



DOI: 10.5281/zenodo.893196

CURRENT FINDS IN ROCK ART RESEARCH OF OMAN: A REVIEW AND UPDATE

Angelo Eugenio Fossati*

*Catholic University of the Sacred Heart, Milan. Department of History, Archaeology and Art History,
Largo Gemelli, 1 - 20123, Milano, Italy
(angelo.fossati@unicatt.it)*

Received: 14/09/2017

Accepted: 05/10/2017

** Temporary consultant for the Ministry of Heritage and Culture, Oman*

ABSTRACT

The petroglyphs and pictographs of Oman are little known, but for the last 9 years I have been involved, through the Omani Ministry of Heritage and Culture, in a series of surveys of the Jebel Akhdar Mountain range, that have resulted in the location of several important sites. The recording of these sites, on occasion in advance of major roadwork modernization projects, has for the first time enabled detailed research of the rock art in the area. This is being undertaken through the research of: superimpositions; cross-dating with known artistic expressions elsewhere in the region; the known dates for the introduction of writing systems in Ancient Arabic and Standard Arabic alphabet; the study of various objects of material culture; and the presence of certain animals in the rock art (such as turtles, oryxes, goats-like animals, camels and horses). I propose a preliminary chronology consisting of several major phases spanning the last 7,000 years.

KEYWORDS: Jebel Akhdar, Omani Rock Art Chronology, T-figures, Ancient South Arabian, Warrior Art, Khanjars

1. INTRODUCTION - HISTORY OF RESEARCH

The presence of rock art in Oman was officially recognized in the nineteen thirties, but it is certain that local people, traders and travelers saw paintings and engravings on the rocks or boulders of Jebel Akhdar wadis. The first to have published the rock art in Oman was the British explorer Bertram Sidney Thomas (1892-1950) in one of his first books (Thomas, 1931), where he mentions a boulder with anthropomorphic engravings (Fig. 1a) near the town of Kalba, Khatma al Malaha (today in UAE). In his most famous book, "Arabia Felix" (1932) he published some of his drawings of inscriptions engraved on the slabs of the so-called "triliths" discovered in different wadis in Dhofar, the most southern Omani area.

After a very long gap, that lasted almost 40 years, the discoveries in this field emerged again in the 1970s thanks to the work of Rudi (Rudolf) Jäckli (1924-2000). Working as managing director for the Petroleum Development (Oman) Limited he was

able to visit several wadis as part of his job, discovering various rock art sites in Jebel Akhdar. In his unpublished reports, manuscript and collections of writings with photographs and sketches, he drew up his theories and thoughts on the rock art in Oman. His photographic repertoire is vast: almost all the figures were chalked in white, a common method at that time, used to highlight the engravings so they could be easily seen in the photos (Fig. 1b). But Jäckli, after the shot, diligently washed away the white color of the chalk to return the figures to their pristine state. In his work he usually avoided chronological assertions, but he recognized that the rock art could belong to the prehistoric and proto-historic time, due to the weathering and re-varnishing of some figures, the presence of extinct animals, resemblance of depicted weaponry with real arms and finally comparisons between the rock art and the art on objects. His last research on Omani rock art was carried out in 1980 (Jäckli, 1980), even though he continued to be interested in the matter (Fig. 1c).

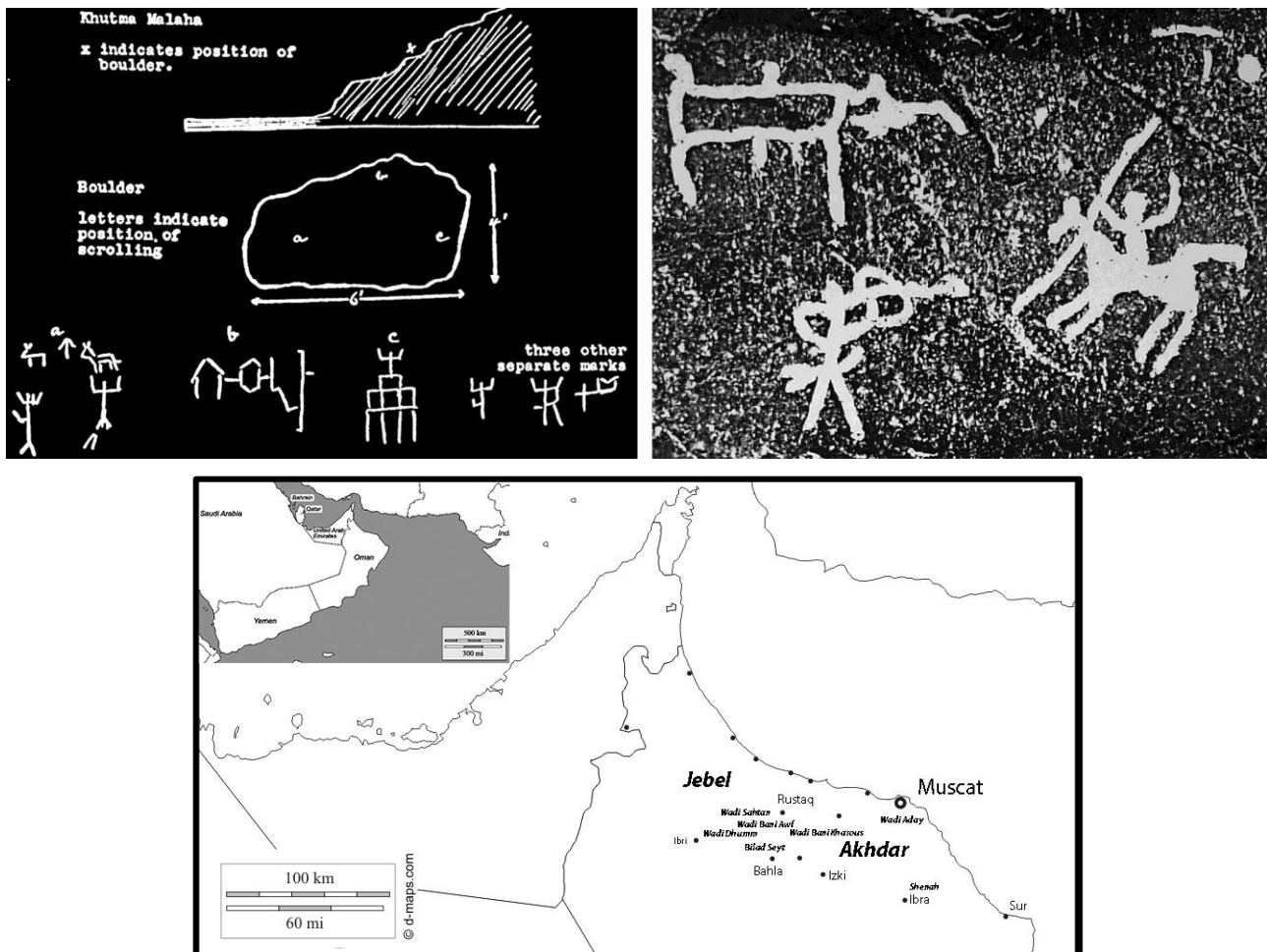


Figure 1. Left: Khutma al Malaha (actually UAE), the first Omani rock art engravings ever drawn (from Bertram Thomas, *alarm and excursions in Arabia*, 1931), b) Right: Engravings colored in white to enhance them (from Jäckli 1980), c) Map of Northern Oman with Jebel Akhdar area. Some of the major sites listed in the text are mentioned in bold *Italic*.

During the period of Jäckli's interest in rock art, two young anthropologists, Christopher Clarke and Keith Preston, published the only known papers regarding rock art in Oman apart from the short piece by Jäckli from 1973 (Clarke, 1975a; 1975b, Preston, 1976). On occasion Clarke and Preston accompanied Jäckli on his rock art research trips. The work of Clarke was a general review of the rock art discoveries to date. He not only observed panels with en-

gravings but also rock shelters with paintings, as in Wadi Bani Kharous. In his papers, Clarke publishes for the first time two important panels for establishing the chronology of the rock art in Oman, even though he did not suggest any exact date. The two panels in question were the inscriptions in Ancient South Arabian alphabet in Wadi Sahtan (Fig. 2a), on the south of Rustaq, and Hasat Bin Salt, a sculpted natural monolith near Bahla (Fig. 2b).

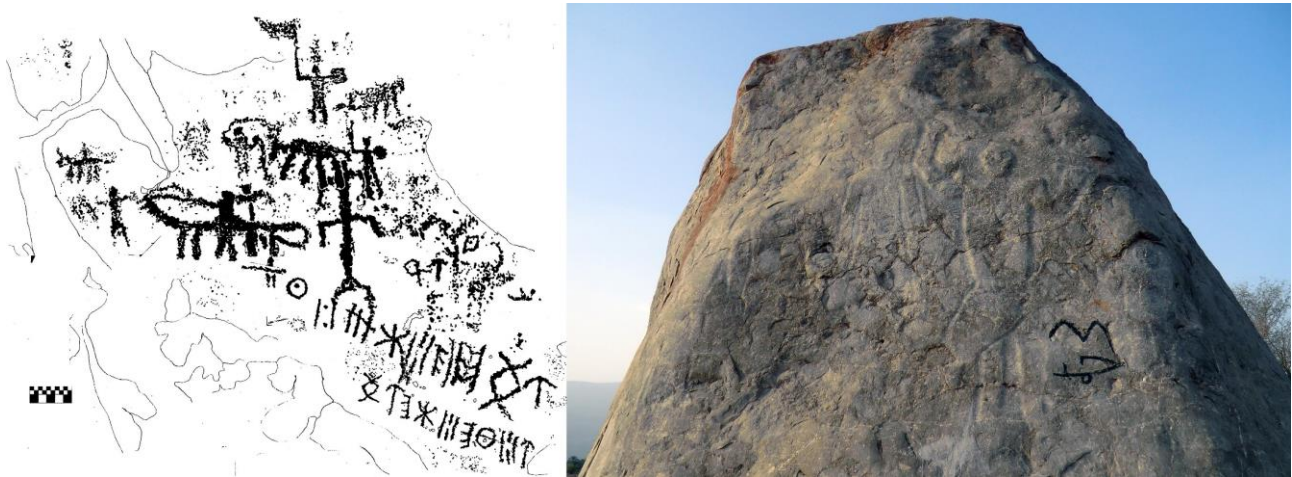


Figure 2. Left: Inscriptions in Ancient South Arabian, Wadi Sahtan (tracing by A.E. Fossati). Right: Hasat Bin Sault, the natural monument sculpted with human figures in 3rd Millennium BCE (photo by A.E. Fossati)

The inscriptions in Ancient South Arabian alphabet from Wadi Sahtan were the first of their kind to be discovered in Northern Oman, while several others were known to exist in Yemen and in Dhofar. The chronology of this type of inscriptions is confined to between the first half of the first millennium BCE and the 6th century CE (Woodard, 2008). A huge boulder locally named Hasat Bin Salt, but also known as Coleman's rock was named by the geologist of the US Geological Survey who brought it to the attention of the scientific community in the 1970s. It is a large natural rock on which human figures have been sculpted in bas relief, probably dating to the 3rd millennium BCE, even if its precise chronology has been widely discussed among scholars (Cleuziou and Tosi, 2007; Yule, 2001). Preston, dealing with the anthropomorphic figures of the rock art in the mountains of Northern Oman, also focused on Hasat Bin Salt. He divided the anthropomorphs into riders and "unmounted" figures, briefly describing the riders, but concentrating his study on the humans on foot and divided according to their stylistic features. The major value of Pres-

ton's work is the recognition of the presence in rock art of different styles. He also provided a list of the weaponry that accompany the warriors or the riders, and this is also the first attempt to suggest that within the rock art it is possible to recognize items that can have a chronological value (Preston, 1976).

In 1988 some painted inscriptions were discovered in a cave in the Dhofar region in the south of the Sultanate. A full survey in the nearby caves, especially in the area affected by the monsoon, was conducted by Ali Ahmad Mahash al-Shahri (Al-Shahri, 1994) who discovered not only other similar inscriptions but also several other figures like humans, animals, plants, boats, unidentifiable figures and abstract features (such as stars, suns, circles, and dots) (Fig. 3a). The paintings of the monsoon area had been executed in different colors and techniques, mainly black and red, green being quite rare, and with various stylistic features. He also discovered engravings on the limestone outcrops of another area called Negd, situated between the plateau and the desert area. (Al-Shahri, 1994) (Fig. 3b).

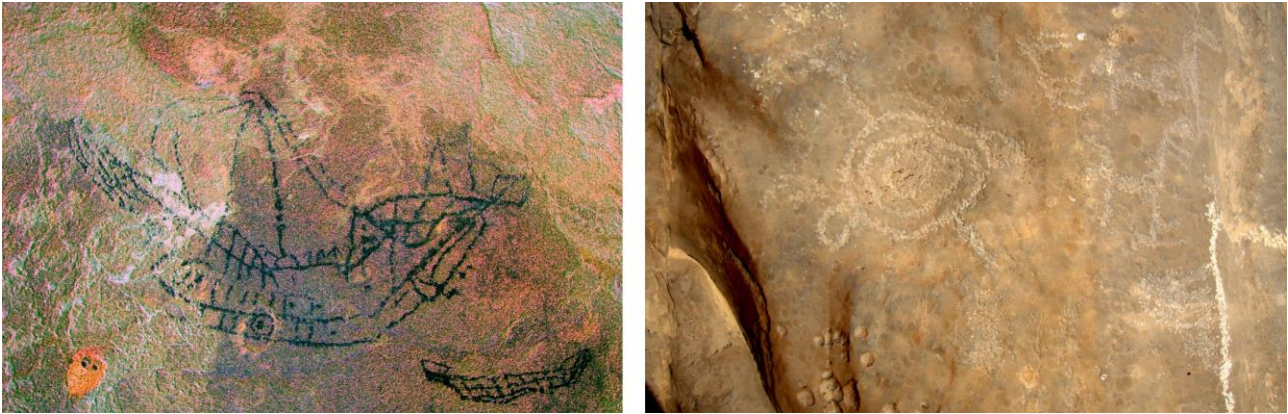


Figure 3. *Left: Two boats painted in Wadi Darbat, Dhofar (photo by A.E. Fossati).
Right: Engravings in Wadi Jezz Leet, Dhofar. (photo by A.E. Fossati).*

In January 1997 an important discovery took place in Shenah, a village to the east of Ibra, in Wilayat al Qabil (Ash Sharqiyah Region) (Insall, 1999). Here, David Insall observed some rock art sites where engravings were generally quite different from those he had observed in the mountains of Northern Oman through the work of Jäckli, Clarke and Preston. The figures, mostly representing animals, were often horned (Fig. 4a) and in deep contour. There were also camels, donkeys and horses, sometimes ridden, but warrior images were rare in these sites in comparison with other rock art areas in Oman. At one of the sites there is also a unique inscription in the Ancient South Arabian Alphabet, and some

standard Arabic scripts. Insall, listed a total of 15 sites, and made a photographic catalogue of every rock. This is the only paper published by Insall on Shenah and, even if he did not venture too far into the problem of the chronology of the images, he thought that the numerous horned figures represented were the Arabian Thar, and not the Oryx or the Nubian Ibex or the Wild Goat. His documentation of the rock art sites remains largely unpublished, but it is clear, by the quantity of the superimpositions (Fig. 4b), that this is a key area for understanding the chronological sequence of the different figurative styles visible on the rocks in Northern Oman.



Figure 4. *Left: A rock engraved near the village of Shenah with ibex-like figures (photo by A.E. Fossati).
Right: Several superimpositions among figures of the 2nd rock art phase (photo by A.E. Fossati).*

A paper regarding the archaeology of the Shenah area was written by two scholars of the Sultan Qaboos University in Muscat (Al-Belushi and ElMahi, 2009) that published a report of the research undertaken in 2006/2007: a survey of the site and excavation of some beehive and Iron Age tomb. They also located 5 rock art sites but they did not study these. Prof. ElMahi also published papers on Omani rock

art, these included the scenes of ibex hunts (ElMahi 2000) and the presence of ostriches in rock art (ElMahi, 2001). More recently he wrote a publication about the Wadi Al-Jafr rock art site with Prof. Nasser Said Al-Jawahari (Al-Jawahari and ElMahi, 2010). Here the located rocks, mostly boulders, are engraved with three main motifs: feet, hands and horse riders engraved in a quite schematic style and used

by the inhabitants of the wadi to determine the control of the territory and “define boundaries, ownership, domination and identity” (Al-Jawahari and ElMahi, 2010).

On October 2009 I was requested by the Ministry of Heritage and Culture, subsequent to the suggestion of Prof. Maurizio Tosi (1944-2017), at that time consultant of the Ministry, to initiate a general survey of the rock art in Northern Oman. The work had several aims: to check the state of conservation and control the value of the rock art in the different sites; to try to define the possible chronology of the rock

art images and suggest possible interpretations for the various rock art traditions; to rescue some panels engraved in Wadi Sahtan near Rustaq, where an asphalt road was in construction, providing suggestions on how and which to remove from the route and to transfer the saved rocks to safe areas and trace the images on them (Figs. 5a-5b). And finally, to give a general overview of the rock art in Oman. As such, I have visited several wadi, mountain and desert areas. This paper represents the result of this research initiated nine years ago and still in progress (Fossati, 2009; 2013; 2015a; 2015b).



Figure 5. Left: Wadi Sahtan (Rustaq), washing off the dust from the rocks engraved (photo by A.E. Fossati). Right: Scaffolding mounted to trace the engraving in Gore Anaqsah site, Wadi Sahtan (photo by A.E. Fossati).

2. TECHNIQUES AND METHODOLOGICAL FRAMEWORKS

Omani rock art consists of engravings (using several techniques including percussion, incision, and bas-relief carvings) and more rarely paintings (Figs.

6a-6b) mainly created using ochre, charcoal and lime with either painting or drawing techniques mused). Several themes are present within the rock art including humans, animals, artifacts, abstract figures, and inscriptions (Fossati 2015a).



Figure 6. Right: Wadi Bani Henei, scratched figures (photo by A.E. Fossati). Right: Horse Rider painted in red in a shelter at Wadi Bani Kharous (photo by A.E. Fossati)

These various types of rock art engravings and paintings were made over a long period of time, but a precise chronology of rock art in Northern Oman is difficult to establish as the discipline is new in the country, and the rocks already studied or published are few. However, this rock art tradition can be divided into a number of different phases (Fig. 7) that have a chronological value based on the study of image styles, of the type weaponry present, of par-

ticular themes (presence of certain animals) and of the comparison of different levels of re-varnishing. In fact, the color of the pecked surface in the limestone and sandstone, which are the most common rock surfaces used for rock art in desert or semi-desert areas, can often reveal a relative age. The clearer the color of the pecked surface the more recent are the engravings created on the same surface.

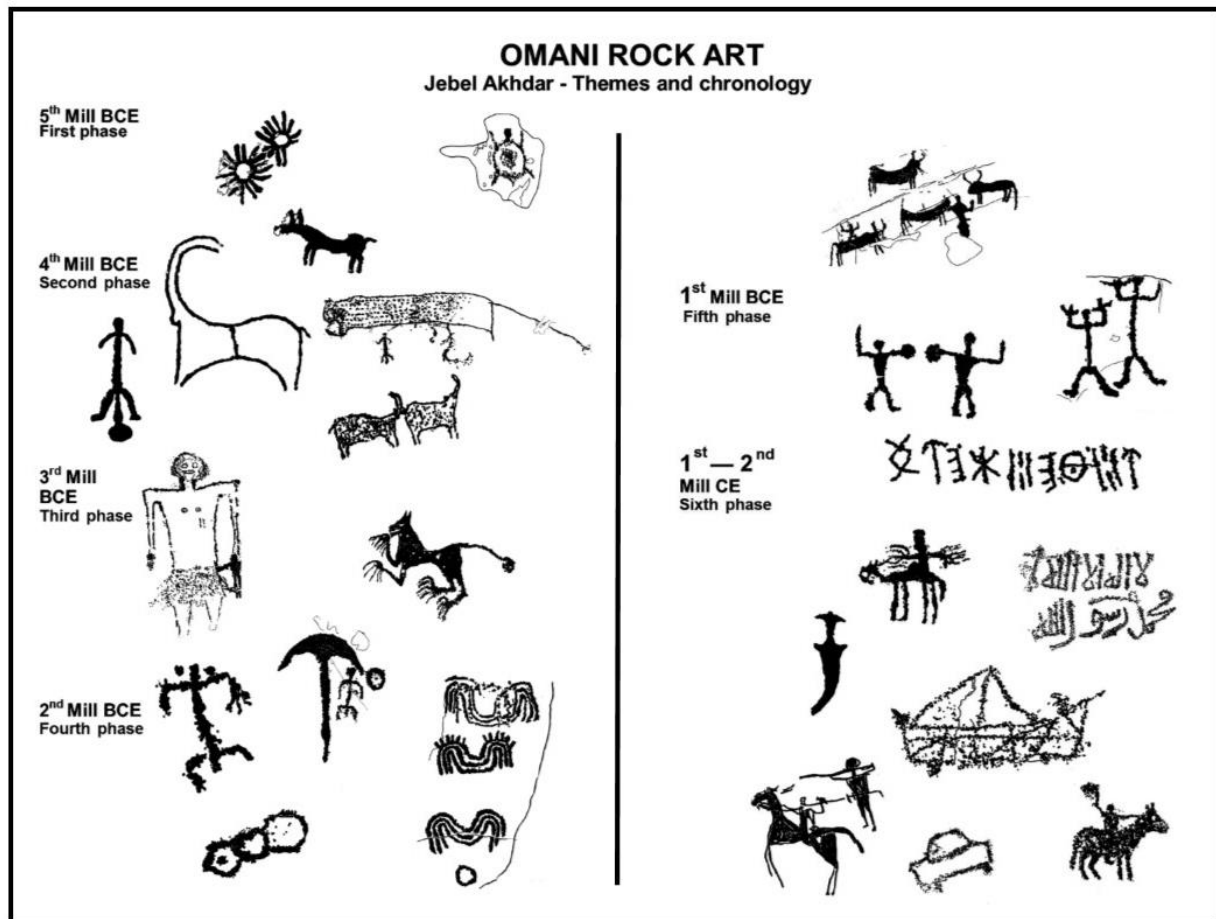


Figure 7. Themes and chronology in Omani Rock Art (according to Fossati A.E.).

The documentation published in this paper, comprised largely of tracings, and has been obtained through tracing the figures by contact, using permanent markers on plastic transparent sheets placed directly on the engraved rock surfaces (Fig. 8a). This method of scientific interpretation for the figures is also very useful for the exact transcript and reading of the inscriptions (Fig. 8b). In the past only sketches have been created, as we can see in the publications by Jäckli (1980) or Preston (1976). The tracing activity

is crucial as is often the case in rock art research, the analysis of superimpositions between figures is one of the most important aspect of research and has assisted in the organization of phases into general time periods, and through the tracings this can easily be obtained and made visible. Contact tracing should obviously be avoided in the case of poor conservation of the rock surfaces and with very fragile rock paintings.



*Figure 8. Right: The author tracing a panel at with ibex-like figures on a rock at Shenah.
Right: Contact tracing of the inscriptions in Ancient South Arabian, Wadi Sahtan (tracing by A.E. Fossati)*

The current methods of exposing and highlighting the figures, both for tracing or for photographic purposes, are through the use of light manipulation. This is carried out with the use of mirrors as they can capture the natural light at an angle and send the reflected oblique light onto the engravings, in so doing creating a natural contrast that is rarely visible under normal natural light conditions, especially with figures that are considerably re-varnished (Fig. 9) (Arcà et al., 2008). Current photographic techniques, including those used for this publication, are

the enhanced images created with the use of computer software such as Photoshop or D-Stretch. 3D photographing systems have also gained popularity, though mainly for museums presentations and interactive activities (see Arcà 2016). Other information technology equipment, such as the total station theodolite, has been utilized to map the rock art. The exact GPS points have been fixed for the rock art at several sites, including Al Khadra in Wadi Sahtan and Kasr al-Sleme in Bat.



Figure 9. Boulder with engravings: on the left under natural light the figure are invisible, on the right the figures are well recognizable due to the grazing light sent by a mirror (photo by A.E. Fossati).

3. CHRONOLOGY

Based on the current evidence obtained I have identified 6 different phases for the rock art production. The most ancient rock art in the region (first phase) illustrates wild maritime animals such as green turtles, anemones and fishes (Fig. 10a-b). The-

se images are heavily re-varnished and weathered in comparison to other animals that overlap or are in proximity to these, such as wild ibex, gazelles, asses, aurochs, and other animals that constitutes a second phase.

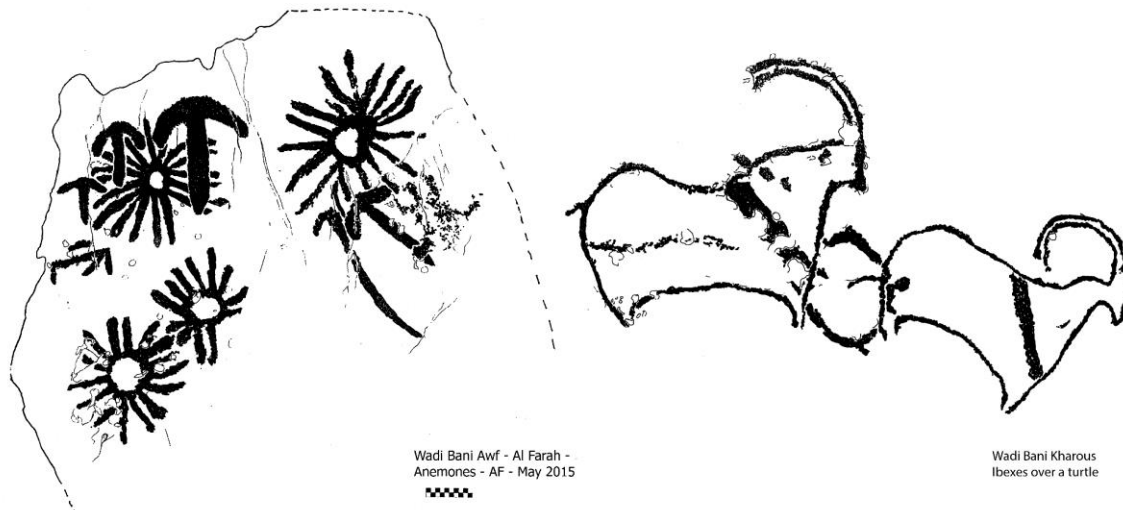


Figure 10. Left: Figures of sea anemones covered by T-figures on a boulder in Wadi Bani Awf (tracing by A.E. Fossati). Right: Two ibex-like figures cover a green turtle image, Wadi Bani Kharous (tracing by A.E. Fossati)

This second phase can be divided into three sub-phases: the most ancient presents animal figures such as wild asses, oryxes, canid and goat-like animals completely pecked, with average dimensions of 30 cm in length. These figures are considerably re-varnished and always overlapped by the figures of the other sub-phases (Fig. 11a).

The second sub-phase mainly shows figures of goat-like animals (but leopards, cattle and wild asses are also found), almost always designed as an out-

line, in the so-called “three strokes style”, a very well defined pattern, as the contour uses three different lines (Fig. 11b) to indicate the head, horns (or ears), back, tail, belly, and legs. These figures are usually three times bigger than the animals of the first sub-phase. The inside of the body is often engraved with one, two or three lines dividing it in equal parts, occasionally this is filled with small cupules and dots. More rarely the body is completely pecked.

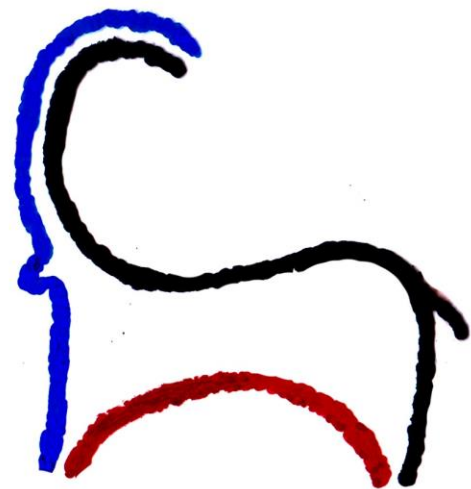


Figure 11. Superimpositions among very re-varnished figures of the 2nd rock art sub-phases (photo by A.E. Fossati). Right: A three stroke style animal

The third sub-phase still presents goat-like animals in the “three strokes style”, but usually they are half size of the figures of the second sub-phase and the body is usually engraved with small pecked dots, but quite regularly scattered inside (Fig. 12a-b). It remains difficult to say which animals they really wanted to represent in these three sub-phases: the first sub-phase often shows wild asses; the second

sub-phase presents animals with certain features that can be associated with the Nubian ibex, while the third sub-phase shows animals with features that are similar to the Arabian thar. This presence of ibex-like figures that have been engraved on the rocky walls of many wadis in Northern Oman has connection with similar figures present elsewhere in the Arabian Peninsula (Anati, 1968; Insall, 1999; Khan, 2003).

These earliest (Phases 1-2) engravings were probably made in the fifth and fourth millennium BCE (7,000-6,000 years ago) by hunters and early farmers that frequented the Jebel Akhdar Mountains. In addition,

human figures are engraved in this phase, and they show schematic features, sometimes with exaggerated sexual characteristics (see fig. 11).

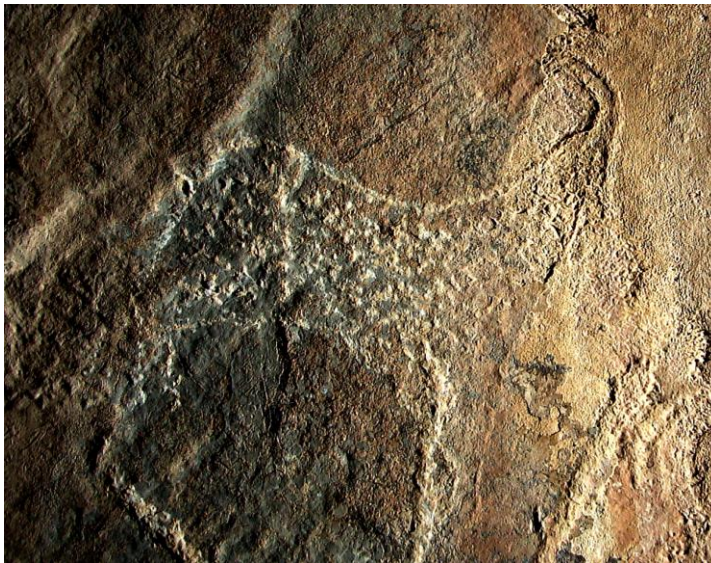


Figure 12. Left: An Arabian Thar engraved on a rock of Bilad Seyt (photo by A.E. Fossati). Right: Superimposition among figures of the 2nd rock art phases at Shenah, Al Qatarah (tracing by A.E. Fossati).

A third phase consists of angular, stylized human figures, including women, sometimes seated on a throne and accompanied by an attendant (Fig. 13a). Stylistically related to the anthropomorphic bas-relief sculptures on the Hasat Bin Salt Monument, these images probably date to the third and second millennia BCE (5,000 to 3,000 years ago) based on cross-dating with carved tombs found elsewhere in

Oman and Abu Dhabi (Cleuziou and Tosi 2007). These women shown seated on thrones probably represent royalty (queens or princesses) based on this type of thematic portrayal as found throughout Near East from Egypt to Mesopotamia during this period. Probably associated to this human style are also some feline figures like those made in Wadi Sahtan, probably representing caracals (Fig. 13b).



Figure 13. Left: Group of women seated on thrones, Wadi Sahtan (tracing by A.E. Fossati). Right: A feline, probably a caracal, engraved in Wadi Sahtan, on the same panel of the women (tracing by A.E. Fossati)

Between the third and the second millennium BCE figures of dagger in T shape appear in rock art, sometimes isolated, in groups with others or in connection with schematic humans with lowered arms

(Fig. 14a-b). A similar type of dagger is present also in the Yemenite warrior stele dated to the end of the 3rd millennium BCE (Vogt 1997).



*Figure 14. Several T-figures are engraved on this boulder in Shenah (photo by A.E. Fossati).
Right: T-figures associated with a schematic human, Wadi Aday (tracing by A.E. Fossati).*

Phase 4 figures include both petroglyphs and pictographs whose primary motifs are geometric/symbolic patterns (solar symbols, sub-rectangular [rectilinear] forms, zig-zag, spirals and

others) sometimes accompanied by human figures in a few related schematic styles (Figs. 15a-b). Often the Phase 4 petroglyphs are found superimposed on Phase 1 and 2 animal representations.



*Figure 15. Left: Al Manzafah, abstract figures very re-varnished (photo by A.E. Fossati).
Right: Solar figure superimposed on animals of previous phases (tracing by A.E. Fossati).*

The Phase 5 and 6 are related to warrior art. These images show horsemen (Fig. 16a), camels and camel riders (Fig. 16b),



Figure 16. Photo and tracing of riders on horse and camels, Wadi Bani Kharous (by A.E. Fossati).

ostriches (ElMahi 2001), boats (Fig. 17a-b)



Figure 17. Two ships from Al Manzafah (left) and from Bilad Seyt (Right) (photo and tracing by A.E. Fossati).

and other items of material culture, weapons like khanjars (Fig. 18a-b),



Figure 18. Left: Khanjars and Arabic inscriptions, Wadi Bani Kharous. Right: Khanjar, Hijir (photo by A.E. Fossati).

as well as fighting warriors (Fig. 19).



Figure 19. Battle scene with spears and rifles, Wadi Bani Kharous (tracing by A.E. Fossati).

As the khanjars today are traditionally given to boys during puberty it is possible that their presence in rock art can be associated with this ritualized use and, in a sense, be part of initiation practices. Khanjars are also occasionally presented on other occasions, such as given to the bridegroom during a

wedding or to officers or diplomats as a welcome gift. In these phases there are also a few inscriptions in the ancient South Arabic alphabet and several in standard Arabic script, that occasionally accompany these figures of warriors and animals (Fig. 20a-b).



Figure 20. Left: Ancient South Arabian script at Goreh Anaqsah, Wadi Sahtan (tracing by A.E. Fossati) Right: Several inscriptions in standard Arabic, Wadi Bani Kharous (photo by A.E. Fossati)

These are names of people, possibly travelers, traders, or inhabitants of the wadi villages and they are witnesses to the importance of the wadis as road systems that connected the south and interior of the country with the coastal area during historical times. As such, these names were carved from the last millennium BCE (about 1,000 BCE) up until modern times. The latest engravings were made within the last few decades, as demonstrated by the carved representation of some automobiles (maybe the first ever go into a wadi) and the representations of an Arabian oud. I had the good fortune to meet the artist who carved this Arabian lute as a tribute to a famous Yemeni singer.

4. CONCLUSION

The study of the chronology and the interpretation of Omani rock art are, in a sense, still in their infancy. For the moment we can say that the first manifestation of rock art (first and second phase, 5th-

4th Millennium BCE) are related to the cultures of the last hunter-gatherers and the first farmers attending the Jebel Akhdar. The presence of animals like sea creatures (anemones, green turtles) and goat-like figures (oryxes, ibexes, thars) and wild asses are the witness of a society still using the hunt and animal products as an important economic resource, but also giving to these animals a religious, magic and maybe a totemic value. The third phase (3rd-2nd Millennium BCE), with the presence of human figures that have a certain high status (like the frieze of Hasat Bin Salt or the groups in Wadi Sahtan), shows a more complex society where women seem to have an important role in this pre-Islamic period. The abstract figures phase (4th, 2nd Millennium BCE) reflects, with the research of non-figurative art, a society where the research of symbology seems more important than the need of representing figurative scenes. This seems instead a need of the later societies of the rock art phases 5th and 6th (1st Millennium

BCE to the 2nd Millennium ACE) where the role of the warriors seems to prevail, associated with the use of animals symbolizing an high social status, such as horses and camels.

Further work will undoubtedly change these preliminary observations as additional rock art research is integrated with ongoing archaeological research on the different cultures that have inhabited Oman through the centuries. As the road building and railroad construction continue as part of Oman's eco-

nomie development, construction activities continue to threaten many sites, but the Ministry of Heritage and Culture of the Sultanate of Oman is committed to document endangered sites as part of the salvage effort to preserve the rock art of this area. Hopefully, the result will be additional information that will enable the development of a more secure and detailed chronology of this rich body of ancient rock art.

ACKNOWLEDGMENTS

I express my deep gratitude to the Undersecretary of Heritage H.E. Salim Mohammed Al-Mahrouqi, to the Adviser to the Minister of Heritage and Culture for Heritage Affairs H.E. Hassan Mohammed Ali Al-Lawati. Sultan Saif Al-Bakri, Assistant Director of Department of Excavation and Archaeological Studies encouraged this study and gave the permission of publishing. Biubwa Al-Sabri supported my research giving important suggestions. This short contribution is dedicated to the memory of Prof. Maurizio Tosi (†), Adviser to the Minister of Heritage and Culture, for offering his precious friendship, for giving me the opportunity of studying the rock art of Oman and for sharing with me his valuable knowledge on Omani archaeology. I am grateful for the invitation to present my work in Oman to the organizers of the Conference "Rock Art in Pre-Islamic Arabia", Dr. Kaltham Al Ghanim, Director of the Center for Humanities and Social Sciences in the College of Arts and Sciences (CHSS) and to Prof. Mohammed Maraqtan (Ruprecht-Karls-Universität, Heidelberg). Many thanks to Prof. Ioannis Liritzis for the patience in awaiting my manuscript, and the anonymous referees for constructive comments. Finally I want to thank Marisa Giorgi for correcting and editing my text in English.

REFERENCES

- Anati E. (1968) *Rock art in Central Arabia*, Louvain, Institute Orientaliste, Bibliothèque de l'Université.
- Arcà A., (2016) Digital Practices for the Study of the Great Rock in the Naquane National Park, Valcamonica, Italy: from Graphic Rendering to Figure Cataloguing. *Proceedings of the 43rd Annual Conference on Computer Applications and Quantitative Methods in Archaeology*, Campana S., Scopigno R., Carpentieri G. and Cirillo M. (eds.), Oxford Archaeopress Publishing LTD, pp. 1081-1092.
- Arcà A., Casini S., De Marinis R.C., Fossati A.E. (2008) Arte rupestre, metodi di documentazione: storia, problematiche e nuove prospettive. *Rivista di Scienze Preistoriche*, vol. 58, pp. 351-384.
- Ash Shahri, A. (1994) *Dhofar. Ancient inscriptions and rock art*, Salalah.
- Al-Belushi, M.A. and ElMahi A.T. (2009) Archaeological Investigations in Shenah, Oman. *Proceeding of the Seminar of Arabian Studies*, vol. 39, pp. 43-56.
- Clarke C. (1975a) The Rock art of Oman, *The Journal of Oman Studies*, vol. 1, pp. 113-122.
- Clarke C. (1975b), Rock Art in the Oman Mountains, in *Proceeding of the Seminar of Arabian Studies*, vol. 5, pp. 13-19.
- Cleuziou S., Tosi M. (2007) *In the Shadow of the Ancestors. The Prehistoric Foundations of the Early Arabian Civilizations in Oman*, Muscat, Ministry of Heritage and Culture.
- ElMahi, A.T. (2000) The Ibex Hunt in the Rock Art of Oman. *New Arabian Studies*, vol. 5, pp. 33-46.
- ElMahi A.T. (2001) The ostrich in the rock art of Oman, *Adumatu*, vol. 3, pp.15-26.
- Fossati A.E. (2009) *Oman Rock Art. Mission Report*, Muscat, Manuscript on file with Ministry of Heritage and Culture.
- Fossati A.E. (2013) *Rock Art Mission Report. Wadi Sahtan, Wadi Bani Kharous, Wadi Bani Auf, Wadi Bani Henei, Wadi Al Ayn*. Muscat, Manuscript on file with Ministry of Heritage and Culture.
- Fossati A. E. (2015a). Rock Art in Jebel Akhdar, Sultanate of Oman: An Overview. *American Indian Rock art*, vol. 41, pp. 1-8.
- Fossati A.E. (2015b) Rock art in Northern Oman. First observations. In F. Troletti (ed.) *XXVI Valcamonica Symposium 2015, Prospects for the prehistoric art research*. Capo di Ponte, pp. 113-116, Centro Camuno di Studi Preistorici.
- Insall D. (1999) The Petroglyphs of Shenah, *Arabian Archaeology and Epigraphy*, vol. 10, pp. 225-245.

- Jäckli R. (1980) *Rock art in Oman. An introductory Presentation*. Muscat, Manuscript on file with Ministry of Heritage and Culture.
- Al-Jawahari N. S. & ElMahi A. T. (2013) Rock engravings at Wadi Al-Jafr Oman. Significance and meaning, (Arabic text), *Adumatu*, vol. 27, pp. 29-48.
- Khan M. (2003) Rock art of Saudi Arabia: Yesterday and Today. In *Rock Art Studies. News of the World 2*, P. Bahn, A. Fossati (eds.), pp. 82-87. Oxbow Books, Oxford, England.
- Preston K. (1976) An introduction to the Anthropomorphic Content of the Rock Art of Jebel Akdhar, *The Journal of Oman Studies*, vol. 2, pp. 17-38.
- Thomas Sidney B. (1931) *Alarms and Excursions in Arabia*, Indianapolis, Bobbs-Merrill Company.
- Thomas Sidney B. (1932) *Arabia Felix. Across the Empty Quarter of Arabia*, London, J. Cape.
- Vogt B. (1997) La fin de la préhistoire au Hadramawt. In *Yémen, au pays de la reine de Saba'*, Exposition présentée à l'Institut de monde arabe du 25 octobre 1997 au 28 février 1998, pp. 30-33, Flammarion, Paris.
- Yule P. (2001) *The Hasat Bani Salt in the al-Zahirah Province of the Sultanate of Oman*. In *Lux Orientis Archäologie zwischen Asien und Europa*, Festschrift für Harald Hauptmann zum 65 Geburtstag, R. M. Boehmer and J. Maran (eds.), Rahden, pp. 443-450.