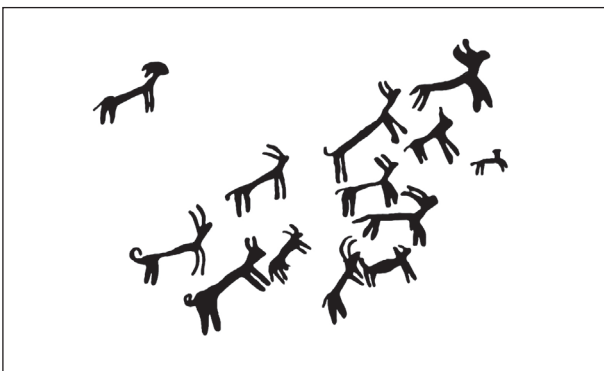


Plate 2: Goats, After Al-Shari (1994: plate 173).



Plate 3: A Buck with Prominent Horns. After Al-Shari (1994: plate 175).



or imagination?

Therefore, explaining the images portrayed in the rock scenes in Dhofar and detecting their meaning necessitates a reasonable analogy that compares and equates the ways and methods of the traditional Dhofari goatherds and the contents of the prehistoric rock scenes.

Examining these scenes, reveals certain

characteristic features that delineate visible scenes of goat management and environmental interactions in Dhofar. The features are explained below:

- A. Small number of goats depicted on the rock scenes.
- B. Always guarded and in the company of men.



Plate 4: Goats. After Al-Shari (1994: plate 75).

C. Noticeable large size of the goat's udders.

Accordingly, a closer look and analysis are necessary to reach a reasonable understanding of these scenes and focus on the observed characteristics in the rock scenes and their content to achieve acceptable analogies.

Small Number of Goats Depicted on the Rock Scenes.

Indeed, examining these rock scenes shows that the depicted goats are small in number. When compared to horses and camels, goats are depicted in small numbers in the rock art of Dhofar. Even when compared with scenes of a wild animal such as the Nubian ibex *Capra nubiana*; goats are portrayed in very small numbers. In fact, each rock scene documented by Al Shari (1994) makes evidence of the smaller numbers of goats. To find an explanation for this observation, one needs to turn to the traditional goatherds in Dhofar and examine the size of the goatherds they tended. Consequently, it is necessary to review research efforts in Dhofar that can potentially signify that goats are usually found in herds of small numbers. Holding attention is the study by ElMahi (2011: 76), which verified this practice among the Dhofari goatherds:

“Again, in nomadic pastoralism, the herd size is under continuous check, restrained



and controlled by the carrying capacity of the available pasture. Therefore, the numbers of animals cannot be increased to avoid food scarcity. Manifestly, under such environmental conditions of uncertainty and economic orientation, herd size is their security and vulnerability”.

Therefore, keeping goat herds in small size and numbers is a crucial part of the herd management. This trend among the Dhofari herders is a vital part of their management. In essence, it is the livelihood and insurance of these herding families, which are completely dependent on goats. Interestingly, goatherds consider and conduct keeping goats in small numbers as a way of protecting the herd. In essence, the Dhofari goatherds defy willingly the opinion that affirms the following: “Security in numbers”. This indicates that by being part of a larger physical group, an individual is less likely to be the victim of an accident, attack. Nonetheless, goatherd maintain small numbers of goats as form of cultural adaptation, which is a cognizance and awareness held as true and valid for the prosperity of their herds.

On the other hand, each family of goatherds consists of few members; the father, the mother and usually around three children. In a personal communication, an elderly goatherd stated that a man who has five children is quite rare

among the Dhofari families. The family does not exceed a limited number. ElMahi (2011: 29) endorses this among traditional goatherds and affirms it to be true as vividly shown in the following quote:

“Small families suggest a low population density, which must have served well the economy and adaptive strategies. The principle is simple: low population density has a significant impact on the subsistence strategy of the group in question”.

Moreover, the Dhofar families of goatherds consist of few embers and all members of the family are usually engaged in herding and watching over the herd. Again, this would necessitate possessing a small number of animals. In a personal communication, elderly goatherds affirmed that the reason for keeping a small herd rest in the following factors:

The first factor stems from the tribal principles and regulations of the Dhofari tribes; the principles confirm and authorize that each family has a specific pasture grazing area. They are to herd their animals and graze within the limits of this specified area and its acknowledged boundaries. Each family is to act according to the directions of the tribal regulations and laws.

Therefore, they cannot take their herds beyond the boundaries of their pasture territory. ElMahi (2011: 137) confirms this practice among the goatherds in Dhofar and concludes that such pasture areas have to be within their tribal territory. This is well understood and justified by the norms of the community. It is also noticeable that whenever it comes to the Dhofari herders, they regard themselves as an assembly of persons grouped for a common purpose.

The second factor is the herders' understanding of the ecological carrying capacity and the limitations of their environment. For

this reason, it is considered a form of adaptation and adjustment to Dhofar ecological tolerance capacity and limitations of their environment. For this reason, it is considered their adaptation to Dhofar's ecological seasonality. In this situation perspective, Bodley (1997: 295) identifies adaptation as the continuing cultural process that keeps a stability between a population and natural resources within a given environment. Accordingly, the Dhofari traditional goatherds are profoundly aware of the ecological carrying capacity balance, and recognize the requirements of the herd. This is dictated by the type of grazing grounds and the needs of the herd. In fact, the Dhofari goatherds have accomplished adaptive success, which is the continuous survival of their cultural system in this specific environment throughout time. Furthermore, Johnson and Earle (1994:27) rightly stated that when the density of a given population not extend high, then the efficiency of subsistence strategy remains high.

It is unquestionable, that the traditional goatherds and the prehistoric groups had developed practical reasoning abilities. At the same time, traditional and prehistoric societies must have been cognitively more flexible to change their ways and methods, when it came to their material culture. Nonetheless, they would not accommodate or tolerate any conceptual change of any of their cognitive content held as true convictions. Their ways and methods must have been the performance of some composite cognitive results generated by high reasoning ability, experience and knowledge.

B. Always Guarded and in the Company of Men.

The herds are always portrayed guarded and in the company of herders. As it was stated, the whole family is engaged in goat herding and the herd is always well guarded and watched over

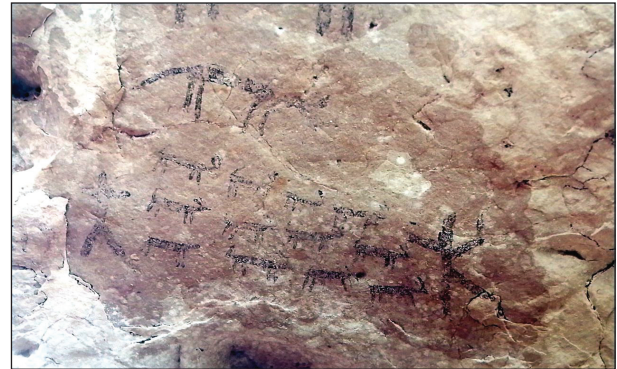
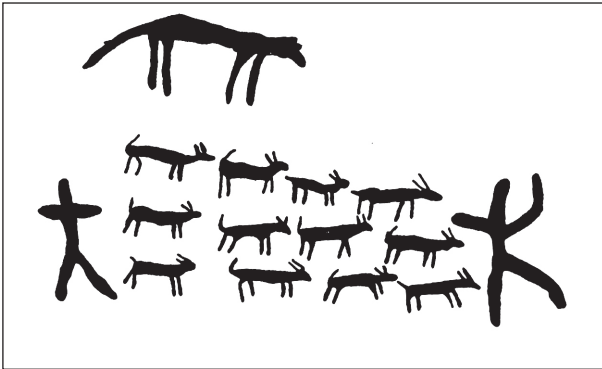


Plate 5: Goats Herded by Men and a Wolf Lurking. After Al-Shari (1994: plate 172).

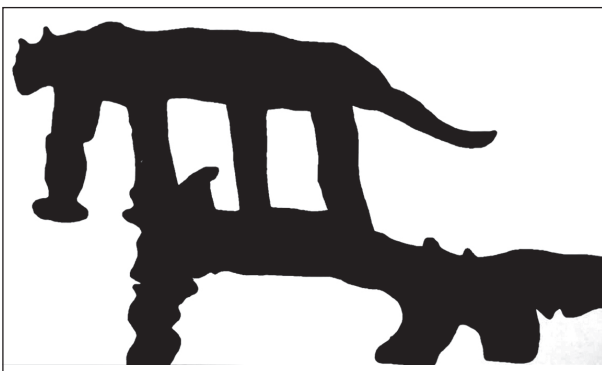


Plate 6: A Leopard. After Al-Shari (1994: plate 155).

by members of the family. They would take the herd in the morning to graze and return home late afternoon. Usually, their homes are close to the pasture areas. In essence, an overwhelming necessity must force these families to take their animals to pasture areas and guard them from potential enemies namely, wolves and leopards (Plate 5 and 6). The threat of these wild animals is knowledgeable and well experienced by the contemporary traditional goatherds in Dhofar. Therefore, the presence of these predators necessitates close safeguarding and continuous watch by the traditional goatherds (Plate 7).

On the other hand, the rock scenes indicate that these beasts have always been part of the fauna in Dhofar region. Thus, these beasts are part of Dhofar regional fauna from prehistoric times and they had influenced human groups and their animals in potent manner.

Hence, the Dhofari ancient artists depicted a

wolf lurking close to goats, and two men waving with their arms to expel and drive away the wolf (Plate 5) and in Al-Shari (1994: plate 172). One wolf appears in another rock scene and close to a goatherd. This reciprocal interaction must have been a serious concern among the prehistoric goatherds, which propelled and compelled the artists to depict such scenes.

Moreover, it is quite possible that the small number of goats depicted on the rock scenes reflects what the prehistoric artists knew and saw among their own groups. Small number of goats must have been a long-established management practice known and adopted by the prehistoric goatherds in Dhofar. It is unquestionable that the direct impact on the herds by such predators (wolf or leopard), made the prehistoric artists acknowledge this continuous threat to their animals.

C. Sizable Goat Udders

One of the rock scenes portrays goats with prominent udders (plate 1, after Al-Shari (1994: plate 174). It is reasonable to assume that the prehistoric artists portrayed these goats with big udders for a certain reason well known to those people. Large udders are usually full with milk and they get bigger especially after the first newborns. Again, it is helpful and useful in feeding the newly born kids (cf. <https://fiascofarm.com/goats/udder.htm#:~:text=They%20will%20get20bigger%20over,have%20a%20small%20teated%20doe.>).

The Dhofari prehistoric artist portrayed goats with such big udders to display and articulate the substantial productivity of their animals. It is unquestionable that prehistoric artists portray only what they and their community feel proud of and gratified for. It is quite possible these rock scenes have been a source of pleasure and satisfaction for the prehistoric groups.

Equally, these prehistoric goatherds must have been proud of their animals. Goats must have been a primary element in their subsistence economy, maintaining the production of milk. Actually, sizeable goat udders as portrayed by the prehistoric artists are a symbol of fertility and economic prosperity among ancient herders.

Accordingly, an analogy based on rock art between the traditional and the prehistoric herders requires careful attention. Rock scenes usually do not exhibit all aspects of the figures, items, or actions that took place in the daily life of the artists' prehistoric group. In reality, rock scenes are just samples that draw attention to the existence, the settings and interactions of a prehistoric group. Again, it ought to be comprehended that selecting certain scenes or interactions to portray on rock depends on the



Plate 7: A Goat Herder with a Rifle to Protect his Animals. After El Mahi 2011.

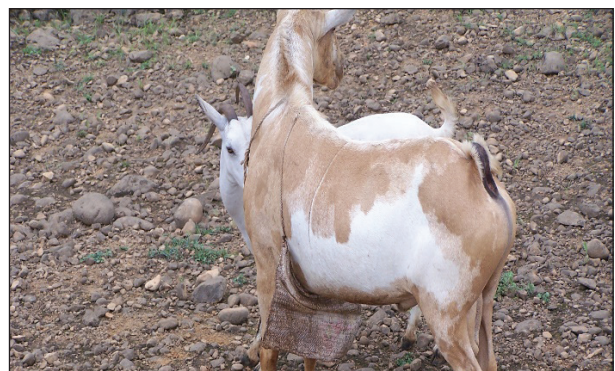
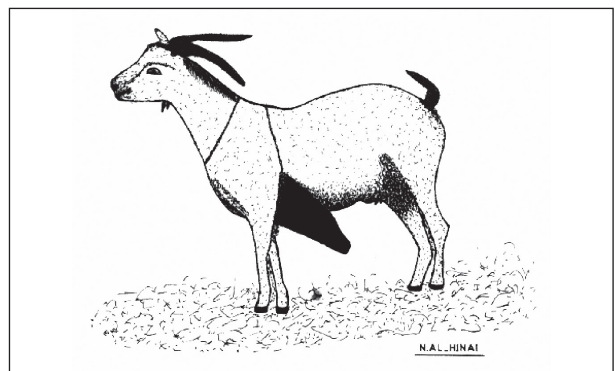


Plate 8: The Refada on a Male Goat. After El Mahi (2011: Fig. 2).

choice and preference of the prehistoric artist. As stated by ElMahi (2000) rock art scenes are snapshots of activities that took place in time and space.

The rock scenes presented in this paper display some actions of the prehistoric goatherds and their interactions with the surrounding environmental conditions. On the other hand, the adaptation process of the traditional

goatherds contains expedient practices that help them overcome environmental constraints and mitigate effect on their lifestyle and economy. The ways and methods of the Dhofari traditional herders stem from the vital insight and understanding of the ecosystem limitations and the inherited adaptation practices from their ancestors. In fact, their cultural adaptation has been found to promote better engagement and survival in the prevailing ecological conditions, including their limitations and potentials. Again, their adaptation is dependent on their capacity to gain an accurate and deep understanding of environmental conditions. Therefore, it is sensible to assume that the prehistoric goatherds in Dhofar must have followed similar or parallel cultural adaptation, to acquire means of securing the necessities of life and maintain their livelihood. This clearly shows similarity that permits one to draw an analogy.

Searching the ways and methods of the traditional goatherds in Dhofar indicates the significance of milk in their economy and subsistence. Equally, milk must have been a prime source of nourishment for the prehistoric goatherds. On the other hand, traditional families of goatherds are small in number with small herds. Therefore, each family would carry out the practice discussed below to ensure that milk is available throughout the year. Hence, it is possible to assume that the prehistoric goatherds in Dhofar must have adopted similar or parallel ways and methods to insure the availability of milk through the year.

In this respect, ElMahi (2011: 69-70 and Fig. 2) reports that traditional goatherds in Dhofar successfully secure goats milk supply throughout the year. Accordingly, ElMahi (ibid.) acted as a participant observer in situ among the Dhofari goatherds in a field study to record their ways and methods of goat management.

The following section provides further details and elucidates what the Dhofari goatherds must have done to ensure the continuous supply of milk (cf. El Mahi ibid.).

In Dhofar, goatherds controlled the breeding of their animals through very notable arrangements. A prime custom among these herders has been to keep one single buck in the herd. The rest of the herd would consist only of female goats or 'does', whether mature or kids. The herders would cover the genitals of the buck goat with impenetrable hard cloth material, known as refada (Plate 8). This refada would prohibit the buck goat mating with the female goats in the herd.

Then the Dhofari goatherds divide the herd into two even groups, such as group (a) and group (b). At time, they would remove the refada from the buck goat to allow mating with the females in group (a). After that, the refada would be put again on the buck goat. Meanwhile, the other group (b) of goats would be consistently and steadily milking and providing for the herders and their families. When the other group (a) of goats give birth, the refada is removed and the buck goat would be allowed to mate and breed with females goats in group (b). This system would ensure that when a group of does in the herd has conceived and is expecting, another group would be producing milk. Hence, mating is allowed according to a rotation system to ensure continual milk production and supply. Therefore, the goatherds can have milk production throughout the year.

Undoubtedly, milk has been a significant food item in the diet of the traditional goatherds as well as the prehistoric herders depicted on the rock scenes in Dhofar. Therefore, it would not be surprising that the prehistoric goatherds carried out a similar or analogous technique like the refada to ensure the continuity of

milk supply. This is again, a comprehensible indication of an adaptive success dictated by Dhofar's environmental conditions and endorsed by the economic and cultural traditions of the traditional and possibly the prehistoric goatherds.

Conclusion

In conclusion, this paper has primarily assumed two things achieved by analogy. First,

the past and present ecological conditions of Dhofar Mountains in the geological era of the Holocene Epoch ca. 10,000 years have forged a type of adaptation practice throughout time. Second, that pastoralism under such marked ecological conditions in Dhofar has continuously been the impetus for the relatively similar strategies and practices adopted by pastoral people in the past and the present.

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ملخص: يهدف هذه البحث إلى دراسة مشاهد الماعز في الفن الصخري في منطقة ظفار ، والبحث عن أي تشابه مع ممارسات رعاة الماعز الحاليين في المنطقة نفسها. يدرس البحث ويقارن الصور المعروضة في هذا الفن الصخري مع الممارسات التقليدية لإدارة قطعان الماعز في ظفار. لقد وثق الشحري (Al Shahri 1994) رسومات صخرية للماعز في جبال ظفار جنوبي عمان. وقد كشفت الدراسة الحالية عن بعض التشابه بين مشاهد الماعز التي تمت دراستها والظروف الحالية؛ وبناء على ذلك، فمن الممكن تقرير تشابه وتماثل معقول لإدارة الماعز التقليدية الحالية في ظفار. إن التشابه في بعض النواحي بين المشاهد الصخرية والممارسات التقليدية هو في الواقع شكل من أشكال الاستدلال القائم على الافتراض القائل بأنه إذا كان من المعروف أن شيئين متشابهان في بعض النواحي، فمن المحتمل أن يكونا متشابهين في جوانب أخرى. وتبين تفاصيل هذه الخصائص أن الماعز كانت تجري حراستها دائماً بصحبة الرجال. وإضافة إلى ذلك، فإن الرسوم الصخرية تصور ضروع الماعز الكبيرة، وعددًا قليلاً من الماعز المصورة في المناظر الصخرية.

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