

THE STATE OF RESEARCH IN ROCK ART

THE ROCK ART OF HAR KARKOM

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Introduction

The archaeological research conducted for the last 17 years in an area of 200 square km in the Negev Desert (coordinates: 120-130/960-980) has brought to the discovery of over 1,000 archaeological sites. The survey is focused on the mesa-like mountain of Har Karkom and its surrounding valleys. The plateau has many altars, small sanctuaries, groups of menhirs, stone circles, tumuli, and other cult structures. In this context, there are also large size geoglyphs or pebble drawings on the surface often representing animals or geometric patterns. One of the most important aspects of the discoveries at Har Karkom concerns rock art. The mountain and its surrounding valleys contain the major concentration of rock art known so far in the Sinai and the Negev: a cluster of 200 sites which includes over 40,000 depictions of rock art. Because of its wealth and its variety, Har Karkom appears to be an ideal locality to study the sequence of rock art styles in the Negev and Sinai.

The Context

Several sites where rock art is present appear to have hosted social events and ceremonies which included the lighting of fires. Some areas have been cleared of pebbles and stones which were assembled at the edges. These areas show evidence of intense burning, the color of the rocks has been altered by fire and many stones show the typical flaking caused by burning. At times, such areas span over 20 meters in diameter. In some cases, these fireplaces show similarities to the funerary pyres of India, but no fragments of bones have been yet found there and we could not establish if they had a similar use.

The rock art sites include also megalithic structures, stone circles, tumuli, and the alignment of orthostats. Some of the rocks of these monuments are engraved, other rock engravings are found on nearby rocks. It is surprising to detect so many traces of non-economic human activities on the plateau of Har Karkom where post-Palaeolithic habitation sites are practically non-existent. In fact, while the plateau has numerous remains of Palaeolithic basements of huts, from Neolithic times on, signs of structures built for the purpose of habitation are scanty and doubtful. Human groups inhabited the valleys at the foot of the mountain where remains of over one-hundred hamlets have been discovered.

While proceeding with a systematic inventory of the rock art, some recurrent patterns emerge from the association between cult structures and the motifs of rock art in some phases or styles. In particular, it now seems possible to detect a repetitiveness of association among structures and remains which can be dated to the BAC period, or *Bronze Age Complex* (the late Chalcolithic and Early Bronze Age), and the rock engravings of period IV-A1.

The succession of typological patterns in rock art follows a similar stylistic development in rock art areas which have been previously studied, such as Ramat Matred and Nahal Avdat in the Central Negev, Wady Hawara in Eastern Sinai, in other

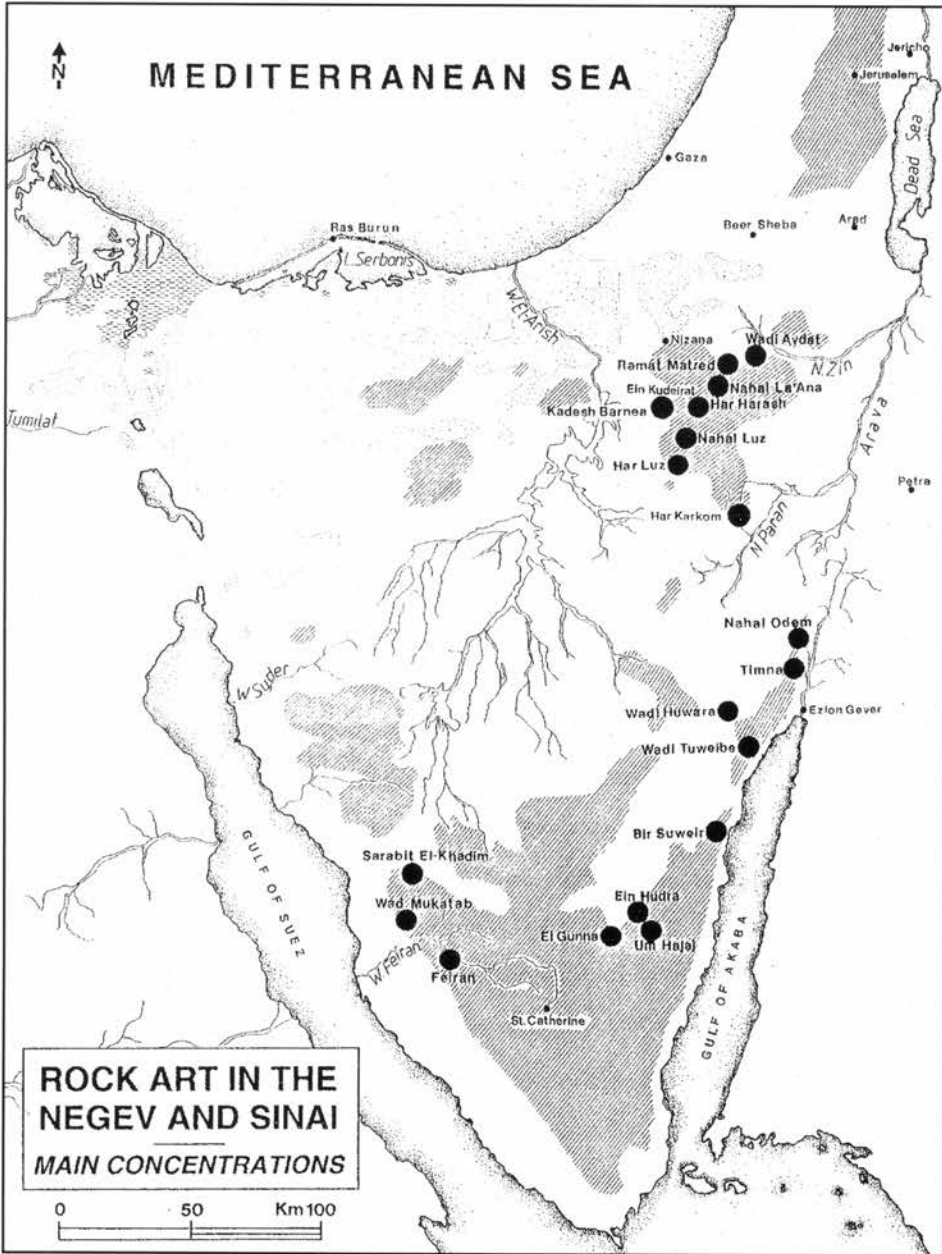


Fig. 7. Distribution map of rock art in the Negev and Sinai.

sites of the Central Sinai and at Har Karkom. The various styles which have been described in several articles and in the book *L'Arte Rupestre del Negev e del Sinai* (Milan, 1979) have a repetitive succession which was determined by superimpositions and by varying shades of patination displayed by engravings of different periods found on the same rock surface. The rock engravings include a variety of styles starting in the horizons of the Early Hunters (who do not utilize the bow and arrow) which may go back to the final Pleistocene and lasting until the Islamic period, covering at least 12,000 years. At Har Karkom, most of the rock art typological patterns are the same as those found in the Negev Highlands and in several areas of the Egyptian Sinai, while others have specific characteristics.



Fig. 8. Aerial view of Har Karkom. (Photo: ISR93:DA.VIII-5).

Processes of Patination and Erosion

The early artists show preference to smooth, calcareous surfaces covered by dark, desert patina. The characteristic coat is formed by oxidation of the mineral components of the rocks. This patina has a variety of shades from rock to rock, depending on the composition of the rock, and on its exposure to sun and wind, being black, dark gray, brown, or bluish. The engravings were produced with stone tools, using different techniques; they may have been pecked, polished or incised. In all cases, the main result was that the cortex of the stone was removed, creating a chromatic contrast between the patinated surface and the lighter shades of the rock exposed by the engravings, thus, making them easily decipherable. In the course of time, the engravings have been reshaded by patina. The internal color of the rock being whitish, in a few hundred years, the engraving would acquire a yellowish shade, becoming brown and then darker brown in a few millennia. Finally, it would acquire a shade similar to that of the surrounding surface. The different shades of patination of rock engravings found on the same rock surface is a fundamental element for establishing their relative chronology. This concerns the engravings that have not reached as yet the same shade of patination as that of the base surface. In previous studies (Anati, 1979; 1987), it was possible to establish a stylistic chronology which relied primarily on the analysis of rock art in the Negev Highlands and in the central Sinai. The research at Har Karkom suggests a few chronological modifications, presented in this paper.

The observation of hundreds of surfaces with traces of erosion have allowed us to identify vestiges of engraving which have been almost canceled by the natural agents. Remains of engravings, pecking, and incisions may have been seriously deformed by the process of erosion. In some cases, the patinated rock surface constitutes a very hard crust, heavily resistant to the process of erosion. The pecking marks, or the incisions, damage the crust and there the process of erosion is progressing faster in the traces of the man made engraving. Some of the engravings have been polished and the process of erosion, often caused by the natural polishing from sandstorms, has acted as a deforming factor. Faded traces of some of the oldest engravings which have suffered

Fig. 9. Site HK/56E. Rock art of a wild goat at the foot of an altar-like stone. The cup-shape on the upper part of this stone is partially natural and was given a more regular shape by human interventions. It shows a blackish coloration, often found in cup-marks, likely to be an alteration of the organic material which was contained in the cup. (Photo: AA91:LXXII-16).



this process of deterioration can be recognized only by using a strong transversal light. Other pecked engravings have suffered yet another process of erosion and the pecked dots were transformed into deep holes. The variation in the degree of erosion may constitute, in some case, an additional element of chronological value.

The Chronological Structure

Every typological pattern of rock art corresponds to a well-defined mentality which is the effect of various factors such as the social economic setting of the artists, the resources they had for survival, the environment and climate. The oldest engravings reflect a hunting lifestyle. The introduction of animal domestication and development of pastoral societies coincide with the spread of new patterns, where domesticated animals are represented and new kinds of weapons and tools are introduced. In later periods, rock art reveals also the existence of specialized economic activities such as trading and caravans and a poor agriculture of two types: respectively typical of the savannah and of an oasis environment.

The typology of weapons and tools represented in each period further contribute to the chronological analysis. Another variable factor which is relevant for the dating is the representation of animals. Just to give a few examples, some types of wild caprines and other types of fauna disappear after the early phases of hunters' art, probably at the beginning of the Holocene. When such animals are represented, they are likely to constitute a chronological element. The domesticated ox appears in period II until period IV-A (in terms of absolute dating, after 7000 B.C. and until 2000 B.C.). Wild asses are present in period IV-A but the domestic horse appears from period IV-B, probably in the late second millennium. Domestic camels appear only in period IV-C, after 1000 B.C. The presence of inscriptions constitute another source of chronological



Fig. 10. Site HK/7B. Intentional arrangement of pebbles on the hammada around a rock engraving. (Photo: AA/ISR86:LX-22).

evaluation, although some of the numerous inscriptions which accompany the later rock engravings may be older than believed so far; they demand a deeper chronological analysis themselves. Certain patterns of schematization appear in well defined horizons.

In some horizons, the animal figures are dominant, in others, human figures are dominant and in others again, signs and marks are more common than both humans and animals. The type of associations, the presence or absence of descriptive scenes and the gamut of subject matter vary from period to period. In some periods, there may be affinities between motifs depicted in the rock art and those on pottery or on other objects of material culture. For some periods, it is possible to draw parallels from rock art in Egypt, Arabia, and Mesopotamia.

A horizon or phase of rock art which displays recurrent characters of association, subject matter, and repetitive depiction patterns, is defined as "style". Thus, the typology of rock art, like that of pottery or of flint implements, appears to have chronological significance. From the present knowledge of rock art, it seems that different styles correspond to different ways of life that may have coexisted in the desert. Some styles are characterized by the presence of scenes, others do not have scenes; their syntax may be based on associations, sequences or recurring combinations of graphemes. Ever since the beginning of scientific research in rock art, there has been a tendency for technicians to eliminate the term "style". As this term defines the characters of an assemblage, however, we consider it useful and legitimate. In the Negev and Sinai, as in Arabia and elsewhere, stylistic characters correspond to specific moments in the chronological sequence of rock art.

Rock art is frequently named "the language of the stones", it displays messages that human beings have left on the rocks. The level of abstraction, of symbolism and of

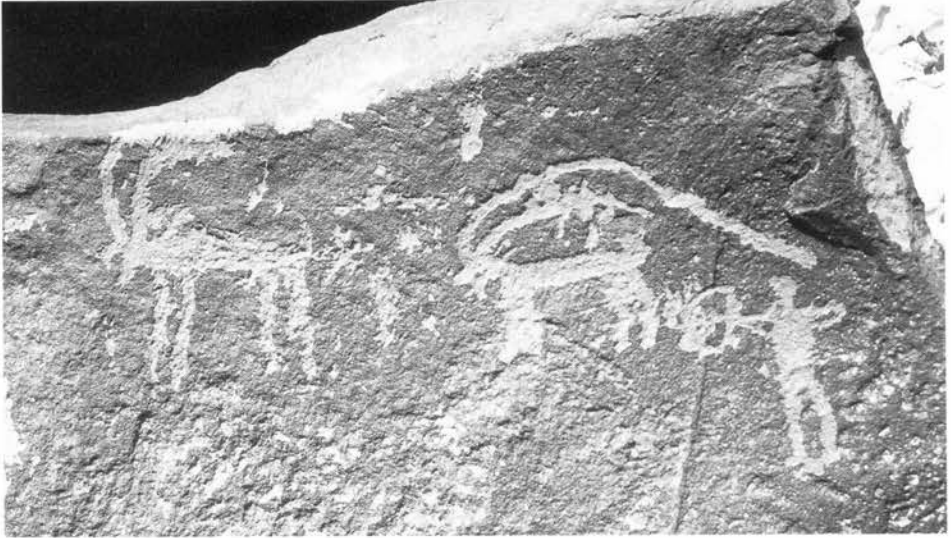


Figs. 11-12. Site HK/183. Engraved rock with figures of caprines and camels of periods IV-C and V, with light brown patina. On the base of dark desert patina, one can see older engravings worn by the action of time. On the lower left, there are two figures of quadrupeds. Other lines of incision can be seen in the upper centre. (Photos: EA96:XVI-22; EA96:XVI-14).



metaphor varies from one style to another. The deciphering of their significance may be reached at different levels. The grammatical and syntactical structure of rock art has some general paradigms but also variations which enable us to recognize one period from another and the recurrent patterns of one zone from that of other zones. The degree of schematization and abstraction varies, but the elementary structure is always based on the variability of three types of graphemes which are present all over the world and which are defined as: pictograms, ideograms, and psychograms.

In some periods, pictograms or figurative images constitute the majority. In other periods or horizons, ideograms or symbols are more frequent. Psychograms are exclamations, expressions of sensations and of feelings which are primarily present in the art of hunters but may appear in other groups as well. The graphemes constitute the grammar of the art, their combinations and associations constitute the syntax. In the



Figs. 13-14. Site HK/79B. Photo and tracing. The hunting scene with an archer and two wild goats from late period III has a brown patina. It is likely to belong to 4th or 3th millennium B.C. Below, one can recognize a quadruped of large dimensions with a patina similar to that of the surrounding unengraved surface. This figure is defined as period I-B. (Photo: EA92:CIV-26; Tracing:ST-93).



Hunting-and-Pastoral styles, which constitute the majority of the rock art in the Negev and Sinai, there are scenes, anecdotal or descriptive. In local periods II-B and IV-B others sequences or associations may prevail as the main syntactical form. In the art of Early Hunters, scenes are unknown or very rare.

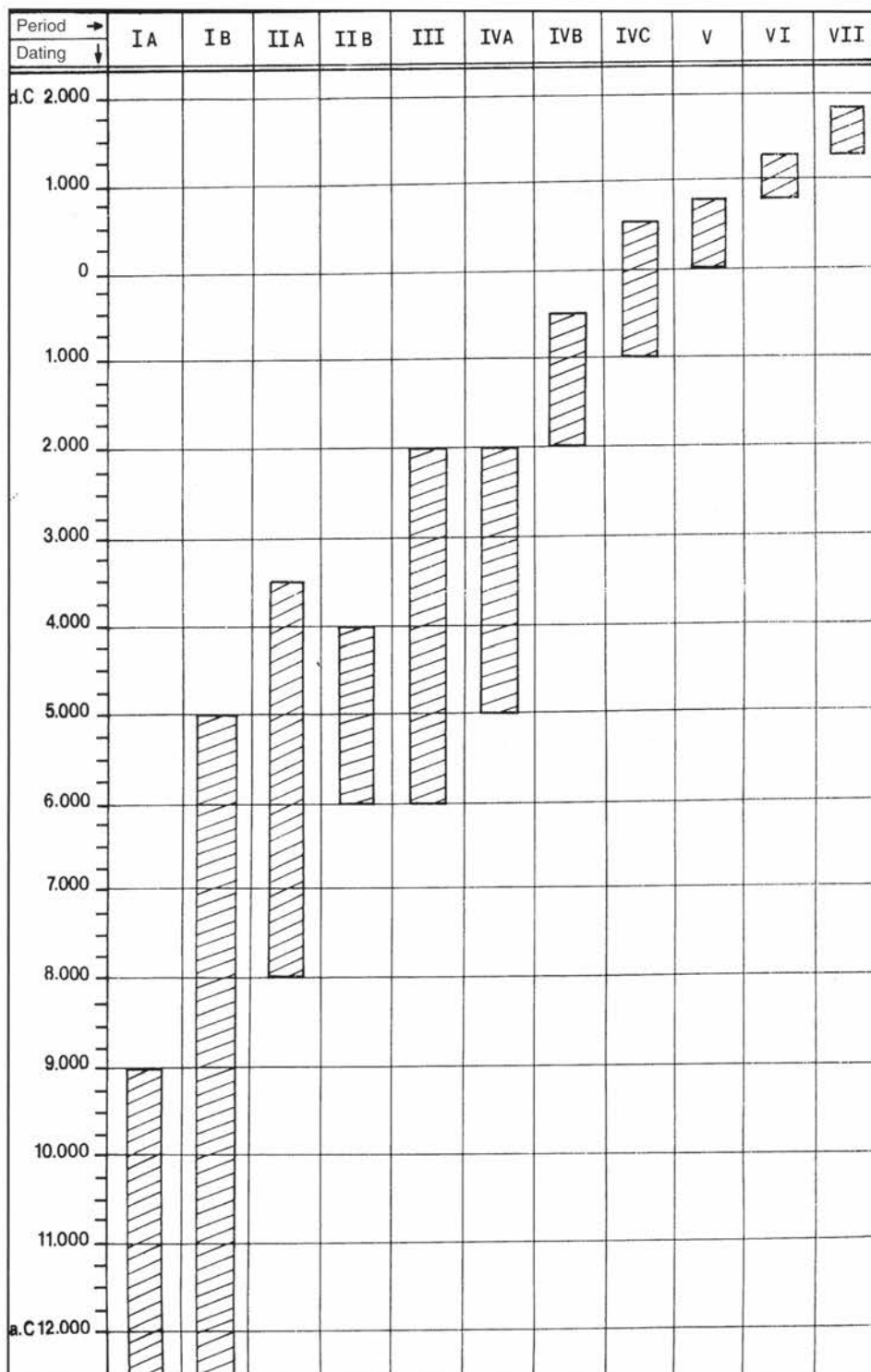
The Sequence of Styles

Style I, which is attributed to the Early Hunters, has different phases characterized by fine lines or thick lines. Some represent figures of animals in small size, others in large size. Human figures are rare. Scenes are absent so far; the style is primarily characterized by isolated animals or by sequences or associations between pictograms, ideograms, and psychograms. These phases find parallels in Arabia (Anati, 1968a; 1972; 1974). At Kilwa in Jordan (Rhotert, 1938), the phase characterized by the thin

ROCK ART PERIODS IN THE NEGEV AND SINAI (Revised 1996)

PERIOD	PRINCIPAL ACTIVITIES IN ORDER OF IMPORTANCE	WEAPONS AND SIGNIFICANT TOOLS IN ORDER OF IMPORTANCE	DOMESTICATED ANIMALS IN ORDER OF IMPORTANCE	ASSOCIATIONS AND CHRONOLOGICAL INDEX
I	Hunting	Spear, lasso, bolas (?)	None	Art of Archaic Hunters in Arabia and North Africa before the VI millennium BC.
II-A	Hunting, incipient domestication	Spear, stick	Dog, ox	Similarities with Mesopotamia VI to IV millennium BC. Early attempts at domestication.
II-B	Hunting	Spear, stick	Dog	Tentatively located between periods of II-A and m. Geometric style with ladders rectangles and circles. Old patina.
III	Hunting, animal domestication	Bow and arrow, mace with spherical head	Dog, goat, ox	Art of Evolved Hunters. Similarities with pre- and proto-dynastic Egypt. V, IV and m millennium BC. May have started earlier.
IV-A	Pastoralism, hunting, dance, religious ceremonies, myological evocations	Bow and arrow, dagger, axe, spear Metal-made tools	Goat, dog, ox, donkey	Arrival of pastoralists. Datable figures of the III millennium from Jericho, Arad and the Uvda Valley Association with Mesopotamia and Egypt.
IV-B	Herding, hunting	Bow and arrow, mace, spear, axe, musical instruments and war chariot	Goat, dog and horse	II millennium and into I millennium BC.
IV-C	Herding, trade, hunting	Bow and arrow, mace, spear, shield	Dog, goat, horse and camel	Thamudic and Nabataean inscriptions. I millennium BC to mid-I millennium of our era.
V	Trade, warfare, herding	Spear, shield, bow and arrow, sword	Horse, camel, dog, goat	Romano-byzantine associations. Greek and Nabataean inscriptions, 70-650 AD.
VI	Herding, hunting	Spear, shield, bow and arrow	Camel, horse	Medieval Arabic inscriptions. 650-1300 AD.
VII-A	Herding	Spear, bow, curved sword	Camel, goat, horse	Post-Medieval
VII-B	Herding, trade	Sword, gun	Camel, goat, donkey, horse	Recent

ROCK ART IN THE NEGEV AND SINAI: CHRONOLOGICAL TABLE (Revised 1996)





Figs. 15-16-17. Site HK/29. On this stone there are at least eight distinguishable different styles and patinas of rock engravings. The upper part of the surface was intentionally pecked in an old age. In fig. 17, the margins of the area cut away with heavy hits by a hammer tool, have acquired the same shade of patina as the surrounding unengraved surface. This is indicative of an age of several thousands years. (Photos: EA96:III-37; EA96:IV-5; EA96:IV-4).

Figs. 18-19. Site 370/A. Engraved rock whose upper part was modeled intentionally by man with hammer pecks that have acquired the same patina color as the surface. Below, engravings from periods IV-A and IV-C show two lighter shades of patina. In the photo at the bottom, we see details of hammer hits that have modeled the upper part of this rock surface. (Photos: EA96: XVIII-20; EA96: XVII-25).



Fig. 20. Site HK/370-A. Finely incised lines covered by calcareous crust, probably representing a ruminant. Patina shade is the same that of the unengraved surface. The upper part of the patinated surface has been modeled by hammering. Probably, these are two distinct human interventions. (Photo: EA96:XVII-33).



Figs. 21-22-23. Site HK/13. The process of erosion attacks the hammered engravings more easily where the cortex has been removed. In the course of the millennia, some engravings have been transformed by natural process of erosion. Yet, it is still possible to recognize the shapes produced by man. (Photos: EA96:V-9; EA96:V-11; EA96:XXI-24).

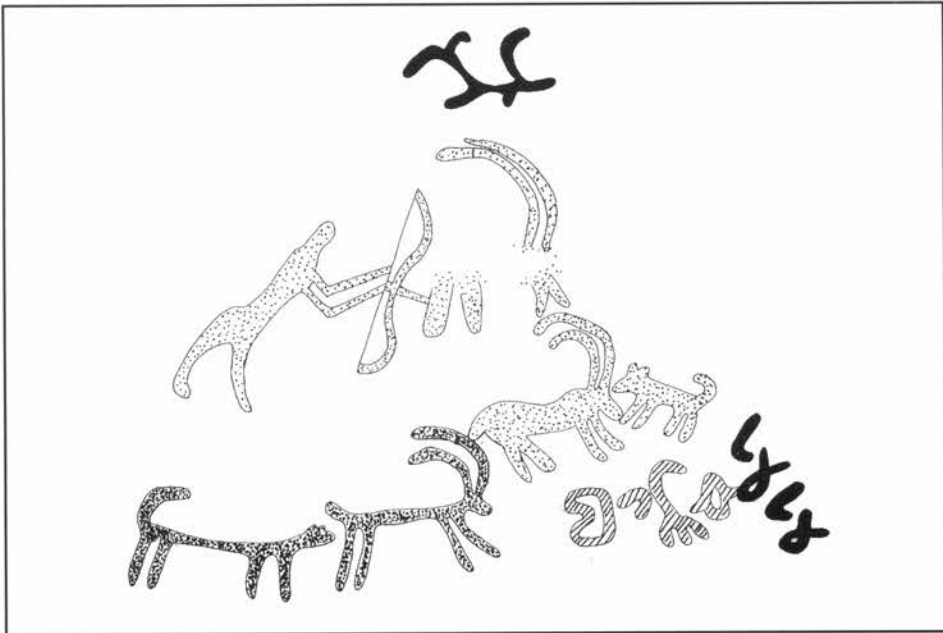




Figs. 24-25-26. Site HK/113B. The remains of these figures are completely transformed by the erosion process. For reaching such levels of erosion, it is presumable that they are several millennia old even though we cannot give a precise dating. (Photos: EA96:VI-31; EA96:VI-29; EA96:VI-35).



Figs. 27-28. Site HK/38. Stratigraphic sequence of three distinct phases of rock art. The oldest phase represents a hunting scene from period III: a human figure with a double-curved bow is related to a partially eroded wild caprine. Below, a different human hand of the same period has engraved another caprine faced by a dog. Still lower on the rock, another, more schematic caprine and a dog from period IV-C are lighter than previous phases and darker in patina than a Thamudic inscription that dates back around the beginning of our era. In the upper part of the rock a quadruped has a still lighter patina. Still lighter is an Early Arabic inscription below. This surface provides a remarkable stratigraphic sequence of rock engravings. (Photo: ISR84:XXIX-31; Tracing: EA84).



line (I-A) is older than the thick line phase (I-C) which is known both in Jordan and in the Central Negev but not yet at Har Karkom. At Har Karkom, besides the thin line phase, engravings with entirely pecked surfaces have also been found with large animal figures showing the shade of patina identical to that of the surrounding surface (I-B).

Period II is mainly characterized by isolated groups of both wild and domestic animals. Hunting and incipient animal husbandry are the main activities represented by this rock art. The syntax is characterized by single compositions but there are some rare scenes as well. This style, defined as "Early Hunting and Pastoral", has been



Fig. 29. Site HK/237. In this photo we see a stratigraphic series of seven phases of rock art: at the centre, a hunting scene from period III. (Photo: EA85:CXX-33).

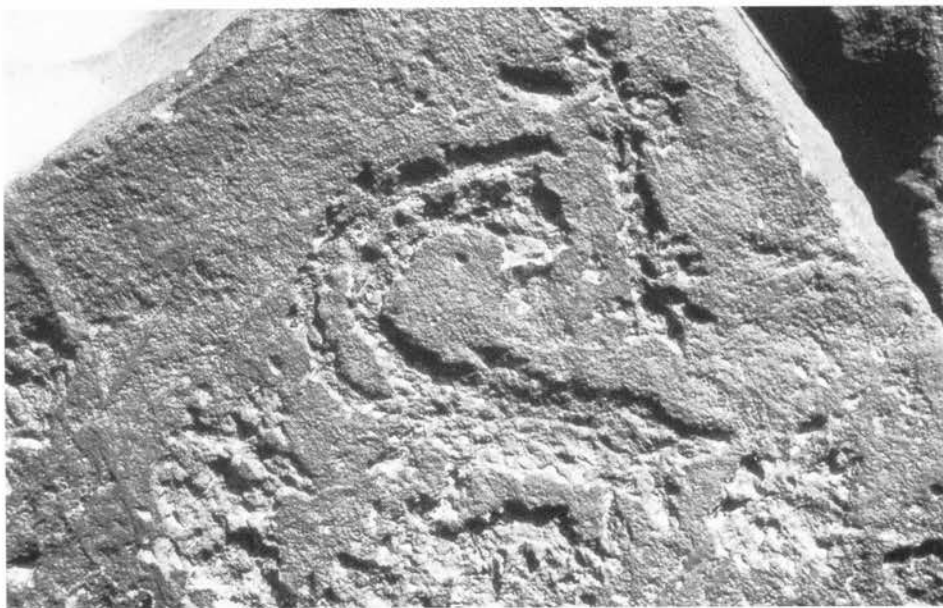


Fig. 30. Ein Hameara. Wild caprine with large horns from period II-A. The patina is similar to that of the rock surface. (Photo: ISR84:XXVI-19).

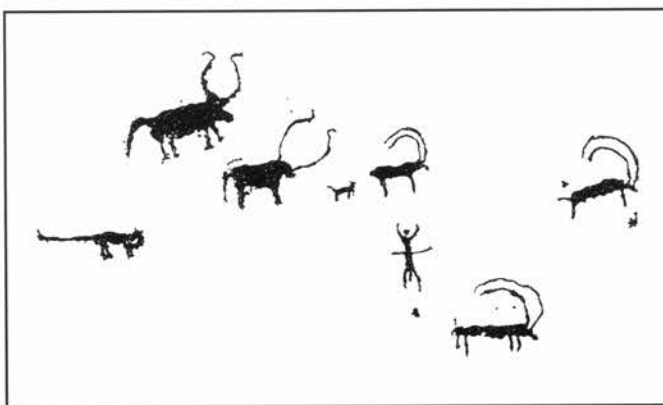
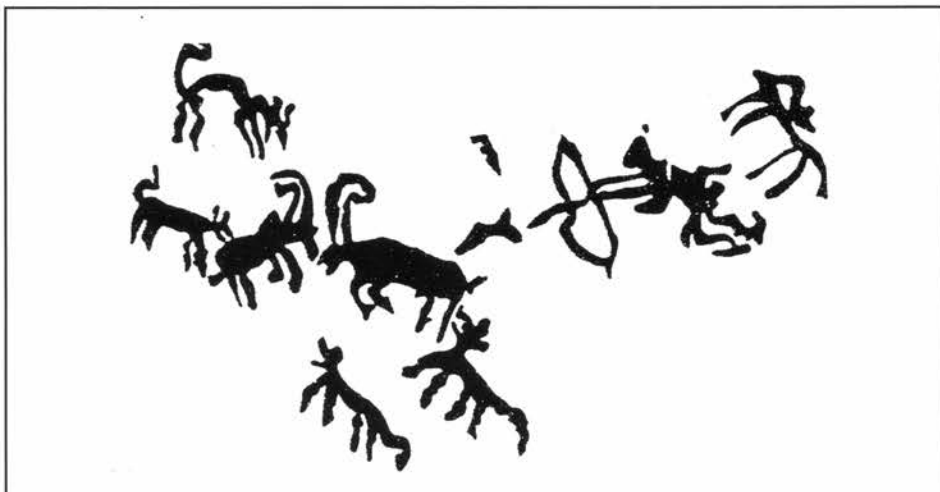


Fig. 31. Scene of Style III at Wadi Huwara. A "worshipper" with upraised arms is surrounded by various animal species, caprines, bovines with big horns and a feline with a long tail. (Tracing: E.A. 1979, p.44).



Figs. 32-33. Site HK/33/a-3. Tracing and photo of a dynamic hunting scene from period III (Chalcolithic). The hunters use bow and arrow and are assisted by dogs. (Tracing: EA54; Photo: ISR84:XXIX-34).

considered to be contemporary to the Neolithic of the fertile zones. An agricultural Neolithic culture has not yet been identified in the rock art of Near Eastern desert areas. However, there may have been contacts between the Neolithic population of the Fertile Crescent and the hunting and pastoral desert population of the same age. Period II has been tentatively dated between the seventh and the fourth millennium B.C. It reflects a way of life based on hunting with incipient domestication. This style is widely diffused throughout the Negev and Sinai, in Arabia (Anati, 1968a; 1972; 1974) and in Anatolia (Anati, 1972). It may show some stylistic similarities with the decoration of pre- and proto-literate pottery of Mesopotamia (Goff, 1963, figs. 79, 87, 88, 97, 136, 143, 145, 174, 198, 201, 202, 494).

In the Har Karkom area there is also a schematic style defined as II-B which is probably contemporary to style II-A. It is primarily composed of ideograms and so far it is known only in three sites. In the Arava Valley it is known near the copper ores of Timna and at Nahal Odem and it has been suggested that it may be related to intrusive early metal surveyors (Anati, 1979, pp. 40, 41). From the same general period, a third



Figs. 34-35. A tumulus from site HK/32 and a detail of its engravings. Periods III and IV-A show a similar shade of patina. (Photos: EA96:VII-2, EA96:VII-4).

style is found in a few sites of the central Negev and in Jordan (Betts, 1995, pp. 69-76). It is defined as II-C and it is so far absent from the area of Har Karkom. All the different phases and types of period II have no depictions of weapons or tools. All we can say is that the various groups attributed to period II, should belong to horizons where the prevailing activity was hunting and the domestication of animals had just started.

The differences of the stylistic groups make of period II a rather heterogeneous horizon. Different traditions are likely to have coexisted in the desert areas of Israel, Sinai and Jordan, displaying a situation much similar to that of Central Arabia (Anati, 1972).

Period III is more homogeneous than period II and, despite its long duration, may be considered as a single style from beginning to end. Its syntax is characterized by well-conceived scenes, especially of hunting, where the protagonists are represented naked or dressed in animal skins and the most common weapon is the bow. Dogs assist the hunters and the prey is almost always the ibex or wild goat. This style is spread

over the Negev, Sinai, and Jordan, while examples are found also in the desert areas of Egypt. The major concentration is found at Har Karkom and in the surrounding zones of the Negev. This style represents a specific way of life. Hunters wear skins, use the bow and arrow, and are helped by domestic dogs. Relying upon the stratigraphic sequence, several of such scenes should go back to the 5th and 4th millennium B.C. They are likely to fit the description of Genesis concerning the son of Hagar, Ismael, father of the Arab Nation, "...and God was with the lad; and he grew, and he dwelt in the wilderness, and became an archer. And he dwelt in the wilderness



*Fig. 36. Site HK/3B.
Worshippers and abstract signs
along a trail leading to the
plateau from the Western Valley.
Period IV-A. (Photo:
ISR82:EA8-20).*

*Fig. 37. Site HK/47. A small
tumulus, presumably funerary,
is decorated with engravings from
period IV-A. (Photo: EA96:IV-7).*





Fig. 38. Site HK/267. Rock engraving likely to describe birth delivery. The boulder has the form of a large animal snout to which were pecked two points in the place of the eyes. This rock is part of "plaza site" of the BAC period. This image was hidden by a heap of stones associated with BAC flint implements. The lightness of the patina may be due to the fact that the engraving had remained covered by other stones (Photo: ISR87:VIII-17.DA).

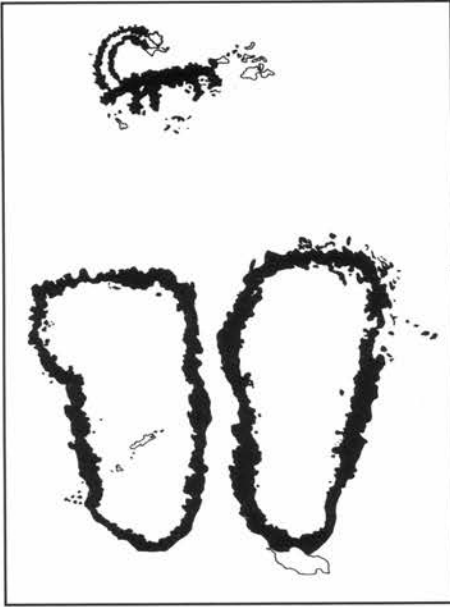
Fig. 39. Site HK/3B. A worshipper in front of a vertical line. This same motif is often repeated along the paths leading to the Har Karkom plateau. (Photo: ISR82:EA-1).



of Paran," (*Genesis* 21, 20). Har Karkom is on the border of what is today named the Paran desert, which is likely to correspond to the biblical desert of Paran.

Period IV is reflecting "Hunting-and-Pastoral" societies dominated by figures of wild and domestic goats. The main elements of the subject matter are goats, anthropomorphic figures, ostriches and dogs, grouped in simple scenes.

In period IV-A there is a category of rock engraving which appear to be a local version typical of Har Karkom. Scenes of cult activities and of adoration prevail. One of the scenes repeated several times is that of a human being with upraised arms, in the position of worship, in front of a simple line or of an abstract sign. In other areas of the Negev and Sinai in this phase, there are prayers in front of astral symbols and also in front of animals. Here they are in front of abstract signs. Other engravings assemble seven, eight, or ten short lines which may have had numerical values. An exceptional depiction presents a rectangle above which there are two rounded shapes. The whole is subdivided into ten parts and appears as some sort of prototype of the classical figures of the tablets of the law. The rock art has a very high development in the period IV-A and we shall come back to this point.



Figs. 40-41. Site HK/38. A wild goat and the footprints' from period IV-A. Standing in front of this surface one can see the peak of the mountain in the background. The footprints often represent devotion. The wild goat was a symbolic animal, probably having totemic values. (Tracing: EST-93; Photo: ISR84:XX-37).

Period IV-B is well known in the central Negev; it is characterized by scenes and compositions of ideograms near anthropomorphic and animal figures. In the Arava Valley at Timna, a magnificent scene of wagons trailed by oxen may be attributed to this horizon (Anati, 1979, pp. 52-53; Rothenberg, 1972, p.122). This style is almost totally absent in the area of Har Karkom as well as in other parts of the Sinai and the Negev. It is attributed to the 2^o millennium B.C., a period when the region was very dry and numerous zones were uninhabited (Anati, 1993).

Period IV-C is represented by several findings both on the mountain and in the surrounding valleys. In this time, in the area of Har Karkom, nearly 200 inscriptions are found: they are written in Thamudic, Nabataean, Lihianite, and other Aramaic dialects belonging to the last centuries B.C. and the first centuries of our era. In periods IV-A and B there are more depictions of animals than human beings while in IV-C there are more humans depicted than animals. There are more fighting, pastoral, and hunting scenes and for the first time, there are depictions of mounted horsemen. The end of this period is likely to be contemporary to period V where the Roman and Byzantine influence became evident. It is not unlikely that late period IV-C and period V are the issues of two different populations of the same time range. Periods IV-C and V correspond to a moment of proliferation in the human presence of this area where both archaeological sites and rock art are widely represented. The iconography includes representations of caravans of both horses and camels. As already mentioned, there are numerous inscriptions. Beside the Aramaic dialects, a few inscriptions in Greek and Latin are found in the Negev. Inscriptions in these two languages have not yet been found at Har Karkom.

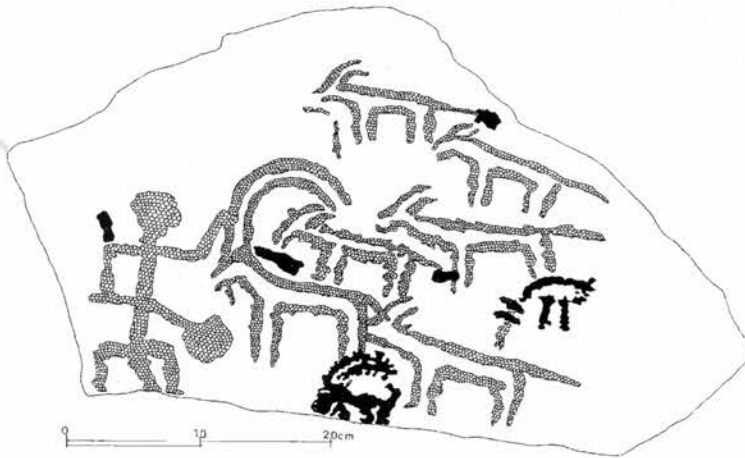
The Islamic periods (VI and VII) are characterized by the abundance of tribal marks, *wasm*, and many other schematic representations. Goats and camels are the most common animals depicted. Fighting scenes are frequent and may indicate a major interest of the art makers. The main activity represented is pastoralism. There are some



Figs. 42-43-44. Valley of Uvda. Cluster of circular rooms excavated by the Department of Antiquity. In the interior, in front of the fire-place, an engraved stone represents footprints and a wild goat. The structure and the rock art were covered by archaeological layers. The cluster was built in an early phase of the Early Bronze Age and reused at the end of Early Bronze Age. It was never reused again after ca. 2000 B.C. (Photos: EA93:IX-34; EA93:IX-32; EA93:IX-33).



Figs. 45-46. Site HK/32. Photo and tracing. Scene from the end of Period III. A person is holding the horn of a wild goat surrounded by canides. The blackened parts are later additions. This scene seems to emphasize that the human is saving the goat that would otherwise be a prey. Both goat and dogs seem to have metaphorical meanings. (Photo: EA96:VII-5; Tracing: EA96).



Arabic inscriptions which may be dated to the first centuries of the Islamic era and may be referred to the end of the first and the beginning of the second millennium. Other Arabic inscriptions are more recent. Rock art becomes rough; it is the work of nomads from the periphery who often reused, completed, or copied previous engravings. The rock art of these periods is widely diffused in the central Negev, in the Arava Valley, along the shores of the Red Sea, and in several areas of the northern, central, and southern Sinai. It is also in Saudi Arabia (Slattery, 1995, pp. 120-123). At present, Har Karkom seems to have the richest concentration of rock art in the entire Sinai peninsula. A peculiarity of Har Karkom is the number of scenes and compositions connected to cult and rites, more frequent on this mountain than anywhere else in the area.

Some Considerations on the Rock Art of Period IV-A, Chalcolithic and Early Bronze Age

The concentration of rock art of period IV-A at Har Karkom (847 m.a.s.l.) is

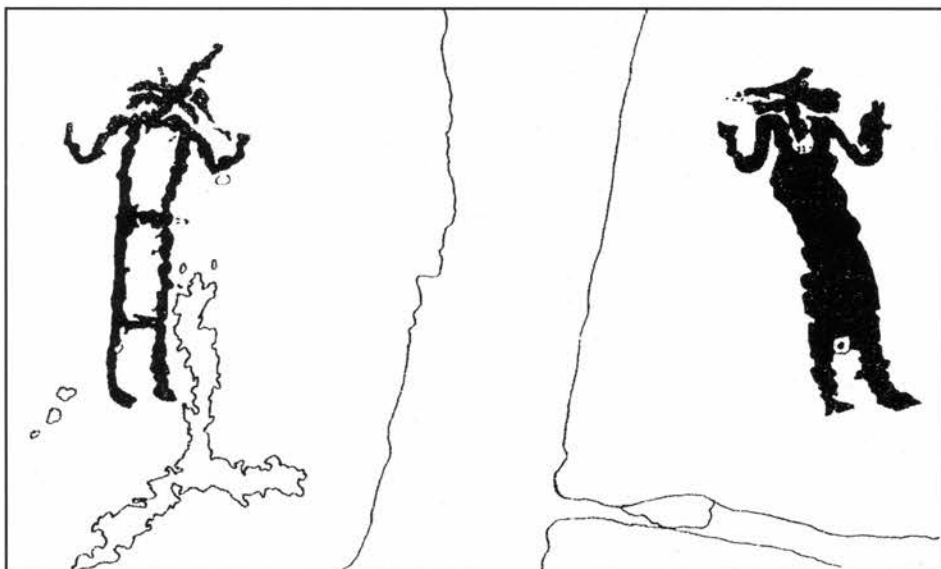


Fig. 47. Site HK 45/G. Tracing of two anthropomorphic figures in the conventional position of worship. At the left, a sign (indicated in outline), where the patina is considerably lighter, is more recent. The two figures probably were masked and may represent spirits. (Tracing: EST-93; from E.A. 1993, p.64).

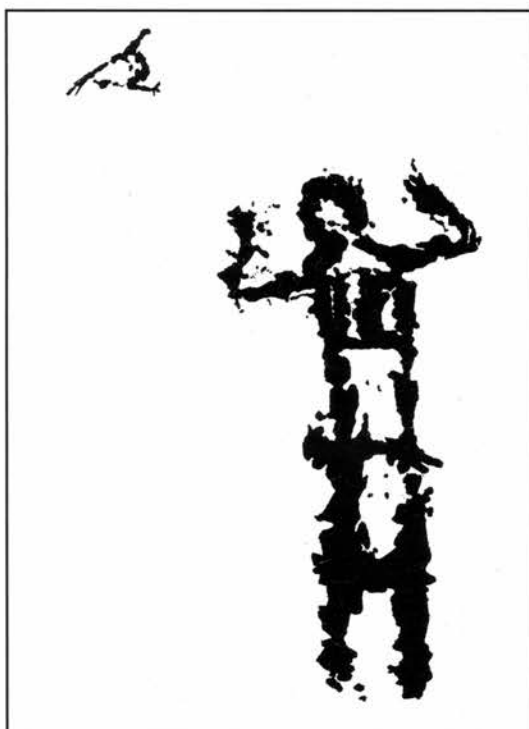
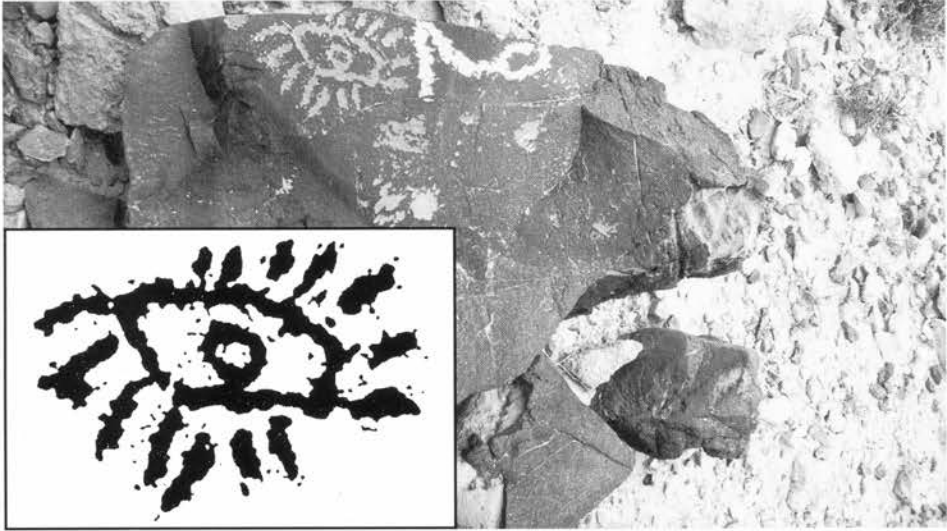
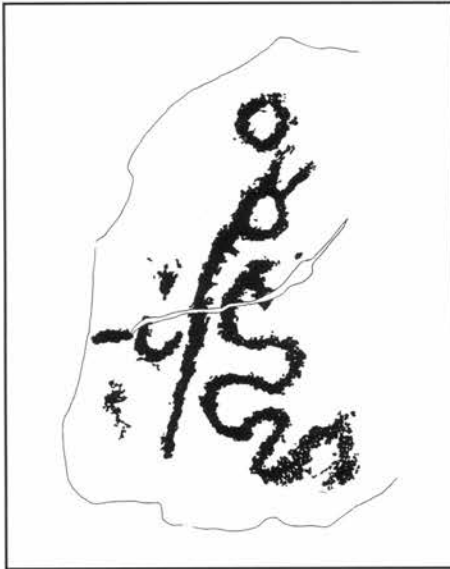


Fig. 48. Site HK/56-C. Rock engraving of a human figure in the conventional position of worship. It may have a dagger at his belt. Above him, there is an ideogram similar to a bird. The scene seems to represent a dialectical relationship between man and animals. (Tracing: EST-93).

surprising also because its style is practically absent in the surrounding areas. It is known in the Negev Highlands but it is not known at Har Saggi (1,006 m.a.s.l.), a mountain higher than Har Karkom and about 15 km away, or at Jebel Arif el Naqa (938 m.a.s.l.), a mountain about 30 km away where the rock engravings known are all very late, from the Roman period on. The abundant assemblage of period IV-A at Har Karkom appears to be the result of a deliberate choice of site by those who came there to make the rock engravings. We have already mentioned the repetitive image of the worshipper in front of the line and the exceptional engraving known as the “tablets of the law”. Other images seem to be connected to myth and legends. They include what



Figs. 49-49b. Site HK/36-B-II6. An eye surrounded by seven lines on the top and by seven lines on the bottom. On the right, a lighter patinated sign belongs to a later period. This image completes the natural shape of the rock which looks like snout of a quadruped. Period IV-A. It may represent a very special eye. (Photo: EA92:CVI-4; Tracing: from E.A. 1993, p. 3).



Figs. 50-51. Site HK/32. Tracing and Photo. Rock engraving of a staff and a snake; next to them, there are ideograms. The staff has horns which mean energy or power. The disc on top of the staff means "female" while the snake is the male symbol par excellence. On the left, the point ideogram usually means "to do!" an action verb; the "U" sign could mean to transform or to change. The horizontal line means an emphasis or confirmation. At the bottom, there is another point. The engraving which is on a small stone probably commemorates the story of a powerful staff which transforms into a snake. Period IV-A. (Tracing: from E.A., 1993, p. 69 ; Photo: ISR.82-D-9).

may represent masked human beings or spirits, dancing scenes in which some beings are depicted with a human body and an animal head. Some such depictions may find parallels in the Chalcolithic paintings from Ghassul (Cameron, 1995, fig. 78).

Several chronological elements locate this style in its general framework. The main



*Figs. 52-53-54. Site HK/39.
Photos and tracing.
Rock engraving representing a
composition of poisonous
creatures: snakes, scorpions and
a "saraf" or poisonous lizard.
Period IV-A. In fig. 52, the rock
is shown to stand above the wadi
where there is a pool of water.
(Photos: EA96:XXII-1;
ISR86:XXVIII-26; Tracing:
E.A., 1993, p. 68).*





Fig. 55. Site HK/36-B. Wild goat and nine engraved dots. The dots have been pecked with a stone tool and may have a numerical value. The wild goat is a rare case of engraving produced with a metal tool with a sharp cutting edge. This figure has a lighter patina and appears to have been added to the dots which were engraved first. (Photo: RB92:XXXIII-20).

activity portrayed is pastoralism while hunting is also well-represented. In the entire Sinai peninsula, with the only exception of the wagon trains at Timna, this is the last period where domesticated oxen are represented. Timna was the location of a camp for slave labor, but sites representing a free tribal population living in the desert do not have any representation of oxen that we know of after the end of period IV-A. This seems to indicate a dating previous to a major phase of desertification which lasted between 2000 and 1100 B.C.

The human figures of period IV-A sometimes hold a metal dagger with a triangular blade and a lunate pommel which may be dated to the 3rd millennium B.C. when compared to similar weapons found in archaeological excavations (Yadin, 1963, p. 140).

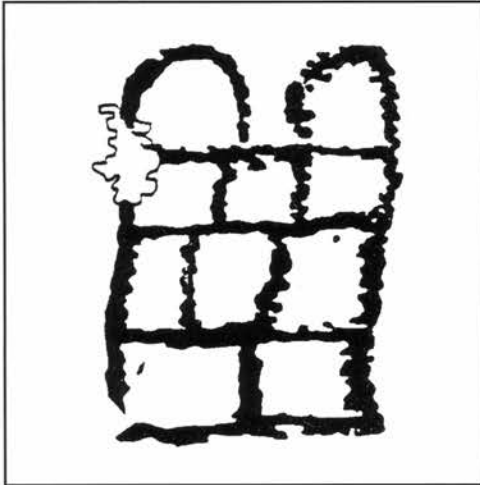
The depictions representing worshippers in front of abstract symbols are found mainly along the trails leading to the plateau from the surrounding valleys, as if they were depicted by pilgrims going up to the mountain. Some of the engravings may represent mythological scenes showing parallels to biblical stories. One composition represents a staff and a serpent. The staff has two horns, probably indicating its power. Nearby there are two ideograms likely to indicate the action of transformation of the staff into the snake. This composition is recalling the biblical narration of Moses, "Take thy rod and cast it before Pharaoh, and it shall become a serpent" (*Exodus* 7, 9).

We have mentioned already the depiction of the so-called "tablets of the law". The way it is structured, the subdivision into ten parts may well take into consideration the subdivision of the ten commandments into three parts: the two uppermost concern God, the middle six concern society, and the last two concern the individual. Such conceptual subdivision seems to be present in the depiction at Har Karkom. Another depiction represents a group of animals, six snakes, one saraf, or poisonous lizard, and two scorpions. It seems to be a pictographic representation of a passage in *Deuteronomy*, "Remember your God, who led thee through the great and terrible wilderness, wherein were fiery serpents, and scorpions, and the *saraf*, where there was

no water; who brought forth water out of the rock of flint" (*Deut.* 8, 14-15). These rock engravings are likely to indicate the presence of water in a pool in the nearby bed of the Wady. It may thus use the same metaphor as the biblical account.

On the mountain and around it, there are many orthostats or menhirs which are likely to belong to the same period, often located near the rock engravings. In the Bible they are called *masseboth* (singular, *massebah*). Sometimes, they are just single but other times they are groups of *masseboth* which may reach up to thirty in number. Usually one of them is larger than the others and is located in the center of the group. There are also circles and alignments of standing stones. Some of these orthostats have a natural anthropomorphic shape where eyes have been engraved by a human hand. The findings on the mountain include a group of orthostats which belong to the Palaeolithic complex, but most of these monuments are likely to belong to the BAC period (4° and 3° millennium B.C.).

On the plateau, there are several small, private altars, belonging to this period as well. The only major structure with stone basements has a courtyard and a rectangular platform facing east which has been named the "Midianite Temple" (Site HK/24).



Figs. 56-57. Site HK/126-B. Tracing and photo. The engraving known as "Tablets of the Law" divided into ten parts. Period IV-A. (Tracing: E.A. 1993, p. 4; Photo: EA96:VI-14).





Figs. 58-59. Site HK/34. Photo and tracing. A scene seems to describe the wounding of a goat for collecting blood. This practice is still in use among the Masai and other African pastoral people. A character holds the animal by the horns and another strikes with an arrow. Both human figures hold a stick or a sword at their belt. At the bottom, a south Semitic inscription with a slightly lighter patina. Period IV-C. Finally, a wasm, a recent Bedouin tribal sign. The latest engraver has retouched part of the earlier scene, where it shows a lighter patina. (Photo: EA90:III-28; Tracing: EA90).

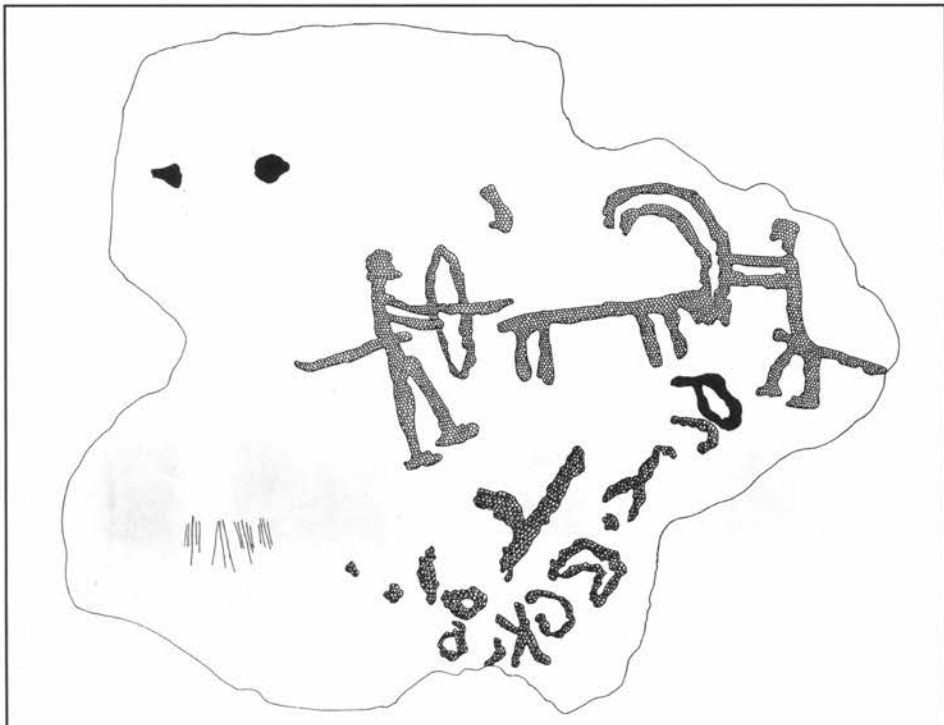




Fig. 60. HK/78. Large stone circle engraved with rock art. (Photo:EA92:CIV-7).

Around it, there are several stone tumuli. Another stone-built structure (Site HK/7) probably has funerary functions. It is a tower-like structure with a courtyard and is surrounded by funerary tumuli. On the plateau, there are several other groups of tumuli but only one of these structures has been excavated. Beneath a heap of stones, there was a flat slab which covered a stone cyst. It contained the bones of an adult individual, a perforated mother-of-pearl pendant, and fragments of a jar in a type of pottery called metallic-ware which is typical of the second half of the 3rd millennium B.C. In the small cyst grave (measuring 85 by 60 cm) there was a single burial where all the long bones of the arms and the legs were put together in a bunch. Obviously, it was a secondary burial after the bone had been scarnificated. Frequently, engraved stones with rock art of period IV-A are found above or near this kind of monuments.



Fig. 61. Site HK/58A. Circle of stones with engravings. At the centre, two rocks with later engravings have been added. (Photo:ISR82:EA-12).



Figs. 62-63. Site BK/815. A small stone pillar has been artificially located in a natural niche on a large rock. It has a inscriptions in South-Semitic characters. A general view of the broad landscape and a detail of the same stone. (Photos: EA96:XV-32;EA96:XVI-2).

Conclusions

The present study has arisen a certain number of queries. The rock art of Har Karkom constitutes a vast documentation on the open air activities and practices of the people that lived in this region in the course of millennia. Har Karkom is one of the rare locations in the Sinai-Negev peninsula where period I is present. It includes “Early Hunters” rock engravings likely to belong to the Late Pleistocene or Early Holocene. No domestic animals are known in this period. Human figures are rare and at Har Karkom, so far, they are totally absent.

As in other parts of the Negev and Sinai, domestic animals were represented probably as a secondary activity already in periods II and III, however, pastoralism seem to become dominant as the main way of life from period IV-A.

Har Karkom is characterized by one of the major concentration of rock art of period IV-A known in the Negev and Sinai. The stylistic and thematic changes seem to indicate the arrival of new populations in this area during the late 4^o and the 3^o millennium B.C. All over the Negev and Sinai, this period is characterized by pastoralism, first with bovines, then with caprines. Since then, the rock art seems to indicate that caprines constitute one of the main economic resources. However, at Har Karkom, caprines seem to be objects of cult rather than an economic resource. More generally, at this site, period IV-A is characterized by a major focus on cult activities.

In the book *Arte Rupestre del Negev e del Sinai* (1979) I had proposed a dating of style IV-A in the 2^o millenium. After that publication, the analysis of rock art has progressed. The new finds, at Har Karkom in particular, seem to indicate that period IV-A belongs to an earlier date. In addition to the evidence provided by the study of the rock art, some archeological evidence does corroborate these hypotheses. A tomb from the early Bronze Age, excavated by K.M. Kenyon at Jericho, had some engravings of quadrupeds, mainly caprines, and human figures, analogous tl those of period IV-A of the Negev (Kenyon, 1957, p. 206; 1965, pp. 138-141). This discovery has initially raised same queries, but other figures found in the excavations of Tell Arad (Amiran, 1972) and in the Uvda Valley, are certainly dated in the 3^o millenium B.C.



Fig. 64. Site HK/36. Late rock engraving referred to the Islamic period with a camel rider. (Photo: AA95:XXVI-6).



Figs. 65-65b. Site HK/13-B-C. Ideogram, probably a tribal wasm, with light patina, dating back to the Roman-Byzantine period. Below this sign there is the figure of a quadruped with a darker patina; there are traces of a very old engraving, now almost completely eroded, representing another quadruped. (Photo: EA96:XVIII-6). The ideogram has a strange similarity to the symbol of the Israel Antiquities Authority (fig. 65b).



Fig. 66. Site HK/39. Figure of a goat from the period II. The horns have been further elongated and a dog has been added probably in period IV-C. The animal on the central part of the rock seems to represent a cult icon. The later addition makes of it part of an anecdotal scene in which the animal is attacked by the dog. The conceptual background of the depiction is thus transformed. (Photo: EA92:CVII-30).

At Arad, an engraving of two human beings has been found in the course of excavations in the levels of the Early Bronze age. At Uvda, in the excavation conducted by Avi Eytan, the engravings of periods IV-A have been found in a stone-built structure in front of a fire-place. The engraved slab was partially covered by Bronze age layers (Personal Communication). It seems therefore, that period IV-A may be located within the time range of the BAC period (which includes the late Chalcolithic and the Early Bronze age).

Another aspect of this research which was clarified in the course of the last expeditions, concerns what may be called the collections of stones. In some fifty sites at Har Karkom, peculiar stones have been noticed, they usually have a natural shape which reminds one of anthropomorphic or zoomorphic heads. These stones have been collected and grouped by man and sometime a human hand has added incised marks which represent the eyes, the mouth, or the brow ridges. This kind of collection of peculiar stones is present in at least two different periods. In 12 cases such collections are located in Upper Palaeolithic sites. In 24 cases out of 50, they are located in sites belonging to the BAC period. Sometimes these stones are positioned on the top of platforms or other stone structures which may be identified as altars (site HK/173c). In addition, the Har Karkom plateau includes at least 38 known non-habitative sites which are covered by extensive traces of human activities of social or religious character. Over half of these sites have rock engravings.

It seems that for long periods of time the area was used for a number of cult activities. The rock engravings have been added and have accumulated in the course of time. Sometimes, one has the impression that human beings have played with the environment, collecting anthropomorphic stones, putting up standing menhirs and other stone structures, making geoglyphs or pebble drawings on the surface, producing rock engravings, building up alignments and circles of stones. All these monuments are messages from man to nature in the immensity of a silent landscape.

After the publication of *The Mountain of God* (1986), the sites discovered in the area have more than doubled, but the basic idea seems to be confirmed: Har Karkom has been a sacred mountain in the course of millennia. Traces of cults, such as shrines, and standing stones have been found all over the Sinai peninsula but nowhere else are there, to the best of our knowledge, so many such monuments intensely concentrated into one well-defined area. In the BAC period, when living sites were located at the foot of the mountain, remains of hundreds of living structures with stone foundations indicate the broad dimension of the human groups that have come at the foot of Har Karkom. They may have numbered thousands of people. The mountain plateau, on the other hand, seems to have been reserved to cult activities. The rock art with over 40,000 figures is found in archaeological context.

The systematic rock art inventory is in progress and constitutes an archive of the lives and beliefs of the desert people for millennia. It is hoped that this patrimony will soon be published and become accessible to anyone interested in it.

Note

1) BAC or Bronze Age Complex is used to indicate the widespread material culture of Chalcolithic tradition which persisted in the area of Har Karkom until the end of the Early Bronze Age. BAC flint implements are found with pottery typical of Chalcolithic, the beginning of the Early Bronze Age (EBI) and the end of the Early Bronze Age (EBIV-MBI).

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Riassunto:

L'arte rupestre di Har Karkom, deserto del Negev, Israele, comprende una sequenza di stili e di orizzonti che coprono oltre 12.000 anni, dalla fine del Pleistocene all'era islamica. Lo studio sistematico condotto in 17 anni di ricerche su migliaia di incisioni, su centinaia di strutture ed innumerevoli reperti di cultura materiale, consentono di ricostruire le condizioni socio-ambientali della zona e di proporre una nuova cronologia dell'arte rupestre presente, non soltanto nell'area di concessione, ma in tutta la penisola sinaitica. Importanti fattori, quali la rappresentazione di scene di caccia o di culto, di animali, di armi e di utensili, associazioni di simboli o iscrizioni, le tecniche di incisione, i processi di patinatura e di erosione permettono di tracciare uno schema cronologico degli stili e di individuare le attività economiche che si sono succedute nei millenni. Si evidenzia una particolare attività culturale nell'area di Har Karkom nel periodo IV/A (Antica Età del Bronzo), rispetto alle altre zone.

Summary:

The rock art of Har Karkom, in the Negev desert, Israel, presents many cultures and styles that cover more than 12,000 years, from the end of Pleistocene to Islam. Thousands of engravings, hundreds of architectural remains, and countless finds have been systematically studied over the last seventeen years. They permit the author to reconstruct the social and environmental conditions. A new chronology is proposed, not only for the rock art of Har Karkom and its surroundings but also for the Sinai peninsula. The scenes of hunting, of rituals, animals, arms and tools coupled with associations between symbols and/or inscriptions, the different techniques of engraving, and the natural process of patina and erosion make it possible to trace a chronological table and to identify the economic activities of thousands of years. In the period IV/A (Early Bronze Age) the area of Har Karkom shows a unique ritual activity not encountered in any other place.

Résumé:

L'art rupestre de Har Karkom, dans le désert du Négev, Israël, présente un grand nombre de cultures et de styles, couvrant une période de plus de 12.000 ans d'activité, depuis la fin du Pléistocène jusqu'à l'Islam. Des milliers de gravures, des centaines de vestiges architecturaux et d'innombrables découvertes ont été étudiés systématiquement durant les 17 dernières années. Ils permettent à l'auteur de reconstituer les conditions sociales et environnementales. Une nouvelle chronologie est proposée non seulement pour l'art rupestre de Har Karkom et de ses environs, mais également pour la péninsule du Sinaï. Des scènes de chasse et de rituels, des animaux, des armes et des outils combinés à des associations de symboles et/ou d'inscriptions, les différentes techniques de gravure et les processus naturels de la patine et de l'érosion rendent possible l'établissement d'un tableau chronologique et l'identification des activités économiques de milliers d'années. Pour la période IV/A (Premier Age du Bronze) la région de Har Karkom fait apparaître des activités rituelles uniques, jamais rencontrées dans aucun autre lieu.