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EXPLORING THE ROOTS

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EDITORIAL NOTES

INTRODUCTION

Who are you? The knowledge depends on your personal memory. For yourself, you are what you believe yourself to be. For others you are what they believe you are. Who are we? The knowledge depends on our collective memory. The dimension of the question varies. Who are we as readers or editors of *Expression* journal, as a professional team, as students or teachers, as faculty members, as a university or other educational institute, as believers in a faith, as an association? Who are we as a family, tribe, nation, humankind? Who are we as life on the planet earth? Who are we as planet earth in the universe? Our memory knowledge reaches an end somewhere. But beliefs and imagination go further.

Research adds to knowledge, whose role is to modify beliefs. The definition of who we are depends on the meaning of we. Whatever the definition, the question occupies a dominant place in the minds of most human beings. Identity, the search for or doubts of identity, the defense of identity, is a major cause of conflicts, racism, persecutions and wars. Why? Why is the quest for identity so strong?

Adding knowledge to our memory is a characteristic of the species, which started when the first hominid left his bush homeland to look beyond, to explore the unknown, discovering new landscapes. Without this curiosity the species would have remained in its original environment, as other primates did.¹ Our ancestors spread over the entire planet. And this persists, and is part of human nature. Like microbes or ants, man is a colonizer. Exploring one's roots is the source of awareness of identity.

Adding knowledge to our memory is the foundation of conceptual evolution. Knowing is the core of understanding. Doubts are both the cause of evolution and the cause of conflicts.

Memory knowledge is supplemented by belief imagination, two facets of what we believe. Awareness and the search for identity are eternal traits of the human mind. The association of knowledge with belief defines identity: both individuals and societies are defined by their history and their faith. Knowing and believing define identity and they are the synthesis of conceptual being.

The need for awareness goes further. The next question is how come that we are what we are? How come that we are reasoning? How come that we need to be fed to survive physically, emotionally, and intellectually? How come we belong to a tribe or to a nation or to another human aggregation? How come we need to communicate not only with a language but also with our eyes and with our feelings?

Do we live just for the purpose of surviving and reproducing? What causes the pleasure in beauty, a landscape, music, dance, or a painting? What causes the pleasure of imagining? Questioning is being.

The wonder of existing has many facets and human curiosity explores them. Out of all the many marvels of nature, man is primarily interested in himself. The awareness of not knowing enough and the eagerness to know more is the spirit of our species.

Exploring roots has always been a human quest. When knowledge stops, imagination does not. The border between material truth and ideological truth is never fully defined. Myths of origins occupy every people on earth. They are part of what young people have to learn in most tribes and other human aggregations in the process of initiation to knowledge and belief, to be accepted by society as being an adult.

Australian natives conceive of their story back in the Dreamtime, where spirits coming out of the sea created the first humans, the ancestors of the present people. Biblical traditions conceive that God created the universe in six days and man was made out of mud on the sixth day. Modern research conceives how life evolved in our planet and how our origins are traced

¹ Apologies to terminology purists for using the term hominid instead of hominin.

back from vertebrates, to mammals, primates, and humans. And humans became tool-makers and explorers, and spread over the entire planet, and then they became the makers of the Tower of Babel identities, languages, beliefs, and ambitions today.

Different societies have different answers to the crucial question: who are we? The memory is the basic source which is made of both, the material memory and the ideological memory, well tied together, difficult to separate from each other.

Every people needs history as a means of identification. Not all the myths of origin start with the sentence "In the beginning," as some believe that there were other beginnings before the beginning. And some believe that there was no beginning if eternity does not need to have a beginning. Knowledge and belief define identity and history adapts to identity.

Stories are mainly concerned with the birth of man and soon thereafter with the birth of the people, tribe or nation. Most stories have something in common, but each one is different. Each story puts the accent on issues of identification. The stories of each people, including those named myths by others, are the core of identity and culture.

Culture is the main object of study by anthropology and archeology. The term culture varies, from where the culture of microbes is intended as the cultivation of a certain type of microorganism, or the culture of potatoes is intended to the cultivation of potatoes.

For the humanistic disciplines, culture is the adventure of the human mind and starts when there is documentation of its presence. So far, we are unable to document human thoughts of millions of years ago unless it left some material testimony, and the elementary testimony is tool-making. When *Homo* left behind traces of having modified a natural piece of nature, when he shaped deliberately a bit of stone to make it more efficient as a working tool, he related cause to effect, premeditating an action to obtain a result aimed at a purpose. It is the beginning of recorded culture. Modern researchers identify prehistoric cultural patterns by the typology of the material culture. Little is known about the tool-makers' awareness of identity, yet different types of tools identify different cultural patterns.

The entire series of *Expression* journal and Atelier

books are concerned with cultural evolution and with the identities of different cultures. The present issue looks at issues concerning the exploration of specific aspects of roots, meaningful samples ranging over different cultures, continents, and ages.

The Discussion Forum looks at two relevant issues.

The earliest traces of the *Homo* species in China

When did the *Homo* species reach the Far East for the first time? *Homo* is believed to have had his roots in Africa and to have developed there for ages before making his first steps out of Africa. The process of expansion of the *Homo* species on the planet is a fabulous chapter of history that marked the destiny of the species. Tang Longhao presents the state of the art on the earliest traces in China.

The earliest graphic expressions in Africa

Non-figurative graphic expressions are recorded in Africa, as elsewhere, in earlier times than figurative representations. When did humans acquire the ability and consciousness of transferring personal or collective memory outside the mind, in a graphic form? When did he become able to fix an external database? From the available data, while both the hominids and *Homo sapiens* originated in Africa, the earliest dated figurative expressions come from the Antipodes, in Australia. Even European figurative art so far provides dates earlier than the earliest dated African figurative art. Is our present knowledge likely to be incomplete? David Lewis-Williams presents the South African context for this question.

The main articles consider four different issues from three different continents. Emmanuel Anati deals with the only existing land-bridge connecting Africa to the rest of the world, its traces of an eternal exodus, the earliest stone tools out of Africa, and the migration of ideas and beliefs. Federico Mailland deals with an early Upper Paleolithic middle-eastern culture, probably one of the earliest producers of figurative art. Terence Meaden further discusses the topic of his previous articles, contributing additional evidence for the function and roles of megalithic monuments in the British Isles. Carol Patterson presents more data on the decoding of the meaning of North American rock art.

Migrations on the land-bridge connecting Africa to the rest of the world

From their presumed land of origin in Africa, hominids migrated and reached all continents on earth. From the earliest steps of *Homo erectus* out of Africa to present-day desperate migrants, there is only one land-bridge connecting Africa to the rest of the world, the land of an eternal exodus. A major site on this land-bridge preserves a unique record of 2 million years of tool-makers, with remains of their habitations, sanctuaries, burials, and crafts. Providing the entire sequence of the story of humankind in one site, a mountain with many shrines that had been sacred to different people in different ages is likely related to the biblical stories of Mount Sinai.

The art and life of a people in the Near East, at the beginning of the Upper Paleolithic

Twenty-one living sites with basements of huts and a common ceremonial cult site defines a culture and producer of visual art about 40,000 years ago. The testimony the people left behind allows us to reconstruct their social structure and way of life, providing a unique documentation of human society at its core. The art, made of selected natural forms and enhanced by human hand, provides an exceptional documentation of the origins of art.

The conceptual function of light and shadows in the megalithic structures of the British islands

The standing monoliths of the Neolithic and Bronze

Age megalithic monuments are subject to the light and shadow of the sun that vary according to position in the sky in different seasons and at different hours of the day. Following previous articles in *Expression*, this article emphasizes the planned positioning of the monoliths, and describes the assumed conceptual meaning attributed by their makers to the monoliths' shadows, that move and reach other monoliths. Shapes and engravings on the stone monuments, representing male and female sexual organs, suggest postulates on the myths and beliefs behind recurring patterns produced by the movements and positions of the shadows.

The conceptual reasoning revealed by the rock art of pre-Columbian America

Continuing the decoding of North American rock art by this author of previous issues of this journal, this article analyzes a complex surface, reconstructing the meaning of the rock art, producing a study of decoding, relating the images to traditional myths, concepts, and beliefs. The methodology and the results are an outstanding example of rock art study and a contribution to the history and ideology of their makers.

Step by step, new details and new small stories are added to the immense and marvelous story of our species, which is our own story. Each new detail enriches our communal memory and our understanding of our roots.

Exploring roots is the eternal journey of culture to discover ever more of the human identity made up of the many identities of its people.

E.A.

A NOTE FOR THE AUTHORS

EXPRESSION is a quarterly journal on conceptual anthropology addressed to readers in over 90 countries. The readers are scholars and students in various fields of the humanities, mainly anthropology, archeology, art, sociology, and psychology, eager to keep alive the multidisciplinary dialogue, to communicate, to learn, and to open up new trends of humanistic studies.

This journal offers space for expression and communication to researchers and authors from all over the world. Published papers are intended to be read, not just to be added to a bibliography. They are addressed to cultured and open-minded people. If you wish to contribute a paper, consider that you are promoting your theme of concern and your ideas, try to make it interesting also to those who are not specialized in your specific research field. You have to talk to all of them, not just to the restricted circle of experts in your particular field. Articles are expected to be stimulating and agreeable to read by a broad audience.

The target of EXPRESSION is to promote dialogue, communication, knowledge, and ideas concerning the intellectual and spiritual expressions of different cultures and societies. It is an open forum on conceptual anthropology where over 250 authors from 50 countries are publishing their research and their concepts. Your topic, even if related to a local or circumscribed theme, should awaken the interest of an international and interdisciplinary audience. The visual aspect is important for communication with the readers: images awaken interest and are memorized, enriching the impact of the article. Images and text should complement each other.

Authors should address readers openly, talk to them, be incisive, and avoid long descriptions, catalogues, and rhetorical arguments. Refrain from unnecessary references, they may indicate the erudition of the author, but do not improve the scientific level of the article. Avoid excessive quotations, they may unveil an inability to express independent ideas. Use your own words and refrain from discursive sentences. Consider that short articles are more read and appreciated than long ones.

The main articles are proposing issues of broad interest. Communications on current topics, debates, and short notes can be included in the 'Discussion Forum' or in the 'Notes and News' sections.

Publication in EXPRESSION quarterly journal does not imply that the publisher and/or the editors agree with the ideas expressed. Authors are responsible for their ideas and for the information and the illustration they present. Papers are submitted to reviewers, not in order to judge them but to help authors to better communicate with their

readers, if needed. Controversial ideas are not censored if they make sense. Progress in research is often caused by debatable ideas. New thoughts and concepts are welcome; they may awaken debate and criticism and keep alive communication. Time will be their judge.

EXPRESSION is a free journal, independent and not submitted to formal traditional regulations. It offers space for ideas and discoveries, including contentious issues, healthy discussions, and imaginative and creative papers, if they contribute to research, are conceptually reliable, and respect the integrity, ethics, and dignity of authors, colleagues, and readers. For additional information on how to submit a paper, see the 'Notes and News' section.



Front page image

HK/86b: standing pillars in a small valley (see Mailand, p. 40, this issue).

DISCUSSION FORUM

The Discussion Forum invites readers to be active protagonists in debates of worldwide interest in Conceptual Anthropology.

Evidence and Discussion of Earliest Human Presence in China: A Summary

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After the birth of humans in Africa, when did humans spread to Eurasia and when did they reach China and East Asia? This issue has always been controversial and uncertain. It is generally believed that early humans left Africa between 2 and 1.8 million years ago. The 1.85-million-year-old human fossils and cultural remains found at the Dmanisi site in Georgia are con-

sidered to be the earliest evidence of humans leaving Africa (Tattersall 2012).

East Asia was once considered by P. Teilhard de Chardin to be a marginal region of human evolution (1941), and also considered by H. Movius to be a region of cultural stagnation that was unlikely to play an important role in human evolution (1948). Because of their academic reputation, these conclusions have long influenced Western academic understanding of East Asian archaeological records. But now more and more evidence clearly shows that East Asia is becoming increasingly important in the study of early humans. To date, with the rapid development of Chinese archaeology, many archaeological records have appeared in the public eye. They have enriched and updated people's understanding of the early human appearance in East Asia. New discoveries at some sites (Fig.1) are believed to provide evidence for earlier timings and routes of early humans leaving Africa. This paper is devoted to a brief summary of the archaeological evidence of the earliest human presence found in China and the debates surrounding it.

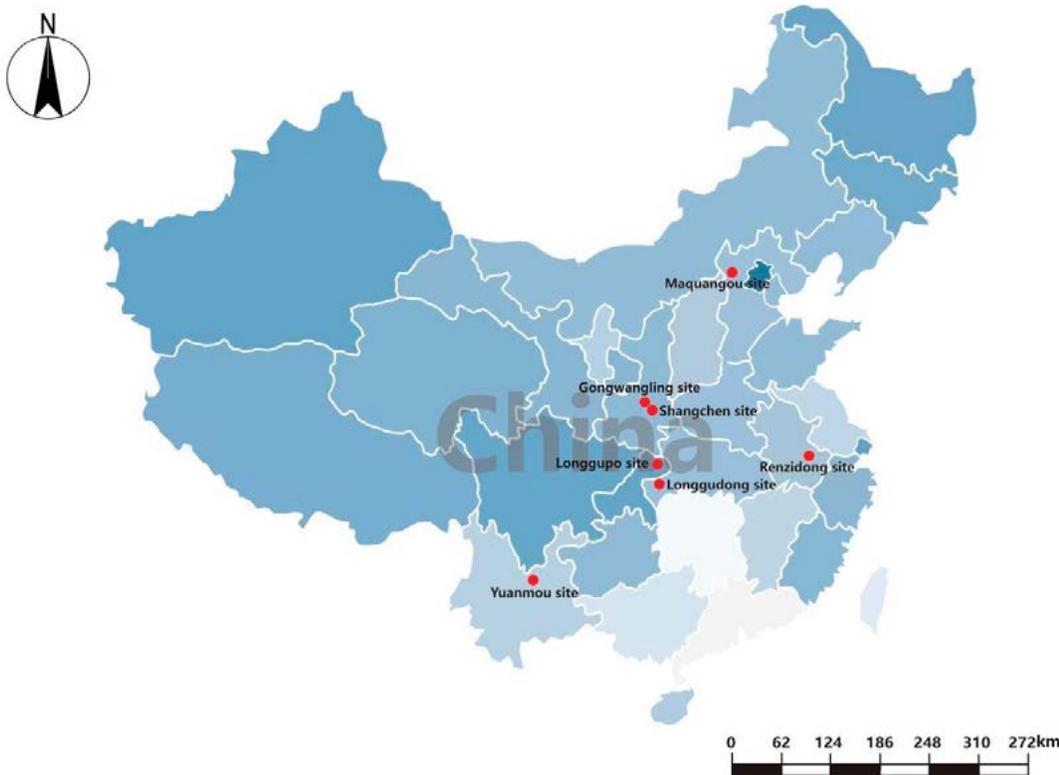


Fig.1 Location map of the sites listed in this paper



Fig.2 Selected artefacts found in situ in layers S27–L28 (2.09–2.12 Ma), L27 (1.95–2.09 Ma), L25 (1.73–1.80 Ma) and S23 (1.59–1.65 Ma) from the Shangchen Paleolithic locality. After *Nature*, Vol.559, No.7715, p.611, Fig.4.

Early human evidence in northern China

In northern China, the Shangchen site located in Lantian County, Shaanxi Province is considered to be the oldest human activity site with a relatively accurate age discovered so far. In the 17 loess layers at this site, archaeologists found 82 stone tools and 14 unprocessed blanks that were carried by humans (Fig.2). They generally show the characteristics of the initial stages of stone tool making and are similar to stone tools found in Africa of similar ages. A small amount of cervid and bovid mammal fragments were also found. Paleomagnetic evidence shows that the layers containing stone tools are between 2.1 and 1.3 million years ago (Zhaoyu *et al.* 2018). It means that the site

was occupied repeatedly by ancient humans for about 850,000 years.

Adjacent to the Shangchen site, the Gongwangling site in Lantian, Shaanxi contains ancient human skulls and accompanying animal fossils. The forehead, most of the parietal bone, part of the temporal bone, nose and maxilla, as well as the second and third upper right acetabulum and the second upper left acetabulum are preserved in the skull fossil. These human fossil remains are called Lantianensis and belong to *Homo erectus*. *Homo erectus* Lantianensis was once estimated to have lived about 1.15 million years ago, but paleomagnetic dating data, and recent stratigraphic analysis and dating have traced its age back to 1.63

million years ago (Zhaoyu *et al.* 2015). However, although human fossils (Gongwangling site) and stone artifacts (Shangchen site) were found in similar areas, they are different sites. The relationship between the two sites still requires more research to resolve.

Another relatively clear trace of human activities in northern China is located at the Maquangou site in Nihewan Basin, Hebei Province. Through paleomagnetic dating, the third cultural layer of this site can be traced back to 1.66 million years ago (Hebei Provincial Institute of Cultural Relics and Archeology 2006). In cultural layer III, some stone tools used for scraping and hacking coexisted with elephant bones. The elephant's bones showed signs of being hacked and cut by stone tools.

Early human evidence in southern China

Southern China had a more humid and hotter environment, which was more suitable for early human habitation. Over the past half century or so, there have been many new discoveries containing early human fossils and stone tools. At the Longgudong site in Jianshi County, Hubei Province, four large teeth were discovered in the 1970s. At that time, they were thought to belong to 'Australopithecus' (Gao 1975). In the 1980s, new research showed that they should belong to 'early Homo erectus' (Zhang 1984). In the late 1990s, Longgudong site was excavated again, and three additional tooth fossils were unearthed, as well as stone artifacts. After re-study of the Longgudong tooth fossils, some scholars believe that they are not significantly different from teeth from the Early and Middle Pleistocene in Asia, and they still belong to early Homo erectus (Liu 2014). But some scholars are skeptical. This illustrates the complexity of the archaeological fossil records in southern China during this period. According to paleomagnetic data, Longgudong site is about 2 million years old. Some stone tools at this site have obvious traces of human processing. Some people believe that this evidence is challenging theories of humanity's African origins.

There are other sites that are also thought to be of very early date. The Renzidong site is located on a mountain in Fanchang County, Anhui Province, near the lower reaches of the Yangtze River. The site contains 8 cultural layers. Layers 3-5 contain about

1,000 suspected 'stone artifacts' and nearly 20 'bone and tooth artifacts'. Most of the 'stone tools' do not have clear artifactual traces. 174 of them are considered to have clear traces of human processing. There are abundant vertebrate fossils unearthed at the site, including 67 species of mammals and as many as 51 species of extinct animals, with obvious features of the times. For this reason, the cultural remains at the site are believed to be 2 million years old (Zhang *et al.* 2000). However, paleomagnetic dating failed to produce clear results. Relevant debate about this site has centered on the nature of the artifacts. Some scholars do not believe that the stone tools were artifactually treated.

The Longgupo site is located in Wushan County, Chongqing City. The site has been excavated many

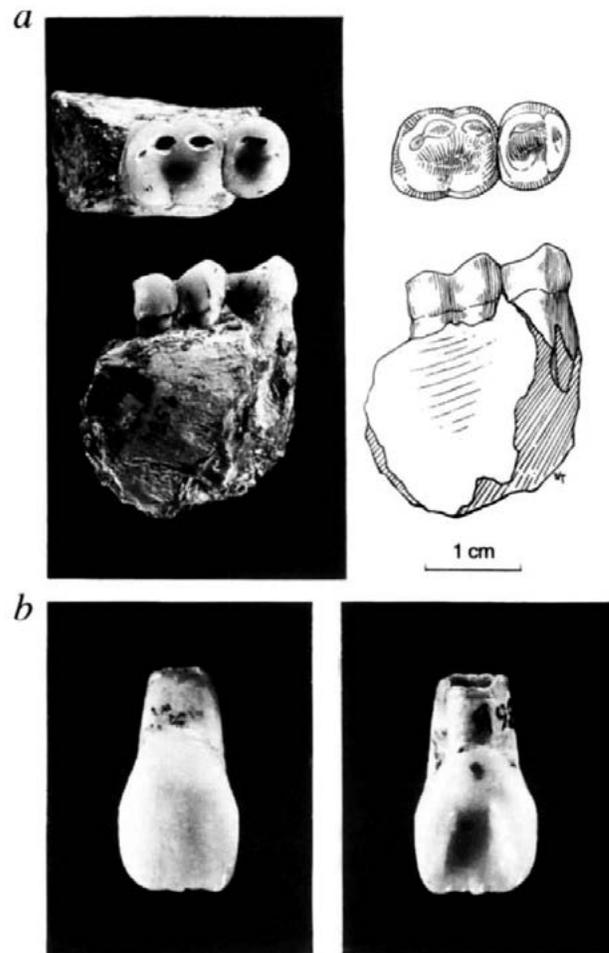


Fig. 3 Longgupo Cave hominids. After *Nature*, Vol.378, No.6554. p.277, Fig.3.

times and a wealth of animal fossils, a small amount of stone tools and suspected human tooth fossils have been unearthed (Huang *et al.* 1991). Because the age of the site was determined to be 1.8 million years ago or even earlier, the claimed *Homo erectus* tooth fossils attracted great attention from the academic community at that time (Huang *et al.* 1995). But the human natures of these fossils were later questioned. The stone tools at this site, such as stone cores and stone flakes, are mostly made of limestone. Some animal bones have marks cut by stones. This shows traces of human activities (Boëda *et al.* 2011).

The tooth fossils discovered in Yuanmou County, Yunnan Province were once very famous in China. *Homo erectus* Yuanmouensis was once considered the earliest evidence for humans in China (Zhou *et al.* 1984). Subsequent large-scale excavations unearthed several scrapers made of quartzite in the strata near the discovery of human teeth (Wen 1978). Regarding the Yuanmouensis fossils, the relevant debate mainly focuses on the age of the layer. Initially, paleomagnetic research dated it to 1.7 million years ago (Qian 1985). However, later comprehensive research on the Quaternary strata in the Yuanmou Basin showed that the site belonged to the Middle Pleistocene, about 600,000 to 500,000 years ago (Liu 1983).

Conclusion

The evidence of widespread bone and tool distribution in southern and northern China is constantly updating people's understanding of the earliest humans who arrived in East Asia. Among them, the sites in the north are better preserved and the remains of human activities are clearer. There isn't much debate about it. The Shangchen site, the Gongwangling site and the Maquangou site all show traces of human activities from 2 to 1.6 million years ago.

Compared with the north, the sites of early human activities in southern China are more controversial. Although the evidence from the Longgudong site and Longgupo site relatively clearly shows traces of human activities 2 to 1.8 million years ago, these sites in southern China are subject to varying degrees of controversy regarding the attributes of human fossils, traces of human processing of stone tools, and the age of the sites.

To date, the earliest evidence found in China listed in this article has shown the appearance of human activi-

ty in East Asia 2 million years ago. In the future, more detailed excavation and scientific analysis is necessary to reveal the complex and mysterious topic of human origins.

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Southern Africa and the Origins of Art: a Brief Overview

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Today archaeologists, and indeed most of the general public, turn to Africa when they seek the origins of humanity. The plains of southern Africa and the rift valleys that lie farther to the north have yielded a fossil record that, though still being built up with new finds, points clearly to anatomical evolution from the earliest pre-human creatures to the *Homo sapiens* beings that we know today. But what of that which makes us truly human? Art?

It is hard to define ‘art’. The handy, much used word means whatever the user wants it to mean. Whatever definition is suggested, exceptions will be found to challenge it. In this short overview I bypass definition and instead highlight some of the most significant finds that have been made in southern Africa. Though few, they tell us much.

Undoubtedly, the most intriguing of these finds are the two pieces of engraved ochre that Chris Henshilwood and his colleagues excavated in the now famous Blombos Cave on the southern coast of southern Africa (Henshilwood *et al.* 2002). Today this site overlooks the sea, but in the times when these pieces of engraved ochre were being made and used the sea level was markedly lower and the cave overlooked an extensive plain.

The stratum in which the pieces were found has been dated by luminescence and other techniques to more than 70,000 years before the present. Figure 1 places the finds in context. It compares the time periods that are recognized in southern African research with those of Europe. The engraved Blombos ochre dates back to what is known as the Howieson’s Poort Period of the Middle Stone Age, though clear markers of that industry were not found in the cave.

As is the case in other Middle Stone Age sites, there was an abundance of ochre in the level of that period at Blombos. Numerous researchers have asked the obvious questions: was it used for practical purposes,

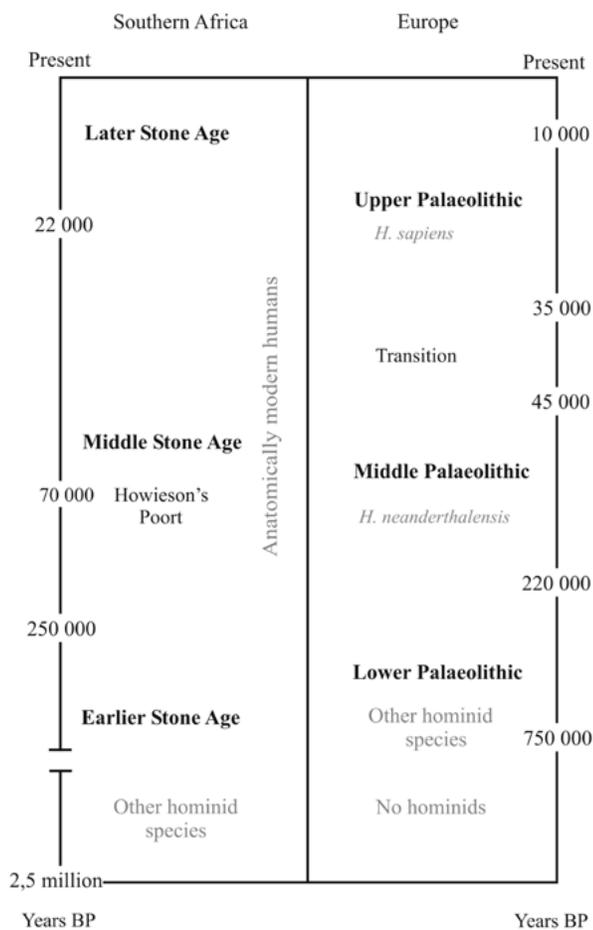


Fig. 1. Dating of the southern African Stones Ages and the European Palaeolithic.

such as a preservative of animal skins or as an adhesive for hafting, or did it have some symbolic, perhaps spiritual, value?

In answering these questions, I first note that there are at least two kinds of ochre: some are a dull red and others are brilliant and sparkling. Ian Watts has shown that the people of that time preferred the sparking variety: 'I conclude that the vast majority of materials was collected for visually salient properties of redness and brilliance and used accordingly as pigments, in the first instance in "skin-changing" collective ritual performances' (Watts 2002: 10). In other words, symbolism and ritual played a role in human society at this early period.

The two engraved pieces are even more suggestive of symbolism than is the marked abundance of ochre. Both pieces are engraved with a pattern that comprises

a line of irregular crosses that are partially enclosed by two containing lines (Fig. 2). The pattern on one of the pieces is less developed than the other. Nevertheless, I emphasise that the two pieces are similar: both have a row of crosses and a central line. The motif was therefore standardized and almost certainly meaningful. Did it stand for a shared concept? In other words, was it symbolic — though its meaning is now lost? As far as the origin of the form is concerned, David Pearce and I have argued that it may have derived from one of the universally experienced visual entoptic forms that neuropsychologists have independently shown are experienced in certain altered states of consciousness; we cite examples made by South and North American shamans that incorporate such forms (Lewis-Williams and Pearce 2004: 25).

All in all, the Howieson's Poort period is today a focus of study. Researchers attempt to infer the complexity of thought that was necessary for people to engrave such patterns and, more generally, to manufacture complex, multicomponent artefacts and even to employ a process of heat treatment to make silcrete more easily flaked. There seems to be little doubt, at least in my mind, that the people of that time were cognitively fully modern.

Geometric patterns, were by no means limited to the Middle Stone Age. They have also been found engraved on pieces of ostrich eggshell. They date back as far as 100,000 years ago (Texier et al 2013). Ostrich eggshell beads date back to 40,000 years ago (Wadley 1993). There can be little doubt that personal symbolism of some kind was current at these times.

For the earliest examples of figurative, rather than geometric, art we turn to the Apollo 11 cave in southern Namibia. The imagery that Eric Wendt recovered there dates back to as much as 25,000 to 27,500 BP (Wendt 1976; Rifkin et al 2015). The images are painted on plaquettes; they did not fall from the wall of the cave. One of them has what appears to be a depiction of a rhinoceros in black paint; another has a partial image that may represent a zebra, while some have less easily discernible markings. Most interestingly, one that was found in two pieces has a quadrupedal therianthropoid creature (Fig. 3). Its square jaw suggest that it is a feline. New enhanced photographs of it show that its human legs are part of the original image, not a later addition, as has been thought (Rifkin et al. 2015: fig.

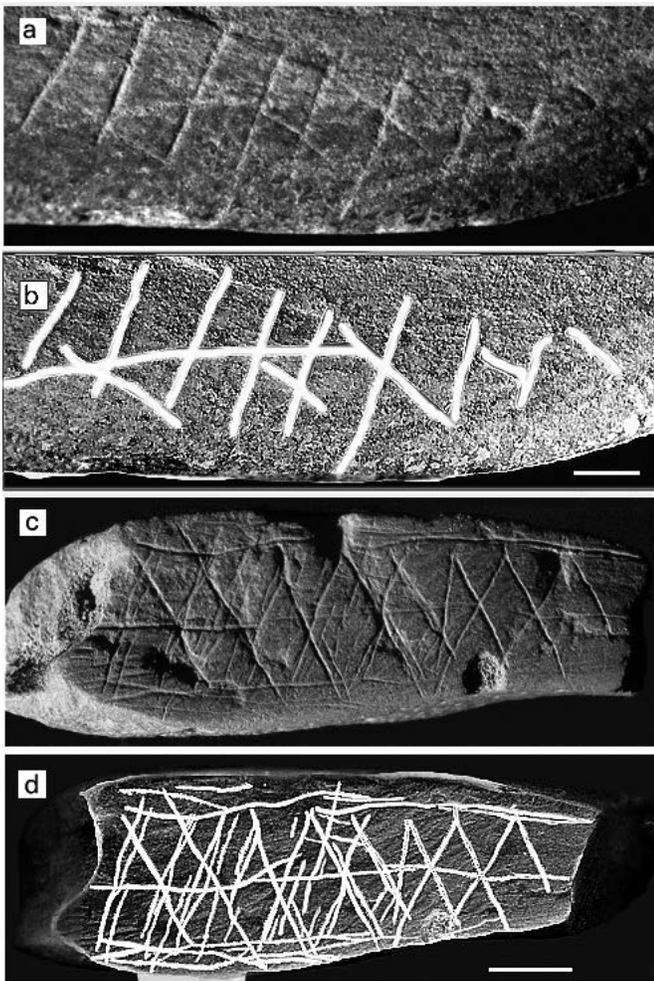


Fig. 2. Engraved pieces of ochre from Blombos Cave, dated to 77,000 years BP. (With permission of Christopher Henshilwood)

2). Therianthropes are a consistent feature of the more recent San parietal rock paintings (Lewis-Williams 1981, 2019).

The next known mobile art is far more recent than the Apollo 11 finds. It comes from the Wonderwerk cave in the Northern Cape Province of South Africa. There are five engraved stones that have been dated to between 10,200 and 3,990 BP. Two of these stones have clear, though partial, animals engraved on them; others have complex grid patterns (Fig. 4). The combination of representational and geometric images at a single site is noteworthy. As with the Blombos engraved ochre, we recall that grid designs are among those that neuropsychological research has established are generated by the human nervous system (Lewis-Williams 2002; Lewis-Williams and Pearce 2005).

A recent major research programme is changing our perception of the age of San rock art. It has produced AMS radiocarbon dates on pigment that show that images were being made in the rock shelters in south-eastern Botswana as long ago as 5723–4420 cal BP and in the uKhahlamba-Drakensberg area at around 2998–2381 cal BP (e.g., Bonneau *et al.* 2017a, 2017b). One excavated stone depicts a dancer in a recognizable San trance dancing posture; it points to trance dancing having been practised at least 1800 years ago (Mazel 1992).

The evidence that is currently available does not permit any detailed account of the early evolution of art in southern Africa. We have no direct evidence of how the two kinds of art that I have distinguished, geometric and representational, developed in southern Africa. But we can say that highly developed symbolic thinking dates back until at least Blombos times. And

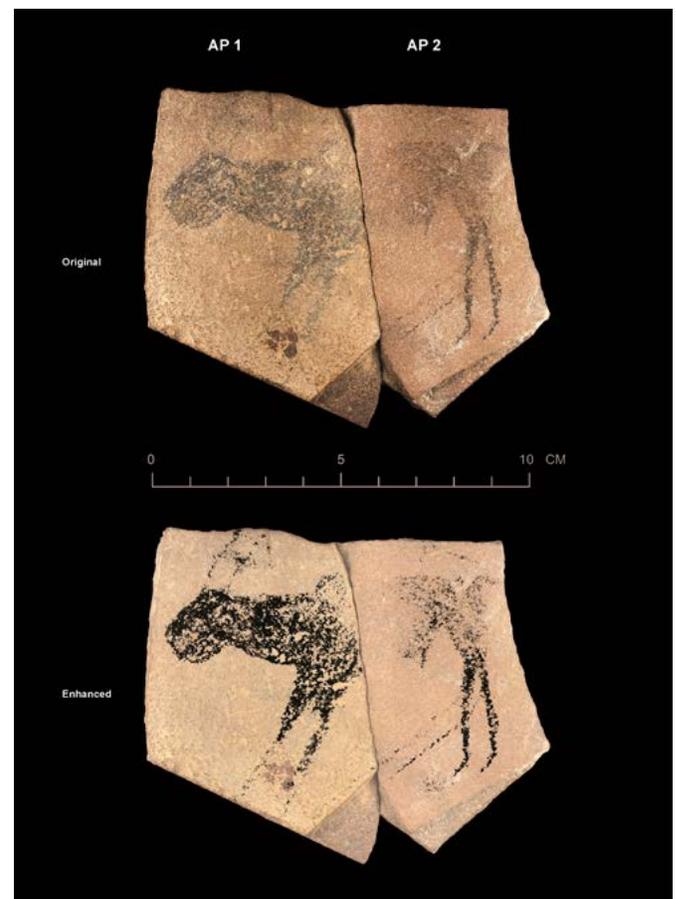


Fig. 3. A painted stone from the Apollo 11 Shelter. A therianthrope figure painted in black. It has been dated to about 27,000 years BP. (with kind permission; Rifkin 2012)

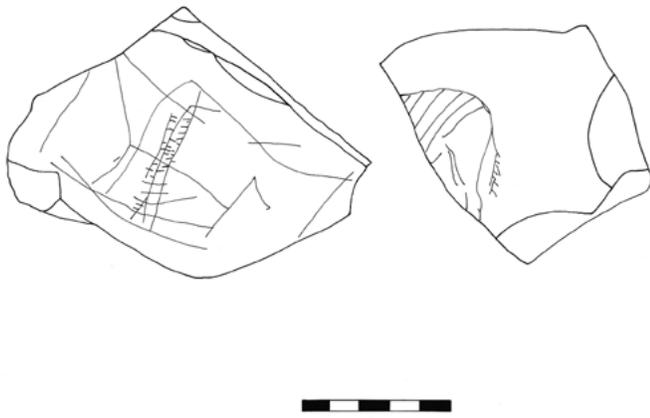


Fig. 4. Engraved stone from the Wonderwerk Cave. Stones like these have been dated to between 10,200 and 3,990 BP. (Redrawn from Thackeray 1983: fig. 43)

this type of thinking implies the existence of complex social structures and ritual. The evidence for art that I have described in no sense approaches the great time depth of the fossil evidence for human anatomical evolution. But for the more recent periods southern Africa is a rich storehouse of evidence for the complexity of rock art.

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FORTHCOMING NEW DEBATES

Readers are proposing themes for debate. When at least three articles are submitted on the same theme, the topic is considered for a forthcoming issue.

1. **IS *HOMO SAPIENS* THE INVENTOR OF FIGURATIVE ART?** Is visual art the sign of his presence?
2. **OUT OF AFRICA: THE ETERNAL DIASPORA. WHY DID STONE AGE PEOPLE MIGRATE?**
3. **MEGALITHISM: WHY? CAUSES AND EFFECTS**
4. **SEAFARING DEPICTIONS: RECORDING MYTHS AND EVENTS** Considering the story of seafaring and its earliest documentation.
5. **MYTHS OF ORIGINS: WHERE DID THE ANCESTORS COME FROM?** Global and local versions.
6. **VERNACULAR DECORATIVE PATTERNS AND THEIR SOURCES.** Decoration of objects, huts or rock surfaces as the expression of identity.
7. **THE ART OF HUNTERS AND GATHERERS:** Different patterns as expressions of different lifestyles and different resources.

PROPOSALS FOR NEW DEBATES

Proposals for papers and suggestions on these and other issues are welcome.

BETWEEN AFRICA AND ASIA HAR KARKOM SINCE THE LOWER PALEOLITHIC

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The site

The site of Har Karkom is located at the center of the only land bridge connecting Africa to the rest of the world, the Negev Desert, now the Israeli sector of the Sinai Peninsula, stretching between the Gulf of Aqaba on the Red Sea and Gaza on the Mediterranean. For whoever is crossing between Africa and Asia by land this is and has always been the only way. The material remains, from those of the Early Pebble Culture to the traces of recent Bedouins camping sites, provide a section of the story of humankind.

Desert archeological sites usually consist of stations along caravan routes, burials, sporadic bivouacs, camping grounds near water sources, mining sites and military stations. Besides oases with permanent water sources, in arid zones, most sites have traces of just one episode of human presence. Har Karkom is an exception to this pattern. Archeological sites of different periods are concentrated in and around a mountain where no permanent water sources are now present.

Today there is a shallow well at Beer Karkom, 8 km away, where water is reached about 9 m below the surface and this source, in its present state, is unlikely to have been used before the Bronze Age. On the mountain and in its surroundings, there are some waterholes where water remains for a few weeks in the rainy season, but for eight months a year there is no water. And yet it is a unique case of a mountain with a sequence of remains ever since the earliest presence of the first hominids.¹

Throughout the ages, climatic conditions changed with alternations of dry and humid phases, not just at Har Karkom, but in the entire region. A unique density of archeological sites of different ages causes us to question why just there?

Har Karkom is a mesa-like mountain. The plateau is

about 4x2 km, surrounded by precipices, in one of the most arid zones of an arid region. And yet it is one of the most, if not the most, densely concentrated areas of archeological finds, from both the Paleolithic and the Bronze Age, in the Negev and in the entire Sinai Peninsula.²

The presence of archeological sites and rock art was first recorded in 1954. Since 1980, archeological surveys and excavations have been carried out by the Italian Archeological Expedition in a concession area of 200 sq.km.³

The archeological sequence of the concession area is illustrated in Chart 1. The findings are subdivided by period and into four geographical areas. The chart gives the evidence for the major concentration of sites in the central area of Har Karkom. The difference in the density of sites from period to period is likely to have been influenced by both, the changing climatic conditions and the changing functions of the site.

1,315 archeological sites have been recorded in the concession area. Forty thousand rock engravings on ca 2,000 rock surfaces, make of this area the major concentration recorded so far of prehistoric (pre-Iron-Age) rock art in the Negev and Sinai. There are over 200 Paleolithic sites and over 200 Bronze Age sites on the mountain and its immediate surroundings, in a limited space of 8 sq. km. Why just there is an intriguing question.

The highest density of archeological sites is in the Pale-

2 The top of Har Karkom is ca. 850 m. above sea level, about 300 m. above the surrounding valleys.

3 For all the bibliographic references and further details on the illustration, see Anati 1956, 1986, 2022 and Anati & Mailland 2009; 2010. The surveyed area includes the mountain and the surrounding valleys corresponding to maps 229 'Har Karkom' and 226 'Beer Karkom' of the Israeli geographical grid'. The photos are by E. Anati and F. Mailland. The drawings of flint implements have been realized by I. Mailland. The plans of sites have been realized by L. Cottinelli.

1 Apologies for the terminology, for using hominids instead of hominins.

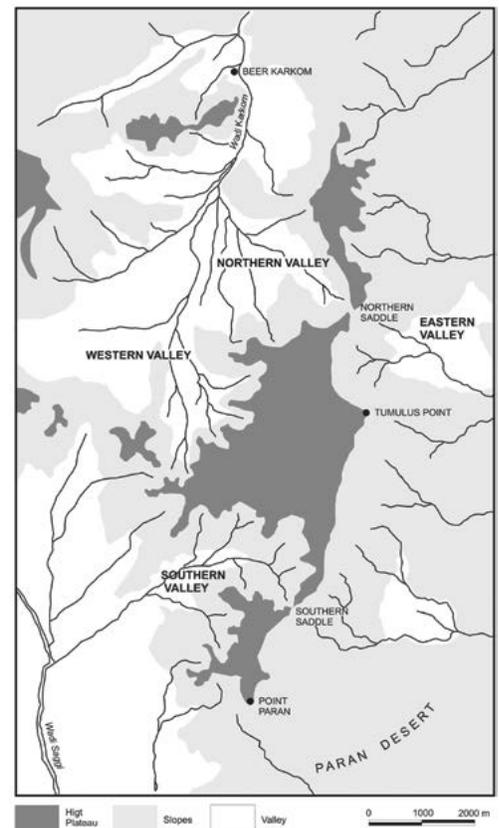
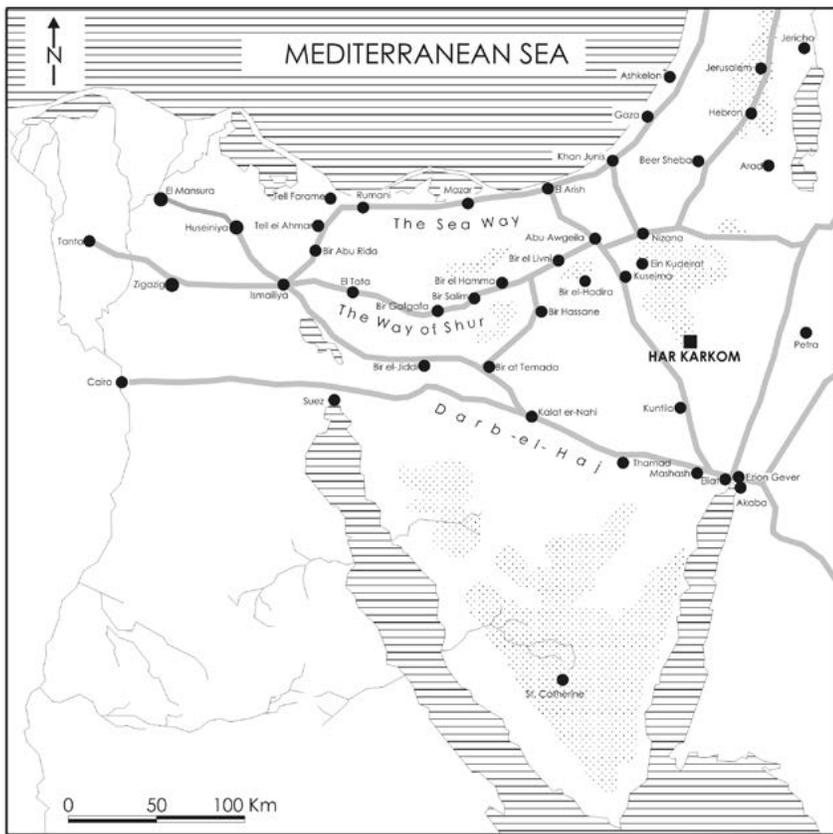


Fig. 1a. The location of Har Karkom and the ancient routes crossing the Sinai Peninsula (HK Archives; W05863).
 Fig. 1b. Topographic sketch of Har Karkom. The Paleolithic sites are concentrated on the high plateau. In the Bronze Age cult sites are concentrated on the plateau, while the living sites are in the surrounding valleys. (HK Archives, W05870).

olithic and in the Bronze Age. The Paleolithic sites are concentrated mainly on the mountain plateau, while in the Bronze age the mountain was covered by altars, standing pillars and other cult sites; the living sites were not on the mountain but in the surrounding valleys.

The over 200 Paleolithic living sites with remains of hut floors are a unique documentation of a thick concentration in a limited area, on the plateau, for a sequence of ages. Paleolithic sites vary in size between one and ten hut foundations. Some of the 200 Bronze Age sites are almost villages, counting up to 50 stone hut foundations. It is baffling to figure out how such multitudes, as evidenced by the archeological sites, could have lived there, how they accessed water and food. Likely the climatic conditions alternated between drier and humid periods. This fits the entire region, but does not explain the anomalous concentration just on and around this mountain. The density of

sites of several periods denotes the recurring attraction of the mountain in different ages.

The current claim is that the density of population derives from the fact that it was a holy mountain and a site of pilgrimage for ages, but the question is why. The persistent presence of cult and ceremonial sites indicates their religious function, but does not explain why just there.

The major ceremonial structures concern an early Upper Paleolithic sanctuary, a later Upper Paleolithic ceremonial circular structure on the plateau, a Neolithic ceremonial site within the survey area but not on the mountain plateau, a wealth of shrines, altars, and a variety of other ceremonial sites from the Bronze Age, and then an Iron Age temple and a Hellenistic one. Why this concentration of cult sites on and around a mountain in the middle of nowhere? Even if traditions may have produced myths about the mountain, there must have been some peculiarities of the site at

Period	Har Karkom Map 229		Beer Karkom Map 226		Total Map 229 + Map 226
	South HK	North HK	South BK	North BK	HK + BK
Lower Paleolithic (to 200,000 B.C.)	6	39	11	0	56
Middle Paleolithic (to 40,000 B.C.)	12	125	37	6	180
Early Upper Paleolithic (to 26,000 B.C.)	11	128	31	6	176
Late Upper Paleolithic	0	1	6	0	7
Epipaleolithic	0	2	0	1	3
Pre-pottery Neolithic	0	2	3	3	8
Pottery Neolithic	0	9	0	0	9
BAC (4300 to 2000 B.C.)	40	172	131	19	362
Middle Bronze age II	0	0	0	0	0
Late Bronze Age	0	0	0	0	0
Iron Age I	0	0	0	0	0
Iron Age II	1	0	9	2	12
Persian	0	1	3	0	4
Hellenistic	0	1	9	1	11
Nabataean	0	3	7	2	12
Roman-Byzantine	15	50	137	66	268
Islamic	18	65	79	45	207
Total sites	103	598	463	151	1315

Chart 1. Frequency of sites by period at north and south Har Karkom and Beer Karkom: comparative table of frequency. Three major ages of intense human presence are the Paleolithic, the BAC (Local Bronze Age), and the Roman-Byzantine period.

the source of these traditions. And, if this be the case, 40 years of field research failed to solve this crucial question.

Another query concerns the traces of very large fires, some of them are over 10m in diameter: very large fires. In a now desert area where trees are not growing, such traces raise questions about the kind of fuel used and further, on the function of these fires. Their size may exclude the usual functions of cooking and heating.

The Paleolithic

The Paleolithic material culture consists mainly of flint implements and the earliest tools at Har Karkom are heavily patinated pebble tools, likely to be the earliest deliberately made lithic tools outside Africa.

How old can they be? The site of Dmanisi in Georgia has yielded skeletal material and tools of *Homo erectus*,

in geological levels attributed to c. 1,800,000 years ago. Similar or even older dates are recently claimed for stone implements in China. If these dates are correct, earlier traces of the *Homo* species are recorded so far only in Africa. If indeed the *Homo* species was born in Africa, hominids reaching the Caucasus and elsewhere must have crossed through the Negev area: it is the only land bridge between Africa and the rest of the world.

The expansion of the species *Homo* is believed to have been a gradual process of small clans. They did not fly directly from the Rift Valley to Georgia. We may consider that their crossing of the Negev was before they reached the Caucasus. Early pebble tools attributed to *Homo erectus* present at Har Karkom, are likely to go back 2 million years or more.

The unique density of Paleolithic sites at Har Karkom was tentatively attributed to the presence of flint cores



Fig. 2. Har Karkom. Pebble culture flaked flint cores (Details from p. 26, Mailland and Anati, 2018).

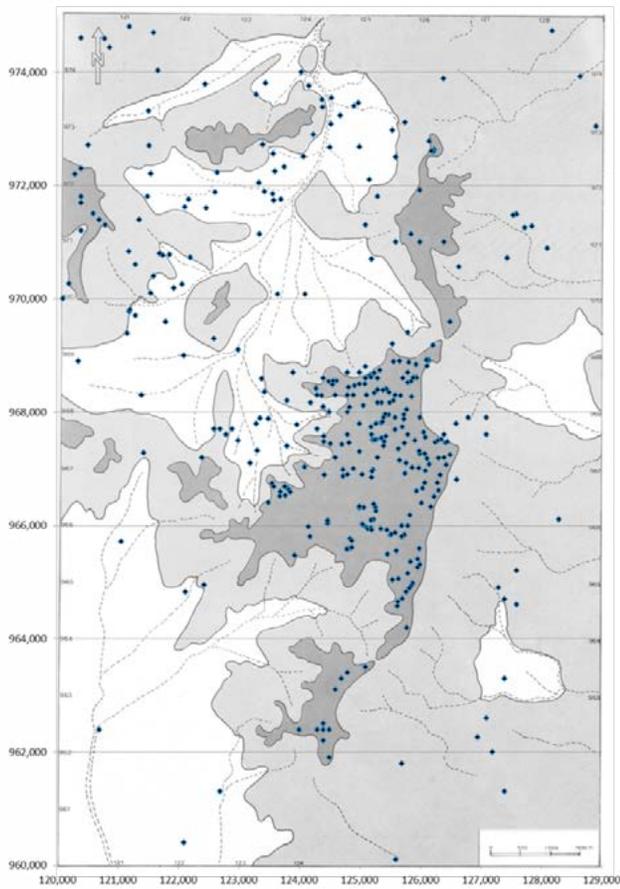


Fig 3. Har Karkom, distribution map of Paleolithic sites.

of excellent quality, a fundamental raw material for prehistoric man, which was being worked on the mountain, as documented by numerous flint workshops. It is doubtful, however, if this is a satisfactory explanation.

The mountain may have been a strategic place for gatherings and campsites while the vegetation in the surrounding valleys in phases of humid climates supported the lives of large Pleistocene mammals and consequently provided profitable hunting for Paleolithic people. But again, why just there, out of many other similar mountains in the same area?

The shapes of the hut floors illustrate a difference in the social structure between the Early, Middle and Late Paleolithic. In the EP, large living surfaces indicate communal sharing of shelters, while in the MP clusters of small huts indicates what might have been the presence of a group made of a few family groups. In the Upper Paleolithic, there are larger groups of

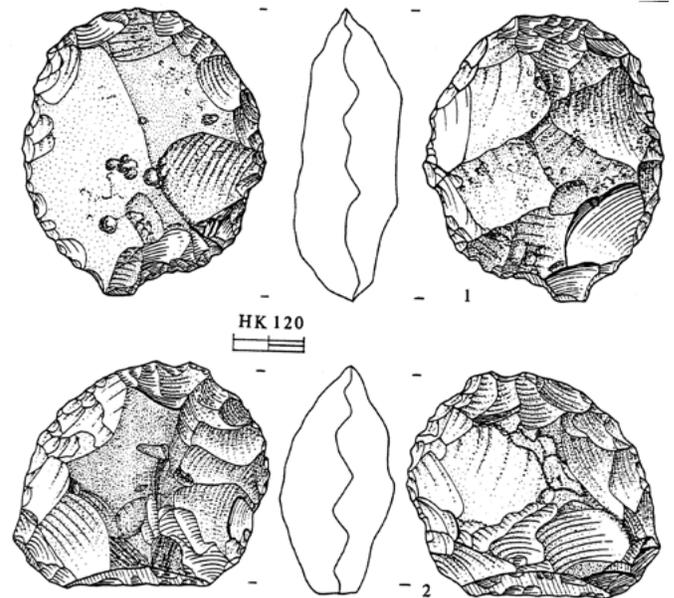
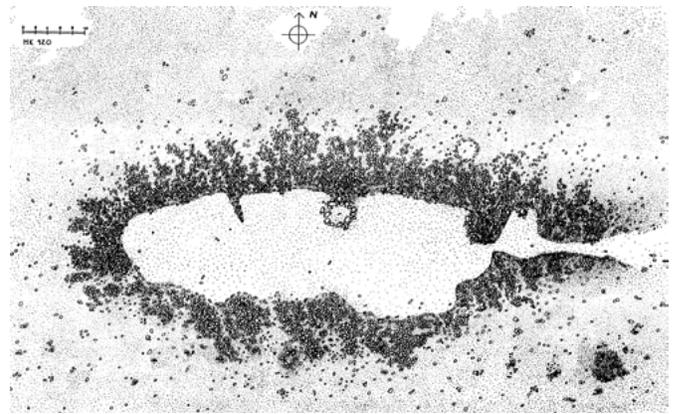


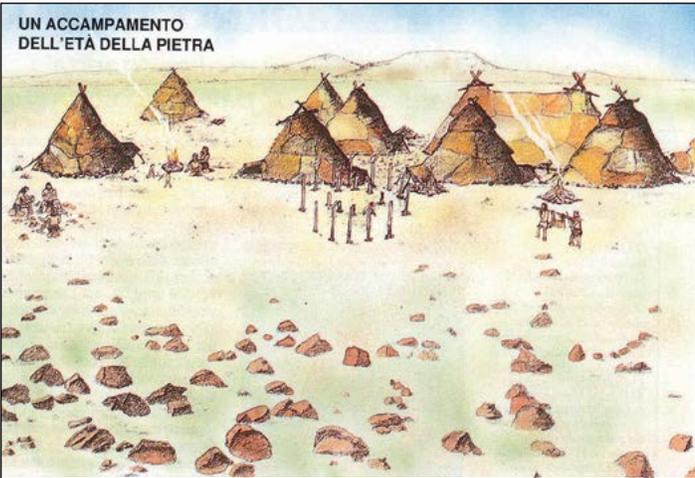
Fig. 4 a, b. Plan of a Lower Paleolithic hut-floor and two of its flint bifacial tools. Remains of a fireplace are on the hut-floor. (Site HK120).

huts, around a common ground, well organized as proto-villages.

In a later phase of the Upper Paleolithic the plan of a site shows a well-conceived habitation setting with huts around a common plaza. One of the hut-floors is larger than the others, and it was defined as the hut of the sheikh. By the side of the living sector there is a circular area surrounded by two circles of pole holes, a structure likely to have had a ceremonial function. Another area by the side of the living sector is a flint workshop, with stones having marks of use as anvils and flint cores with marks of use as percussing working tools. Over 14,000 flakes and other debris of

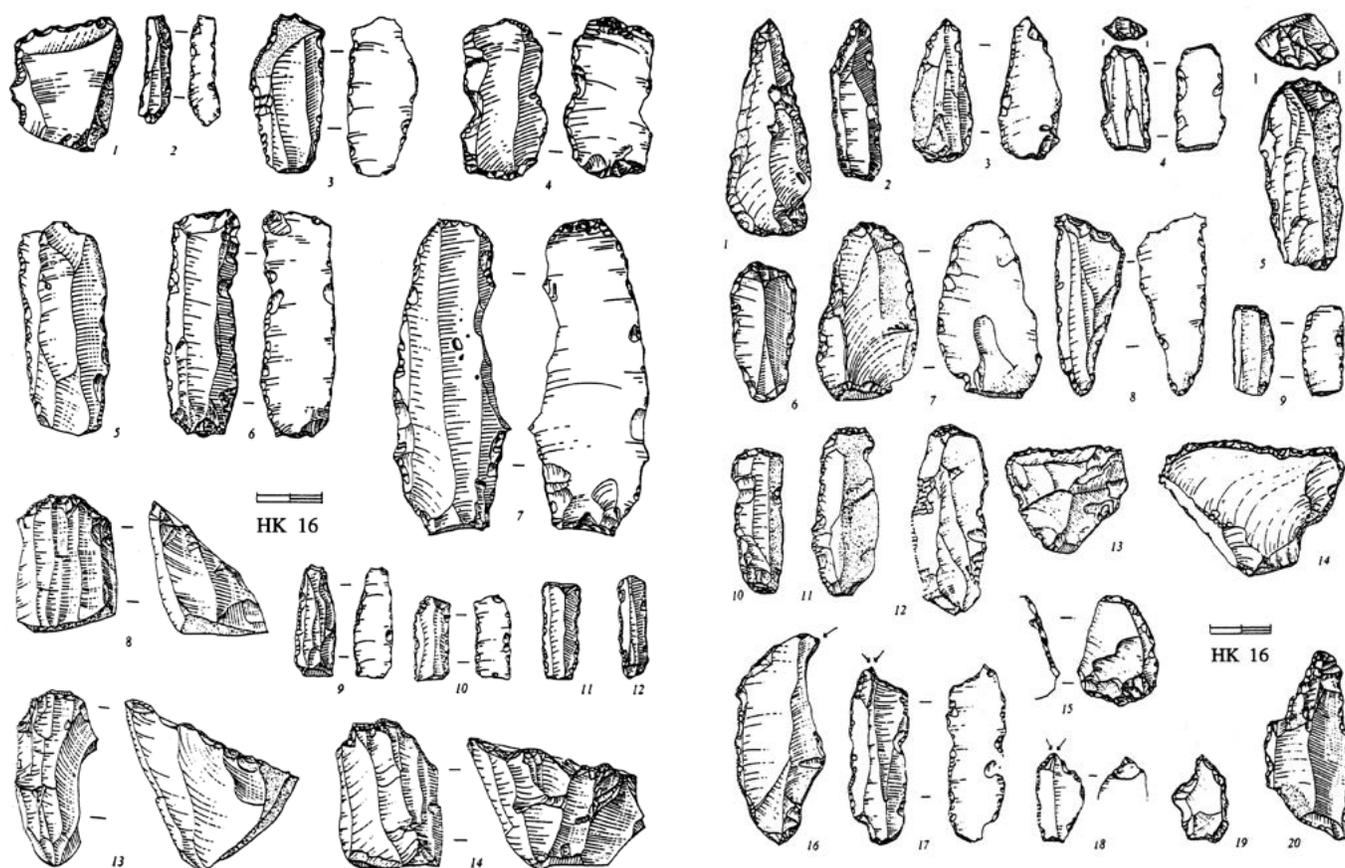


Fig 5 a, b. Zenithal view of a Middle Paleolithic site and some of its Mousterian-like flint implements. Traces of fireplaces are outside the hut-floors. A flint workshop is located on the top left of the photo.



Figs. 6a, b, c, d. Har Karkom. A late Upper Paleolithic site, with hut-floors around a common area, a ceremonial structure by the side and a flint workshop. Remains of fireplaces are both in the common area and behind the hut-floors. (Site HK16).





Figs. 7e, f. Display examples of the material culture.

flint-working, were systematically collected from 12 sq.m. of the workshop area.

The Early Paleolithic material culture has a variety of pattern, and the earliest appear to be those of several sites with a primary type of Pebble Culture. Later there are sites with Acheulean hand-axes and others, with large and heavy Clactonian flakes.⁴

The Middle Paleolithic has a variety of sites with different flint assemblages of Mousterian types. A significant aspect of the material culture is the presence of sites with an Aterian-like flint industry, similar to that Middle Paleolithic North-African culture. There are implements defined as arrowheads, considered to indicate the early use of bow-and-arrow.

The typology of the Late Paleolithic material culture displays various facies belonging to two main hori-

zons, the earlier one of Aurignacian tradition, the later of Gravettian tradition, with a more refined blade industry.

A final culture of the Middle Paleolithic or an early Late Paleolithic one, is the Karkomian culture, mainly concentrated on the plateau. It has a flint industry with a Levallois flaking tradition of a typology currently attributed to the final Middle Paleolithic, and Chatelperron-like points, a flint-tool elsewhere attributed to a transitional phase or to the early Late Paleolithic.

This pattern of material culture concerns 21 sites and a sanctuary with upright flint monoliths having natural anthropomorphic shapes. This culture produced art, or rather proto-art, characterized by selecting and collecting natural stones with human and animal-like natural shapes and completing them with minor human made additions (Anati, 2012, 2020).

⁴ For the definition of names given to the different patterns of the flint industry, see Anati, *Radici della cultura*, 2017.

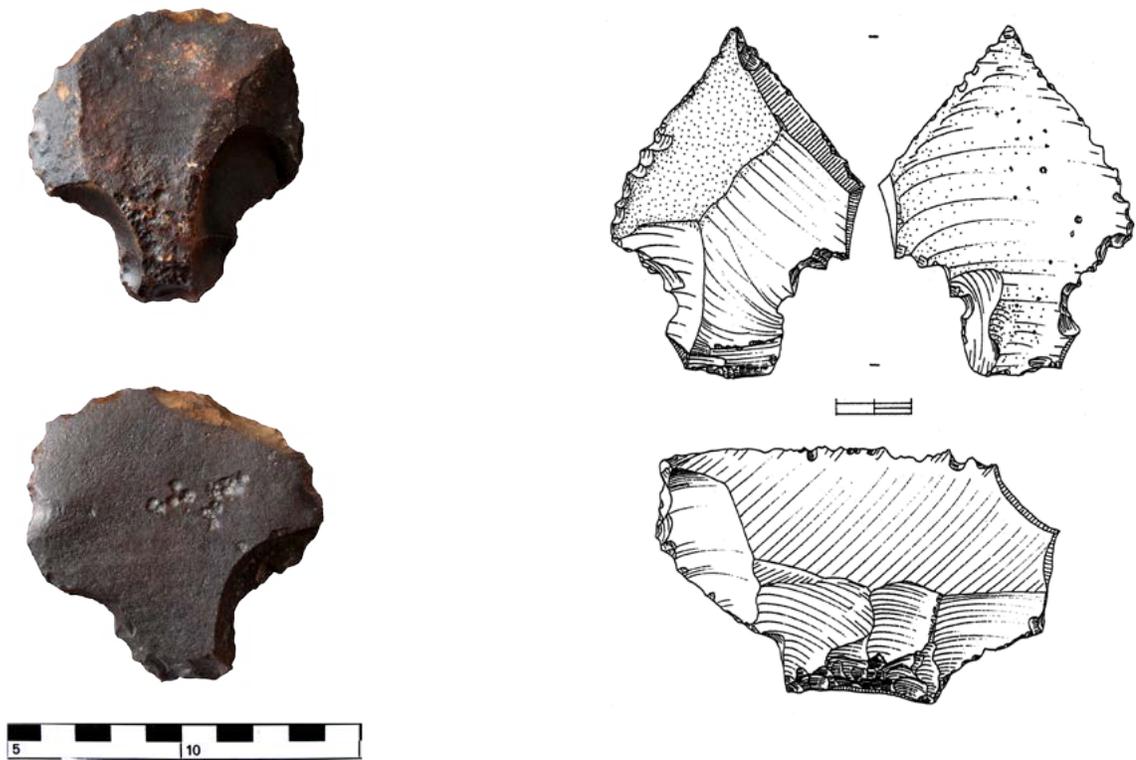


Fig. 8 a, b, c. Basements of huts of a site with Aterian-like flint industry and examples of Aterian-like implements (a, b: Site HK 200; c: Site HK 72-a).



Fig. 9. Anthropomorphic standing flint boulders of Site HK86-b. Some of them are over 1 m. high.

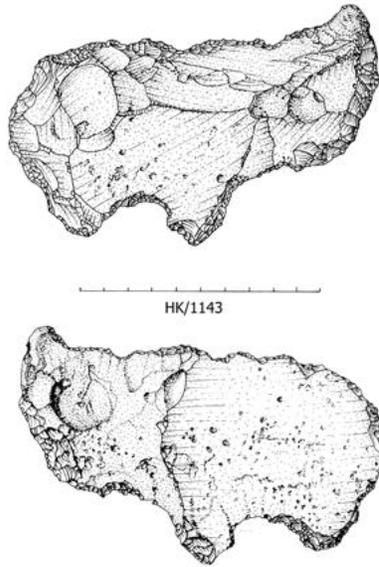


Fig. 10. Flint figurine of rhinoceros (Site HK1143).



30°17'48.00"N
34°44'48.42"E

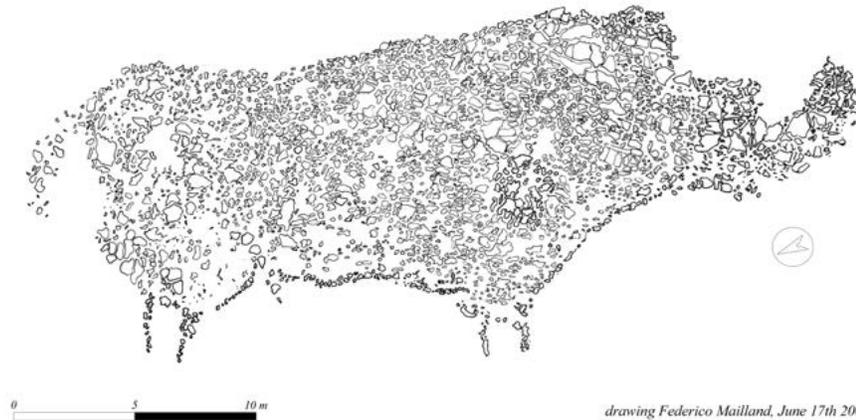


Fig. 11a, b. Aerial photo and tracing of geoglyphs or ground-drawings, made of gravels and grits. The traces of car wheels in the photo show how much damage can be caused to archeological documentation by the careless imprint of contemporary human presence (Site 24-c. Tracing by F. Mailland).

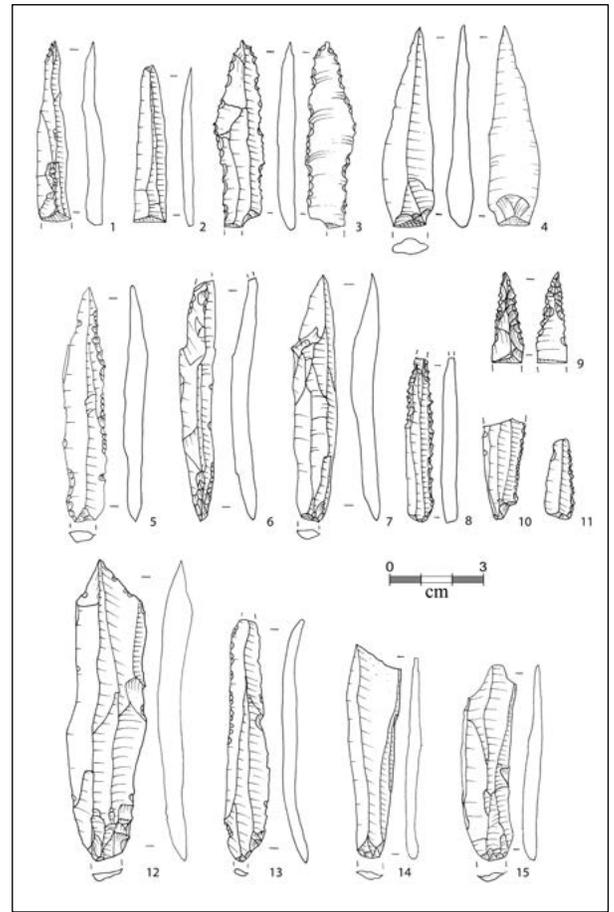
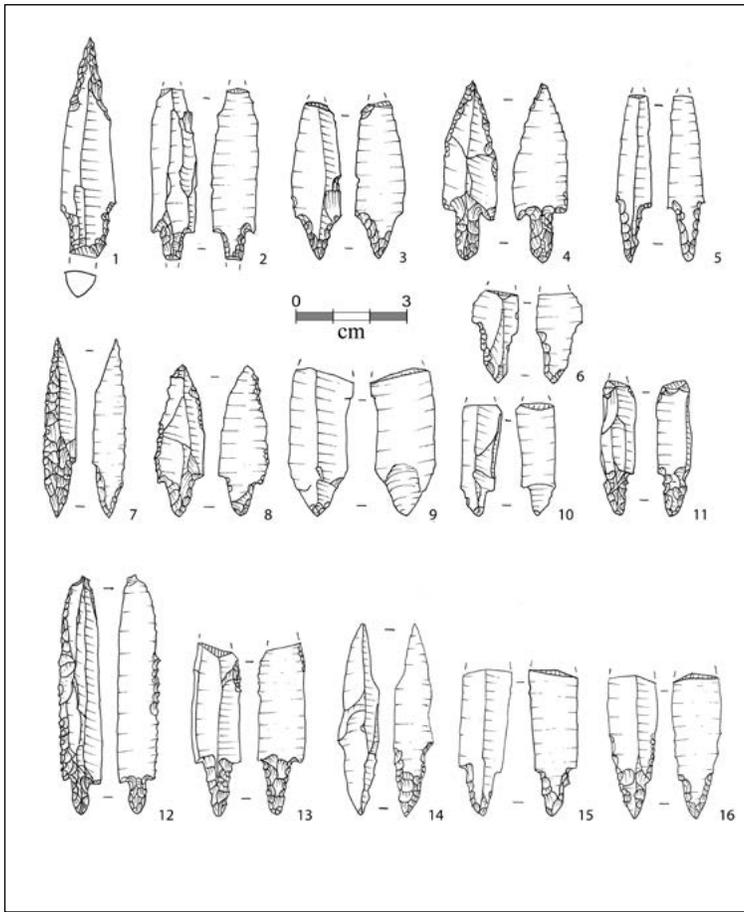


Fig.12 a,b,c. Flint implements and zenithal photo of a Pre-pottery Neolithic site (Site HK 361a) (Peroschi *et al.* 2009).

So far, outside Har Karkom, no other Paleolithic cult or ceremonial structures are known in the entire Sinai Peninsula. The presence of shrines since the Upper Paleolithic could indicate the early presence of the re-

ligious role of the mountain. (Anati, 2020, 2022). The ancient presence of large mammals is recorded at Har Karkom by flint figurines of fauna and by the geoglyphs representing species, such as the elephant and the rhinoceros, which are supposed to have become extinct in the region around 28,000 BP .

If the fauna represented disappeared from the area at that time, these may well be the world's oldest geoglyphs so far documented. The representation of extinct fauna on both, geoglyphs on the soil surface and on flint shaped figurines, may also indicate some sort of worship or at least an especial consideration for the fauna.

In the late phases of the Upper Paleolithic there is a sharp decrease in the density of sites. Both Mesolithic and Neolithic sites are present at the foot of the mountain, not on the mesa. These periods are well represented in other region of the Negev and Sinai, while at Har Karkom their number and size are minor, as compared with both the Paleolithic and the Bronze age.

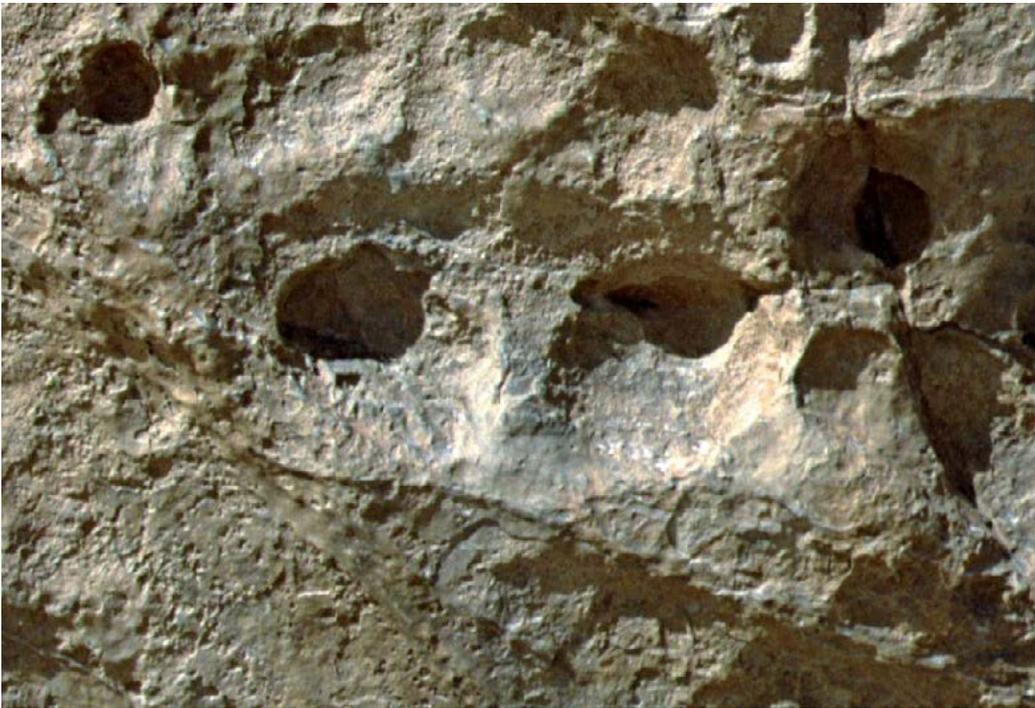
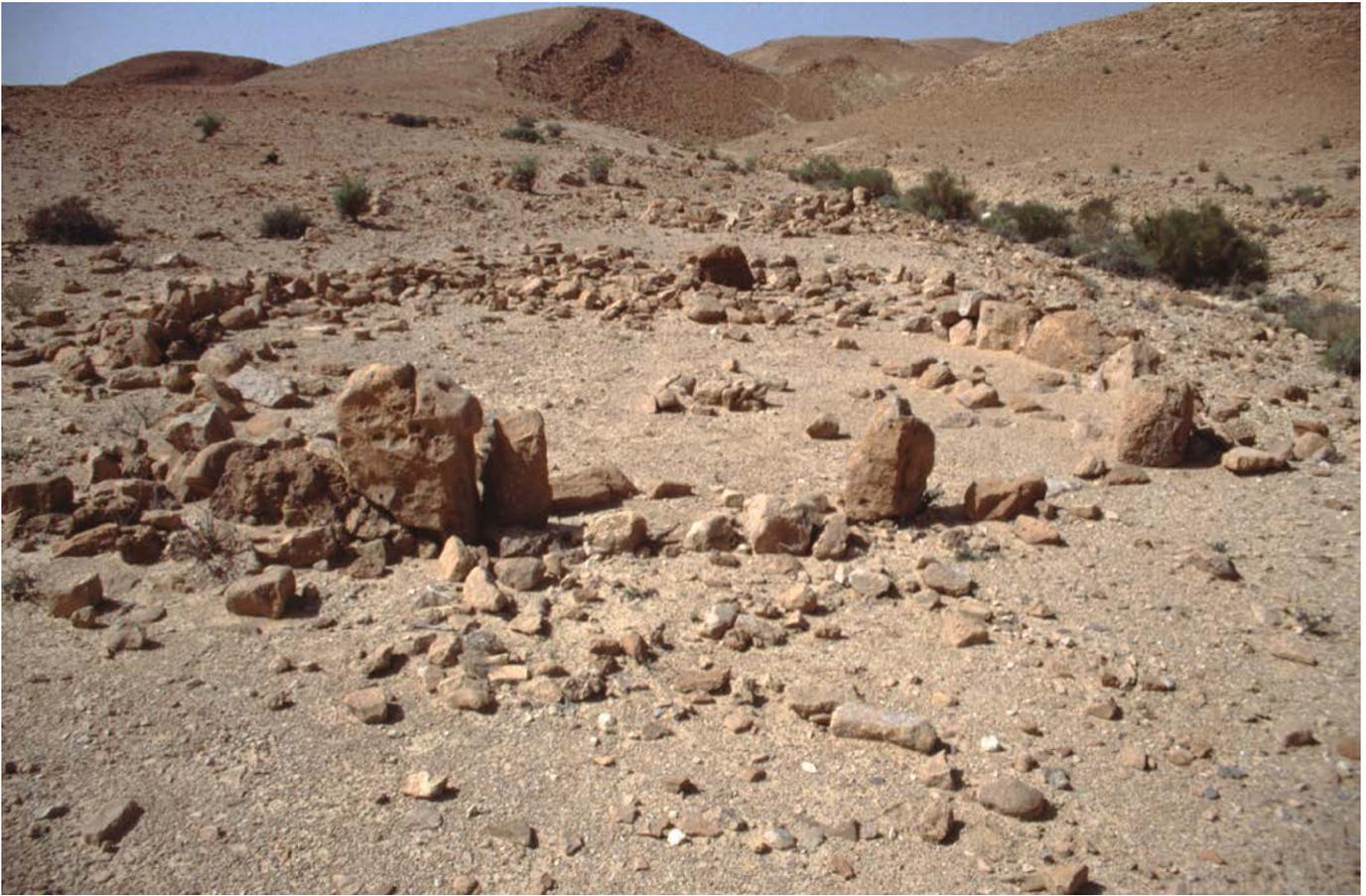


Fig.13 a. View of a Pre-pottery Neolithic structure. The large black stone at the back of the circle has a flat upper surface with a cup-mark, likely an altar-table. On the front side of the structure, behind the large stone, is a ground of small orthostats. The large stone has the relief sculpture of a face. (Site BK 608; photo EA90: XX-7; W06085).

Fig.13 b. Relief sculpture of nose and eyes of the orthostat. (Site BK 608; photo EA90: XX-05; W05976).

The Bronze age

The second period most densely represented by sites is the BAC period (BAC=Bronze Age Complex), which includes a persistent though evolving flint implements typology and persistent typologies of living sites. It is a cultural pattern covering the equivalent time range of the Chalcolithic and the Early and Middle Bronze Age of the Levant fertile areas. It is the local Bronze Age which derives from a local Chalcolithic culture.

Different tribal entities lived in this peripheral region, leading different patterns of life, as reflected by different patterns of both living sites and cult monuments. Some of the habitation sites are made of groups of

family living structures, others, have more communal structures of larger human groups. In the Bronze age, Har Karkom appears to be a melting pot of patterns of tribal societies, a major meeting place of peoples. (Anati, 2017a). Each different type of living site is dominant in one phase, but most of them seem to persist in different phases of the BAC period.

A vast variety of cult and ceremonial sites are spread over both the upper plateau and the surrounding valleys where they appear also to be related to living sites. In this period Har Karkom was an immense Mecca (or Lourdes), for different desert people. Likely it may have inspired the biblical narrations about Mount Sinai (Anati, 2013).

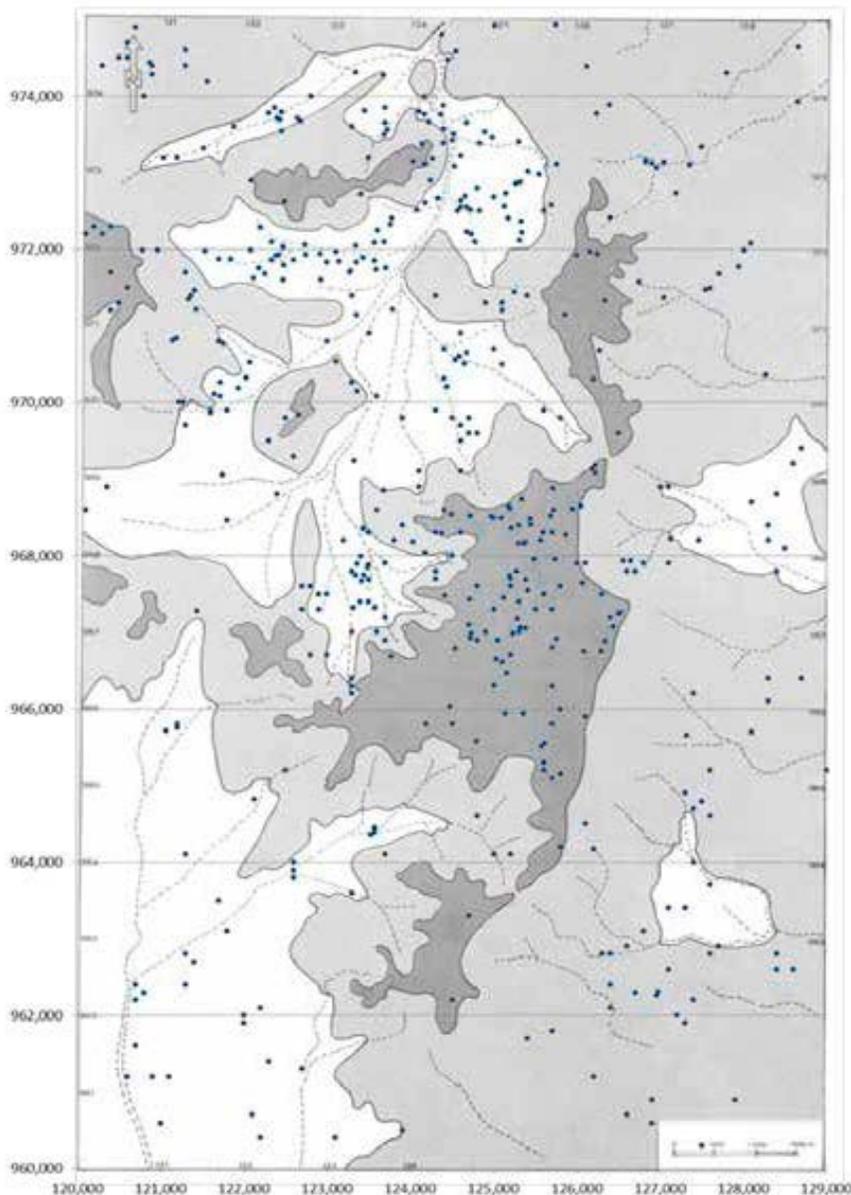


Fig. 14. Har Karkom. Distribution map of BAC sites.

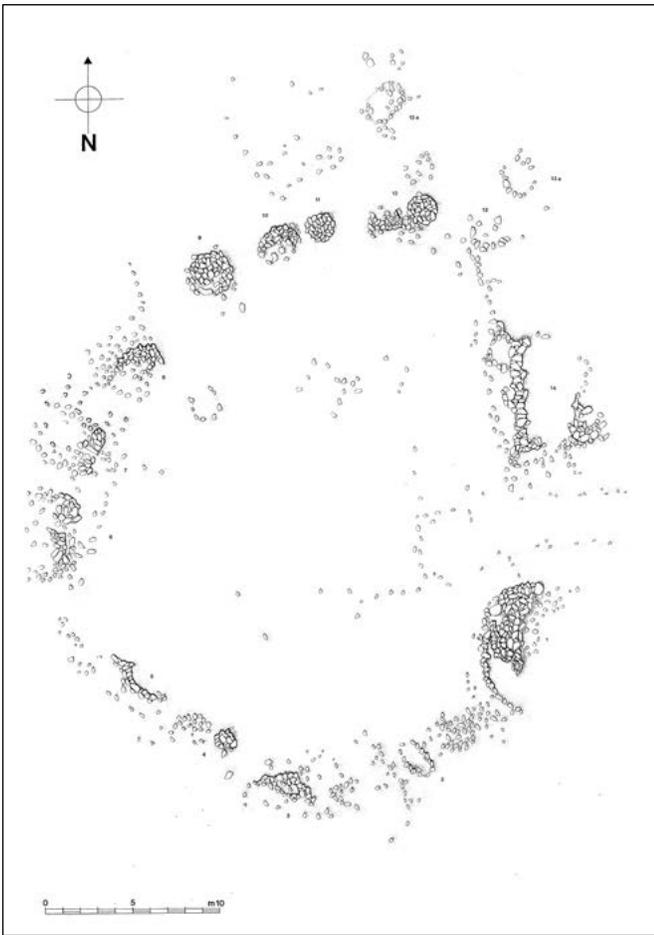


Fig. 15. An early BAC Plaza site, a series of hut bases around a common plaza. Traces of a larger structure may be those of a cult or ceremonial building. (Site HK307).

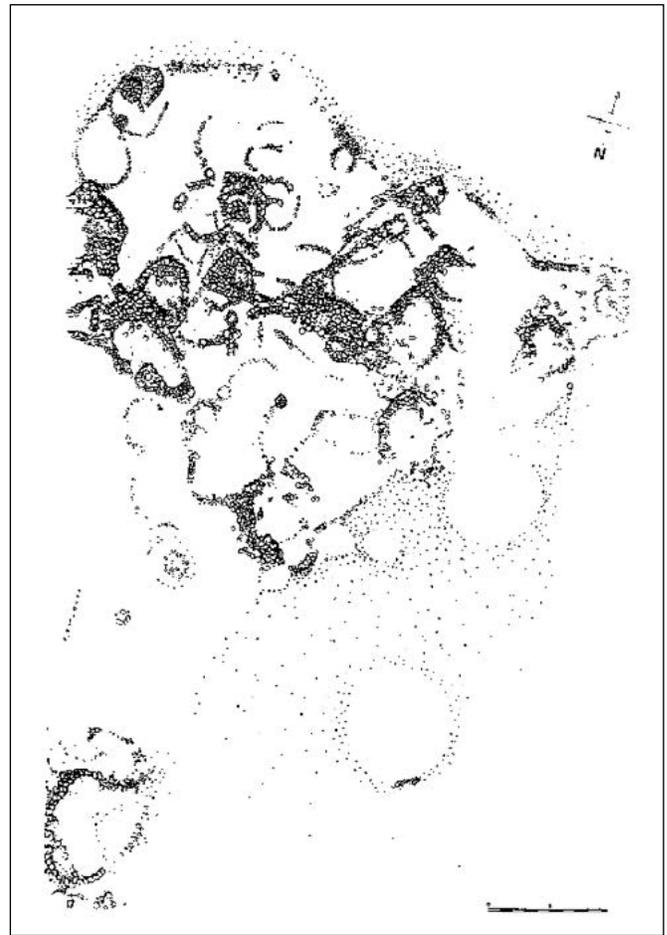


Fig. 17. A late BAC Hamlet site, a cluster of structures concentrated in a restricted area, likely protected by a palisade. (Site 427).



Fig. 16. A middle BAC Courtyard site, an assemblage of courtyard individual structures (Site HK1b).

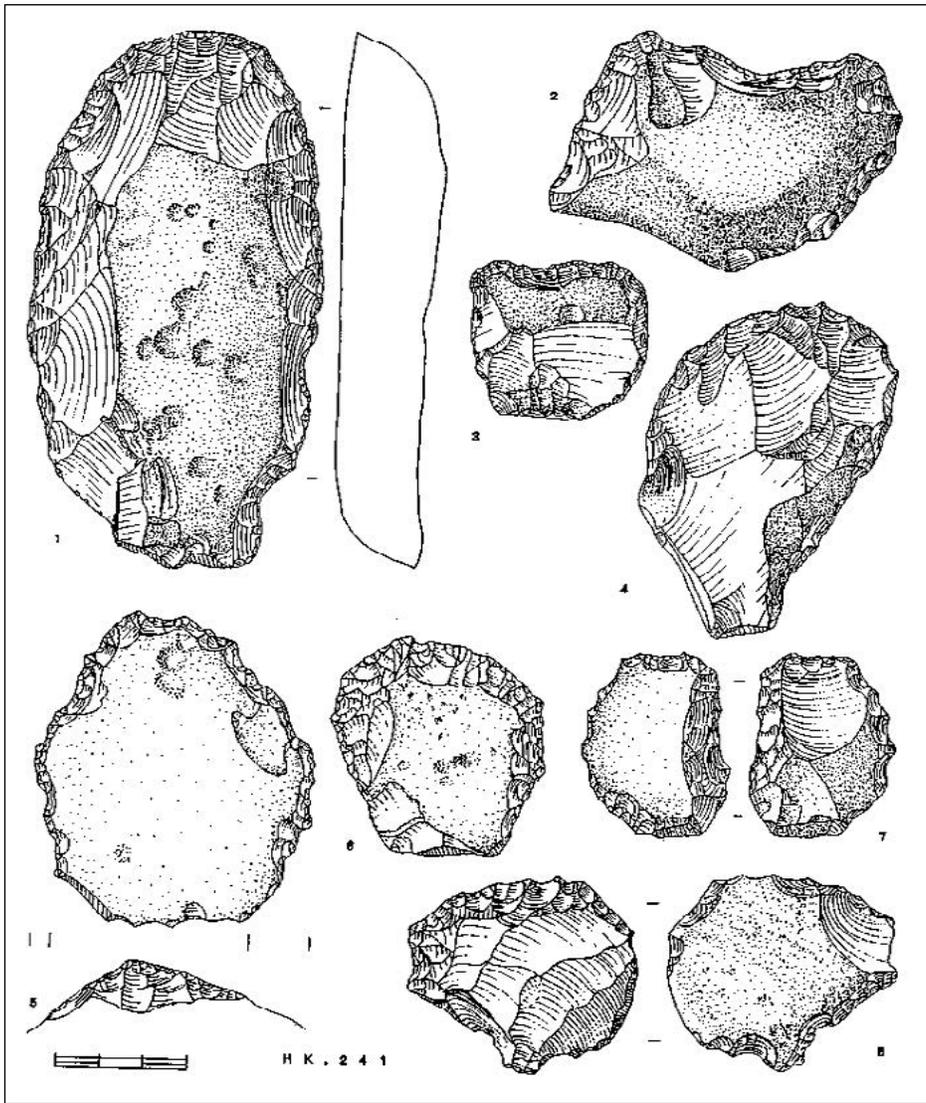


Fig. 18. Flint implements of an archaic phase of the BAC from Plaza site HK 241. (Drawing by I. Mailland; HK Archives).

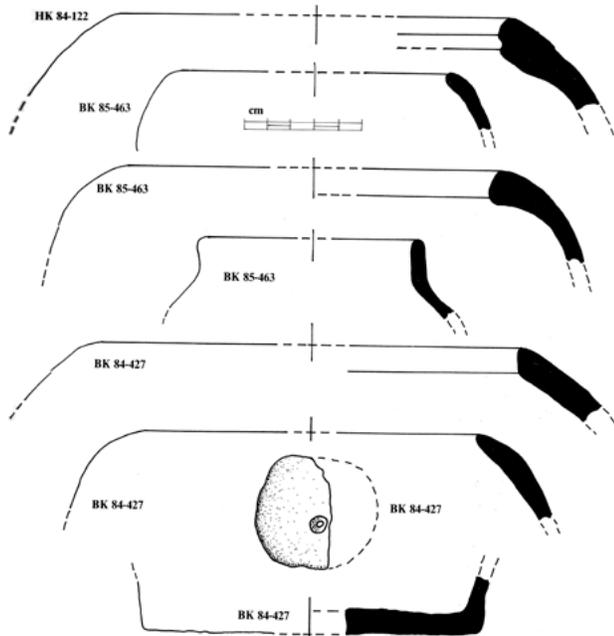


Fig. 19. Pottery forms of the BAC period. (Drawings by I Mailland; HK Archive; W05932).

The cult sites

In the BAC period, over 120 cult sites, small temples, open-air altars, various types of shrines some of them related to rock art, stone circles and other megalithic monuments illustrate the religious role of this mountain.

The numerous shrines indicate that it was a holy mountain but they do not indicate how and why the mountain became and remained for ages a paramount worshiping place.

In the Paleolithic, living sites and cult sites are near each other on the mountain plateau. After the Paleolithic and until the Hellenistic-Roman period, the mesa area has only cult sites, and living sites are at the foot of the mountain. Apparently, the entire upper plateau had the function of a holy area. Quantities of shrines, rock engravings and sites with traces of large

fires are spread over the entire mesa.

For reasons yet unclear, this mountain has been an immense and lasting religious center. We are not aware of any other mountain in the area having such a quantity and variety of traces of cult and worship for such a long duration. Different types of megalithic monuments, groups of standing stones, stone circles, ceremonial paved platforms with altars, stone circles, standing pillars, shrines, temples, and ceremonial trails with ritual stations, are all over the surface of the mountain and in the surrounding valleys.

The debate whether Har Karkom is or not the biblical Mount Sinai is still active after 30 years. So far, no other mountain in the Sinai Peninsula has a such clear evidence of having been a holy mountain. This site could hardly have been ignored by the biblical old testament. If it is not Mount Sinai, how else would it

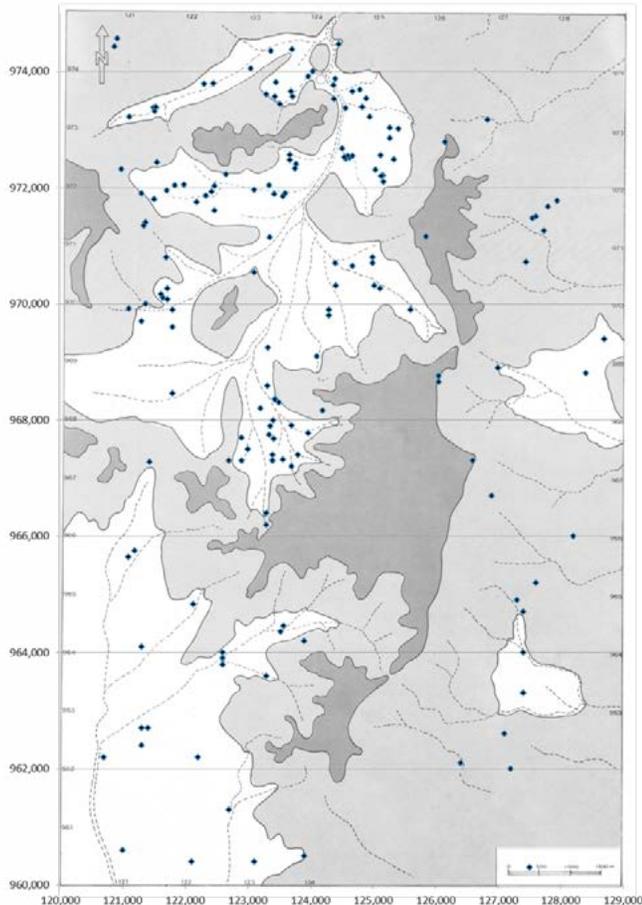


Fig. 20a. Har Karkom. Distribution map of main BAC habitation sites.

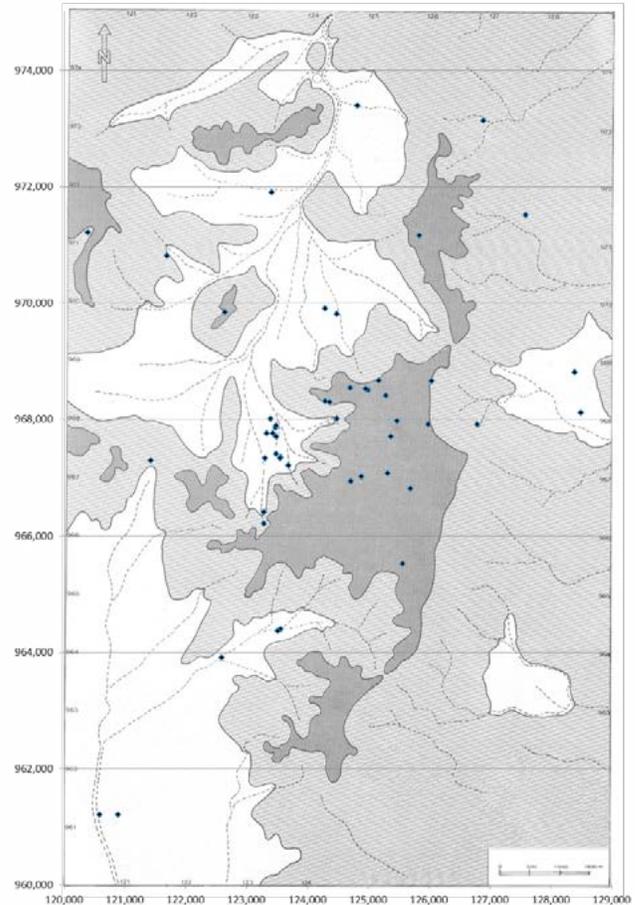


Fig. 20 b. Har Karkom. Distribution map of major BAC shrines and other cult sites (excluding tumuli which are all over).



Fig. 21. Traces of large fires on the plateau awaken puzzling questions, what was their function? And what kind of fuel may have been used? The standing person in the middle of the photo gives an idea of the size of fires. Crevices and large breaks at the edges of Har Kar-kom seem to explain the biblical name Har Horeb which means 'Mountain in the process of collapsing' (Site HK109; ISR84: LVI-13).



Fig. 22. A much worn image, likely to represent a divinity. The forehead has the thin incision of an antelope (Site HK64b; EA93: XIX-9).



Fig. 23. Paved platform with altar facing east. (Site BK 463; ISR 84: IL-19; W05946).



Fig. 24. Standing stone with anthropomorphic face, with engraved eyes, near a stone with a large basin-shaped depression (Site HK 214b: EAXX-31; E.A.1994, fig. 59; W06021).



Fig. 25. A small sanctuary: an altar and 12 pillars in two rows of 6 each, separated by a courtyard of beaten floors with incrustations of BAC flint implements. (Site HK82a).



Fig. 26. A group of standing monoliths at the foot of the summit of Har Karkom. In the foreground is a stone with a large basin. (Site HK 212d; EA96: XXII-23).

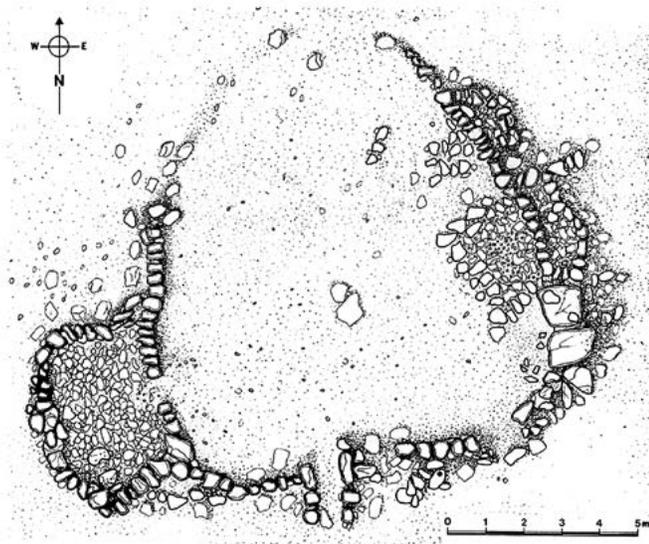


Fig. 27 a, b. A small temple on the plateau with what seems to be an altar (HK24).

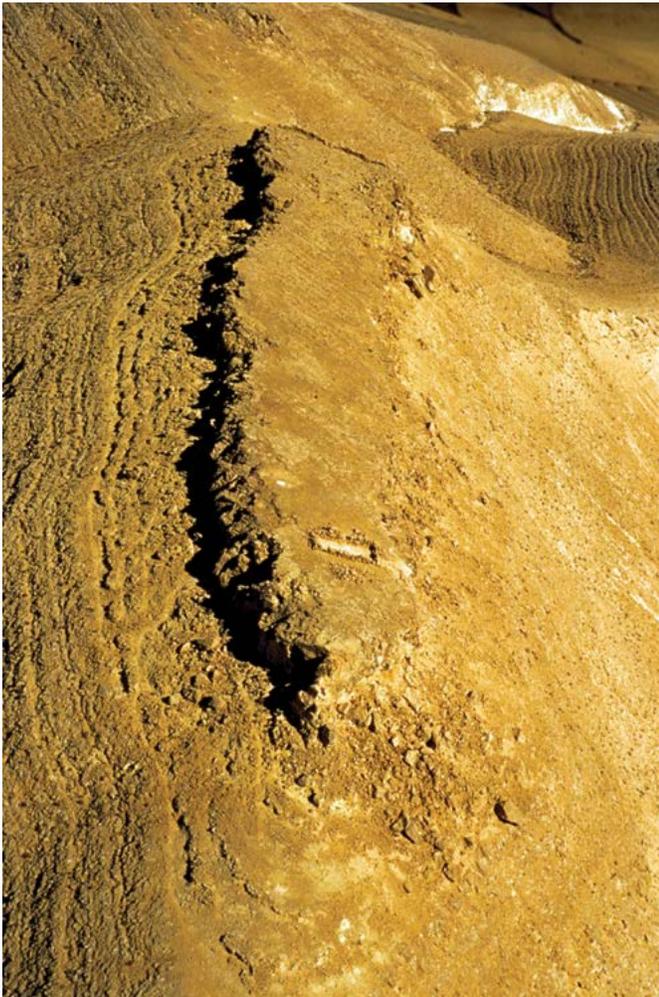
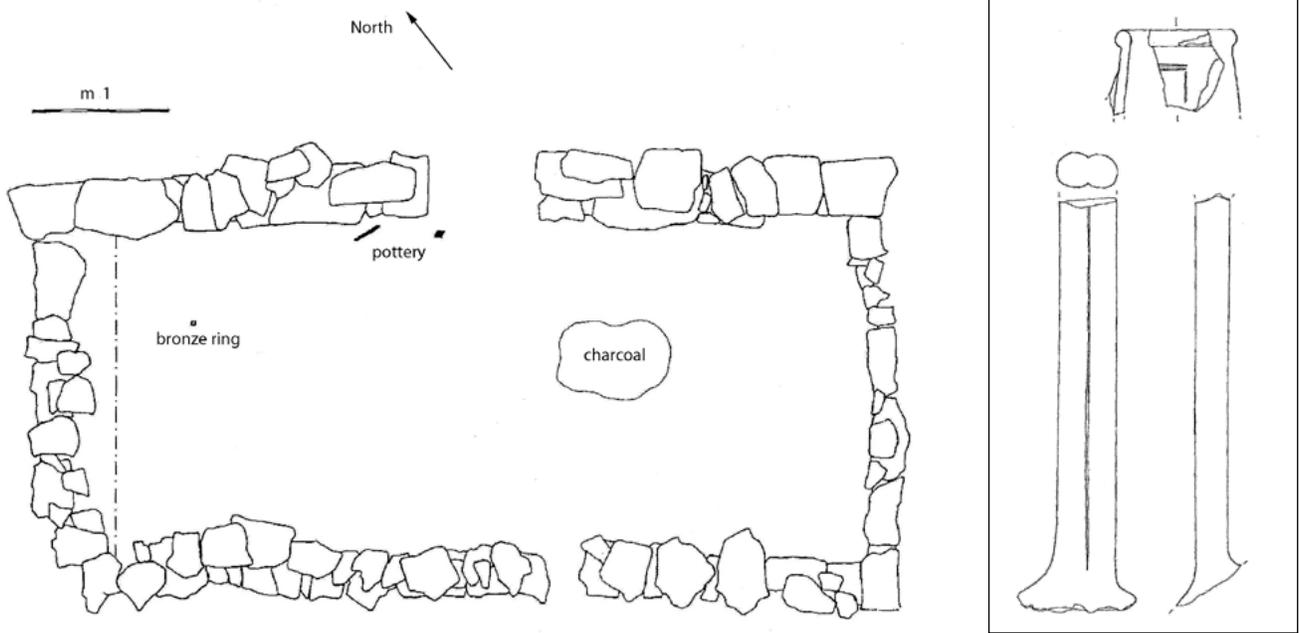


Fig. 28 a, b, c. Hellenistic temple, on top of a walled hill facing Har Karkom (Site HK221b).

have been named in biblical traditions? If it is, Mount Sinai was a cult site for different people during long ages.

Besides its likely relation with the biblical narrations, another element may derive from its traditional memory, the Arab name of the mountain, *Jebel Ideid*, which means Mountain of Festivities or of Happenings. It is an odd name for a mountain in the middle of nowhere. For scholars having preconceived ideas of the period of the biblical narrations, Har Karkom has no traces of the traditionally believed to be the age of the biblical exodus.

The Late Bronze Age is void. There are no traces of settlements or of cult sites. Likely, the area had a period of extreme drought unsuitable for the human presence. Later archeological remains include an Iron Age settlement with a shrine, and a Hellenistic small temple, on a hilltop facing the mountain. Whether these later traces of cult may or may not be related to previous traditions, remains an open question.

In all the surveyed areas of the central Negev, the density of pre-Roman archeological sites is minimal compared with that recorded in the concession area of Har Karkom and Beer Karkom, while it is quite similar to that of later periods. This may indicate the special role played by the mountain in early times, which did not persist later.

Har Karkom provides a sequence of two million years

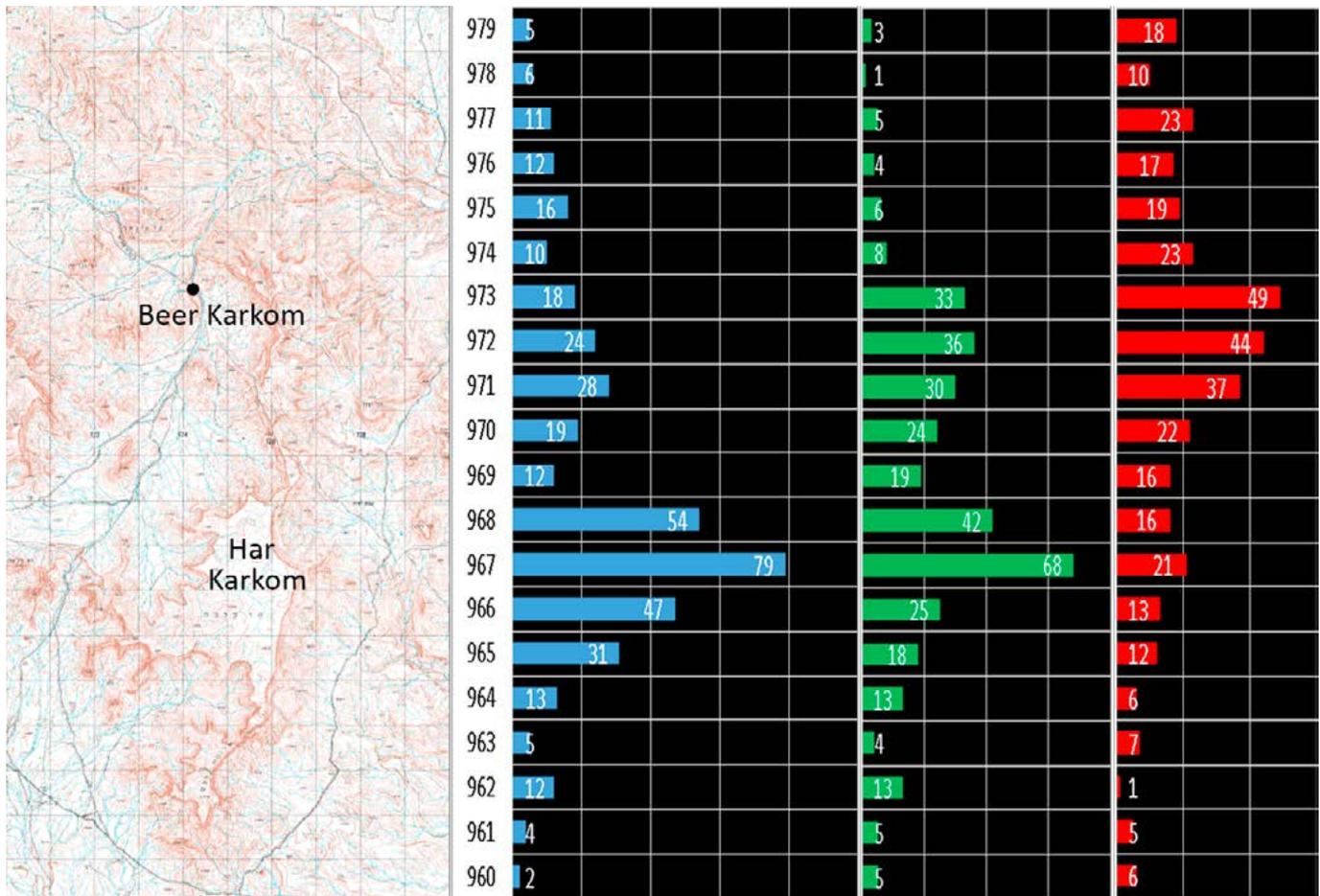


Fig. 29. Number of sites by latitude (Israeli grid) and by period. Paleolithic to Neolithic, blue; BAC green, Iron Age to Islamic, red. The Central role of the mountain is evidenced by the number of sites in the Stone age and in the Bronze age, while in later periods the mountain lost its dominant function and the concentration of sites shifted to the main water source, the well of Beer Karkom.

of human history concentrated in a single locality, a section of human life since the first steps of hominids coming out of Africa. It is positioned in a crucial location, the land bridge, the eternal highway that links Africa to the rest of the world.

A station on the land bridge

The intriguing thing is that we are unable so far to understand why this mountain attracted so many people in different periods: why just here? The shrines indicate that it was a site of worship but how came that this mountain became a cult site? Why was it selected? The wealth of findings has not led us yet to the discovery of the conceptual process and the possible events that caused the cult function of this mountain through the ages, as evidenced by the archeological testimony. A specific question concerns the proposed identifica-

tion of Har Karkom with the biblical Mount Sinai. The biblical narration would be referring to just of one of the many cult events that involved this mountain in the course of ages.

This mountain is an immense open-air museum, revealing the life of hominids first and then of humans, ever since their first footsteps out of Africa.

The geographical position of the Negev is that of the land of the eternal human exodus, from the ancestors of man stepping out of Africa to the biblical exodus, to that of the desperate people abandoning Africa today in search of a better life and an improbable promised land.

At Har Karkom, the entire sequence of the story of humankind is unfolded by the archeological findings. In this paper we simply display the archeological testimony, the raw material for the study of a most intrigu-

ing site in the midst of the desert, a crucial area for the history of mankind, the land-bridge between Africa and the rest of the world.

The intriguing question remains unsolved, open to further debate. Why? How and why such an immense concentration of sites of different periods focused just here, on a modest, mesa-like mountain, in what now is a most arid site in an arid region. The entire history of humankind is recorded by the archeological remains of the longest sequence of ages, on a mountain and surrounding valleys. The challenge of the query is yet unsolved: what made of this mountain the focus of attraction for two million years? And what kind of resources or attractions did this site offer, more than any other site in the region?

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KARKOMIAN CULTURE: EARLY UPPER PALAEOLITHIC FREQUENTATION OF THE KARKOM MOUNTAIN

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Introduction

Before we start talking about the Karkomian, we must ask ourselves whether it is correct to talk about *culture* in this case. Culture implies not only a way of living, of producing tools for hunting and gathering food, but above all it indicates the ability to think, to associate symbols with shapes, to express concepts and to have religious ideas.

The study of the so-called Karkomian culture began

during the 1993 Har Karkom survey campaign as part of the Italian expedition. That 11 April, before the amazed eyes of the group of archaeologists who were exploring the very eastern edge of the plateau, in the site -later named HK/86b- a cluster of orthostats appeared in a small valley: they were made up of flint nodes, 50 to 120 cm high, with anthropomorphic features. On the ground were chipped flint stones from an industry recognized as Palaeolithic, but not imme-



Fig. 1. HK/86b, standing pillars in a small valley.



Fig. 2. HK/86b: Plan of the site with standing chert boulders.

diately traceable to any of the known Palaeolithic flint industries in the area.

It was immediately clear that we were faced with a Palaeolithic ceremonial site and, as such, it was the oldest sacred place found in the world! Subsequently, and in the following years, campaigns specifically aimed at investigating the sanctuary had to answer the following questions: who and why erected the sacred sanctuary? Were the finds associated to human

remains? What are the characteristics of their flint industry? Which Palaeolithic period did they belong to? Were dating hypotheses possible, in the absence of stratigraphic evidence? Was sanctuary HK/86b the only site with those flint-knapping characters? Demographic hypotheses: did they belong to large or small human groups? In addition to the orthostats, were there other features of the site that led to the interpretation of HK/86b as a sacred site? Was there a figura-



Fig. 3. Particulars of the standing stones.
 Fig. 4. Particulars of the standing stones.

tive expression?

Since then, several articles have been published on the topic; however, a comprehensive picture of this human group, its demographic characteristics and its artistic expressions is still missing. We will try to answer all of the above in the following paragraphs.

The Palaeolithic Ceremonial Site

Until the discovery of HK/86b, Har Karkom was already considered a sacred site during the Chalcolithic and Early Bronze Ages. During the 4th and 3rd millennia BC, in fact, only rock art sites and cult structures were built on the top of the mountain, while the dwelling sites of the corresponding periods were found only at the foot of the mountain.

But the discovery of HK/86b has completely revolutionized all contemporary knowledge about the beginning of religious beliefs in prehistory.

In a small valley overlooking the Paran desert, on the eastern edge of the plateau, the Karkomians built a



Fig. 5. pebble drawings on the ground of HK/86b.

group of orthostats, with vaguely anthropomorphic shapes, arranged in a specific order, following a precise design of concentric circles (fig. 1).

At least two monoliths have been illegally redressed in vertical position by unknown visitors, therefore their original position is doubtful, but this detail does not detract from the extraordinary nature of the discovery. A plan of the site is described in fig. 2.

The small valley measures 80 m in length and in the lower part it is open to the east towards the Paran desert, while in the upper part it widens like a fan, like a small amphitheatre, where the pillars are located. The pillars of the site HK/86b are natural flint nodes that resemble anthropo-zoomorphic figures or anatomical parts of the human body (Figures 3 and 4). The height varies between 50 and 120 cm. They appear to come from three different quarries, one on site, one nearby and one on a site 3 km from HK/86b. A total of 40 pillars were counted, 18 of which were standing and the others lying on the ground. Large flint fragments were scattered here and these suggest that some pillars had been broken, either due to the corrosion caused by atmospheric agents or due to human activities. However, it is not clear whether all the pillars were standing in ancient times. Many of them have shapes of

stretched or rolled up bodies. In the valley and around the pillars, smaller objects are placed, obtained from flint bulbs of a natural anthropo-zoomorphic shape, adding in some cases details and anatomical attributes using the Palaeolithic chipping technique. All around there are pebble drawings (fig. 5), made from stone circles and stone alignments, and flint flakes and tools belonging to a transitional flint industry between the Middle and Upper Palaeolithic, which we have called the *Karkomian industry*.

From the site HK/86b, there is today a spectacular view to the East of an immense area of the Paran desert, that during Middle and Late Pleistocene was a large grassland.

At the eastern border of the valley, overlooking the precipice, still firmly blocked in the rock cavity by stone flakes, there is a pink flint pillar, about 40 cm high, in the shape of a closed fist. That object seems to suggest the route of a steep path that descends from the Sanctuary to the Paran desert, with a difference in altitude of about 300 m. Along the route there are some rock shelters, one above the other, where pillars similar to those of the Sanctuary were erected in a similar way (fig. 6). The definition of “Sanctuary” of this extraordinary site seems appropriate. Prehistoric

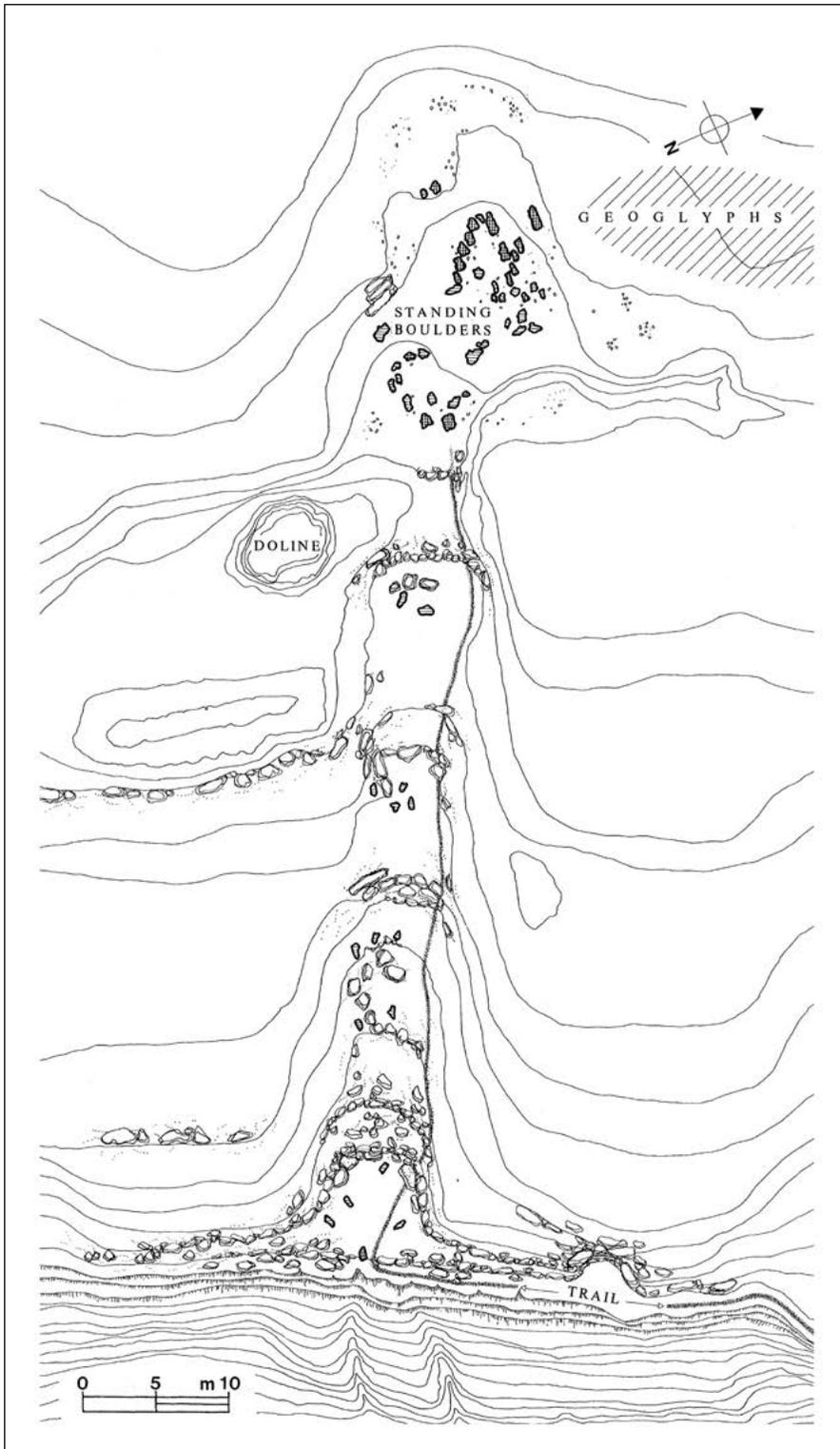


Fig. 6. Plan of the of HK/86b on top, and series of terraces with boulders down to wadi Paran.

men collected flint monoliths. Some of them could not have been moved by less than 4 or 5 people together. Furthermore, some monoliths were flaked and retouched to complete the natural shapes. They were subsequently arranged into an architectural compo-

sition comprising an upper and lower group which appear to form a congregation of “spirits”. Therefore, site HK/86b is interpreted as a Karkomian ceremonial site, an open-air sanctuary.

Lithic Industry

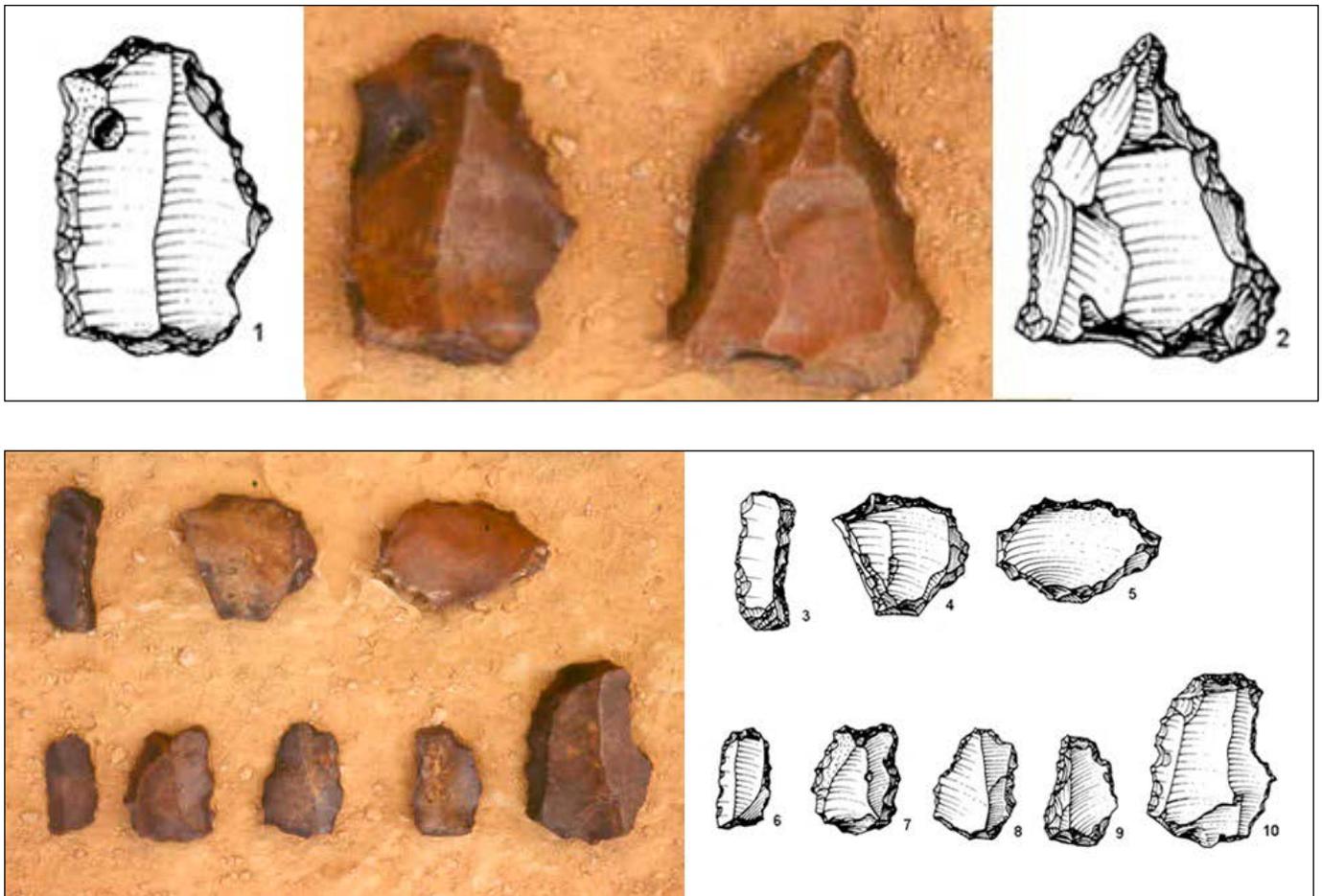
The unique character of the lithic industry was immediately evident upon first examination of the finds collected on the ground. As with the vast majority of the archaeological sites in Har Karkom, the present ground appears lower than the ancient palaeosoil, due to intense erosion phenomena that occurred over several millennia.

The HK/86b flint industry is characterized by the persistence of a Middle Palaeolithic flint knapping, associated with an incoming leptolithic flint chipping technique. Due to its particular characteristics, the culture associated with this flint industry was called Karkomian, and is believed to represent a transition between the Middle Palaeolithic and the Upper Palaeolithic (Figures 7-16). This flint industry was found at

the ceremonial site and in 21 living campsites around the sanctuary (fig. 17).

Of the 22 sites identified as belonging to the Karkomian period, a representative collection of flint was possible from 13 Karkomian sites, including ceremonial site HK/86b and 12 living sites. The set of tools allowed the classification of 813 flint artefacts: it was also possible to make a statistical comparison between the sites and a descriptive analysis of the entire lithic assemblage. Detail of the analysis is found in F. Mailand, 2012.

Characteristics of the lithic industry at the Karkomian sites are shown in Table 1, together with a descriptive analysis of the lithic assemblage. The characters appeared sufficiently homogeneous between the different sites, some differences were due to the small num-



Figs. 7, 8. Ceremonial site HK/86b. 1: double borer on denticulate; 2: retouched point on Levallois flake; 3: small blade with abrupt retouch and blunted platform; 4: borer on transverse scraper on a Levallois flake; 5: transverse scraper on a Levallois flake; 6,7: denticulate on Levallois support; 8,9: denticulate; 10: notch on denticulate.

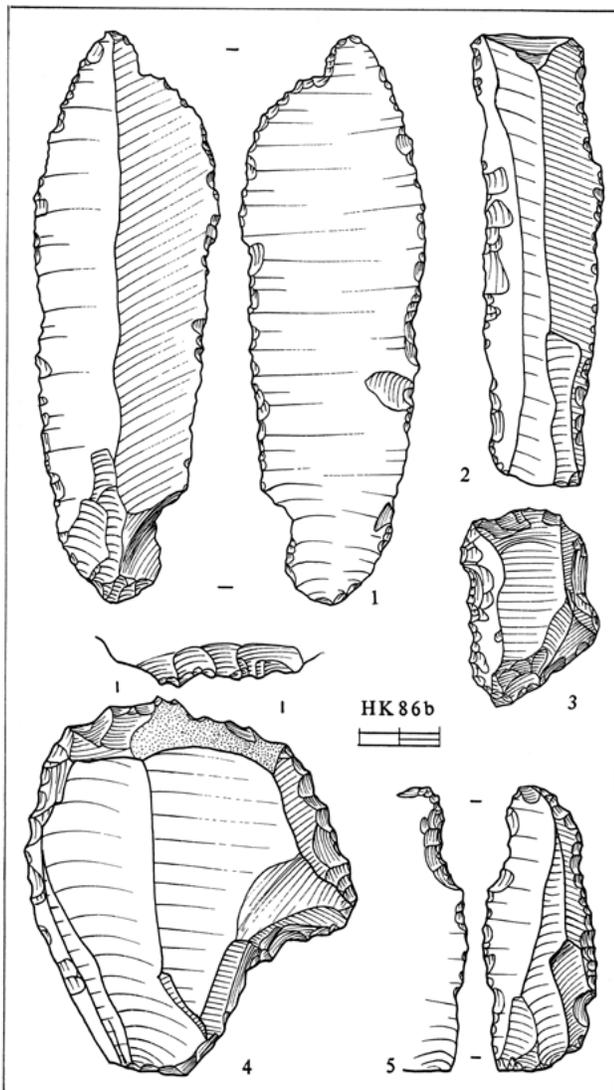
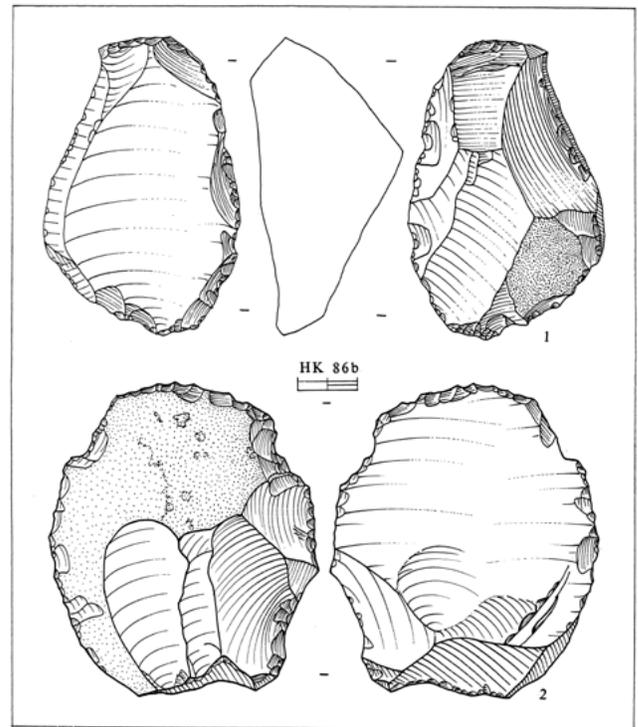
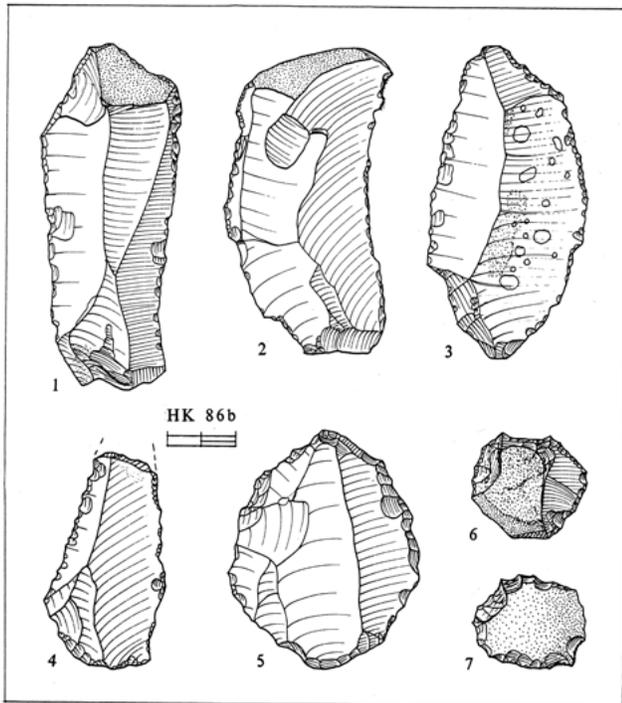


Fig. 9. (Left up) HK 86b. 1-3 : retouched blades; 4 : point (fragment); 5 : leaf-shaped point; 6-7 : round end scrapers, denticulate retouch.

Fig. 10. (Right, up) HK/86b. 1-2: end scrapers on Levallois cores.

Fig. 11. (Left, down) HK/86b: 1: blade with notch; 2: blade; 3: scraper; 4: end scraper with platform blunting.

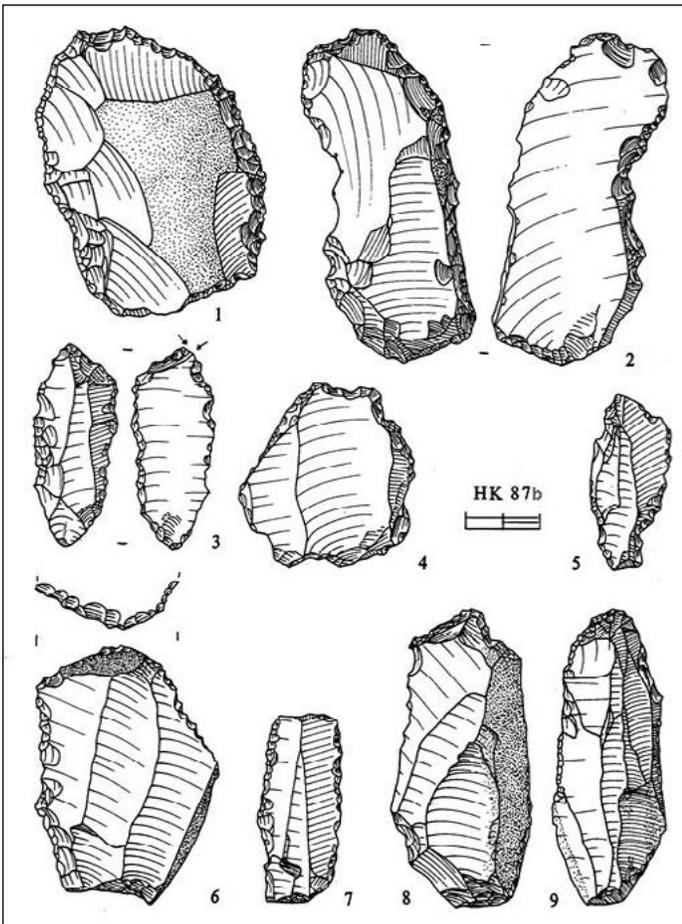
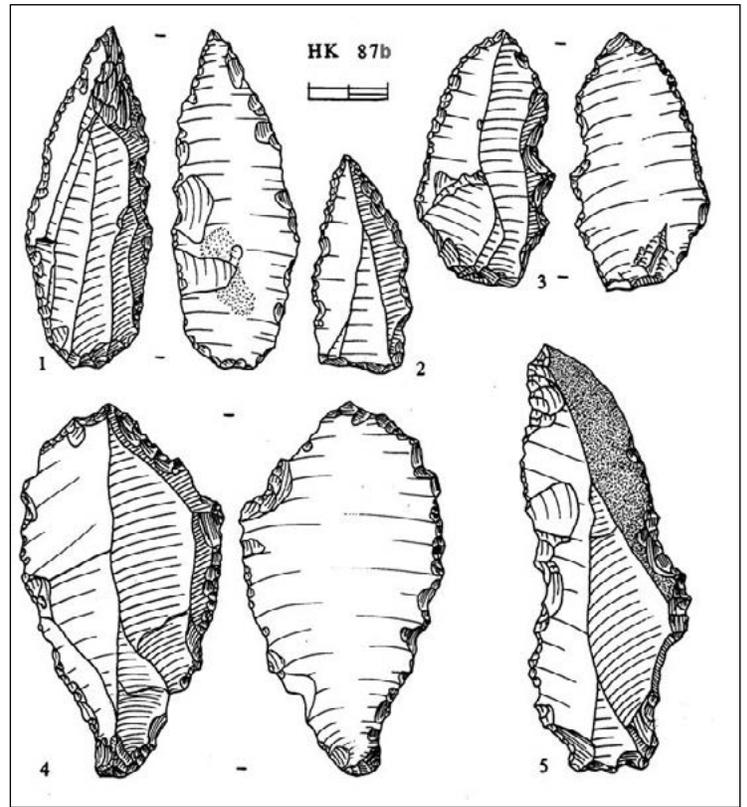
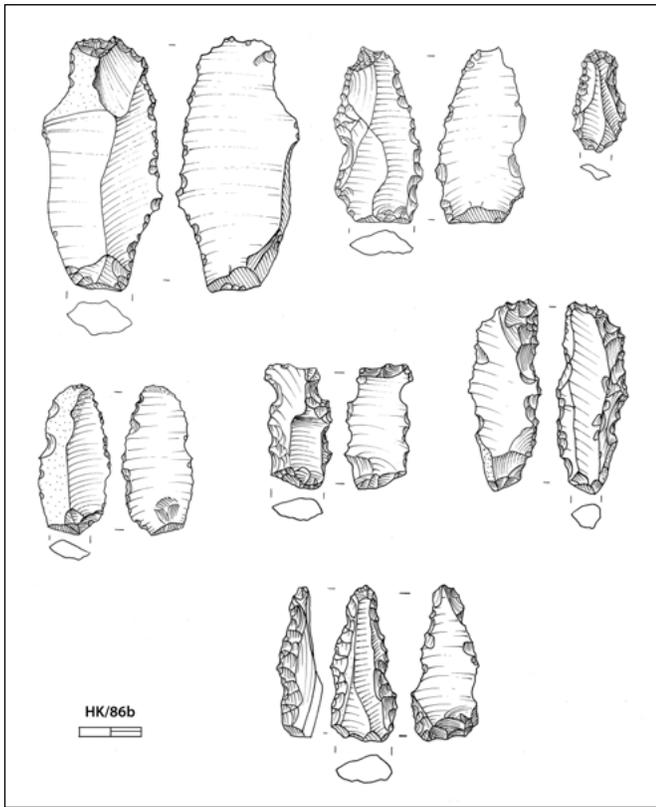


Fig. 12. (Left, up) HK/86: retouched blades and points with obverse platform blunting.

Fig. 13. (Right, up) HK/87b. 1: Châtelperron point; 2: point; 3,5: points on denticulate blades; 4: leaf-shaped point.

Fig. 14. (Left, down) HK/87b. 1: denticulate retouch on Levallois flake; 2: notch; 3: burin; 4: denticulate; 5: tanged tool; 6: side scraper; 7: blade; 8: borer; 9: end scraper.

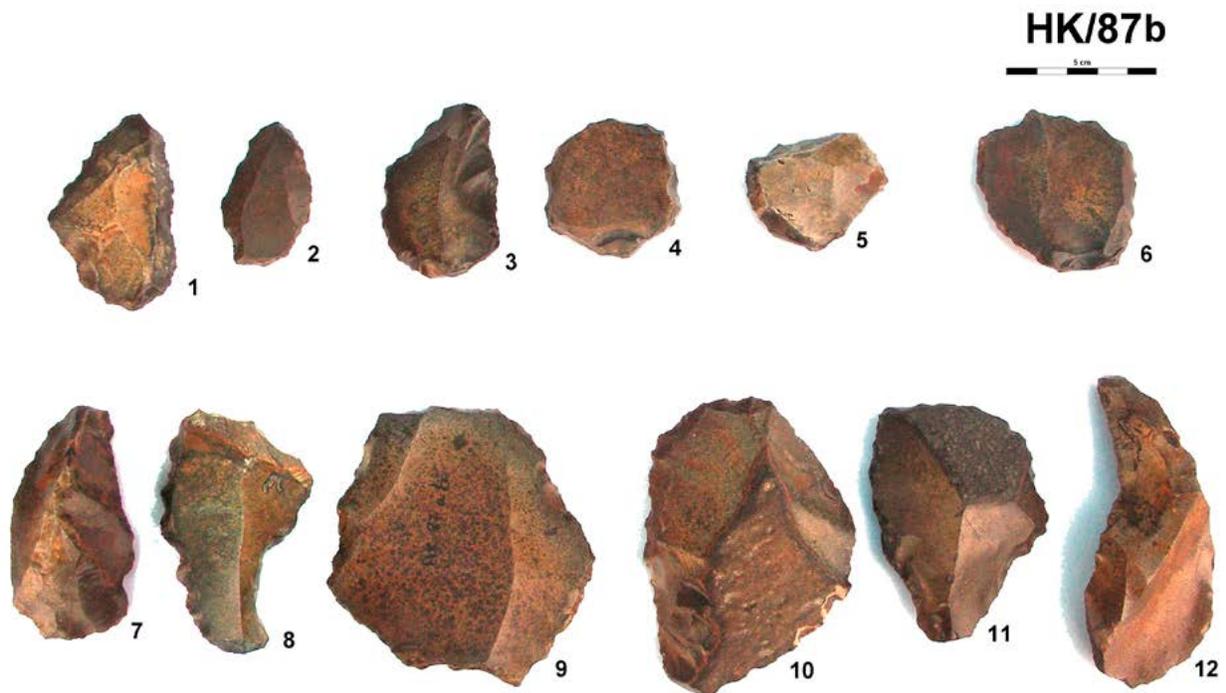


Fig. 15. HK/87b. 1,7: points; 2: retouched Levallois point; 3,5,6: retouched flakes; 4: round scraper; 8: notch on denticulate; 9: retouched Levallois flake; 10,11: continuous retouch flakes; 12: borer.

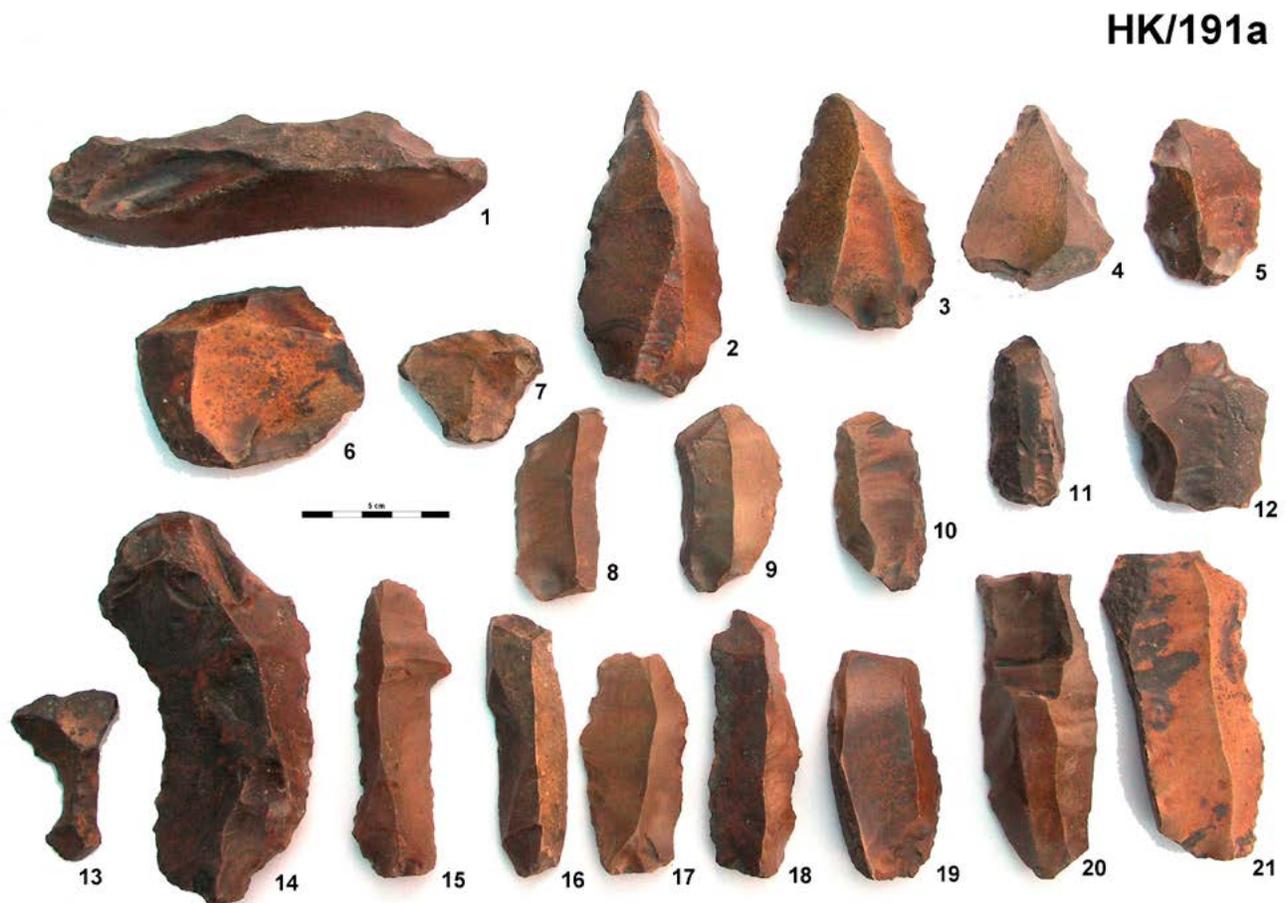


Fig. 16. HK/191a. 1,15: borer; 2: point on backed blade; 3: Levallois point; 4: point; 5,12: denticulates; 6: end scraper; 7: transverse scraper; 8,9,16,17,18: backed blades; 10,11,19,21: blades; 13,14: notch; 20: double burin.

ber of artefacts per single site. The Levallois technique was evident at all sites, from 1.69 to 4.88% of all flint artefacts, and was on average in 3.20% of the overall sample. Blades varied between 18.87% and 63.01% of all flint artefacts, on the contrary flakes varied between 32.88% and 75.47%. A common feature of all the sites was the abundant presence of denticulate retouches and transverse scrapers.

Definitions and descriptions of the artefacts are as follows: Cores: out of the 33 cores, 18.2% are defined as Levallois cores, having been used to detach flakes by using the Levallois technique. Another 18.2% are polyhedrons, kind of bolas used for hunting. Finally, 21.2% were reutilized cores, i.e. retouched to use them as implements, including an end scraper and a denticulate. Blades (n=343) are defined according to the standard rules: length/width ratio $\geq 2:1$. They have been divided into two groups according to their length: blades (>6 cm, n=179), small blades (≤ 6 , n=164) only few small blades having a < 4 cm length. Blades of different sizes present finely retouched, mostly denticulate, or naturally sharp margins; some of them show also an inverse retouch. The implements, as sharp as knives, may have been used for activities such as cutting animal skin or sectioning meat. Backed blades are defined as having a triangular section.

Flakes: (n=436) were obtained by the Levallois technique in the proportion of 4.1%.

Points: (n=61) 26 of them were made on laminar support and include six backed points, four Châtelperron points and three Emireh points. Some of them present a finely denticulate retouch and notches; others are endowed with marginal retouch. Emireh points are defined after Garrod [Garrod D.A.E.1955] as triangular points made by a Levallois-like technique, finely retouched on both margins, sometimes with inverse retouch on one edge. The platform is always thinned by means of careful retouch on both the dorsal and ventral face. Points on flakes were 45 in total, including 15 Levallois points, four Emireh points and four tanged points. Three leaf-shaped points are characterized by an invasive retouch on the dorsal face of a thin flake.

Tanged tools are few and mostly include flake points and a couple of end scrapers. Obverse platform blunting is present on points. Overall, tanged tools and blunted platforms slightly overcome 2% of all flint implements, with a prevalence of blunted platforms

Table 1. Karkomian industry: descriptive statistics of lithic assemblage

Technology	typology/retouch	n	% on tech class
Cores	Levallois	6	18.2%
	polyhedron	6	18.2%
	reutilization of debitage	7	21.2%
	Total cores	33	100.0%
Nodules	hammerstone	1	100.0%
	Total nodules	1	100.0%
Blades (all lengths)	backed	87	25.4%
	backed point	6	1.7%
	Châtelperron point	4	1.2%
	Emireh point	3	0.9%
	other points	13	3.8%
	end scraper	40	11.7%
	borer	20	5.8%
	notch	18	5.2%
	denticulate	53	15.5%
	inverse	3	0.9%
	tanged	2	0.6%
	blunted platform	6	1.7%
	other retouched blades	14	4.1%
	unretouched blades	75	21.9%
	Total blades	343	100.0%
Flakes	all Levallois flakes	18	4.1%
	side scraper	42	9.6%
	transverse scraper	52	11.9%
	end scraper	28	6.4%
	round scraper	19	4.4%
	Levallois point	15	3.4%
	Emireh point	4	0.9%
	tanged point	4	0.9%
	leaf-shaped point	3	0.7%
	other points	23	5.3%
	borer	28	6.4%
	notch	14	3.2%
	denticulate	51	11.7%
	inverse	8	1.8%
	tanged	6	1.4%
	blunted platform	3	0.7%
	continuous retouch	57	13.1%
	other retouched flakes	90	20.6%
	unretouched flakes	44	10.1%
Total flakes	436	100.0%	
Total flints		813	

for blades and of tanged implements for flakes.

Side scrapers, end scrapers, round scrapers: the definitions are those in general use. Transverse scraper is defined as an end scraper made on a flake with its length shorter than its width. Almost 12% of all flakes were transverse scrapers, with triangular or trapezoidal shape, maximum width at the distal end. They were mostly further retouched, to obtain a borer on one side. Double transverse scrapers had both proximal and distal retouch.

Denticulate, notches: the definitions are those in general use. Denticulate was the most frequent retouch, being present on 15.5% of blades and on 11.7% of flakes. Notches are present on 5.2% of blades, even associated with denticulate retouch; notches are present on 3.2% of flakes.

Borers are defined as tools from a flake or a blade, having been retouched to a small triangular-shaped projection. Borers were obtained on 5.8% of blades, over a half of them on backed blades. Borers are also present on 6.4% of flakes, 2.5% on transverse scrapers.

Burins are infrequent. Overall, they represent <1% of all flint tools and are mostly present on blades.

Abrupt retouch was noticed on six blades (1.75% of blades, all length) and on two end scrapers on flake (0.46% of flakes).

Dating the Karkomian lithic industry

In the absence of human remains or other organic remains, considering the general cultural context of the Middle East and other Levantine transitional Palaeolithic industries, Karkomian is tentatively believed to date back no later than 40,000 years. This corresponds to the maximum humidity in the Negev, according to the climate curves developed on the palynomorphs reported first by Horowitz [Horowitz & Weinstein-Evron, 1986] and then by Issar, [Issar A.S. 1995 and 2004]. That was also the period of the peak level of Lake Lisan (164 m below sea level), now known as the Dead Sea, when the Lisan basin probably extended to what are now the valleys of Lake Tiberias and the Jordan River to the north and the Arava Valley to the south.

Comparison with other transitional cultures

Sites with a flint industry transitioning between Middle and Upper Palaeolithic are known in the Syro-Palestinian area.

The Boqer Tahtit site is the most important to mention in the Negev. Found in the Sde Boqer area, north of Har Karkom, Boqer Tahtit represents a level characterized by a transitional flint industry in the centre of a stratigraphic series of Middle Palaeolithic and Upper Palaeolithic levels, respectively [Marks 1976]. Radiocarbon dating of Boqer Tahtit gave the value of 47,000 – 40,000 years. Among other finds, numerous flint points obtained with an apparent Levallois flaking technique were found on that level, without retouching on the margins, while only the platform was retouched by an obverse blunting. These points are similar to those found at the Erq – el Ahmar site in the Judean desert, belonging to the Levantine Mousterian complex.

In Lebanon, the site of Ksar' Aqil also presents a transitional flint industry, in a period dating between 40,000 and 30,000 years BP [Bergman 1981; Broglio & Kozłowski 1987]. In the first phase, the Levallois technique of flint chipping prevails, with the production of leptolytic elements in 59% of the artefacts. The most typical tools would be Chanfrein blades (burins obtained by flat transverse chipping). That phase is associated with Neanderthal-type human remains, while in a second phase the flint industry, less frequently obtained with the Levallois technique, is associated with Cro-Magnon-type human remains.

Karkomian Sites: distribution and demography

The same flint industry was found in the ceremonial site HK/86b and in 21 living sites all around the sanctuary: all of them had in common the remains of clusters of small hut floors, with a large central hut for the daily activities of the clan, surrounded by few smaller huts, where family units of few individuals spent the night time. Many Karkomian campsites were provided with fireplaces, located outside the huts; smaller areas cleared of stones, with flint cores, flakes and implements scattered on the surroundings, have been interpreted as flint workshops, where refitting of flint cores was often possible. The findings are consistent with groups of 20-30 individuals: the paucity of flint implements is consistent with short-lasting stations, even a few days. They are located in the Eastern part of the plateau, on a north-south line, and face the small valley near the ravine border where the ceremonial site is located (fig. 17). The sanctuary and the living

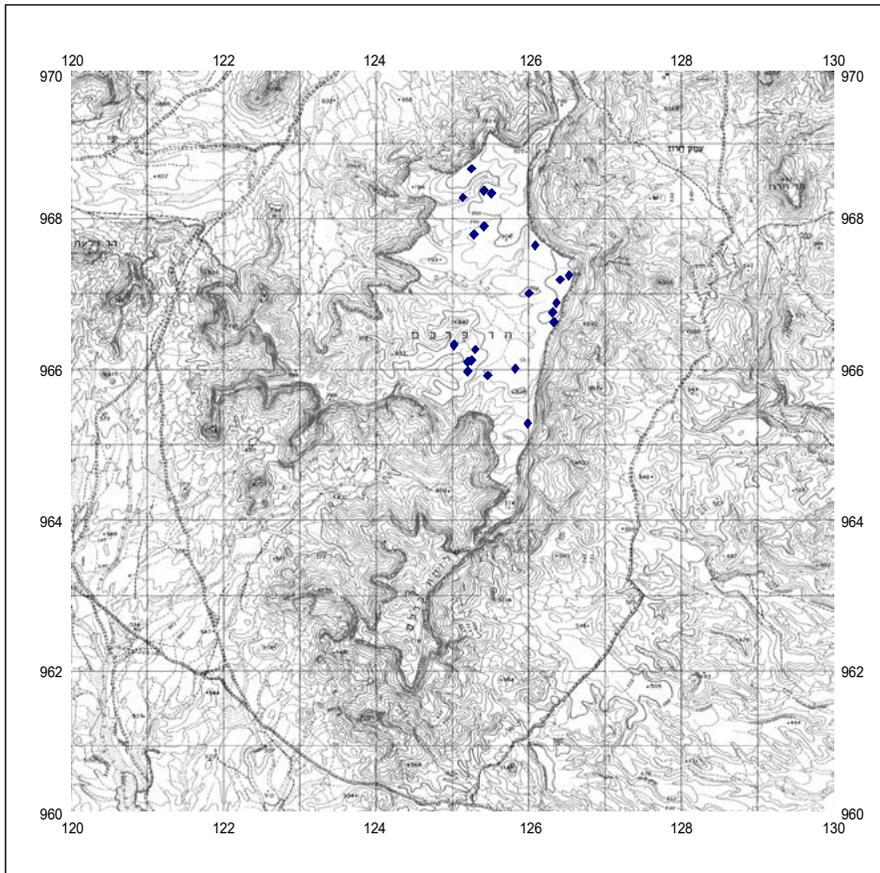


Fig. 17. Map of Karkomian campsites over the 100 Km² Map 229 of survey. Each dot represents a campsite where the Karkomian flint industry was found. The ceremonial site HK/86b is located on the very edge overlooking the Paran desert on East. The dwelling sites are scattered in an arch around the ceremonial site.

sites have in common the transitional characteristics of flint knapping, as well as, in some of them, clusters of “figurines”, small flint stones (about 10-20 cm length) with anthropo-zoomorphic shape, sometime roughly retouched to evidence some anatomical parts, including eyes, mouth, breast and pubic triangle, indicating a sort of proto-art, which implies the presence of conceptual ideas at a very early phase of the Upper Palaeolithic [Mailland F. 2007, Mailland I. 2009].

Both the ceremonial site and the campsites revealed the presence of the transitional Karkomian flint industry characterized by implements displaying features between Mousterian and Ahmarian (=Levantine Aurignacian). The Karkomians are tentatively dated back to 40,000 BP by analogy with the Levantine transitional Palaeolithic industry in sites dated by means of radiocarbon. However, no human skeletal remains were found in association with the Karkomian industry, thus the attribution to an early *H. sapiens sapiens* is speculative.

The Karkomian campsites present today include the remains of the hut floors where family units of few individuals were supposed to be sheltered. In many campsites, the remains of tool replacements and flint knapping areas are still evident. Refitting was often possible there. The findings are consistent with groups of 20-30 individuals: the scarce flint material is consistent with short-lasting stations. The Karkomian campsites with the aforementioned characteristics were found in three clusters of sites: one in the North, one in the South, while the last one is located in the Eastern part of the plateau, on a bow shape open on the East, and facing the small valley near the ravine edge.

Demography

Interpretation of nomadic camps from planimetric analysis of hut floor clusters

The sites inhabited by the Karkomian flint industry have a recurring type plan, consisting of small gabled floors with a large central hut. The fireplaces are lo-

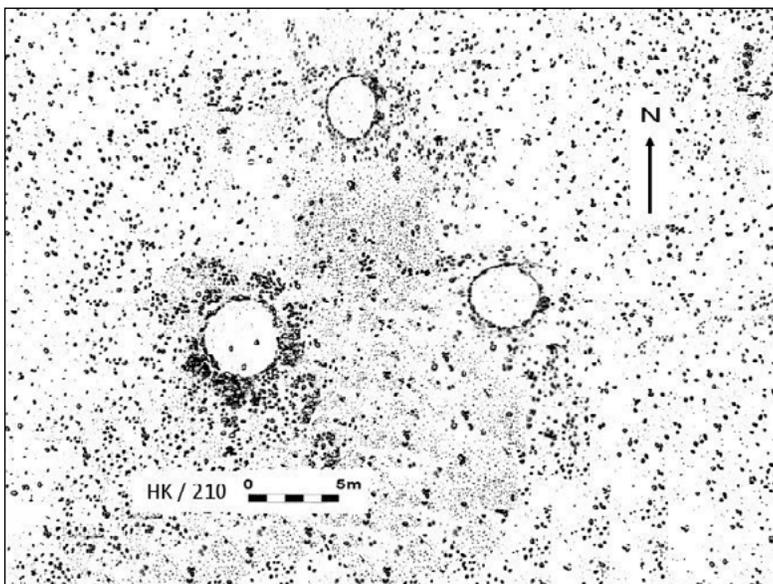
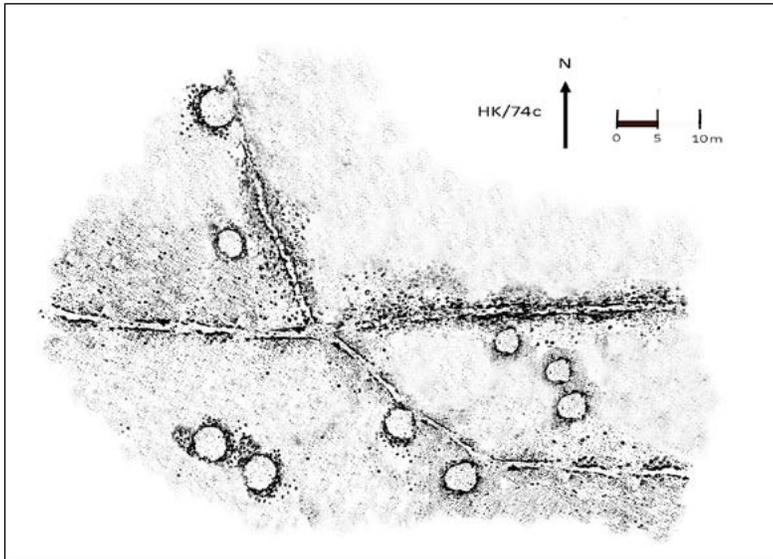
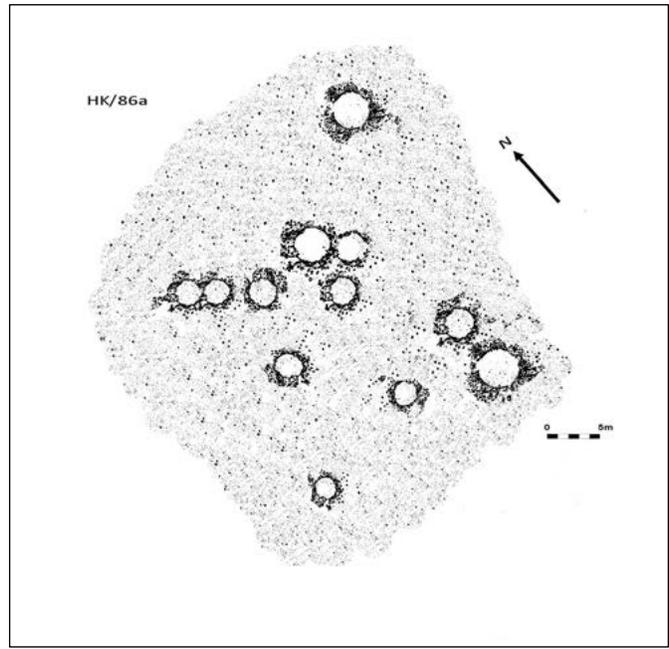
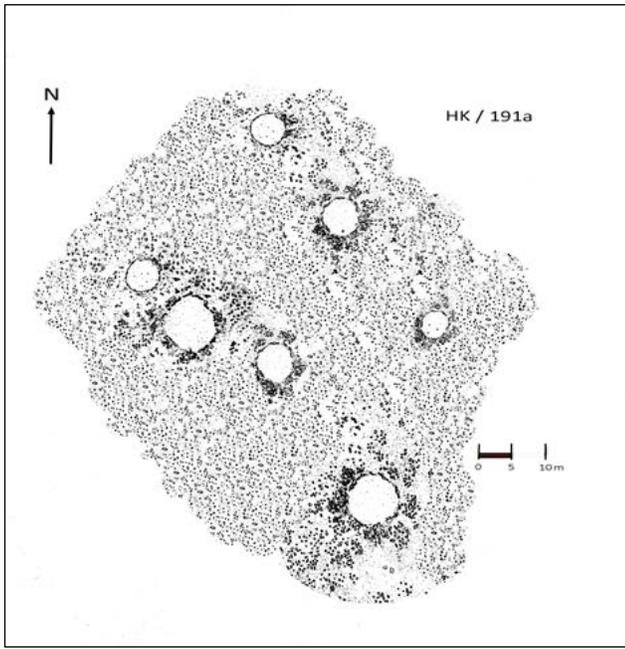


Fig. 18. (Left, up) Plan of site HK/191a. Two large huts (ø 8 m) are surrounded by five other smaller huts. The site is located in the centre of the hamada over the plateau and was rich in flint implements (displayed in Fig. 16).

Fig. 19. (Right, up) Plan of site HK/86a. Overall, 12 hut floors. The largest hut on south was probably the living site of the tribe. Karkomian flint implements were collected in the site.

Fig. 20. (Left, middle) Plan of site HK/74c. Nine hut floors remain over the flat hamada crossed by two paths.

Fig. 21. (Left, down) Plan of site HK/210. A collection of small flint figurines with natural shape was found in the site. Overall, 53 stones were collected.



Fig. 22. HK/210: collection of figurines with natural shape found in site HK/210.

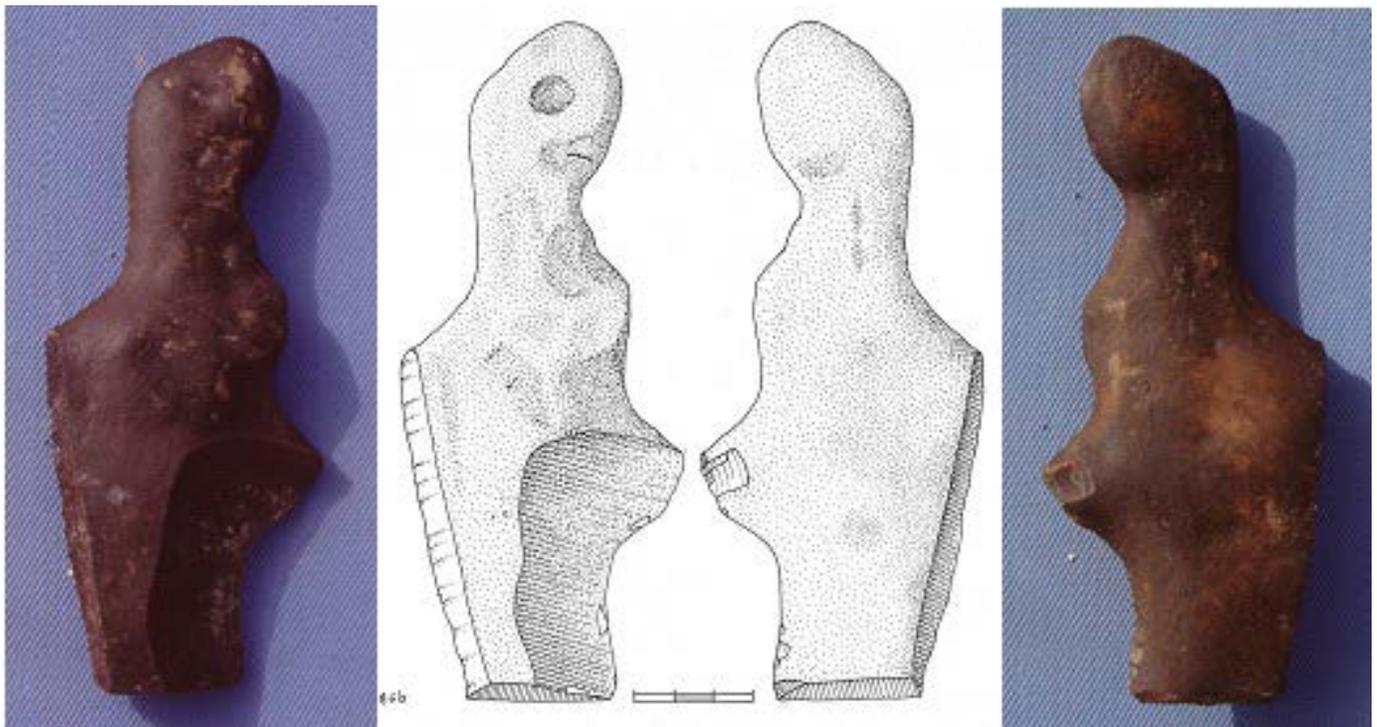


Fig. 23. HK/86b: tabular flint partially retouched to enhance the anthropomorphic shape.

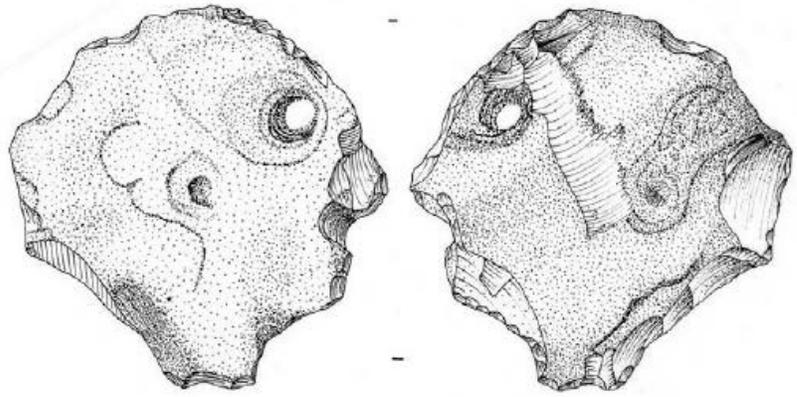


Fig. 24. HK/76b: tabular flint with anthropomorphic features, retouched by man to complete the shapes. The eye is a natural hole. The nose and mouth are shaped by chipping. Very dark patina.

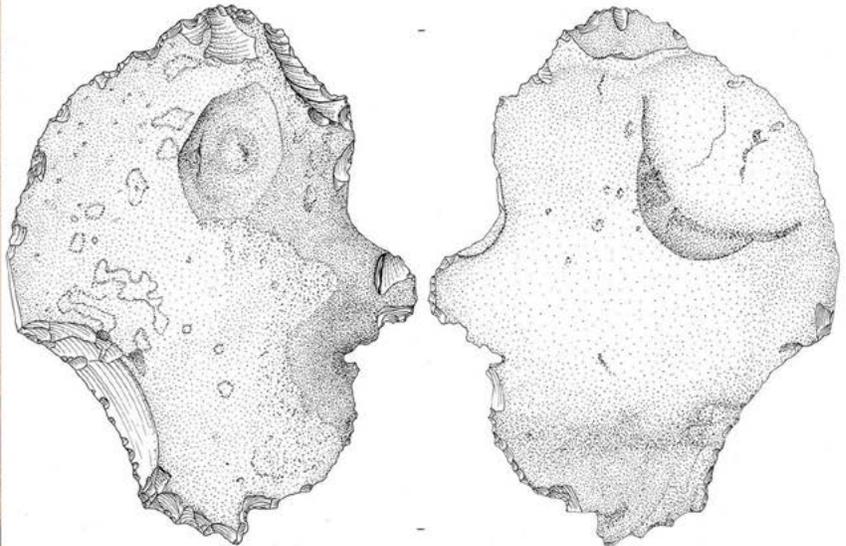


Fig. 25. HK/72b: large flake on flint cortex using natural shapes to make an anthropomorphic face. The eye is a natural heat chip. The retouching shapes especially the nose, forehead and neck.

cated outside the huts; smaller areas cleared of stones, with scattered flint cores, flakes and tools represent flint workshops. These plans (Figures 18-21) are the remains of campsites of human groups. The floor of the larger central hut could indicate a communal space, a male central hut, or the presence of a chief. Such sites are often close to each other, probably indicating the presence of inter-clan relationships. The Karkomian sanctuary, found in the centre of the area may have been the gathering place of this population.

Figurative Expression/Art: The Statuettes

The unique feature of the Karkomian culture was the production of figurines. Palaeolithic artists selected stones with particular shapes, retouching them to enhance their details. They took inspiration from the natural forms of nature and complemented them in their own way. The production mostly consisted of the creation of anthropomorphic or zoomorphic figures. The finds of such figurines from the ceremonial site HK/86b and surrounding habitation sites are displayed in Figures 22 to 25. Collections of figurines, with full

natural anthropo-zoomorphic shape, have been found in many Karkomian sites: in particular, over 50 such figurines have been found in site HK/210. An excerpt of such a trove is found in Figures 22 and 23. Natural forms stimulated the imagination of our predecessors, suggesting analogies with living beings (animals, men) commonly found in their environment.

In the same sites, small stone objects were found during the archaeological survey, which were chipped to enhance some anatomical particulars, which were suggested by the natural forms. These were made in particular on tabular flint with anthropomorphic features, retouched to complete the shape. Examples of such figurines are given in Figures 24 and 25.

This is considered as a sort of proto-art, where the art-

ist completed the figure suggested by the natural shape of the rock with a few touches to enhance details such as eyes, nose and other details of anthropomorphic faces.

To the same cultural horizon have been interpreted flint figurines delineating animals (a bird, a rhinoceros and the head of a horse) found in two sites in the valley to the east of the Karkom mountain (Figures 26-28). The context is that of a flint industry produced with a flaking technique defined as Levallois, which is typical of evolved phases of the Middle Palaeolithic and persists in this area, in the Karkomian culture at the beginning of the Upper Palaeolithic. The art objects were produced with this flaking technique. Tentatively, these objects are attributed to the Karkomian

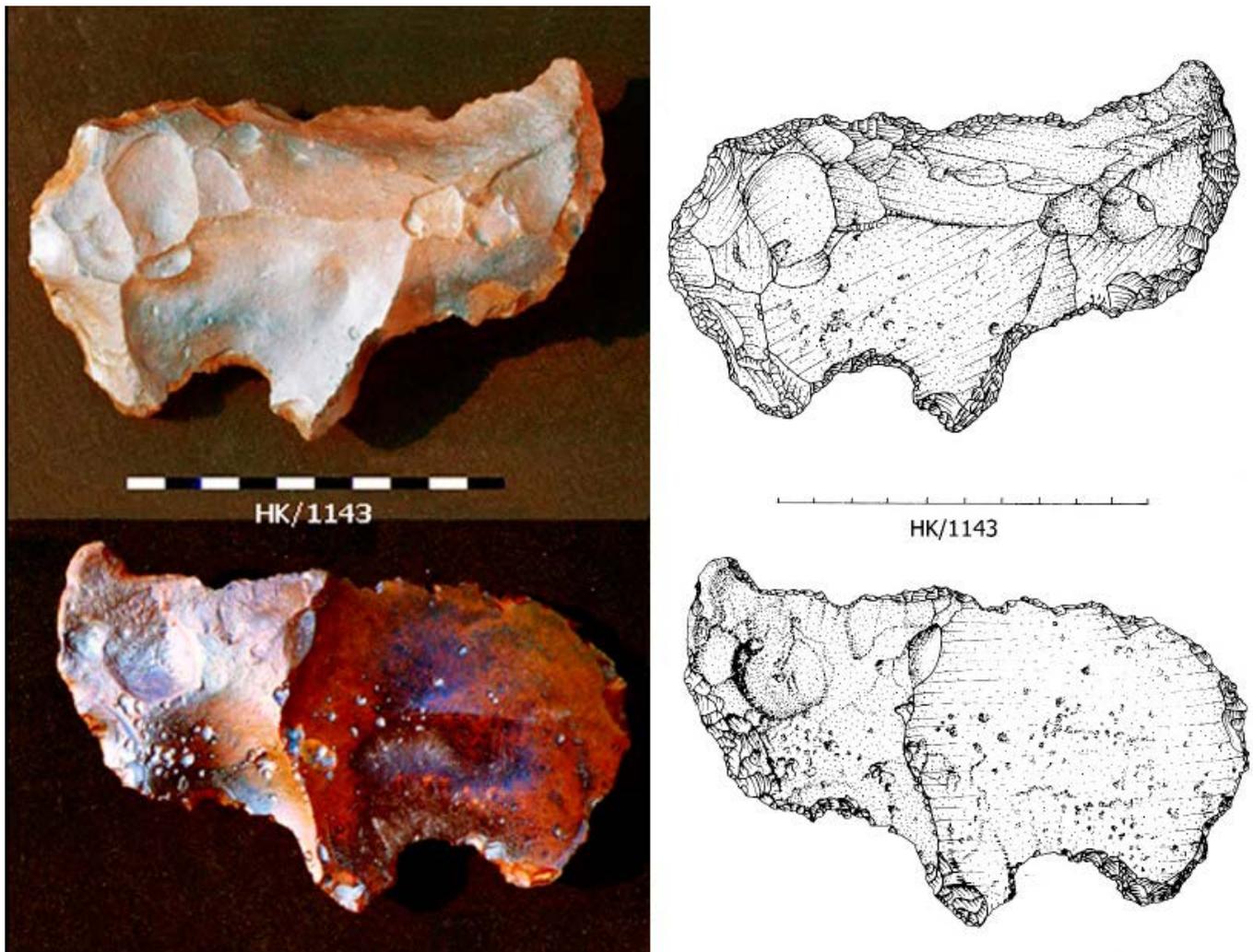


Fig. 26. HK/1143: figure of rhinoceros rendered on tabular flint by a Levallois flaking technique, typical of the Karkomian flint industry.

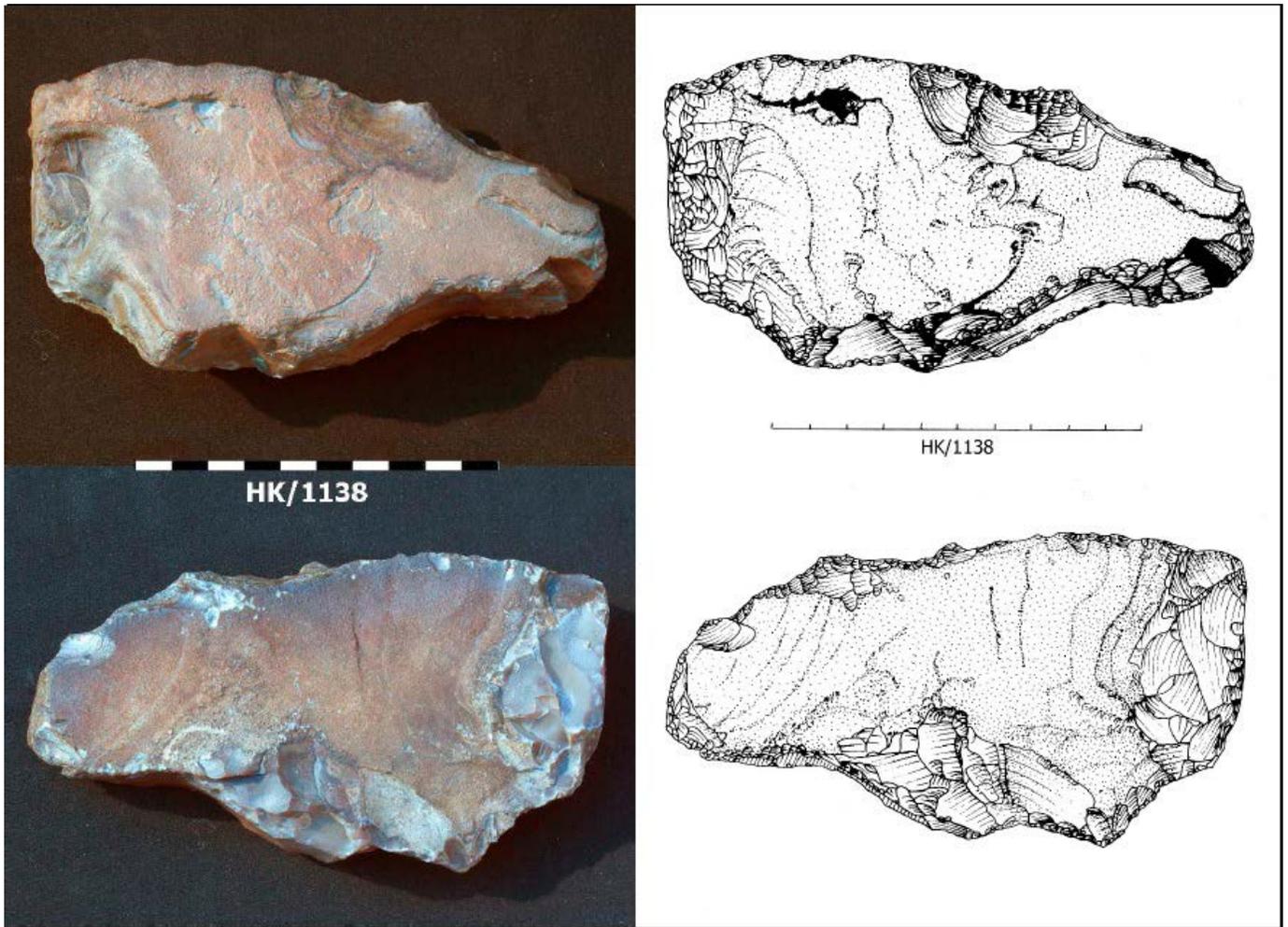


Fig. 27. HK/1138: Horse head rendered by chipping a tabular flint all over the perimeter on both sides. The eye is natural.

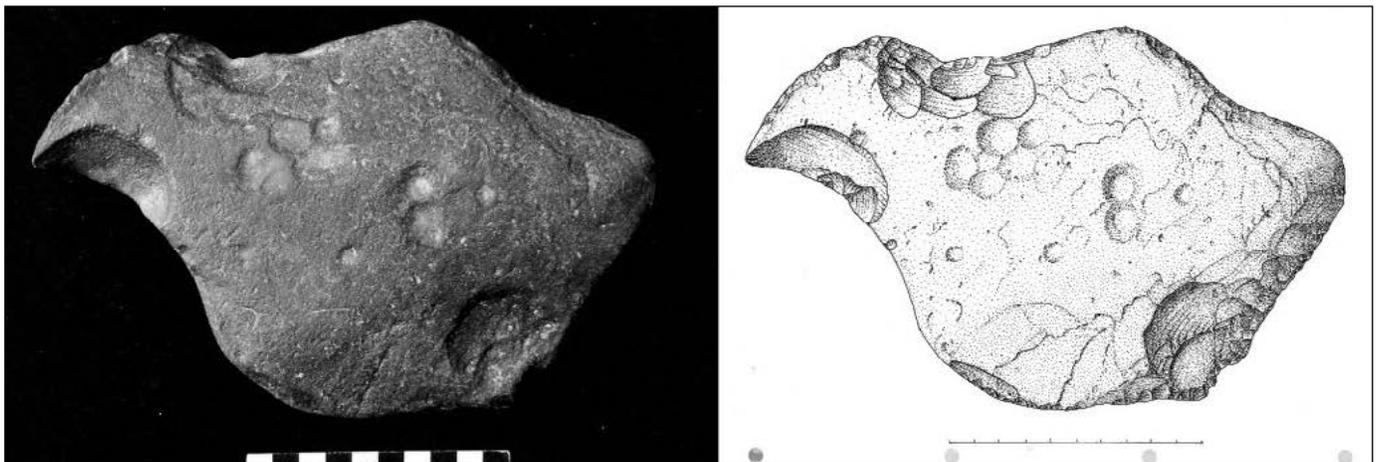


Fig. 28. HK/1101: “the bird”: tabular flint chipped during the early Upper Palaeolithic to enhance anatomical particulars, such as neck and nape.

culture. It is to be noted that both the rhinoceros and the wild horse disappeared from the local fauna of this area some 28,000 years ago.

It is to be noted that at the basis of the above production there was the same mental process well described even in the European late Palaeolithic parietal art of the Franco-Cantabrian area: there, the presence of a natural shape of the cave suggested a shape to the Palaeolithic artists, who took advantage of the natural forms to enhance some anatomical particulars.

At Har Karkom, it seems that we are at the beginning of the process, including 1) collection, 2) enhancing particulars, 3) production of complete shapes using the chipping technique. No matter of assuming connections between artistic manifestations that occurred in different prehistoric periods and thousands of kilometres apart: they can all be traced back to mental processes that are in the DNA of the *H. sapiens sapiens*, thus in our DNA as well.

The Geoglyphs

Ancient landscape drawings are present on the plateau of Har Karkom. Some of them in site HK/24c represent large mammals. According to paleontological studies, large mammals were living in the Syro-Palestinian area in the Upper Pleistocene. Four such full pebble drawings represent a rhinoceros, a boar and two elephants, animals extinct in the whole Syro-Palestinian area after 28,000 BP, which supports dating to the Palaeolithic period. Rhinoceros, elephant and boar were present on Mount Carmel (Israel) during the late Pleistocene. Bones of large mammals were also found in the late Pleistocene levels in Ksar'Aqil (Lebanon), Jebel Qafzeh (Israel) and Azraq (Jordan). Paleontological findings agree well with the paleoclimate studies, as a long lasting pluvial period characterized the Upper Pleistocene between 70,000 and 28,000 BP. Thereafter, large mammals became extinct, likely due to climate changes from humid to dry and to the consequent environmental changes, from grassland to desert.

HK/24c is a site in the middle of the plateau, where scatters of flint belonging to the Middle Palaeolithic or Early Upper Palaeolithic flint industries are found in a very flat, almost rectangular area (300 x 100m). Alignments of stones are the remains of ancient pebble drawings, which indicate the presence of figures.

Only the zenithal pictures, taken by means of a digital camera hanging from a balloon, allowed the study and the interpretation of those ancient figures.

Figure 29 represents a half face drawing of a rhinoceros, 31.7 m long and 12.2 m high. It is drawn as full figure, and is orientated with the head on south and the legs on west. The figure was made of limestone, taking advantage of natural limestone outcrops over the brown tabular flint layer. Characterized by a large body, and dorsal and ventral lines, the head is provided with a large lower horn and a small upper one above the animal's nose. The animal has short, thin legs, male sex and the outline of the right thigh is visible. A spear in the heart is also represented.

Figure 30 is a half face drawing of a boar, rendered as a contour, with the exception of the muzzle, represented as a full figure. This 11 m long geoglyph is orientated with the head on south and the legs on east. The figure has been partly disturbed and the boar interpretation may be disputed.

Those geoglyphs have been tentatively dated back to the Karkomian period, which would make them the oldest pebble drawings known worldwide thus far. Stone drawings on the flat plateau of the mountain may be thought of as further evidence of the expression of conceptual ideas and the capability for creating symbols of spirituality in remote periods.

Dating geoglyphs

The dating of geoglyphs has been attempted in the past using various techniques. The White Horse in the village of Uffington (Oxfordshire) has been dated by optically stimulated luminescence of feldspars and quartz present in the chalk and dating confirmed by archaeological finds. For Serpent Mound (Ohio), dating was based on ¹⁴C measurements of organic material included in the patina, reasonably formed after the geoglyph was drawn. All methods developed in attempts to date ancient geoglyphs have obvious limitations. Dating the patina of a stone can give an estimate of that stone's exposure to weathering, but does not necessarily give information about when the geoglyph was drawn. Even analysing patina from one place or another in the geoglyph can lead to very different results. The situation is further complicated by the fact that many geoglyphs, and in particular those created with the so-called extraction technique, need

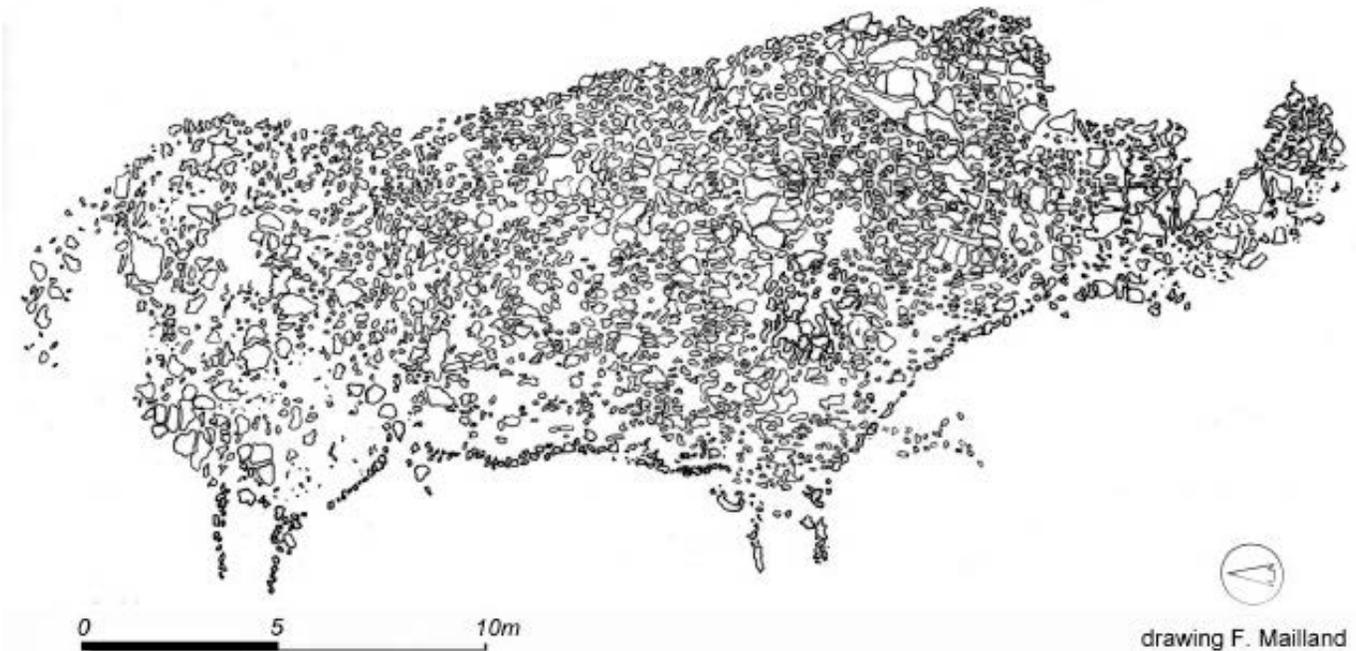


Fig. 29. HK/24c: geoglyph of rhinoceros (31,7 m long) rendered as half face, full figure by white limestone pebbles over the dark hamada.

to be refurbished from time to time. This is the case, for example, of Uffington Horse, which has been repaired and cleaned several times over at least the last two centuries. This may have affected the preservation of the geoglyph's original shape. In the Shrine of leopards (Uvda Valley, Israel), the geoglyphs were found in the context of a Neolithic site, but they have been

totally reconstructed and their current appearance would reflect the refurbishment more than the original state.

At Har Karkom, ancient organic material was not preserved in the stony desert environment and no analytical method is apparently applicable to the case, although the ancient dating of the drawings on the

30°17'48.02"N
34°44'45.21"E

drawing Federico Mailland, June 17th 2009

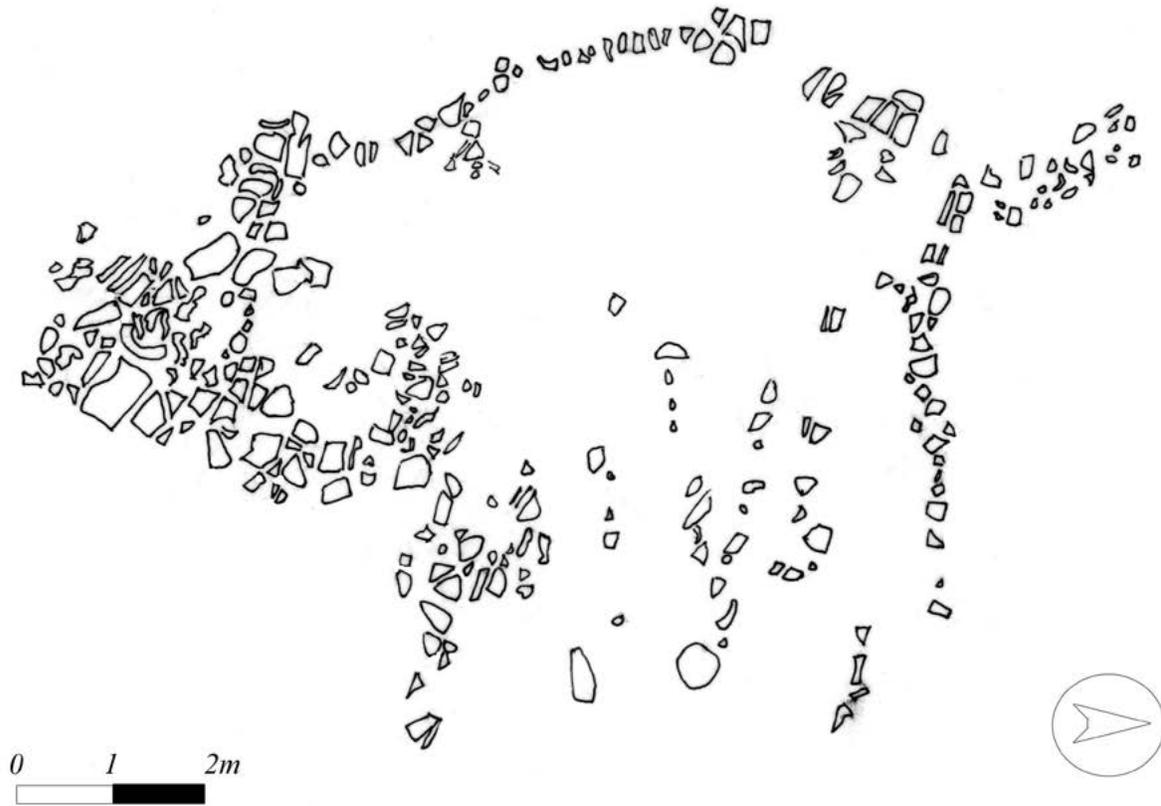


Fig. 30. HK/24c: geoglyph of a boar or warthog (11 m long) rendered as outline, with the muzzle represented as a full figure. The geoglyph was partially disturbed in ancient times.

pebbles is not in question. In this case, the particular environment has contributed to preserving the plateau's ground surface intact, and the geoglyphs of Har Karkom do not require refurbishment. They have been left intact and are presented as they were found. To date, a tentative approach has been used regarding the Har Karkom geoglyphs, based primarily on the figures depicted and secondarily on the drawing style and location.

The figures of large mammals drawn with pebbles on Har Karkom were probably made during the Palaeolithic era, when those animals lived in the area. Only small and medium-sized animals survived during the Holocene, including ibex, antelope, reptiles and ostriches, i.e. the animals depicted in Chalcolithic and

Bronze Age rock carvings. At that time, large mammals had already disappeared for many millennia. This implies that at least part of the geoglyphs date back to the Palaeolithic. The presence of Upper Palaeolithic sites in the same area could agree with a Palaeolithic dating of the drawings.

From a technical point of view there is no doubt that during the Palaeolithic man would have been able to create this type of drawings on stone. Since the beginning of the Upper Palaeolithic, man was able to create paintings, engravings and later sculptures. Other less durable art forms would have been common during the Upper Palaeolithic, such as earth or sand sculptures or landscape drawings. The latter art form would have required a flat surface and the availabil-

ity of non-biodegradable material – such as stones or pebbles – in large quantities. At Har Karkom the environment was perfect for landscape drawings and the preservation of geoglyphs over the millennia. As a result, remains dating back tens of thousands of years are still as evident on the brown soil today as they were for prehistoric humans.

The technique of completing natural forms has been used since the Palaeolithic in other art forms, such as cave paintings or rock carvings. According to a common vision, the artist completed the shape suggested by the natural geomorphology of the rock, adding paintings and tracings. Prehistoric artists would have seen the shapes in the natural outcrop of the limestone of the plateau and would have felt the need to complete the figures that nature suggested to their minds. At Har Karkom, the ability of humans to recognize zoological or anthropomorphic figures in individual stones and to complete their shapes by adding anatomical details was demonstrated by people who lived at the beginning of the Upper Palaeolithic, with a relative dating of as many as 40,000 years BP.

The representation of animal figures is also common in Palaeolithic art. This was interpreted first as a form of magic intended to ensure successful hunting and then as an indication of shamanic practices, totemism or animal worship. Stone drawings of animal shapes on the ground may have been a different art category with a similar meaning. The style of the drawing, with large bodies and short, thin legs, is also similar to that of Palaeolithic wall paintings. Disproportionality is a common feature of prehistoric art, especially Palaeolithic art, but should not be interpreted as a lack of skill or inability to make a naturalistic representation. Figurative art responds to canons in which the artist emphasizes some of the most important details of the form. Therefore, the large horns above the nose qualify the animal in fig. 29 as a rhinoceros, while the legs, common to all mammals and not qualifying, were depicted as thin and small.

Conclusion

The survey of Karkomian sites at Har Karkom gives us a vision of a 40,000 year old society: dwelling structures of family clans, religious-social centres, figurative art, groups of about twenty campsites on the same mountain: an exceptional vision of a Palaeolithic society.

To the first question: is the term *culture* appropriate for Karkomian? We are able to answer yes, it is appropriate. In fact, Karkomian was much more than a lithic industry of the early Upper Palaeolithic period. The human groups that produced the Karkomian industry were capable of associating concepts with shapes or, in other words, of inventing symbols. For sure, the ability to assign a symbol to a natural shape arrived well before the ability to reproduce the shape of an animal by a drawing or a painting. Moreover, the technique of completing natural shapes suggested by the natural geomorphology of the rocks was invented before the technique of painting whole animals, objects or scenes.

At Har Karkom we have no painting remains, but for sure the objects that the Karkomians collected, enhanced by chipping and reproduced on chert pebbles demonstrates the ability of that human group to manifest conceptual ideas. They produced a kind of art and had religious ideas, as it is witnessed by the creation of that impressive ceremonial site which is the sanctuary HK/86b.

To the further question: would it be possible to propose dating for Karkomian culture? We must consider that dating is not only based on radiocarbon. This culture is appropriately put in a transitional phase between Middle and Upper Palaeolithic periods, based on technical features. The mobiliary art and the geoglyphs with animal figures firmly state an *ante quem* term which strengthens the chronological placement of this culture.

Limitations of this work are as follows:

- 1) the absence of absolute dating. Due to the particular environmental conditions of the stone desert, no stratigraphic analysis has ever been feasible in the Har Karkom sites with a few exceptions, belonging to the Holocene. The dating of the Palaeolithic finds from Har Karkom was hypothesized by analogy of the flint knapping technique with other sites found in the Negev and in the Near East area, with robust stratigraphy and ¹⁴C dating;
- 2) the attribution of the remains of some other campsites to the same period as the ceremonial site on the basis of similarities in the flint knapping technique found at the site;
- 3) the attribution of mobiliary art to the same cultural horizon on the basis of findings in the same sites;

4) the attribution of some geoglyphs to the same culture, also based on the interpretation of the figures described and on the hypotheses of population/extinction of large mammals in the area during the late Pleistocene.

Acknowledgments

This research is the result of 30 years of teamwork by many people, some of whom unfortunately are no longer with us. My thanks go in particular to Emmanuel Anati, my teacher and guide over the field survey, to Luigi Cottinelli for the drawing of the ceremonial site and to my sister Ida Mailland for the drawings of lithics.

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PYTHEAS, STONEHENGE AND DELOS

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Introduction

This is the second of two papers about how knowledge of Stonehenge has been much improved following a reanalysis of what is known about the visit of Pytheas of Massalia (c.380-c.310 BC) to Stonehenge in the fourth century BC. In Volume 42, 50-64, of *Expression* there is an account of how this learned Greek explorer sailed the seas from the Mediterranean, reached England, landed in Kent and walked to the tin mines of Cornwall, the latter being a principal objective of his voyage. On his way he encountered Stonehenge (Fig. 1) which he recognized as a Temple to the Sun and because of his Greek origins used the sun-god name Apollo (Meaden 2023a). Be-

cause temples to divinities incorporate one or more idols in their inner sanctum, a principal purpose of this second paper is treating the question of relevant temple icons.

At Stonehenge one internal idol is a 2.6 m. high phallic stone that has, surprisingly, gone unrecognized through recent centuries because it lies unobtrusively fallen on the ground tightly between other stones. An important point raised in the present paper is that any axial view towards midwinter sunset is wholly impeded when allowance is made for putting this axial stone upright again. Worshipers, upon entering Stonehenge if following the principal axis, were walking towards the spiritual majesty of this tall male idol, and this was



Fig. 1. Winter sunset at Stonehenge photographed from the Heel Stone. Author's photograph.

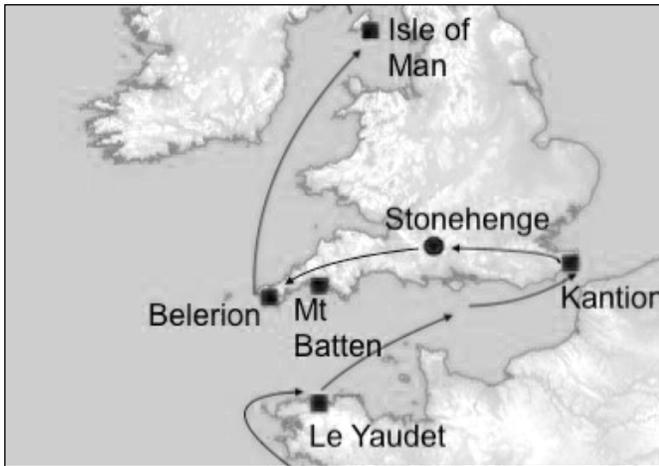


Fig. 2. The stages deduced for Pytheas's journey from Brittany to southern England, Stonehenge and the Cornish tin mines of Belerion.

even true on the day of the winter-solstice sunset because the setting sun, hidden in line beyond the icon, *could not* be seen.

Specific, too, is the reporting of a splendid phallic stone in one of the desecrated temples of Delos in the Aegean Sea, and lastly, discussion is renewed about the basis of the relevant pertinent myths of Apollo, Taranis and Abaris.

Pytheas' record of his travels

Upon returning home Pytheas wrote a book of his expedition *Peri tou Okeanou (On the Ocean)*, i.e., the northeast Atlantic. Fig. 2 summarizes the British part of his adventurous journey of discovery which additionally included the Isle of Lewis, Shetland, and the seas near Iceland and Denmark.

Regrettably, copies of his book no longer exist, but some 40 fragments have been located in the writings of several Greek and Roman historians regarding which scholarly analyses in modern times have been very fruitful (Roseman 1994; Cunliffe 2001; Scott 2022; Meaden 2023a and 2024).

Stonehenge continued in use until at least the fourth century BC

The following section about the Temple of Apollo in Pretannia (Britain) is preserved in Diodorus Siculus's *Bibliotheca Historica*, 2.47.2:

“ὕπαρχεινδὲ καὶ κατὰ τὴν νῆσον τέμενον ὅστε
 Ἀπόλλωνος μεγαλοπρεπὲς καὶ ναὸν ἄξιόν
 λογου ἀναθήμασι πολλοῖς κεκοσμημένον, σφαιροειδῆ
 τῷ σχήματι.

These sentences are not the exact words of Pytheas but were written by Diodorus who had read about the monument in a book by a contemporary of Pytheas, viz. Hecataeus from Abdera in Thrace. It is argued (Meaden 2023a, 53; 2024, 40) that a valid translation of what Pytheas meant in his original account is as follows,

“and there is also on the island [Pretannia] a magnificent sacred precinct of Apollo with a notable naos or inner sanctum which is adorned with many votive offerings and is spherical in shape.”

Re-analysis of relevant sections from Diodorus' *Historica* indicates that Pytheas had found that the temple was still in use and being run by descendants of the third-millennium-BC builder-priests. It is further recorded that the priests currently responsible for the sacred temple spoke an unrecognizable language, a tongue said to be “peculiar to them.” The likely explanation is that the language of the original priests had persisted as regards traditional sacrament and temple ritual from the time of the Late Neolithic builders, c. 2500 BC. In the words of Diodorus, 2.47.6,

“the supervisors of the sacred temple precinct are called Boreadae, because they are descendants of Boreas, and the succession to these positions is always kept in their family.”

The language of the fourth-century BC inhabitants of Iron Age Britain was P-Celtic, entirely different from that of the Neolithic builders and descendant priests. In choosing the word ναός, Pytheas, as the original author, would have known that the innermost part of Greek temples, the naos, is where the image of the recognized icon of the temple's deity, is safely located, with circumscribed availability for regular daily worship. It is the same for Hindu temples worldwide in which the holy of holies is called a *garbha griha*, serving as the abode for the Siva lingam and his consort's yoni. If Pytheas had been allowed entry to the *sanctus sanctorum* of Stonehenge, as maybe he was, he would have seen the venerated image that dominates

the interior space (the naos), namely a raised phallus standing up to 2.6 m high.

The carved phallus at Stonehenge is still present for all to see, so anyone there in the fourth century BC would have seen it too, and appropriately applied the word 'naos' as Pytheas did to describe this inner part of the temple. The stone is introduced with photographs below. Unfortunately, it now lies fallen, knocked over by the fall of lintel Stone 156 and upright Stone 55 from the Great Trilithon, 55-56-156.

A phallus on Delos

For centuries beginning 900 BC numerous cult temples to Apollo and some to Artemis and Dionysus were built on the tiny, 3.4 sq. km Greek island of Delos,



Fig. 3. Temple of Dionysus, Island of Delos. Photo by Zde. Wikimedia Commons. (Creative Commons Attribution-Share Alike 3.0 Unported license).

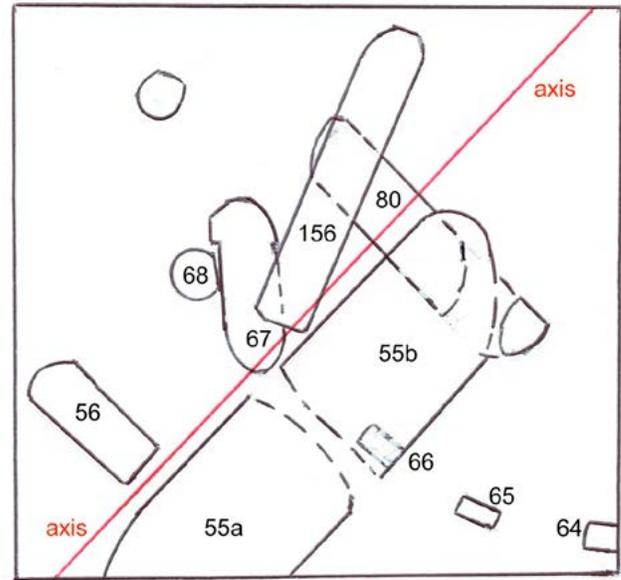


Fig. 4. Plan showing how the bluestone 67 lies between the upright Stone 68 and the fallen Stone 55. Lintel Stone 156 is partly above 67. Stone 80 is the split Altar Stone. After Cleal *et al.* (1995).

in the Aegean Sea. Deplorably, in 88 and 69 BC, all the temples and images suffered colossal desecration by the army of Mithridates from Pontus in northern Anatolia. Hundreds of cult statuettes and images were destroyed and lost forever. One survivor is a stone phallus (height to width ratio of 4) from a temple of Dionysus, re-erected as shown in Fig. 3.

The 2.6-m-high sacred phallus at Stonehenge

It is appropriate to remark that the workmanship of the phallic stone in the middle of Stonehenge, height to width ratio 3.25, is on a par with the temple icon from Delos, and that the date of the latter is contemporary with the later use of Stonehenge (cf. Meaden 2023a, 56-59 ; 2024, 42-43, 48-50).

The plan in Fig. 4 shows how the stones at the south-western end of the Stonehenge naos lie, following the fall of trilithon Stone 55 which brought down Stones 156, 66 and 67 and cracked the recumbent Altar Stone 80. One end of the phallic Stone 67 is turf-covered.

Stone 67, the male idol on the axis, is 0.8 m wide. The recumbent axial stone in the middle is the Altar Stone. Plan after E.H. Stone (1924, his plate 3).

The Stonehenge phallic stone, if restored to its orig-

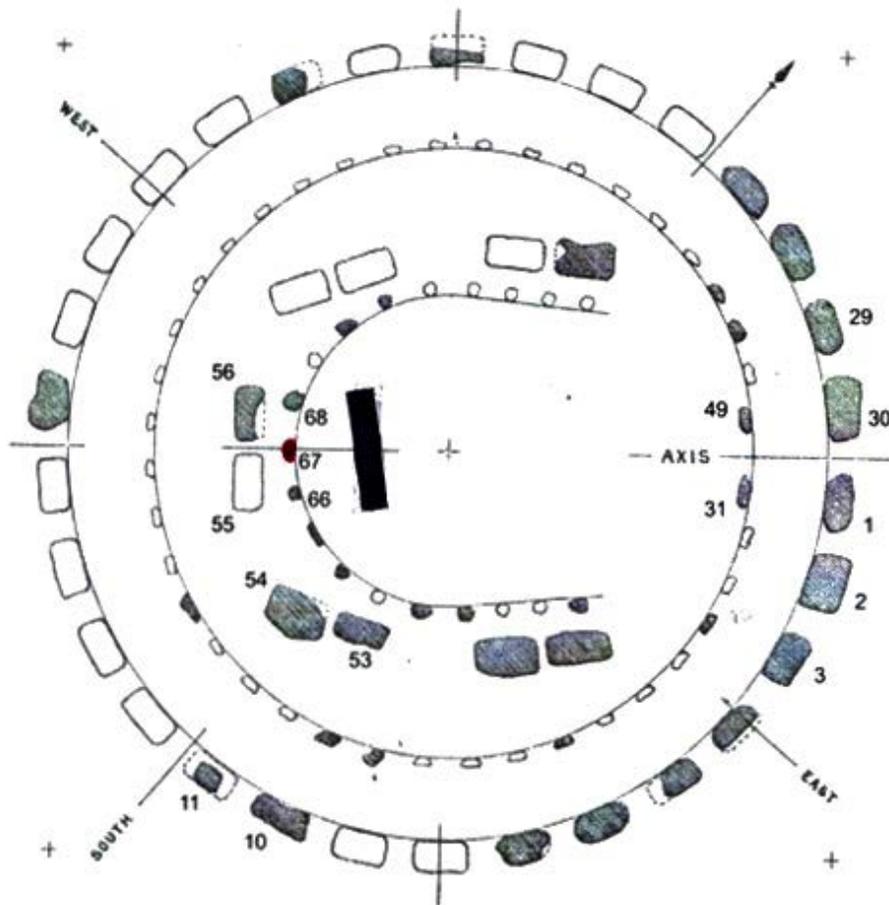


Fig. 5. Plan of Stonehenge, Temple of the Sun, in the Early Bronze Age.

inal standing location, would be on the axis behind the midpoint of the recumbent Altar Stone (see plan in Fig. 5). The sculpted stone is number 67, marked red in the plan. It is a spotted dolerite bluestone from South Wales. Fallen, it lies tightly between the upright Stone 68, the tumbled lintel Stone 156, and the broken prostrate Great Trilithon Stone 55.

Prime photographs of the phallic stone are provided in Figs. 3 and 4 of the first *Expression* paper (Meaden 2023a) and Figs. 5 and 6 of Meaden (2024).

Additional pictures from other angles are presented in this paper as Figs. 6 to 10.

The slightly longer phallic Stone 67 in the foreground at left is scarcely noticed by visitors. Author's photograph, 25 August 1990.

Stone 67 is one of the bluestones originating from the Preseli Hills of southwest Wales. In some earlier period of use at Stonehenge, prior to repositioning bluestones after the raising of the trilithons of the inner temple and the sarsen stone circle, Stone 67 with its ellipti-

cal-shaped cross-section had served in some earlier setting. This is known because it formerly had a tenon sculpted on top for the purpose of sharing the weight of a bluestone lintel with another upright bluestone. For its final position of use the tenon on Stone 67 had been abraded away but leaving a noticeable trace, and the glans then fashioned by reshaping the upper part of the stone. Until knocked down by the collapse of Stone 55 and fall of the lintel of the Great Trilithon in the first or second millennium AD, Stone 67 stood over 2.5 metres high, and served as a commanding male-symbolic cult stone, close behind a female-symbolic partner, the recumbent Altar Stone. Being in front of the Great Trilithon, it faced the rising sun at the summer solstice through the axial passage between sarsen stones 1 and 30 and bluestones 31 and 49 (cf., plan in Fig. 5). Its sculpted phallicism emphasizes the strength of the fertility aspect as part of a greater magisterial all-purpose male divinity, as with the religions of the Hindus, Buddhists, Jains and Indian tribal societies.

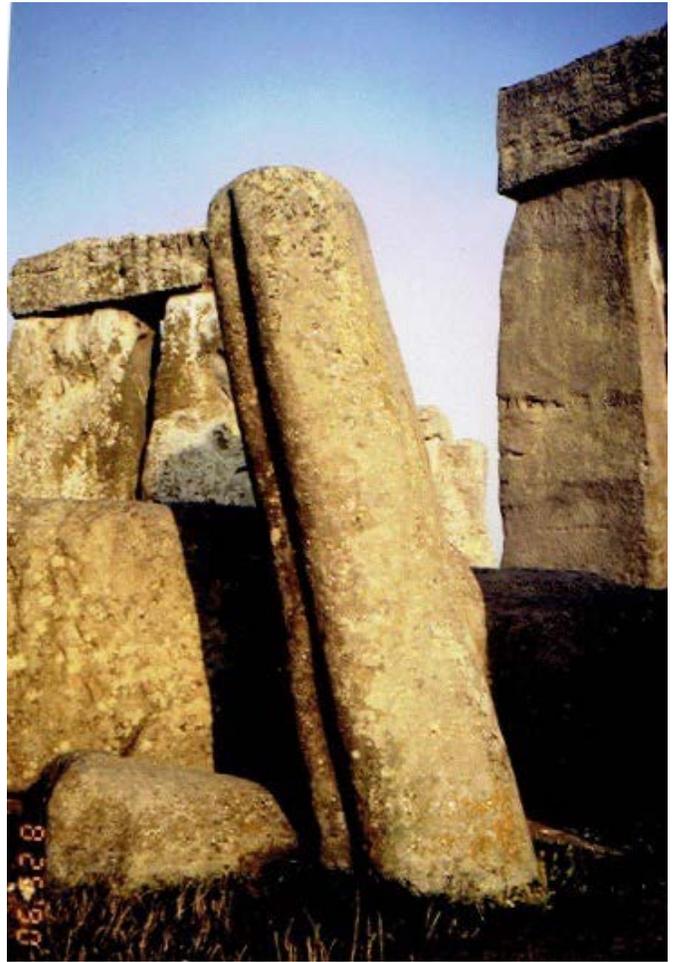


Fig. 6. Frontal view of the glans that tops the stone phallus at Stonehenge. Photo by L. Barnes for the author, 22 December 2023.

Fig. 7. Another view of the glans carved on the fallen Stone 67. It lies tightly between Stones 55, 156 and 68. Author's photograph, 14 June 2021.

Fig. 8. This prospect inside the inner sanctum shows the full 2.5 m. height of Stone 68.



Fig. 9. Stone 67 is hardly discernible because fallen, compared with the grandeur of Stone 68. There is possibly a weathered, pecked lozenge on trilithon Stone 56. Author's photograph. 12 October 2009.

The axial location of phallic Stone 67 blocks sight of the setting sun at the winter solstice

Several writers remark that, when visitors approach Stonehenge along its major axis but in the direction opposite to that of the summer-solstice sunrise, they are following the direction of the winter solstice sunset, and that this was another reason for the Stonehenge planning. Fig. 11 clarifies the point photographically.

Julian Richards (1991, 127-128) "The alternative [to looking *out* on 21 June at midsummer sunrise] is to look *into* Stonehenge on 21 December, either from the entrance or from the open side of the horseshoes, when the view is of

the midwinter sun setting between the two uprights of the great trilithon."

Clive Ruggles (1997, 219) similarly writes "It is possible that the significant association was the alignment of the Altar Stone in the direction of midwinter sunset."

Clive Ruggles (2023), "Someone progressing slowly up The Avenue prior to sunset around the time of winter solstice would have seen the Sun gradually descending towards the Stones ahead of them ... This suggests that the most important event took place when people were facing the south west ..."

Francis Pryor (2016, 101), "...the Great Trilithon ... was arranged to frame the midwinter solstice sunset." Again, Pryor (2016, 63), "the midwinter sunset ... was perhaps the prime viewing point for the Stones reached by following the line of the solstice."

British Museum (2018), "To coincide with the winter solstice [this year], English Heritage curator Heather Sebire tells us about how the Sun is celebrated at Stonehenge. ... [midsummer sunrise] ... This is repeated at the winter solstice when the sunset is visible through the centre of the stone circle when you stand with your back to the entrance and with the Avenue dropping away behind you."

Mike Parker Pearson (2023), "It has been known for a very long time that the great trilithon framed the midwinter solstice sunset since it is 180 degrees opposite to the midsummer sunrise."

Sarah Knapton (2023) reported, "Experts believe that during the Neolithic age, large numbers of people would have processed along a ceremonial pathway [at Stonehenge] on Salisbury Plain known as The Avenue on the winter solstice to watch the Sun slowly setting in the southwest."

Andrew Butler (2023), "Stonehenge channels the final rays of the setting solstice Sun through the giant sarsen trilithons, illuminating the Heel Stone, which stands roughly 250ft [80 m] from the centre of the circle."

Alas, such a scene takes place today only because Stone 67 has fallen. When it was upright, as it was for two and a half thousand years and more, the vista was more as shown in Fig. 12, in which a sight of the setting solstice sun is denied to the observer.

A replica of Stone 67, when set on the axis close to the recumbent Altar Stone, blocks any sight of the setting sun in winter-solstice week for observers on the axis in the northeast. The next photographs (Figs. 13 and 14)



Fig. 10. The interior sanctum, the naos, of Stonehenge. Stone 67 (shown black) is upright axially behind the recumbent Altar Stone and in front of the narrow gap of the Great Trilithon behind it. Soon after midsummer sunrise the shadow of the external Heel Stone reaches and unites with the Altar Stone, as indicated. Note how the iconic bluestone 67 blocks any view of the winter-solstice setting sun for observers approaching axially from the northeast.

further clarify this point.

Figs. 13 and 14 show the setting sun. A colleague stands just off axis facing the sun but if he moved one step to the left, he would block a sunset view for observers outside on the axis, exactly as Stone 67 used to block any such view before it fell. The gap width between the uprights of the Great Trilithon, Stones 55 and 56, was about 0.6 m. The shaft-width of the phallic stone is 0.8 m, and the glans about 0.9m.

The isolated external stone, the Heel Stone, was local sarsen sandstone. Its phallic role in the fertility religion of the Stonehenge people worked in combination with the recumbent 'Altar Stone'. The dimorphic pair get united by the phallic shadow of the Heel Stone only at sunrise in the week of the summer solstice. This is fully explained with sunrise photographs elsewhere (Meaden 1997; 2023a; 2024, 48-49).

Relevant Mythology

According to the traditions of Greek mythology, Delos was the birth place of Apollo. The legend is that Leto gave birth to the twins Apollo and Artemis, fathered by Zeus, and that as time passed Apollo came to be universally revered by the Greeks as the Sun God. As stated by Diodorus Siculus 2.47.2, the customary myth was that Leto was born on the island of Pretannia (in Latin, written Britannia). Some other commentators use the words 'born in Hyperborea'. Diodorus wrote, "and for that reason [at Stonehenge] Apollo is honored among them above all other gods; and the inhabitants are looked upon as priests of Apollo, after a manner."

There is another particular matter regarding the mythology of Apollo. It came to be believed that Apollo resided on the sacred island of Delos for nine months



Fig. 11. Sunset in the week of the winter solstice, December 2005. Author's photograph.



Fig. 12. Demonstration that when Stone 67 was upright, a view of sunset at the winter solstice was not observable from along the axis, as indicated in this experiment photographed from the external singleton, the Heel Stone. Author's photograph (14 June 1998).

of the year, and that the three months of winter were passed at a sacred temple of Apollo in the northern lands of the Hyperboreans. Identification of the latter temple with what Pytheas called the ‘magnificent’ temenos-temple of Stonehenge with its ‘notable’ naos has become even more likely since the connection was ascertained of Athenian and Delian priests, from about 1600 BC, bearing votive gifts including one or more expensive Mycenaean type daggers (Meaden 2023a, 59-60; 2024,99-101).

Long-distance interaction and visiting between Greek priests and Stonehenge

We know from various sources including Pytheas that Greeks (Athenians and Delians) bearing gifts arrived at Stonehenge at least once but probably several times anciently. This matter is discussed at length elsewhere. It concerns a votive offering of at least one splendid dagger of Mycenaean type, as recorded by a contemporary carving on Stone 53, and very plainly illustrated by the careful rubbing-work undertaken by Anati and Gomes (2014, 11, 29, 30).

Citing Diodorus Siculus, who repeated the comments of Pytheas via Hecatæus,

“2.47.4 The Hyperboreans [of the temple], we [are] informed, also have a language, which is peculiar to them, and are most friendly disposed towards the Greeks and especially towards the Athenians and the Delians, who have inherited this goodwill from most ancient times. *The myth* [meaning the tale] also relates that certain Greeks visited the Hyperboreans and left behind them there, costly votive offerings bearing inscriptions in Greek letters.

2.47.5 And in the same way Abaris, a Hyperborean [priest], came to Greece in ancient times and renewed the goodwill and kinship of his people to the Delians.

Bilić (2020: 585), using Hecatæus, writes of Stonehenge,

“Hecatæus further recounted that Leto was born on this island [Pretannia] and that Apollo was the most venerated deity there, describing his spherical temple and sacred precinct, as well as a city [polis] and its priesthood....”

Bilić continues,

“In another fragment [viz. Diodorus 2.47.2 and 2.47.3] Hecatæus emphasized that Apollo is revered by the Hyperboreans in their lands [viz., Pretannia] ... and he interpreted Apollo’s 19-year intervals between his visits of the island [Pretannia] in terms of the Metonic cycle (Diodorus 2.47.6).”

Some material facts

Note that the planning and construction of Late Neolithic Stonehenge [c.2550 BC and onward] precedes the beginnings of Bronze Age Mycenae, c.1600 BC, by nearly a thousand years.

Atkinson (1979, 92-93) wrote of British trade with Mediterranean people in the Bronze Age. “Moreover, among the grave-goods of the Wessex Culture [2550 to 1500 BC] there are several objects that provide clear evidence, to which no archaeologists have objected, for trade contacts between southern Britain and the Mycenaean and Minoan civilizations of the central Mediterranean.” For example, Atkinson (1979, 164), “among the most exotic of the objects found in Wessex graves ... are small ribbed beads of blue faience ... which clearly had sometimes been handed down as treasured heirlooms before their final burial.” Such beads are of Egyptian manufacture, hence demonstrating in some manner trade contacts as by merchant-venturers or inter-tribal exchange.

The Amesbury Archer, buried near Stonehenge in the Early Bronze Age, had lived in an Alpine region like the Swiss Alps when young, c.2300 BC.

That the Mycenaean Greeks had certainly heard of the far-distant solar temple of Stonehenge by about 1600 BC, if not before (Meaden 2023a, 60).

That Pytheas reached Britain and Stonehenge, and about 325 BC wrote his account of it and the Cornish tin mines (Meaden 2023a; 2024).

That Cornwall had been exporting tin to the Mediterranean lands long before this epoch, probably for many centuries.

Some mythological beliefs

That the Greeks, when fabricating their mythology about their sun god Apollo, chose to claim he was born on the island of Delos as the son of Zeus and Leto, and made out that his mother Leto was born in the land of the Hyperboreans.

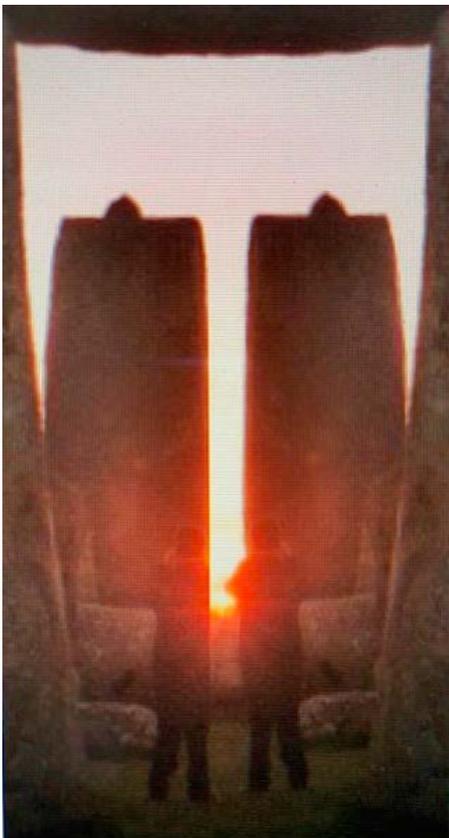
That if we follow Diodorus Siculus 2.47.2 to 2.47.6, by which the latter Hyperborean location becomes identifiable as Stonehenge, the proposal is that Greek mythologists decided this for Leto *because they were aware* through ancient factual-based legend, of such an appropriate temple site in the far north.

That Apollo passes most of the year on Delos, except during the three winter months when he is in Hy-



Fig. 13. A near-axial sunset on 15 December 2005, in the week of the winter solstice.

Fig. 14. The same image adapted in order to imitate the original gap of around 0.6 m between Stone 55 and Stone 56 when both were standing. Note that, if the Bluestone 67 was restored upright, it would block any sight of the setting sun in midwinter week.



perborea. The idea that this is Stonehenge developed because of its long-known grand reputation.

Hence, too, that Apollo supposedly makes an additional special visit to Stonehenge every 19 years (Diodorus Siculus, 2.47.6).

Pytheas heard tell of a holy man Abaris (2.47.5), named as a British Hyperborean and hence by implication coming from Stonehenge, who had apparently travelled to the island of Delos and its cult temples where he “renewed the goodwill and kinship of his people to the Delians.” Abaris is a somewhat familiar figure in various contexts in Greek mythological tales. If we recall that there was no writing of the Greek language before about 700 BC, and that Pytheas assigns the story that he apparently heard when at Stonehenge to “ancient times”, the suggestion can be considered that mentions of Abaris in then-prevalent myths really did begin with a visit to Delos by a Stonehenge

dignitary several centuries earlier. If so, Abaris is the earliest Briton (probably Bronze Age pre-1100 BC to accord with the pre-Dorian era of Mycenae) for whom a personal name has ever been cited, hence possibly a Stonehenge notability.

Classical scholar Walter Burkert (1985, 143-149) discusses what is known of Apollo mythology and seeks time scales for Apollo's divinity recognition. There were two supra-regional Apollo centers in Greece and the Aegean islands: Delphi and Delos with dedicated sanctuaries. The cult of Apollo, diffused by Greek colonization and emigration, was omnipresent by the time that Greek language came to be written around 700 BC. Before the Dorian dark age of occupation and destruction (c.1100-700 BC), the Greek-influenced Linear B of Mycenae-Crete had replaced Linear A. Burkert (1985, 144) reports there is no clear evidence for Apollo in known Linear B. Hence, the start of Apollo "as name, cult and myth remain unclear." The same applies to Apollo's twin sister Artemis.

Joint idols

Stone 67 and the adjacent Altar Stone would have served together as paired male-female idols. The principle is not dissimilar from the traditional imagery of coupled Hindu icons of Siva and his consort in the *garbha griha* or naos of hundreds of thousands of Hindu, Buddhist and Jain temples of many millennia. As a result, devout pilgrims and priests at Stonehenge could worship and perform ritual in the presence of their sanctuary's icons at any time, day or night on any day of the year. The inherent symbolism is generative power, supposedly more greatly enhanced by the male-female divine pairing. In fact, the Altar Stone served twice in dimorphic symbolism. The other was the annual event at sunrise in midsummer week when the Altar Stone was enjoined by the phallic shadow of the Heel Stone (Meaden 1997; 2023a, 56-58).

Conclusions

The earliest written record of a visit to Stonehenge by anyone, British or non-British, is that of a responsible learned Greek from Massalia, a Greek colony on the Mediterranean coast of France. His name is Pytheas. He knew at once what he was looking at. In his own words, the monument was a 'magnificent temple to Apollo'. As a fourth-century-BC Greek, it was natu-

ral for him to employ the sun-god name with which he was familiar. The famous monument was already ancient, indeed over 2000 years old when Pytheas arrived. Its grandiosity and fame arose from the extravagant design of the sarsen phase whose reputation reached the attention of the much later Mycenaean priests and who, about the seventeenth century BC, chose to visit Stonehenge. Pytheas, as a curious well-educated visitor, likely heard tell of these occasions of goodwill and friendship between Stonehenge priests and visiting priests from Delos and Athens (as recorded by Diodorus Siculus, 2.47.4 and 2.47.5). The carving of a Mycenaean-type dagger at Stonehenge probably marked the occasion of a beneficent pilgrimage by Mycenaean priests about 1600 BC, which meeting was mentioned in Pytheas' book c.325 BC (Meaden 2023a, 59-60; 2024, 99-101).

The name of the British prehistoric solar god is not recorded in any surviving passages of Pytheas' volume. Suggestions have been made that Taran, Taranis or similar (Meaden 2004; 2024, 58-59) may be the answer, and, if so, the consort divinity would be Tara. When Pytheas was in Iron Age Gaul and England he encountered Brythonic speaking P-Celts. The Gauls had a Sky God called Taranis, noted for his epiphany as a powerful Storm God or Thunder God (Miranda Green 1986, 39-71).

"The most interesting thing to emerge from a study of these monuments [viz., those connected with sky-worship] is the breadth of function of the Celtic solar-sky god who appears to embrace not only sun and sky, but war, fertility and death as well" (Green 1985, 55).

She further writes (Green, p. 66), "Archaeological evidence for the cult of Taranis or Taranus is sparse but widespread. The root 'Taran' means 'thunder' in modern Welsh or Breton." Taranis in Celtic times showed prowess as a thunder-god of the lightning storm, and was perhaps a major divinity as implied by Lucan, a Roman poet of the early second century AD. The Celtic Taranis may have had a distant origin as a Neolithic or Bronze Age, fertile, celestial sun-god/sky-god as Taran, as mooted above (Meaden 2004; 2023a). The divine Taran-Tara duality may be the archaic origin of the British countrymen's 'magic' clarion hunting cry, "Taran-tara!"

Lastly, because it is now known that a major feature of the inner sanctum of Stonehenge is a stone phallus that stood just over 2.5 m high axially behind the Altar Stone, not only did it visibly dominate this sacred space but it raised the summer-solstice axis of the monument to an even higher level of relevance, and this to the detriment of the winter-solstice sunset due to sightline blockage. As for Delos, the one stone phallus surviving in the wreckage of the destroyed Delian temples is as impressive as the one at Stonehenge—if only the Stonehenge one was put back in position.

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“UNDER THE RAINBOW”; INVESTIGATIONS OF RAINBOW IMAGERY ASSOCIATED WITH WESTERN APACHE AND NAVAJO CREATION STORIES

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Introduction

The emergence stories are important to all Native people. They serve as a doctrine of faith that separates one culture group from another. All of the Southern Athabaskan Linguistic groups are subdivided into western and eastern Apachean groups. They share similar emergence stories and cultural heroes. The following chart illustrates the linguistic relationship between the Western Apache and the Navajo, who separated not too long ago.

Western Apache and Navajo Separation

Anthropologists and linguists do not know where and exactly when the Apachean groups separated into the present-day tribes located in the southwest, (Hoijer 1971). Archaeologists are slow to realize that the Southwestern Apachean groups migrated through Utah during the ‘Fremont era’ (AD 400-1100), (Haskel 1987). As to who Fremont were, has been an enigma for 40 years. There were several groups of Fremont, wearing several different styles of moccasins and making distinctly different styles of gray ware

pottery throughout Utah, (Ives 2001). They lived in large villages of pit houses and built small towers on pinnacles for refuge from enemy raiders. They used dry-laid masonry and stored grain reserves high in cliff ledges in ‘top loading’ granaries. All that differs from Puebloan architectural features. The Fremont were hunters and gatherers and farmers of corn, but practiced raiding and warfare to supplement their economy, (Eiselt 2012, Seymour 2012). Specifically, they raided their contemporary Pueblo II-III neighbors to the south for women, to strengthen their groups and exploit their skills in pottery making and corn growing. Ethnographic documentation bears this out. This strategy benefited Apachean groups through the devastating droughts (AD 1125—1250) and raids from Uto/Aztec groups arriving in the region, (Kitchell, 2023).

As a result, Mitochondria DNA from human remains at Fremont sites leads archaeologists to believe their ethnic identity were Pueblo people who *migrated* north, but in reality, they were female captives brought against their own choosing. Pueblo women added corn agriculture, pottery making and weaving, to the material culture, (Kitchel 2023). The Apachean iconography carved and painted on the cliff walls around every site stand as testament that the language, culture, religion, and ceremonial life was Apachean. It is hoped that this discussion will spawn further research into the ethnohistory and cultural indicators of living traditions that may be represented in the prehistoric art of the Fremont sites.

As the Apachean people traveled through Utah they gradually separated into western and eastern groups. The western Apache migrated south down through Arizona while the Navajo migrated through eastern Utah and southern Colorado into northern New Mexico, flourishing in the Chuska Valley into what we know now as the Navajo Nation today with their adaptation to Spanish colonial clothing and silver jewelry making, Hopi weaving techniques, and a pas-



Chart 1. Linguistic flow chart of the southwestern branch of the Southern Athabaskan Groups. (Redrawn From Wikipedia)

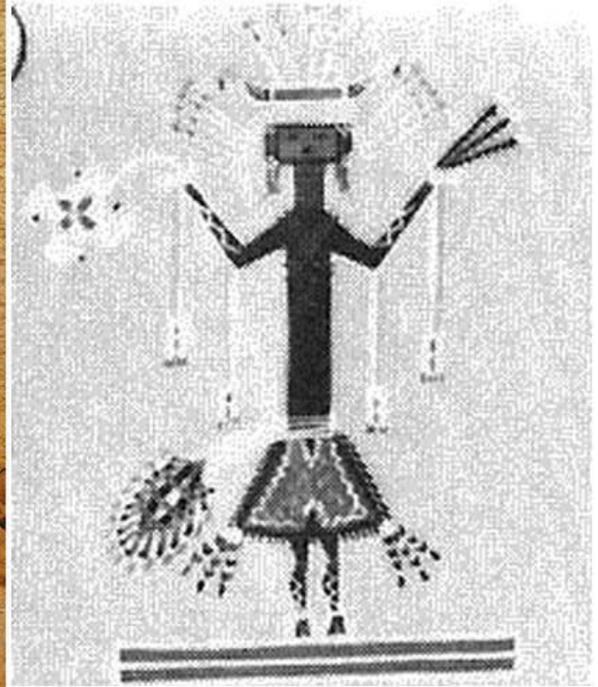


Fig. 1. Panel in Shavano-west, is a dark figure with a white face, holding a rainbow. It has a crown of blue tipped feathers and from the arms hang white feathers with blue tips. The body is black charcoal with blue feet or 'lightning' coming out of them. Compared with the Ye'i figure depicted in the Mountain Way ceremony. Titled 'People of the Myth' (from Newcomb, 1929). They are white masked faces; tall feather headdresses standing on a short rainbow. The Ye'i figures in the Mountain-way sand paintings have square heads with black and yellow as male colors and blue and white as female in some designs. In other paintings black and blue are male, while white and yellow are female." The whole sand painting (not pictured) is encircled by a rainbow guardian. (Wyman 1975, 120).

toral lifestyle that has replaced raiding and warfare. Hosteen Klah, a famous Navajo Medicine man mentions the separation of the Apaches from the Navajos, centuries ago. Franc Newcome writes;

"He told me about the Apache medicine man and the Fire Ceremony, stressing the fact that the Navahos do not have as barbaric ceremonies as the Apaches. He said it was the kind of thing the Navahos had got away from when they separated from the Apaches to form a more peaceful nation. They divided their ceremonies, the Apaches taking the Sun dance, the Boy's Initiation Ceremonies, the Scalp Dance, the Wind Chant, the War Dance and the Devil dance.

The Navaho kept their own version of some of these but practiced no bloodletting or self-torcher. The early Navahos seemed to be in closer touch with the culture of the

Puebloans than had the Apaches and had adopted more of the Pueblo religion, which included the elaborate and beautiful Peace Chants for Healing and for blessing while the Apaches clung to their more primitive rites." (Newcomb 1964, 100)

The Rainbow

The rainbow is an essential element in the Apachean creation stories, as a guardian for healing and protection for the people whenever supernatural enemy monsters threaten them. Rainbow is sentient, with a personal name and a gender in many of the chant ways of the Navajo. 'Rainbow Guardian' is present in healing sandpaintings surrounding the entire composition. Depictions of rainbows in prehistoric art are



Fig. 2. Ferron Box, Utah. The two-panel narrative begins on the right with a large group of individuals that vary in size, clothing, and headdress. The lower group resembles family members traveling along the bottom and large white or red-colored deities of various characteristics hovering above them. On the left-hand side is the iconic rainbow with red and white stripes surrounding large figures with headdresses and red and white war jackets like those of the Western Apache. (Photo by Stan Burman).

uncommon in western Colorado and Northern New Mexico, but many appear at sites in eastern Utah. The following discussions of rainbows as protective agents follow the Navajo tradition of religious sand painting. A formal study of Navajo prehistoric art began in 1959 as part of the Navajo Reservoir Project. Polly Schaafsma's studies of these paintings led to her to conclude: "The function of the Navajo petroglyphs and pictographs is that of ceremony. They are not simple depictions of Holy People, objects and events, but instead have a deeper theological meaning not yet understood. For that reason, we avoid further use of the term "rock art." (Schaafsma in Copeland and Rogers 1996). In a side canyon off the Shavano Valley, near Montrose, Colorado is a pictograph of a dark figure with a white face and a crown of feathers holding a rainbow.

A Navajo colleague recognized this figure in the painting as representing the Mountain Way ceremony (Emeline White pc.2013). A local resident believes this panel was authored by Navajo shepherders who wintered the sheep from a nearby ranch in this valley during the early 1900s (Alma Evans pc.2020) (fig. 1). The Mountain Way Chants include extensive narratives about the escape of Navajo captives of the Utes who were active in the slave trade during the late 1600s into the 1800s when the slave trade was finally outlawed. There are five myths in the Mountain Way ceremony that tell of the adventures and miraculous escapes of the Navajo captives.

"After escaping or evading the Utes, the Navajos had to purify themselves and embark on a journey visiting various

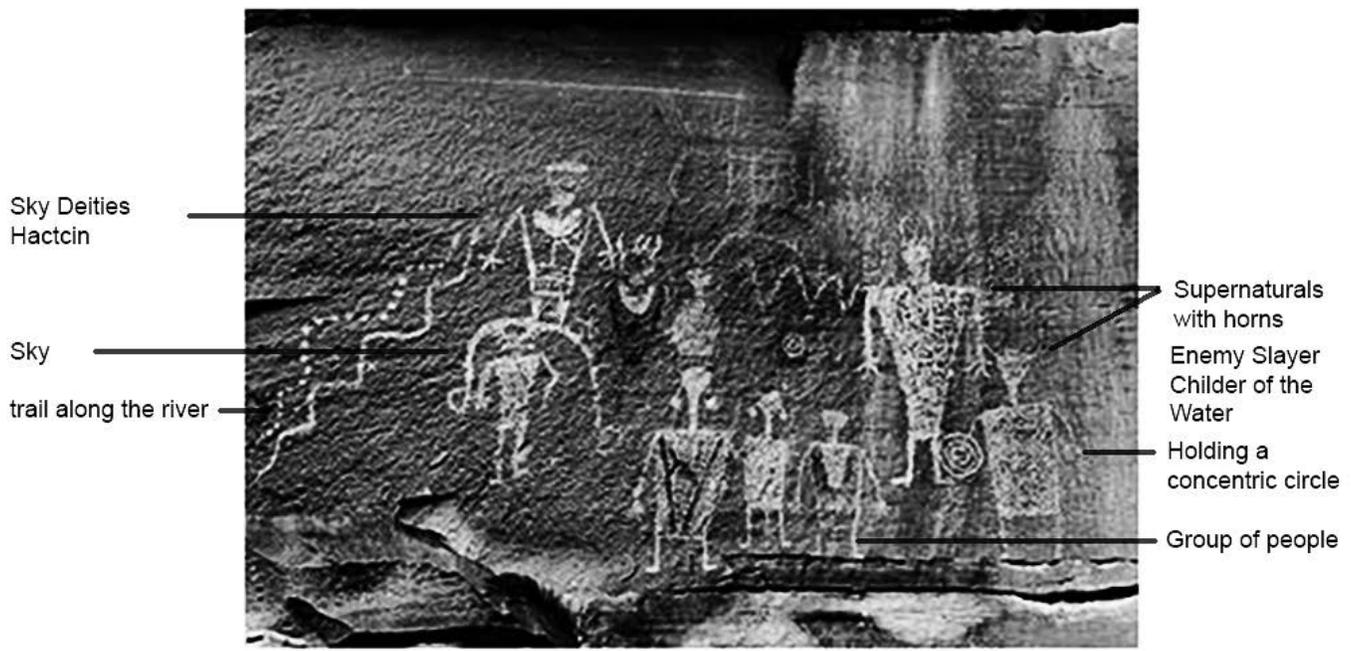


Fig. 3. Right side panel close up of an assemblage of various people. The lower group appears to be a family unit, coming forward. Above them are various supernaturals. To the left are deities wearing the broad shell necklaces associated with the Hactcin (Mountain Spirits) of the Western Apache. In the center is the arc of the sky sheltering a figure with a feathered headdress. On the right are two whitish figures wearing horns. The upper one has vertical horns that identifies Enemy Slayer. The lower one has broad arched horns holding a concentric circle, which identifies Child-of-the-Water. This panel seems to portray the protection by the culture heroes, positioned above the common people.

supernaturals who demonstrated ceremonial procedures and ceremonial protocol. This may be the explanation for the locations of these paintings. Before the returning hero was allowed to enter his family's hogan he was shampooed and bathed to remove all the alien substances and influence acquired during his captivity. Thus purified, he was received by his people," (Wyman 1975,145-148).

This painting may have been one of several Mountain Way paintings located in a vast area of Navajo ancestral territory, as part of a pilgrimage route along ancestral sites. The narrative geography of the Mountain Way ceremony of the Ute captives begins in the Southern Ute country of southwestern Colorado. The action in the Captive myths takes place in the Four Corners region while other adventures take place in the country immediately to the north and south of the San Juan River in Colorado and New Mexico (Wyman 1975, 157). Hosteen Klah describes the Mountain Way ceremony geography in the area south and east of this location because it is historic.

Another example of a protective rainbow can be seen in the pictograph panel located in Eastern Utah, near the town of Ferron. The following interpretation is with the Western Apache names from their culture heroes. The dominant figure in the center of the painting is wearing the distinctive Western Apache 'war jacket' and flicker feather headdress as discussed in Patterson (2022b) (fig. 2).

In the middle of the two panels is a zigzag line parallel by dots representing footprints that may refer to the migration of people "traveling along the river course" that is nearby. The panel on the left depicts the culture heroes of the Apache much larger with more detail. They are identified by the unique flicker-feathered headdress worn by Enemy Slayer and concentric circles associated with Child-of-the-Water (Patterson 2022b).

Enemy Slayer is shown in the center of this panel. He is identified as a Western Apache Culture Hero by his flicker-feather headdress and V-shape frontal jacket.

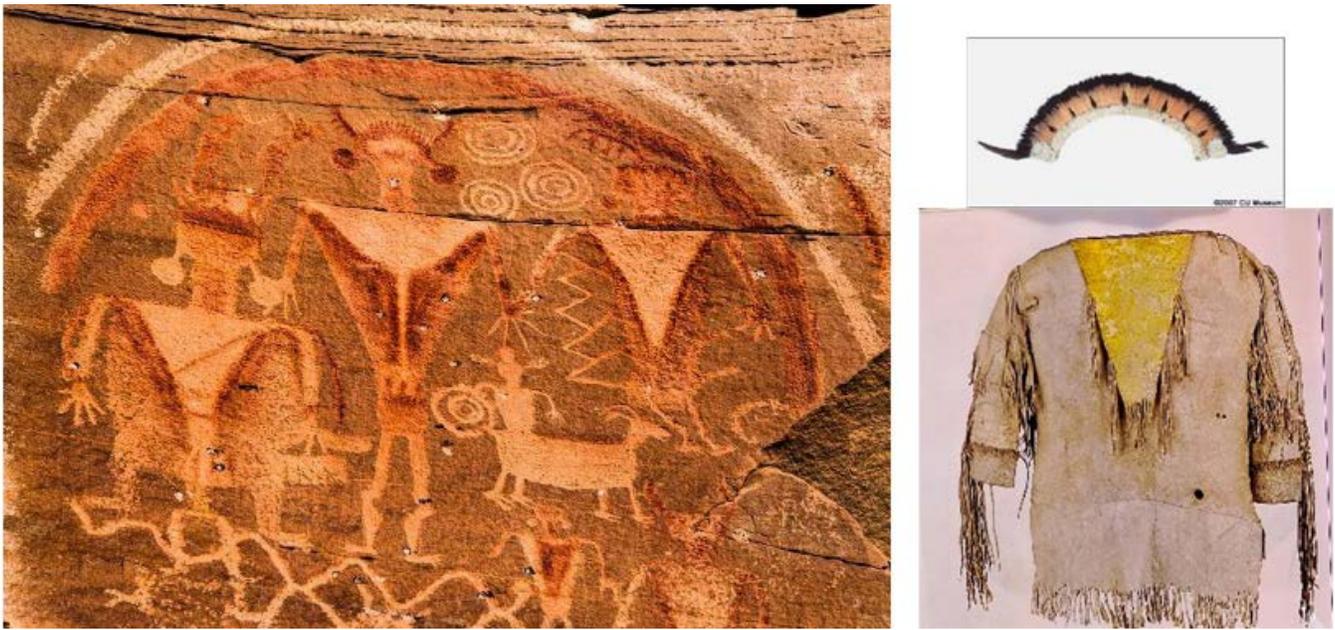


Fig. 4. Close up of the left side panel. A), Pictograph of the three large figures with distinctive body clothing and headdresses. B), flicker Feathered headdress found in Manel Cave, Uintah Basin (Patterson 2022b). C) Western Apache shirt with V-shape chest flap (Begay-Foss 2017).

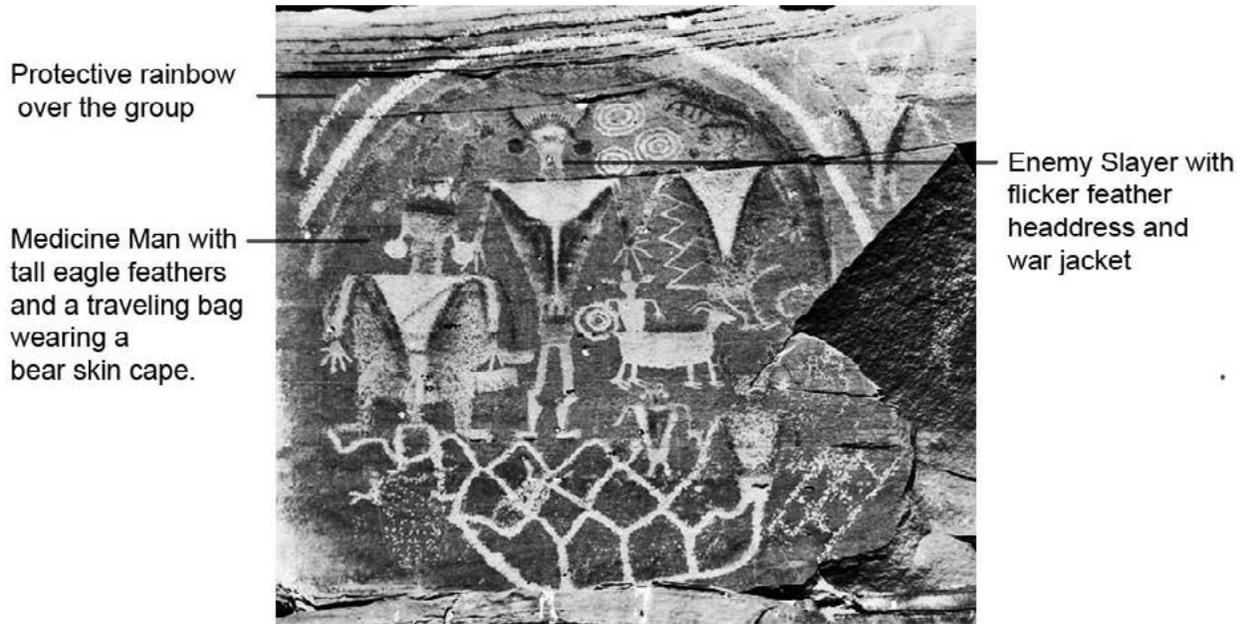


Fig. 5. The first figure, appears to be wearing a fur cape of a bear skin, an animal associated with medicine work. He may be a medicine man, empowered by the bear who is knowledgeable about medicinal herbs and can take away bear sickness. Over his shoulder and down his back is a strap that holds his medicine box. Depictions of Apache war jacket at the Kings panel near Vernal, Utah is the same style as the historic Western Apache war jacket (Ferg, 1988).



Fig. 6. Medicine box with medicine articles (American Museum of Natural History, NY). Mescalero Parfleche with straps attached on each end (American Museum of Natural History).

Child-of-the-Water to the viewer's right, is behind him. He is identified by the concentric circles and zig zag water symbol running vertically down his side. They are holding hands as *brothers*, over the head of the figure incorporated with a sheep. They are 'people' who are traveling (like sheep) under the protection of the War Twins. The figure on the far left has large ear ornaments often associated with medicine work. He wears two eagle feathers on his head and is carrying a medicine bag. The strap that runs across his shoulder and down his back is attached to a parfleche that his fingers are touching. He is also wearing an animal skin coat, possibly a bear skin. You can see his actual legs hang down below his body. They are all standing under the protective rainbow (figure 5).

A traveling bag or Parfleche is shown hanging by his side with a shoulder strap that goes over his left shoulder and down his back. His hand is touching one to identify it is something held in the hand. A Parfleche is called the "Indian Suitcase", it is a flat container made of rawhide (Opler, 1969; 67). The shoulder strap is attached at both ends and goes across the chest, over the shoulder and down the back, to hang at arm's length.

The central figure can be identified as Enemy Slayer, who wears a flicker feather headdress. He also has ear ornaments and wears a war jacket. His hands are touching both the shoulder of the Medicine man and the hand of the third figure who may be his twin brother, Child-of-the-Water a protector, from

lightning (shown running vertically under his arm). He is shown with this feather headdress in several panels in the Uinta Basin, eastern Utah, (Patterson 2022b).

The Rochester Creek Panel

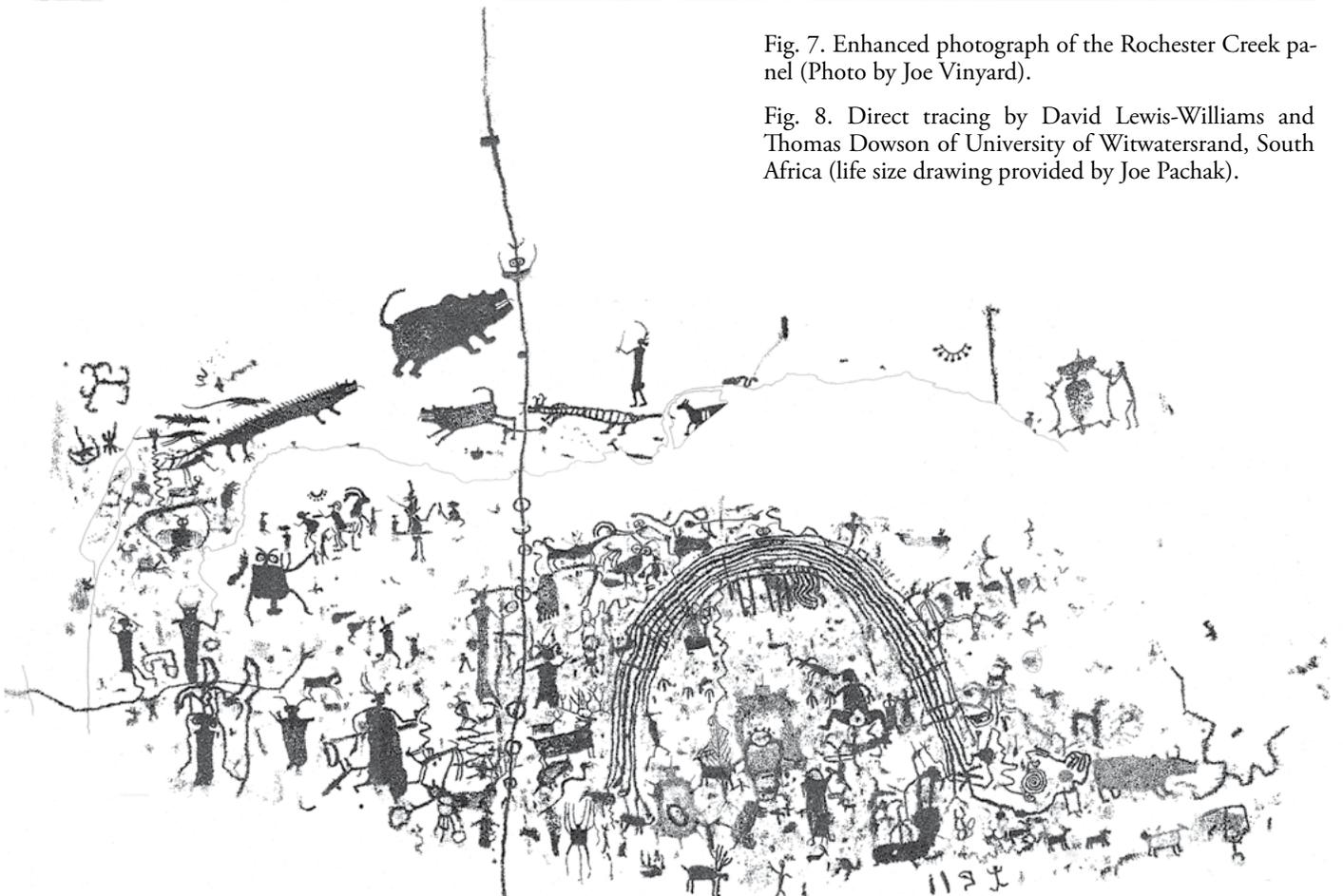
The Rochester Creek panel is located in the San Rafael Swell, in central Utah. It is popular to rock art enthusiasts by its complexity and the striking rainbow feature. It dates from 1100 – 1500 AD (Cole 2009). The rainbow over-arching the central characters (and Rain Boy) cited in the Navajo emergence story is the key feature in the Rochester Creek panel. The following analysis of each section is discussed within the context of Navajo cosmology and ontology.

As noted in the introduction, evidence of the Uto/Aztec, Puebloan and Hopi iconographic traditions concerning rainbows are not present at this site but are discussed in conjunction with other sites in Utah, in Patterson (2021, and 2024). This discussion lists each of the striking features in this panel that are associated with the Western Apachean groups, specifically the Navajo. The anthropomorphs have diagnostic indicators of their cultural association found in their headdresses, body type, and material cultural items such as the unwounded buckskins, Navajo hair style, and water jugs. The mythical text of the emergence chants by early ethnographers clearly describes each monster creature and the magic-feather-carrying culture hero called "Monster Slayer".



Fig. 7. Enhanced photograph of the Rochester Creek panel (Photo by Joe Vinyard).

Fig. 8. Direct tracing by David Lewis-Williams and Thomas Dowson of University of Witwatersrand, South Africa (life size drawing provided by Joe Pachak).



The first striking feature is the rainbow that encircles a sacred act of creation with the unwounded buckskin discussed below. In the Apache and Navajo sand paintings, a rainbow is sentient as Rain Man or Rain Woman who encircles the sacred space that the actors carry out a ceremony within its protective space. That is carried through to contemporary sand paintings.

The Rainbow (*na' tsi'lid*) may be male or female and has numerous functions, all interrelated. It serves as an encircling guardian of the sandpainting, when it has a head and feet it represents the goddess. According to Matthews, the rainbow has five colors, each representing a goddess. Rainbows are covered with feathers, which give them their colors. The design consists of red and blue stripes separated by an outline with white.

Rainbows in a sandpainting are a prayer, they are protective; gods often stand on them and they may be given to a hero to keep him safe (Reichard 1977, 586).

The second striking feature of the Rochester Creek panel is in the upper right-hand corner with a figure stretching the hide of a deer, on a wooden frame. An unwounded buck deerskin is associated with crea-

tion. The human figure with erect penis is symbolic of creation of life. On the left is a necklace worn by gods or creation deities. It is similar to the western Apache Mountain Spirits or gods called *Hactcin* (Patterson 2022a). It represents the presence of a creator god overseeing this event. In the center is the crooked staff, symbol of long life and authority. (fig. 10)

The buckskin of an unwounded buck deer is used in the sacred ceremonies of the Apache and the Navajo. (Reichard 1977,530).

The third striking feature is the bear, rabbit, bird and other animals turning away from the action inside the rainbow.

The fourth striking feature is the group of elements inside the rainbow. The sky with rain, lightning and thunder are depicted at the apex. There is no doubt it is the sky, while the multiple stripes define it as a rainbow. Thunder is shown with multiple wavy lines, as with the 'thunder sticks' we call bull roarers, the Apachean people use in ceremonies. See figure 13.

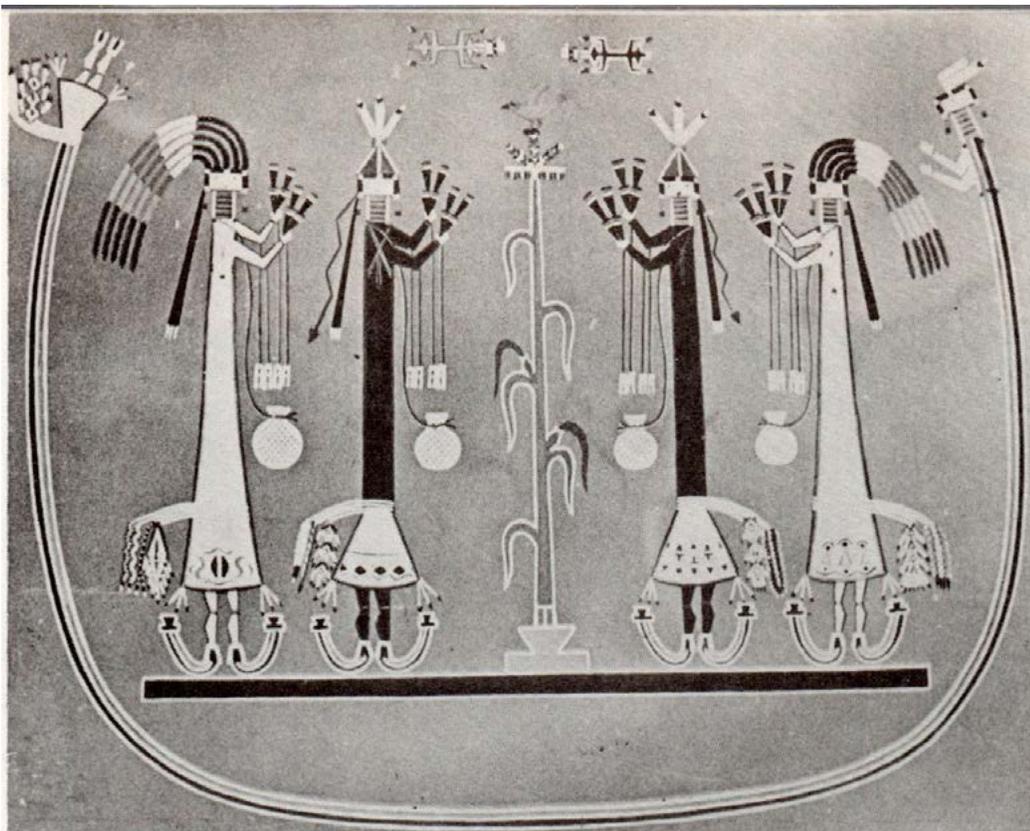


Fig. 9. The female rainbow deity encircles the Rain people in this sandpainting. They face the blue corn wands and blue water bottles in white wicker-work. The deities have straight black rain-hair and stand on curved rainbows that have black clouds at their tips. (Painting by Franc Johnson Newcomb (1937), (by courtesy of the Wheelwright Museum, Santa Fe. Information by Leland C. Wyman).

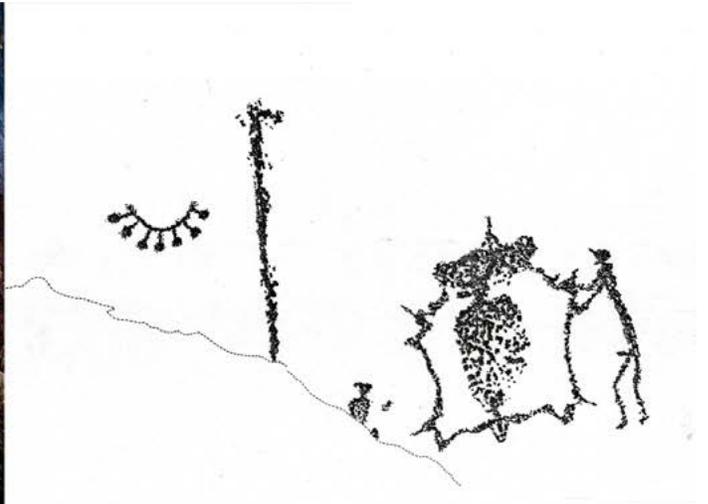


Fig. 10. The sacred buck skin stretched for use in a sacred ceremony. Closeup drawing of a figure holding a stretching frame with the skin of a deer inside. To the left is a crooked staff that has several meanings to both Navajo and Pueblo people. It is the staff of life, and symbol of authority, old age, and wisdom. It is accompanied by the necklace representing a deity, a Mountain spirit to the Apache or one of the Holy People to the Navajo.

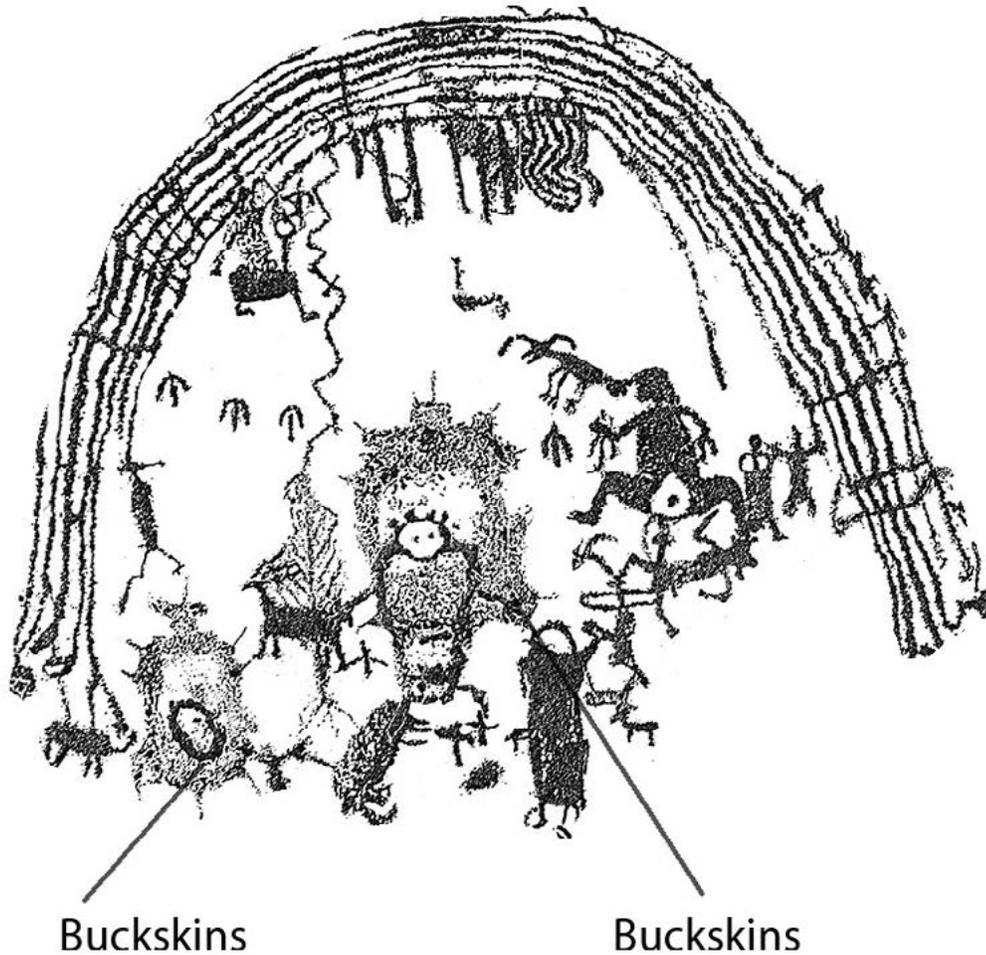


Fig. 11. The buck skin is shown twice more inside the rainbow. It is used to cover the seeds of plants and feathers for animals and create new life. Creation requires two unwounded buckskins placed over an object or seed to rejuvenate or bring it to life.

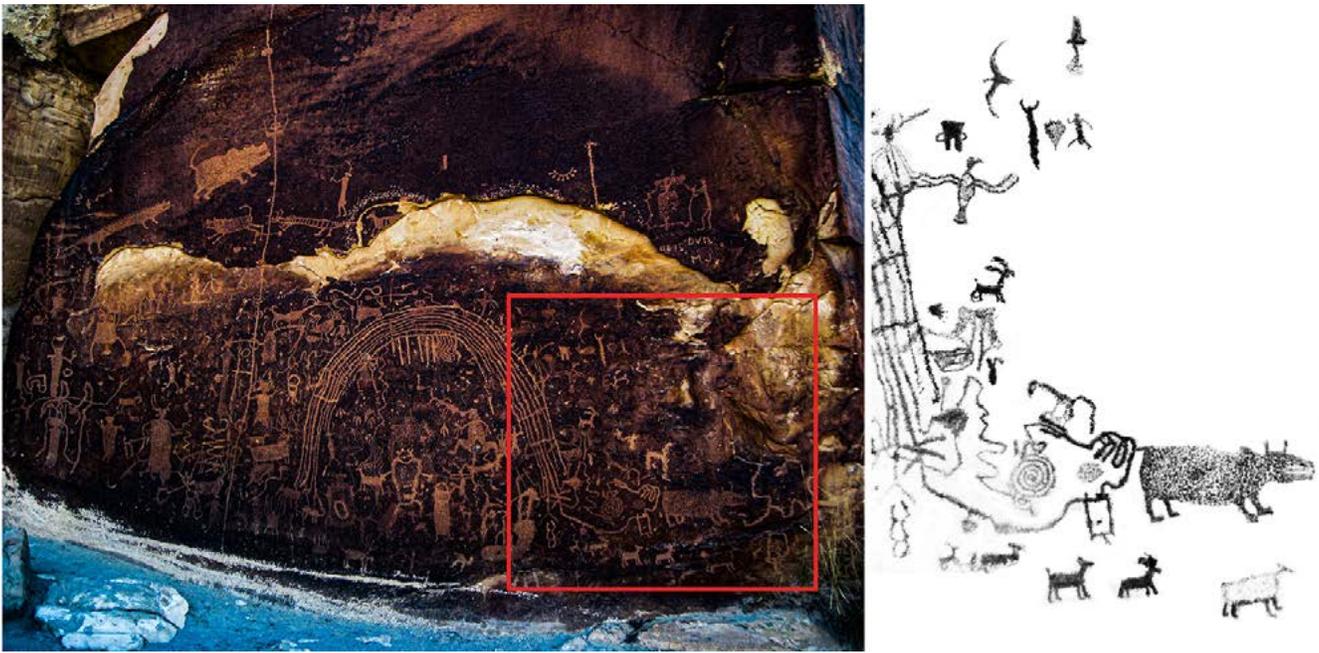


Fig. 12. The lower right-hand corner depicts many creatures outside of the rainbow. The animals are leaving the protected area where creation is in progress.

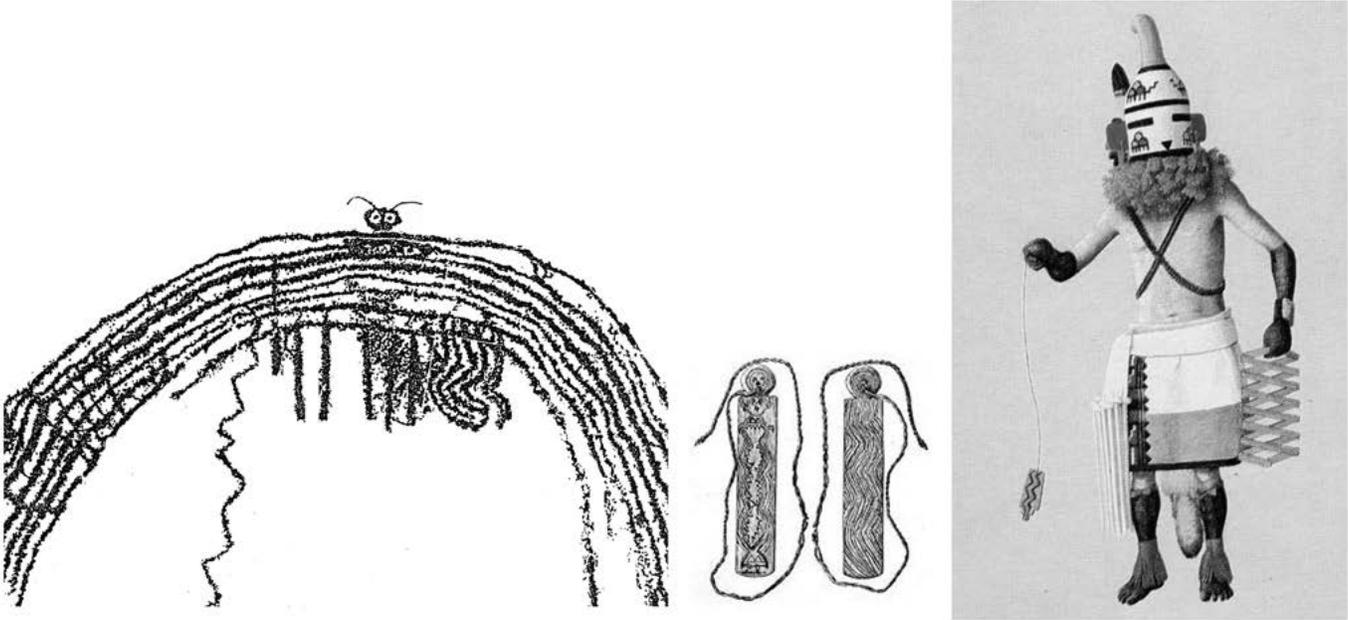


Fig. 13. The central area of the panel features the rainbow with lightning, rain and thunder at the top. Lightning is the zig zag line, rain is the vertical lines and thunder is the group of wavy lines. Peering out behind the rainbow may be White Thunder. The Apache and Navajo use thunder sticks *Tzi-Ditindi* (bull roarer) painted with a wavy line motif representing the sound of thunder. The Hopi version is shown here with *Sootukkwnangw*, holding a bull roarer on a string in one hand and lightning sticks in the other. The thunder stick is painted with multiple wavy lines, a symbol for thunder as shown at the top of the rainbow (Fred Kabotie in Seymour 1988, Heard Museum).

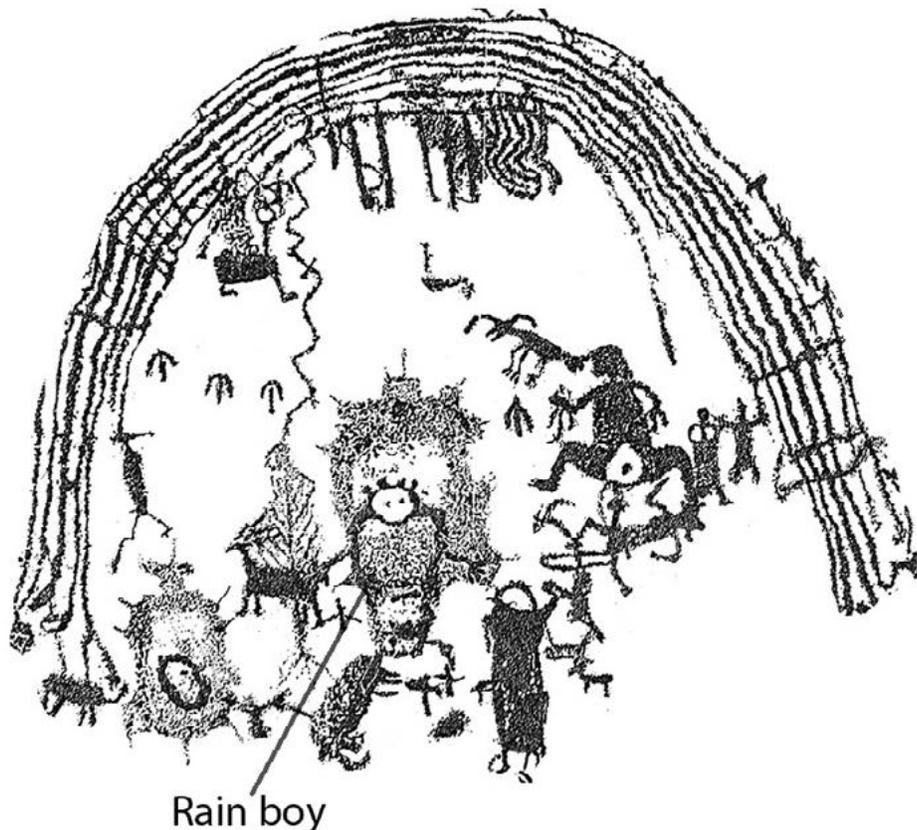
White Thunder and Rain Boy

Winter Thunder and Rain boy are key figures in the Navajo creation stories for healing and restoration of life. They play a significant role in the Hail chant, which is now extinct. Reichard was thankfully able to record word for word in Navajo, the entire Hail chant from Hosteen Klah, medicine man and sand painter, who died without passing the Hail chant on. The story of creation involves Rain boy, who lives in the 'land beyond the sky' (Reichard 1944, 207). He is called *Nitsá àcki*, hero of the Hail Chant. He is in charge of heavy rain, gentle rain, snow, and ice and guided by the Holy People in four episodes of the Navajo emergence stories. Winter Thunder is *ín' djilgai*, the color white and called White Thunder in other contexts. Rain boy visits Winter Thunder's home while he was away and saw the beautiful white shell and turquoise decorations with snow rainbows all around the house.

Even Winter Thunder's wife was white-complexed and beautiful. She noticed Rain boy's attraction to her, and as he attempts to leave, she pulls him back with magic strings of the rainbow to sit down beside her. Winter Thunder returns to find them together and, in a rage, he blasts Rain boy into tiny bits.

All of the other thunder people of distinct colors came together and picked up the small pieces of Rain boy. They took the bits of bone, skin and muscle and placed them between the two sacred buckskins. Even the ants and beetles collected blood and mucus and added it into the pile. Then White Wind blew wind under the cover and Rain boy started to move a little. Pink Thunder put Little Wind under the cover, and it goes into Rain boy's ear to allow him to hear. Talking God put pollen in between the covers, and it turned into toenails, fingernails, and body hair.

Eventually, Rain boy is fully restored, but White Thun-



Rain boy

Fig. 14. In the center is Rain Boy, motioning with his arms on the left to the plants and the animals. A stretched buckskin accompanies him as he conducts the creation of animals and plants. Motioning to the right side to human figures, is the union of First Woman, sitting in the north, with a vulva of abalone shell, and First Man sitting in the south with a turquoise penis. Rain Boy places two sacred unwounded buckskins over the seed for the plants to grow. He places it over the feather and the animals grow. The sacred buckskin on the left is shown with a large seed placed inside.

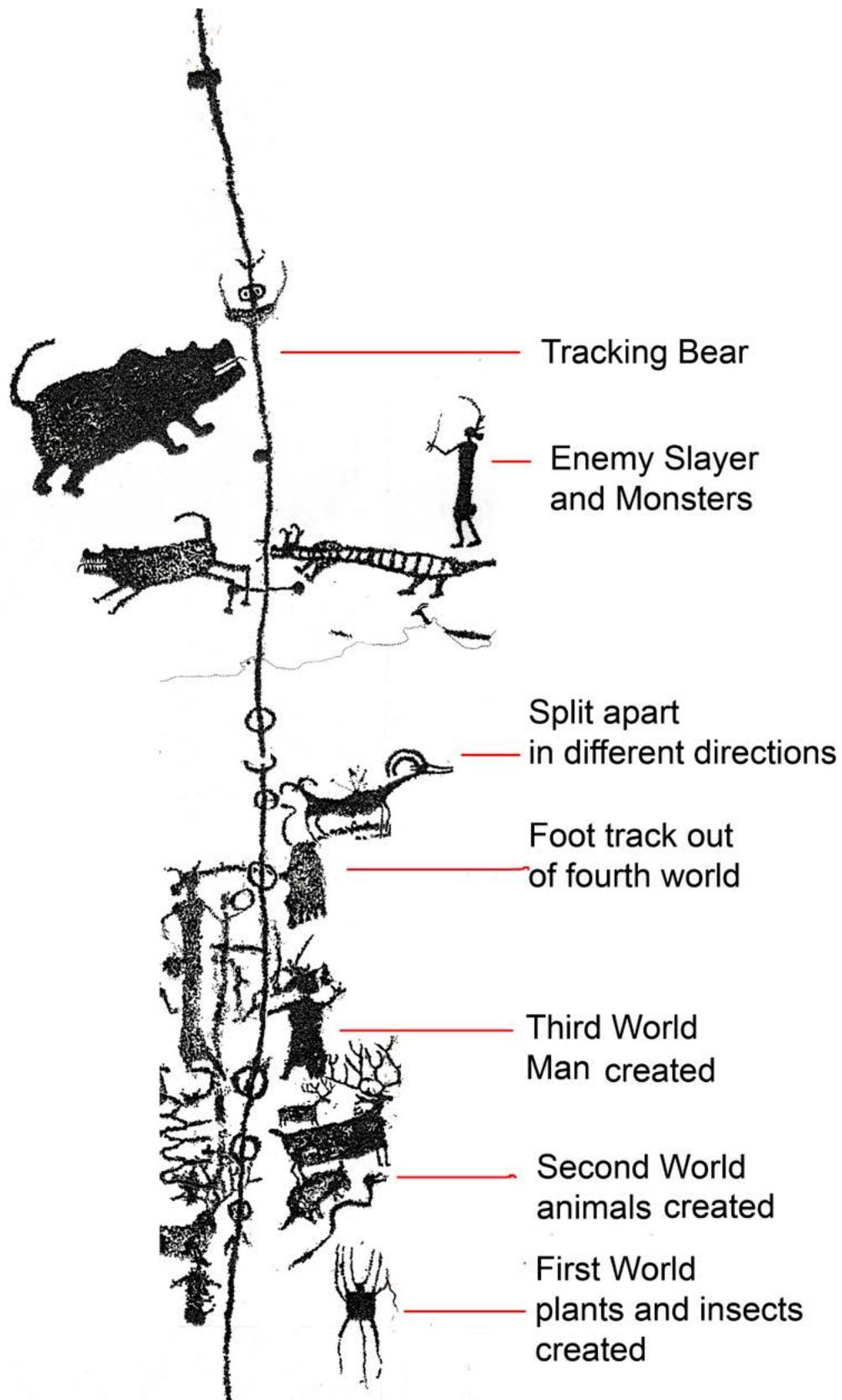


Fig. 15. The vertical line with circles is said to represent the many worlds the people have emerged from. To the Hopi and Pueblo people there are three or four previous worlds. The Apache and Navajo say they have emerged out of four but the future holds several more worlds.



Fig. 16. The left side of the panel has a lot of things going on, but most prominent is the large bulky figure running towards the rainbow. Compare this hair style to those that appear in other panels across Utah.

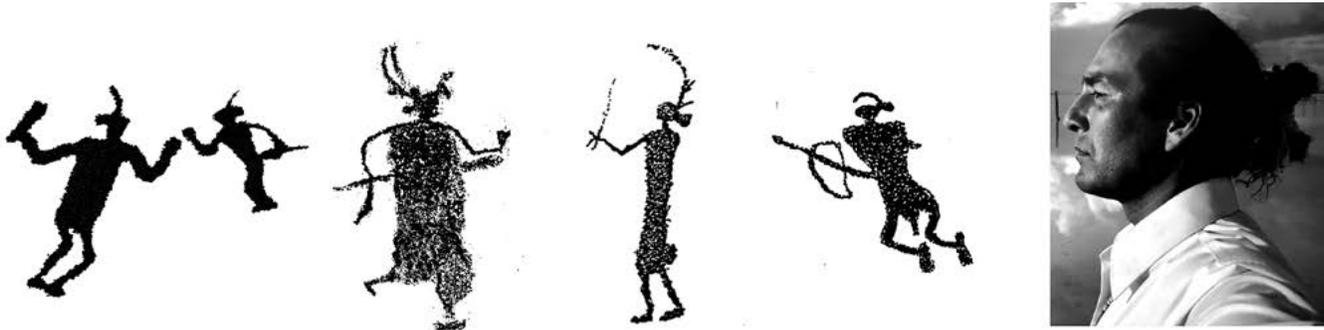


Fig. 17. The Navajo hair bun is called a *tsityeel*. “The Navajo believe one’s blessings are tied up and sealed in the ‘knot’ which is the means by which the Holy People recognize a person. The hair is bound to keep thoughts whole and unified, with the coils of the scalp facing toward the heavens. It is believed that the longer your hair is, the wiser and more knowledgeable you are.” (McPherson 2012, 145). Petroglyphs of this hair knot appear in a) Rochester Creek panel, b) Lion Ridge near Moab, Utah, and c) Ninemile Canyon in central Utah, and compared with d) the Navajo profile photo from the Museum of Indian Arts, Santa Fe, NM.

der is made to surrender to Dark Thunder in their ongoing war, so that Rain boy can continue to live. To this day, Winter Thunder must be present in the healing ceremonial sand paintings of the Hail chant because without him, Rain boy could not be restored. It is a metaphor for all life that needs rain to live. Rain boy brings the restoration of health and vitality, for those afflicted with health maladies. (Reichard 1944). In the beginning, First Woman made male and female genitalia so that one sex should attract the other. She made the penis of turquoise, and the vagina of white shell (Reicher 1977, 31). “Persons have their places, so ceremonial items must be exactly placed, particularly

in relation to one another. ...the unmarried men at the south, the single women at the north. ...In the ceremonial hogan (or shade) the men usually sit at the south, the women at the north”. Buckskin (*bj'tso lgai do kakehi*) is taken from a deer killed with pollen – that is, without wounding it. A buckskin must be furnished for the *Rite of Prayer*, on buckskin ... from animals that have not been shot. Buckskin is an emblem of life; ritualistically, it is a life symbol Creation, or transformation, was accomplished by laying corn, precious stones, or both between buckskins. Restoration is brought about the same way. Transformation from inanimate to animate.

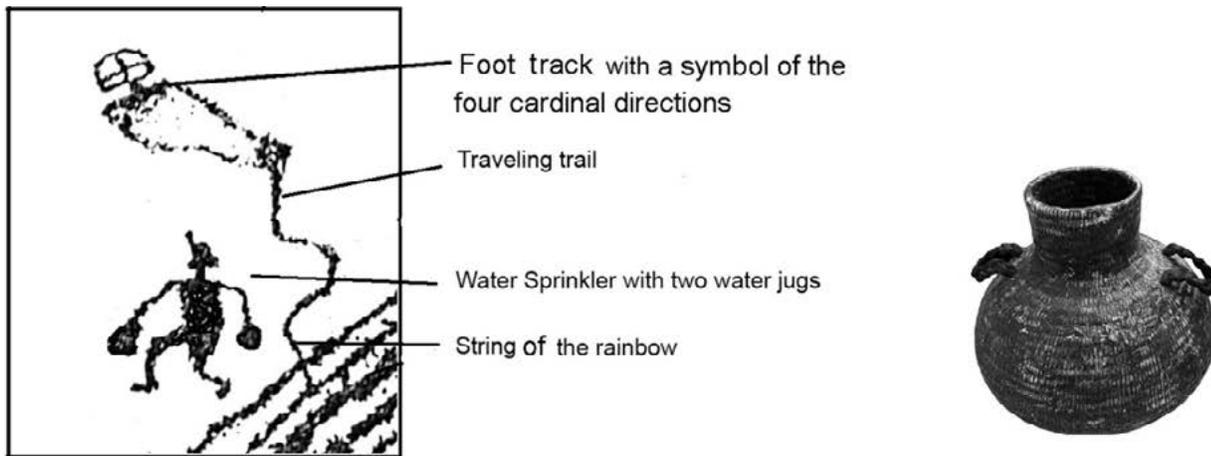


Fig. 18. Water Carrier *To'Neinilii* is shown with two water jugs in a net, one black one white. He sprinkles water in four directions. Antique Apache wicker basket (water Tuss) and traditional Navajo pitch-covered wicker water basket (Public access). Prehistoric people made watertight water jugs made of pitch-lined twine simply because they were transportable without breaking if dropped. Even with the introduction of pottery they are still in use by the Paiute, Apache and Navajo.

Restoration from death to life (Reichard, 1977; 530). In the center is a very long line with circles spaced apart all the way up from the bottom. The first and second world involve the creation of plants, insects, reptiles, and animals. Man is created in the third world and emerges out into the fourth world. It is here that many monsters threaten the lives of people and Enemy Slayer (Apache) or Monster Slayer (Navajo) is called upon to render them harmless to Man.

The fifth striking feature is a figure running with spear towards the safety of the rainbow.

The hair style of this figure, running back towards the rainbow. He is wearing a Navajo hair knot with a feather (fig. 16).

The sixth striking feature is a figure carrying two pots. He is Pot Carrier to the Pueblo, and *To'Neinilii*, the Water Sprinkler to the Navajo. He brings the sacred water in a netted water jar to ceremonies for blessing the land when migrants first arrive and decide to settle (fig. 18).

“The Navajo tradition names *To'Neinilias* the one to carry the water jug as the god of celestial or precipitated waters. When *To'Neinilii* wishes to produce rain, he scatters his sacred waters to the four cardinal directions. He also serves as the water carrier for the other gods. He is represented as carrying a wicker water bo-

ttle, or two water bottles, one black and one blue. The strings of the divine bottles were rainbows” (Simson 2003, 103).

Haile writes; “Spider Grandmother invited the Twins into her spider hole and fed them pollen and water. ‘Your father is very wicked,’ she said. ‘Take this living feather, it may serve you a purpose in the future.’” (1981, 181).

Spider Woman says, “As you face your enemies, stare directly at them without flinching. Stare at them without showing fear. As you stare at them, hold the sacred *naayéé’ ats’os* in your hand and extend it towards whatever threatens you. And then repeat this magic song” “The song which *Na’ashjé’ii asdzáá*, the Spider Woman taught Monster Slayer and his brother, she recited four times. And four times they repeated it to her exactly as they heard her sing it, to assure her that they knew it well” (Zolbrod, 1984:196-204).

Monster Slayer is shown on the right, holding up the magic feather in front of him in this section of the panel. Some of the monsters were described below;

“The monsters were created when the Sun took one of the young of a Water Monster which became *de’lgeed*, the Horned or Furrowing Monster.

A young of White-headed eagle and White Thunder were brought down and this became *tse’ nahale* - a Monster Eagle. As related, Water Monster in the underworld had gi-

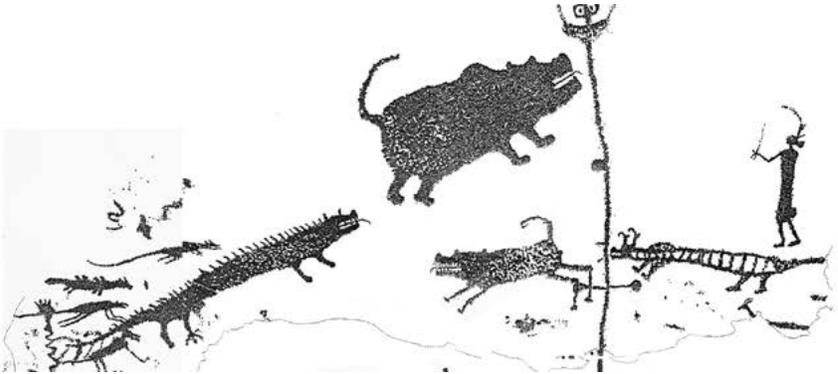


Fig. 19. The upper portion of the Rochester Creek panel shows the hero twin, Monster Slayer confronting some ferocious monsters. He is wearing the Navajo (*tsityeel*), hair knot and holding the magic feather *naayéé' ats'os*, from a living bird in front of him.

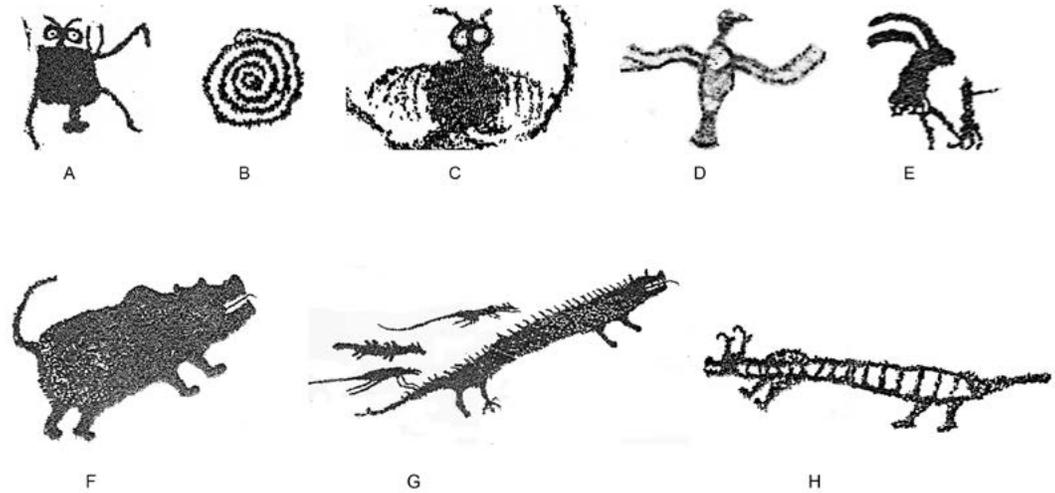


Fig. 20. The left side of the panel has many supernatural looking monsters including a) Those-Who-Slay-with-their-Eyes, b) Never-ending Snake, c) Giant Owl, d) Monster Eagle, e) Kicker-off-the-Rock, f) Tracking Bear, g) Water Monster, and h) Horned/Furrowing monster. Tracking Bear has a long tail representing a 'trail' from which he goes forward tracking his victims.

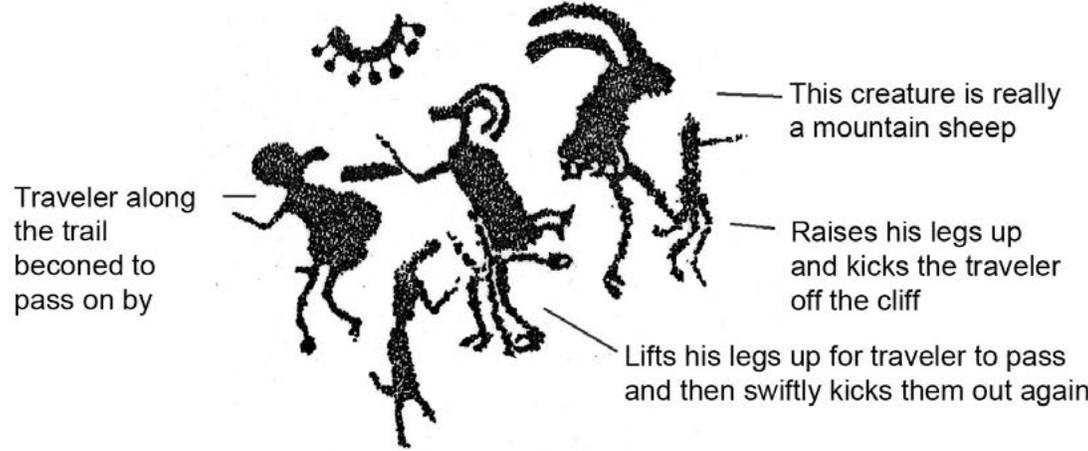


Fig. 21. Sequence showing the mountain sheep monster kicking travelers off the cliff.



Fig. 22. Two panels in the same region, with the red stripes outlined in white. (Photo by C. Patterson and by L. Koncher.

ven birth to a wild gourd which now became *tse'naaghali*, Traveling Rock. While *ye'itsob* was the Sun's own son, the Horned Monster, Monster Eagle, and Travelling Rock were the Sun's pets." (Father Berard Haile 1981, 175).

Snapping Vagina, cohabited with various other beings and produced the monsters; Those-Who-Slay-with-their-Eyes, Endless-snake, Giant Owl and Monster Eagle, Tracking Bear, Water Monster, Two-Crushing-Rocks, Slicing Reeds, Moving-Sand-Wall, are just to name a few.

Near the center of the panel is possibly the sequence describing the monster the Navajo call "The Kicker-off-the-Ledge." The White Mountain Apache call him, *tse'datc'e'ilta'ln* [rock over (down) he kicks] who was killing people by kicking them off the ledge of the cliff as they went by. They say this creature was the same as *dib'tco* (mountain sheep). (Goodwin 1994, 22)

When Enemy Slayer, (Na'ye'nezyane) was coming along with his dog, inside his shirt he had a yellow snake (a rattler). Pretty soon he came to where *tse'datc'e'ilta'ln* was lying next to the trail. When he got close *tse'datc'e'ilta'ln* told him to pass by, that he could not do anything to him. But when he got close the monster drew back his leg as if to kick, and so Enemy Slayer stepped back. Each time that he went close to him he did the same. Then he told his dog to go by him. As the dog went by *tse'datc'e'ilta'ln* kicked at him but the dog jumped over him and was not hurt. Then Enemy Slayer took the yellow snake out of his shirt and threw it at *tse'datc'e'ilta'ln*. When the snake came by him the two wrestled together and while this was going on Enemy Slayer took his turquoise xal and with it cut the monster's head away from the rock it was fastened to, and threw the monster down the cliff where it had killed so many people by kicking them off. (Goodwin 1994, 22-23).

Hailerecounts the Navajo version: "After some time, the thud of the striking body could be heard below, and the voices of his own two children echoed back as they fought over their father's arms, legs, and body parts. With a rainbow, *Naayée' neezgháni* (Monster Slayer), let himself down to them.... And these children are now the Horse-fly or Gad-fly, Mosquito, Maggots and Bottle-flies that eat flesh (Hail 1981, 180).

Summary and Conclusion

The age of the Rochester Creek panel may be a thousand years old, and created in a time when the Navajo and Western Apachean people were one people. It is evident to me that the remnants of stories preserved in the oral traditions of both groups are represented in the iconography found in these panels. *N ááts' íí lid*, the hermaphroditic rainbow deity, serves as a guardian for protection. This is consistent with the traditional healing ceremonials and paintings of the Western Apache and the Navajo. Rainbows are colored with 5 stripes, and specifically outlined in white, in both the sand paintings and pictograph panels presented here. The symbol consistency and symbol association with the mythic texts are evidence to me of the cultural affiliation with the Apachean groups for these sites.

"Under the Rainbow", an interpretation of the Rochester Creek Panel, can be summed up by Hasteen Klah as he describes the way men and creatures were made in the beginning;

"They put everything which was used to make Man laid out in pairs in a line on the Robe of Daybreak at the south,

west, and north sides of the hogahn and covered them with a buckskin. And the pair on the north side was covered with a rainbow as well as a buckskin. At the east side were the Yeh gods. The spirit of *Sissnah-jimi* Mountain motioned with a rainbow over all the human beings, and the Spirit of *Tsoll-tsoll-tsilth* Mountain motioned over them with the sunlight, and they sang all night over the people, and blessed them with the light and the rainbow, and towards daybreak they took medicine and herbs and sprinkled over the human beings, and then the Yeh motioned over them with the *Ethkaynah-ashi*, and power came to them, and they were shaken with it. (Klah 1942, 74).

The Rochester Creek panel certainly illustrates the traditional elements of Navajo mythology and spiritual connections to gods and living creatures in the Navajo universe. As guardians over the earth, they signal the ending of a storm and the beginning of new life, ‘under the rainbow’.

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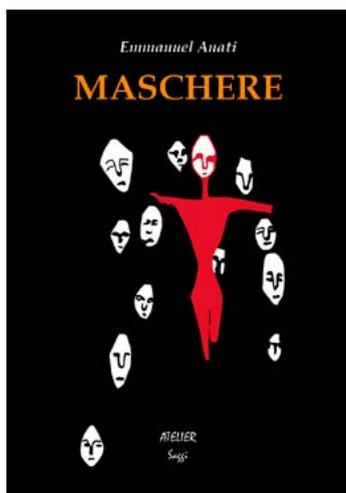
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Anati, E. 2024

Con un contributo di Luigi Baldari

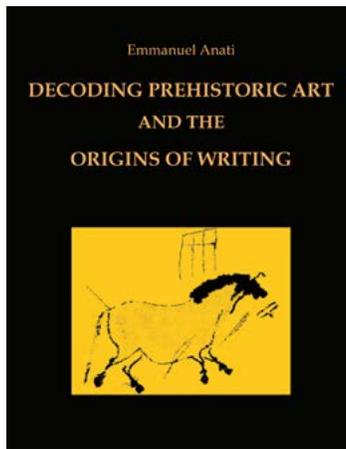
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SHORT COMMENTS BY READERS

I admire your work continuity which is a very important reference to me and to others.

Prof. Mario Varela Gomes,
Portuguese National Academy,
Lisbon, Portugal.

I would like to express my great appreciation for the line of your creation, conceptual anthropology: I think that in all common sense it expresses the best that you have developed on an epistemological level, a direction that I have always shared. I believe that it can really bring about a turning point in our field or in any case greatly favor the progress of research of archeology and anthropology, with its integrative module.

Dr. Umberto Sansoni
Archeologist and author
Centro Camuno di Studi preistorici, Valcamonica, Italy

I absolutely love the sharp articles in this issue. Thank you! I look forward to read future issues.

Angeline Duran Piotrowski
Anthropologist and author, Wilderness Medical Associates,
Los Angeles, USA

...If we are to really know about us as a species on this planet, it will require many 'pieces of the puzzle' coming together from all corners of the globe to 'get the big picture'...and in this spirit of promoting and sharing ideas, I contacted Laura Leone, after reading her contributing research in your latest edition of "Expression", to share my own discoveries on her topic of identifying 'iconografia psicotropa' on ancient ceramics...and then I shared her data with another researcher in the US, so we could all 'compare notes'...this is the way to promote more awareness and understanding, and your Atelier research center is a 'condotto'...

Brian Britten, Delta, BC, Canada

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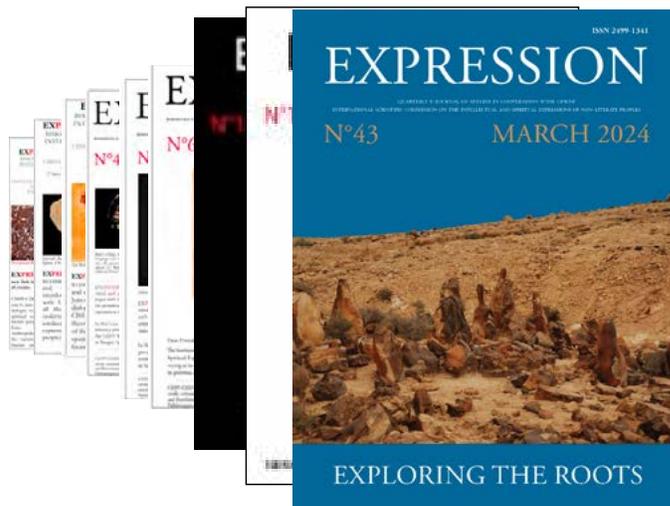
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