
**Time and Mind:
The Journal of
Archaeology,
Consciousness
and Culture**

Volume 4—Issue 2

July 2011

pp. 193–216

DOI:

10.2752/175169711X12961583765333

Reprints available directly
from the publishers

Photocopying permitted by
licence only

© Berg 2011

The Earliest Rock Paintings of the Central Sahara: Approaching Interpretation

Jitka Soukopova

Jitka Soukopova graduated in archaeology at the University of Pisa, Italy (2006), and is currently a PhD student in the Department of Archaeology and Anthropology, University of Bristol (since 2007). She undertook six months' fieldwork in the Central Sahara (2005–8). soukopka@hotmail.com

Abstract

The Central Sahara is one of the richest regions of rock paintings and engravings in the world. The oldest painted images are likely to have originated in the tenth millennium BP, although opinion is still divided. These early paintings, called the Round Heads due to the circular shape of the heads of anthropomorphic figures, were created by groups of dark-skinned hunter-gatherers who produced their paintings in the mountains of the Tassili n'Ajjer and in the adjacent Algerian Tadrart and Libyan Acacus. Since their discovery in the 1950s, these paintings have been described and classified but their interpretation has not been undertaken before because it was considered inappropriate and unachievable. Using archaeological evidence, landscape archaeology, and comparative studies it is nevertheless possible to approach this neglected field of Saharan rock-art studies and reveal a complex reality lying behind individual painted images.

Keywords: Early Holocene, hunter-gatherers, Round Heads, typology of sites, interpretation, comparative studies, rain animals



Fig 1 Africa: Central Sahara.

Rock Art in the Central Sahara

In the Tassili n'Ajjer and in the adjacent mountains, paintings and engravings of various periods are present (Figures 1 and 2). The earliest engravings, called Bubaline after the animal type most represented, the *Bubalus antiquus*, are considered by some

authors to belong to at least the tenth millennium BP (Mori 2000; Jelinek 2004), although others place them only to the eighth millennium in the Neolithic period (Muzzolini 1995). In a large territory the Round Head paintings could therefore coexist with other forms of rock art, but the paintings and engravings are rarely found in the same site. The makers of the earliest engravings and paintings may have been distinct cultural or ethnic groups as the motifs, styles, and techniques of the two artistic traditions are completely different and are present in different areas of the Tassili.

A later prehistoric rock-art style, termed the Pastoral style, which consists of engravings and paintings of domesticated animals, appeared in the Central Sahara in the eighth–seventh millennium BP (Cremaschi and Di Lernia 1999). They are located in the same sites as Round Head paintings and Bubaline engravings but they extend also outside the Tassili n'Ajjer and adjacent mountains. They were the work of new nomadic populations arriving into the Sahara

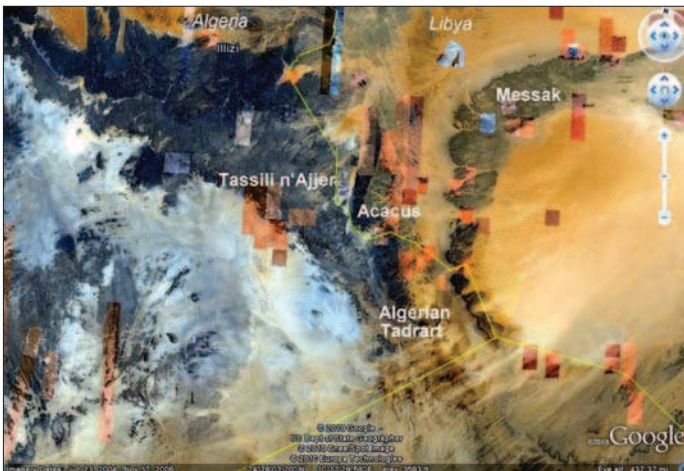


Fig 2 Central Saharan massifs containing paintings and engravings. © 2010 Google, Map Data © 2010 Cnes/Spot Image © Europa Technologies.



Fig 3 Tassili plateau: painted shelters (Photo: Jitka Soukopova)

with their herds and practicing migration over large distances.

Round Head Paintings and Territory

Tassili n'Ajjer is a 1500–2100 meter high plateau composed largely of sandstone, and has been subjected to millennia of erosion resulting in natural rock arches, shelters, canyons, and other singular landforms being created. Round Head paintings are to be found in these so-called “stone cities” (Figure 3). The rock paintings’ complex is dominated by anthropomorphic figures where males prevail—they are aesthetically different from the females. Males are represented more frequently with body decoration, adornments, masks, and bows. Certain taboos are perceptible from all human figures, such as the fact that eyes and sexual organs are never depicted.

Round Head anthropomorphic figures are characterized by several elements. Some of them occur in large numbers all over the region, others are found only in certain sites. Everywhere are present figures

with body paintings made of dots, lines, or V-shaped motifs (Figure 4), figures holding short sticks and “horned figures” with one or more protuberances displayed on the heads (Figure 5). On the other hand, some elements are found only on the Tassili plateau, such as round bracelets depicted mainly on the left arm and half-moon objects attached on male figures’ shoulders (Figure 5).

The representation of different motifs in different areas, within the same artistic tradition, is significant. The elements depicted in all sites must have represented the essential features of the Round Head culture common to all groups. The elements concentrated only on the plateau may have had special significance for that area; they possibly belonged to rituals or ceremonies occurring exclusively in that part of the Tassili. The neighboring mountains of the Algerian Tadrart and the Acacus present only elements common to the whole area and they do not seem to have their own particular motifs.

Although they are less numerous than anthropomorphs, zoomorphic figures have



Fig 4 Figures with body decoration. Sefar, Tassili. (Photo: Jitka Soukopova)

Fig 5 Male figure with characteristic elements. Tin Tazarift, Tassili. (Photo: Jitka Soukopova)



an important position in the Round Head art. The animals are not represented in hunting scenes, injured or dead and there are no scenes of reproduction; all animals are depicted in a static position without behavioral characteristics. Ninety percent of the images are antelope and mouflons (wild mountain sheep), which are found in large numbers in virtually all sites of the Tassili, whereas other animal species, if present, are usually limited to one or two examples. In the Algerian Tadrart and in the Acacus antelope and mouflons appear in only a few examples, which contrasts sharply with their abundance on the Tassili plateau and it seems to further confirm the special status of that area.

Chronology and Climate

Representations of large African fauna such as elephants, hippos, or rhinoceroses in the Round Head art indicate a humid climate with permanent water supplies. Paleoclimatic and paleoenvironmental studies suggest that such a humid period started in the Central Sahara at around 14,000 BP and was preceded by an arid period during which life was probably possible only in certain ecological niches (Cremaschi and Di Lernia 1996a; Maley 2004). However, the climate was not uniform in the whole Sahara and in the same period neighboring regions could experience unequal climatic conditions. Thus, in the Late Pleistocene from 20,000 to 14,000 years BP, two very different climates occurred in the Central Sahara: extremely arid conditions in the lowlands contrasted with wet climate and abundant precipitations in mountains.

The archaeological dates available for the humid Holocene period take the human occupation of the Central Sahara back to

the tenth millennium BP (Aumassip 1980–1; Barich 1998; Mori 2000). Even though the humid period started earlier and people could have lived in the mountains, we do not possess earlier dates. The excavations in the Tassili and Acacus confirm the presence, between 10,000 and 7,500 BP, of hunter-gatherer groups. These almost three millennia of human occupation called Epipaleolithic and Mesolithic periods, preceded the advent of the Pastoral economy at around 7,500 BP.

The Early Holocene archaeological stratigraphy is reflected in the rock art where the distinction between the Round Heads without domesticated animals and the pastoral phase with bovine painted imagery is evident. Another striking similarity between the archaeology and the paintings is the predominance of mouflons. It should be considered significant that excavated faunal remains dating before 7,500 BP present a preponderance of mouflons (Cremaschi and Di Lernia 1996a). This animal species appears to be an important feature both in the economy and in the rock art.

New Period, New Art

Climatic changes over the last 20,000 years were of critical importance for the development of Saharan societies. Before 13,000 BP, human occupation was probably possible only in higher altitudes where water was available throughout the year. The tenth millennium BP represented an important change in the Saharan environment, since the wet climate also affected the lowlands. Green lowlands with extended lakes became a bridge between the Central Saharan mountains and the surroundings, allowing new groups of people and animals to

reach this area. With new plants and animal species, new subsistence strategies developed, which is evident from the microlithic industry and grinding equipment characteristic of the Epipaleolithic period.

The Epipaleolithic culture was the response to these new climatic and environmental conditions, and such changes must have been a potent stimulation of ideology. According to Goodman (1988) the world's religious systems are closely related but in some cases the differences are so sharp that a powerful disruptive force must have occurred. This disruption resulted in a change in interaction with the habitat, leading to an important modification in lifestyle, also affecting religious behavior.

Regarding the Central Sahara, the "powerful disruptive force" could have been the change in the climate and environment. As hunter-gatherers adopted new subsistence activities in the humid environment, their manner of interaction with the habitat changed. After an arid phase, abundance of water and food resources caused the alteration of the settlement pattern, the tools types, social structure, and population dynamics. A change in interaction with the habitat led to an important modification in lifestyle and possibly provoked a rupture in previous cultural and religious manifestations. New religious beliefs should also affect the rock art related to them. The Early Holocene climatic changes were likely to represent the spur for the origin, spread, and evolution of the Round Head art.

Pottery as Artistic Tradition

Central Saharan pottery (Figure 6) is an important cultural and chronological

indicator. It belongs to the oldest ceramics in the world, the earliest being dated to the eleventh millennium BP in northern Niger, and to the tenth millennium BP in the Tassili (Roset 1983; Aumassip 2004). In the Tassili the pottery is present since the earliest Holocene occupation levels, whereas in the Acacus its presence is slightly later, dating to the ninth millennium BP (Di Lernia and Garcea 2005). The pottery is one of the markers of general changes characteristic for the Epipaleolithic period. Pottery first appears during the climatic optimum in the Early Holocene, together with the microlithic industry, grinding stones and stone structures within the shelters, suggesting a more sedentary lifestyle than in the previous Late Pleistocene period. Pottery manufacture could therefore be considered as one end product of a series of cultural transformations (Rice 1999).

The earliest Central Saharan pottery is characterized by its scarcity, excellent quality, and decoration. The scarcity might be explained by its symbolic use (Barich 1998) but it is also possible that prehistoric pottery was more abundant, consisting mainly of unfired or low-fired pots which did not survive until today. A possible tradition of unfired containers could explain the extremely good quality of the surviving fired Central Saharan pottery.

Since the earliest pottery is always accurately decorated, the emphasis on aesthetics is evident. Similarities can be observed between the ceramics and the Round Heads, since both paintings and pottery decoration in the whole region present a strong conservatism and homogeneity. Moreover, body decoration motifs of Round Head anthropomorphic



Fig 6 The earliest Saharan pottery. (Photo: Jitka Soukopova)

and sometimes zoomorphic figures have equivalent images displayed upon the pottery. The decorated pottery should thus be considered a kind of artistic production suggesting that the concept of art in the Central Sahara was firmly established in the tenth millennium BP.

Role of Sites

The character of the paintings such as decorated, horned, and masked figures suggests that many sites were not used for mundane activities (Figure 7). Hunter-gatherers were unlikely to wear horns (or other accessories on the head) and to make paintings on their whole bodies in their ordinary life, but they probably adorned themselves for special occasions. These occasions could have been rituals, rites, or ceremonies documented in the ethnographic record of living African foraging societies (Silberbauer 1965; Lee 1979). Round Head paintings often represent what can be defined as dances, and individuals in a particular posture which could be defined as worshipping. If dancing and religious activities existed in the society producing the Round Heads, there is a good reason to suppose that this activity is represented in the painted sites.

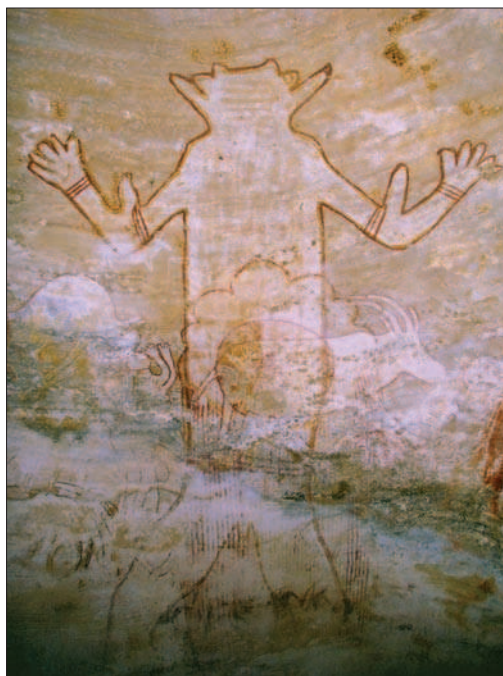


Fig 7 Figures with raised hands. Sefar, Tassili. (Photo: Jitka Soukopova)

Round Head paintings are located basically in two kinds of landscapes. The majority are concentrated in the central part of the Tassili plateau, and the remainder are located in lower mountains of the

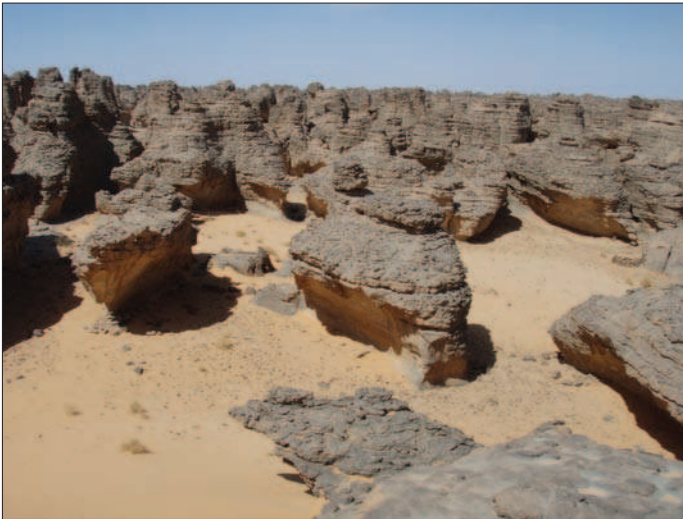


Fig 8 Tassili plateau: “stone city.” (Photo: Jitka Soukopova)

Algerian Tadrart and the Acacus. These two environments differ not only in terms of the altitude but also in the topography. The landscape on the Tassili plateau is characterized by the “stone cities,” the agglomerations of rock shelters situated closely side by side and divided by naturally eroded corridors (Figure 8). Stone cities may be either small, containing a few shelters, or very large with dozens of shelters. They are usually near to the ancient water courses, *wadies*, often crossed by them. In the Algerian Tadrart and in the Acacus stone cities do not exist and the paintings are scattered in shelters along the *wadies*.

The difference in the landscape morphology between the Tassili, the Algerian Tadrart, and the Acacus was likely to influence the location of the paintings. Whereas in the Tassili shelters suitable for paintings are numerous, in the Acacus and in the Algerian Tadrart they are rare and dispersed over a large area. Therefore, on

the Tassili plateau the painters could choose from a large number of rock walls, but in the rest of the region they had little choice and they used any available wall. Since the paintings are the most numerous on the Tassili plateau where the suitable shelters are also the most numerous, it is evident that it was the availability of rock walls within the landscape that determined the location of images.

Painted sites on the Tassili plateau are of various types. The main distinctive characteristics are their visibility from a distance, the position of painted shelters within the site, and the presence of ancient water courses. A site may be visible from a very distant point, which is mainly the case of sites located on a hill (Figure 9). Sites in lower areas are mostly hidden by other rock formations or small hills, so that they are visible only from a very short distance.

Sites visible from a distance and with painted shelters exposed to the outside have



Fig 9 Tassili plateau: open shelter. (Photo: Jitka Soukopova)

an evident open character as the paintings are revealed to everyone. The external location of paintings is clearly intentional in those cases where suitable shelters in the internal parts of stone cities remain empty. Other stone cities sites, on the contrary, present paintings deep within their labyrinth of corridors and are difficult to find. The character of such paintings is evidently intentionally hidden especially in those cases where external shelters are unpainted. In the Tassili, both typologies of sites exist but in the Algerian Tadrart and in the Acacus open painted shelters largely prevail due to the morphology of the landscape.

In the Tassili, the characteristic elements of the Round Head art are found in both open and hidden sites and the morphology does not seem to substantially affect the themes of paintings. For example, the most represented animals, antelope and mouflons, or decorated and horned anthropomorphic figures, are present virtually everywhere. The rather limited

numbers of Round Head motifs were repeated in different landscapes.

Large compositions in many sites suggest that their creation was not the work of a single person but of several or many individuals. The amount of pigment needed for a panel several meters across was considerable and images were often placed in a high position impossible to reach without a support. The preparation and invested energy for large panels may suggest that the place of the image-making was generally known and, if the composition was exposed to the exterior, it was likely a public place. Where compositions are hidden inside stone cities it is possible that they were designated for particular people only, and only they knew the way to find them.

Small-sized images, numerous in Round Head art, coexist with large ones, superimposed or next to them, or they are located on separate walls. Being only several centimeters in size, they were easily made by a single individual. These small figures might

indicate a private painting activity, significant for an individual or a group but not essential for a large community.

Large paintings in a site, especially if exposed to the exterior, could represent official art designated for the public. Small figures in the same sites might represent paintings made by individuals in these prominent places, as a kind of votive gesture or private religious expression. Such places were possibly used for public rituals or ceremonies, which would also be the attraction for single painters wishing to leave their message on the rock. Painted sites appear thus to be used for both public and private religious expression. The characteristic elements of Round Head art are present in both large and small paintings. The same motifs in the whole complex indicate that they were important for both public and private image-making, and they suggest that the identity of a group and of an individual was the same.

Similar Ideology in Distant Regions

Some painted compositions in different sites in the Tassili and in the periphery testify to the same ideas or beliefs. The most representative are scenes with a horned serpent. The composition at In Itinen in the Tassili is located inside a stone city and the panel itself is surrounded by other paintings. The scene is composed of at least six figures, males and females, in a row and all oriented towards a big horned serpent next to them (Figure 10). The figures are armed with bows and the first one in the row is pointing an arrow towards the serpent as if he was fighting with it. The anthropomorphic figures, associated antelope, and the serpent are all of the same style, color, and painted very



Fig 10 In Itinen: scene with horned serpent. (Tracing by the author)

near each other, so that the intention of a composition is very likely.

The other scene with a horned serpent is located at Uan Telocat in the Acacus, around 100 km distant from the previous site. The composition also consists of a group of at least six anthropomorphic figures, males and females, and a big horned serpent next to them. The figures are not armed but they appear to be agitated as if they feared the serpent. This latter has the same shape and dimensions of horns as the serpent in the previous site.

Both scenes are apparently very similar and they seem to express the same situation. Since horned serpents do not exist in the real world, they belong probably to the spiritual world or to a mythology. Considering that an almost identical scene is present in two different mountainous regions it is evident that ideas or groups circulated in a vast area. However, it is also possible that horned serpents belonged to a general set of beliefs or mythology deeply rooted in the African prehistoric culture. To support this hypothesis is the fact that horned serpents are documented in South Africa as rain animals both in ethnography and in rock art (Lewis-Williams 2004; Lewis-Williams and Pearce 2004).

Although the form of horned serpents in South Africa is almost identical as those in the Tassili and Acacus, it is very unlikely that the explanation is simply the movement of people from the Central Sahara to South Africa in prehistoric times. The outstanding similarity of the scenes and a similar representation of the serpent in such distant regions (more than 3,000 kilometers apart) may be caused by a very ancient common mythology or beliefs, born at least in the Early Holocene, as documented by the Round Head scenes.

Possible Interpretation

In Saharan rock art most of the research has concentrated on descriptions of the art and on determining the styles and their distribution, but very little has been done in terms of interpretation. The Round Head paintings have always been described as “mysterious” but almost no author has dared to explore their possible meaning. This is mainly caused by the fact that it has been studied by French and Italian scholars whose approach to the study of the rock art is prevalently technical. It resulted in virtually every attempt of interpretation being not only criticized but also rejected (Le Quellec 2004). The effort to prevent interpretations based on various authors’ fantasies rather than on solid scientific evidence is certainly appropriate, but should every attempt of interpretation be refuted?

The search for the meaning of the Round Heads is also hampered by the lack of a local ethnographic record. The mountains where the paintings are located are today uninhabited and only occasionally are they crossed by Tuareg nomads. The population

inhabiting the oasis within or near the mountains is also Tuareg or Berber origin, believed to belong to a different ethnic group than the dark-skinned population producing the Round Head art (Hachid 1998).

With the lack of any oral or written tradition an alternative way to approach the interpretation is to undertake comparative studies with other rock-art complexes. Studies of African religious beliefs and practices show that there are probably more similarities than differences (Mbiti 1969). Fundamental concepts like the belief in God, existence of spirits and magic, seem to have been retained when one people may have split or branched off over the centuries, the new groups forming tribes recognized today as ethnic and linguistic groupings of African peoples. This may explain the fact that fundamental beliefs are found all over the Africa, where names for God, words for spirits, rain, magic, and medicine men are similar among many peoples.

The ethnographic record particularly suitable for the interpretation of the Round Head paintings seems to be that of South Africa. In southern African rock-art studies, ethnographic materials have built a model that focuses on trance and shamanic visions (Solomon 1998). Even though it cannot be applied directly on the central Saharan rock art, there are some striking similarities in the painted scenes within the two regions, which suggest a possible similar ideology persisted in time and space.

Comparative Studies: Rain Animals

In Round Head art there is a special kind of animal not examined previously because its importance and singularity have not been recognized. Although the animal

representations are very simple in forms, it is nevertheless always possible to identify the species as the painters used conventional marks such as horns (parallel and backwards for antelope, divergent to both sides for mouflons), tusks for warthogs, "butterfly" ears for elephants, or long neck for giraffes.

There are, however, some animals that are not determinable. They may bear marks of more animals or they may have no marks, as they consist only of a body with four limbs, a tail but no ears or horns (Figure 11). Such unrecognizable animals have been interpreted most often as bovids (Muzzolini 1995; Soleilhavoup 2007) or felines (Sansoni 1994). The subjectivity of such interpretations is best evident in the case of the Tin Aboteka animal (Figure 12) interpreted as a rhinoceros by Tschudi (1955), as a feline by Lhote (1958), and as a bovid by Soleilhavoup (2007).

Since other animals are always recognizable from their distinguishing marks, the particular form of indeterminate quadrupeds must be fully intentional. This hypothesis is further supported by the fact

that only indeterminate animals are always represented with the head downwards. Such a position is characteristic for these animals and distinguishes them neatly from the recognizable animals that are never represented "down-headed." What kind of behavior might the down-headed position indicate? Since the head is never completely on the floor, drinking or browsing do not seem to be expressed. It rather evokes a position of submission or difficulty and, being that this position is repeated in all localities, it must have been an essential piece of information to communicate.

Down-headed animals are of various dimensions, ranging from 3 meters long down to just a few centimeters, but those of large dimensions prevail. They are of two types, one is bulky with short legs, the other is more slender with longer legs. The larger sized down-headed animal images are typically located in the central part of the wall with all other anthropomorphic or zoomorphic figures, usually smaller, being placed around them. Their importance in the rock art is therefore evident and it suggests



Fig 11 Bulky "rain animal," Jabbaren, Tassili. (The animal is evidenced by computer; Jitka Soukopova)



Fig 12 Tin Aboteka: slender “rain animal.” (Photo: Jitka Soukopova)

the significant role that these animals had to play in the ideology of the painters and their society.

A possible interpretation may be approached using South African rock art, where similar animals exist and were interpreted, on the grounds of ethnographic record, as animals of the rain (Solomon 1992; Lewis-Williams 1981, 2004). These rain animals are characteristically rounded, fat, and herbivore-like. They bear little resemblance to known species, and their form is therefore not determined by a concern for realism or naturalism. However, snakes, bovids, antelope, hippos, and non-real confluents of these and other animals, also fall into the category of creatures of the rain (Lewis-Williams 2004; Challis 2005).

The San of southern Africa distinguish two kinds of rain, each having its respective animal: a rain-bull is an unwelcome thunderstorm that destroys people’s huts; the rain-cow is the gentle, soaking rain bringing

fertility (Lewis-Williams 2004). These animals are managed, in altered (trance) states of consciousness by special people, rain men or rain shamans, who interact with them. Rain men are believed to catch a rain animal beneath the water surface and to lead it through the sky to the place where the rain is needed or to the top of a nearby hill. There the animal is killed so that its blood would fall as rain.

Interesting similarities may be found between the San rain animals and Round Head down-headed animals as they are both indeterminable as a species and apparently very similar in form. The San rain animals are killed in order to bring rain. As Lewis-Williams (1981, 2004) notes, the rock-art animals depicted with their heads downward represent dying animals having difficulty in standing up. The same position of difficulty is also evident in the Round Head down-headed animals. Are they representations of dying animals as well? And if so, do these

indeterminable quadrupeds also represent rain animals, the death of which is the necessary condition for the rain to come?

Another parallel is the frequency of these animals. In the South African rock art there are often only one or a few, frequently large and prominent, rain animals in a rock shelter, whereas there are numerous depictions of eland (Lewis-Williams and Pearce 2004). It is exactly the same situation as in the Tassili where there are only around 20 depictions of down-headed animals compared with almost 300 antelope and mouflons. The relatively small number of rain animals in South Africa is explained by the fact that the painted image was a manifestation, an embodiment, of the rain man's particular rain animal (Lewis-Williams and Pearce 2004).

Comparing the South African rock art and the ethnography, it is possible that the down-headed animals in the Round Head art also represent rain animals. They are depicted both on the Tassili plateau and in the lower mountains of the Algerian Tadrart and the Acacus. It indicates that these creatures were a generally known and used concept, which may be explained by the constant necessity, in all African societies, to assure the rain. Rain is regarded by traditional African societies as a sacred phenomenon, sometimes intimately associated with God (Mbiti 1969).

Rainmaking and rain controlling is practiced by many living African populations and the similarity of this phenomenon in distant regions may indicate that it originated in prehistory. It should be acknowledged that not all things, habits, or phenomena change radically in time and space, especially when considered crucial for survival. Fundamental realities could have been purposely

protected and conserved for generations in their original form. Considering a possible common base of the African culture and its great conservatism, it would not be surprising to find similar elements in the prehistoric Round Head art and in a more recent San art.

It is not only the images of indeterminable animals that have comparisons with South African rock art but also some scenes. At Tin Tazarift in the Tassili, there is a composition that strongly resembles the South African composition traced by Vinnicombe (1976). In both scenes an indeterminable down-headed animal is led by a rope by a man. At Tin Tazarift a horned quadruped with three feline-like legs and a leg further divided in two smaller ones is preceded by a "flying" man (Figure 13). He has the same unrealistic limbs, suggesting his relationship with the animal and, being connected to it by a line, the man appears to be leading the animal. Since both figures are unrealistic, they probably belong to the spiritual world or to mythology. The similar scene presented by Vinnicombe (1976) is interpreted as a rain animal being led by a rain man, and the same interpretation cannot be excluded for the Round Head scene.

Another comparison may be made between San rainmaking, the Central Saharan rock art, and the archaeological evidence. As mentioned above, the rain man had to catch and lead the rain animal. Since this animal could be dangerous, rain men sometimes "charm" (calm) it with *buchu*, a preparation made from a variety of aromatic and even narcotic herbs (Lewis-Williams 1981). Sometimes the rain animal had the shape of an antelope, especially eland, or at least a part of it, such as horns. For



Fig 13 Tin Tazarift: unrealistic male and animal figures. (Photo: Jitka Soukopova)

some San groups the eland was the crucial animal in the creation myth, in boys' and girls' initiation rites, and it was also connected to fertility and rain. In the girl's first menstruation ritual, while the novice is in seclusion, the women mix eland fat with *buchu* and rub it on her. In the boys' first eland-kill ritual the women pound *buchu*, which, by virtue of its strong smell, causes everybody's brain to experience a state of happiness in which social tensions are dissipated (Lewis-Williams 1981). This ethnographic record testifies to the importance of certain plants in rituals involving the presence, real or metaphorical, of antelope. Regarding the rainmaking rituals, although the animal management occurred in an altered state of consciousness, the idea of manipulating the animal by specific plants is evident.

The use of toxic plants is known in the Central Sahara as well. The excavations at Uan Afuda cave in the Acacus revealed a thick layer formed by a massive accumulation of dung attributed to mouflons (*Ammotragus lervia*). Since the dung, dated between 8,500 and 8,000 BP, was mixed with plant remains, charcoals, and archaeological material, it is believed that the presence of mouflons and humans was contemporaneous (Di Lernia 1999). This coexistence was interpreted as

keeping and taming of mouflons for slaughter during periods of shortage (Di Lernia 1999). However, other evidence may lead to a different interpretation. The palynological study of the dung revealed more than 80 percent of *Echium*, a toxic plant. Such a high percentage in the mouflons dung suggests that this plant was brought by men into the cave and given to the animals. The large quantity of this toxic plant also indicates that its introduction to mouflons was constant and perfectly intentional (Di Lernia 1999, 2001). Why were these animals fed a toxic plant? Since *Echium* given to mouflons in small doses would only alter their behavior without causing death, it was explained as an attempt to stupefy the animals in order to make them more manageable (Di Lernia 1999, 2001). Yet, considering mouflons' natural docility, this hypothesis is not convincing. Considering also the predominant position of mouflons in Round Head art, the intoxication of *Ammotragus lervia* for spiritual reasons should be proposed. In the San rock art, some antelope such as eland are the most numerous as they play a fundamental role in the ideology. A similar situation can be postulated for the antelope and mouflons, predominant in the Round Head art. At

Uan Afuda archaeological evidence has been interpreted as taming of mouflons by the Early Holocene hunter-gatherers, whose increasing cultural complexity and possible environmental stress resulted in the early food-production process (Cremaschi and Di Lernia 1996b). But we know from the ethnography that the San had no interest in taming the eland (Lewis-Williams 1981). Thus, the association of mouflons with a toxic plant at Uan Afuda may have had ritual motivation. The cave itself, or just the animals, may have belonged to the rituals perceptible in Round Head art.

Relationship between Rock Art and Water

A relationship between Round Head paintings and rain water seems to exist in many shelters. Ancient waterfalls left traces in the form of a different coloration on the rock surface, significantly darker or lighter. Since these traces are very evident, the activity of water had to be quite substantial during wet periods and the water courses follow apparently the same tracks on the rock wall. In numerous cases Round Head paintings are located next to or below these traces. It has traditionally been explained by *accidental* situations in which waterfall damaged the paintings or parts of them. The study of the shelter as a whole and not limited to the panel itself may indicate that (at least in some cases) such situations were by no means accidental. This is most evident on large rock walls where paintings are concentrated near a waterfall trace leaving the rest of the wall unpainted. Two examples of this relationship in two different regions are now presented: the first is in the northern Tassili and the second in the Acacus.

In Temeilt Shelter

A long shelter above a large plain (Figure 14) presents Round Head paintings concentrated in two main areas. The paintings on the left side were not in contact with water since they are placed deep in the shelter (Figure 14). The right side of the shelter presents traces of an ancient waterfall and the space immediately next to it is dominated by a row of five life-sized mouflons, in a static posture, facing the waterfall. At least two mouflons are clearly males since their penises are depicted; another mouflon is probably a female. If the different size is to indicate different age, the small mouflons may represent a young individual. The mouflons are located deliberately next to the waterfall (Figure 15), which may be confirmed by the fact that the inner part of the shelter and better protected against rain is almost empty. Also, the fact that all animals are oriented towards the water may be significant. The head of the first big mouflon in the row is very near the falling water and the head of the small mouflons has been eroded away. When water was running down the wall the composition would appear as a herd near a water course.

Directly under the row of mouflons, five oval kettles were carved in that spot of the floor where the water was passing (Figure 16), so that their connection to water is plausible. The waterfall, the painted mouflons, and the kettles appear to be interrelated.

The situations in which mouflons or antelope are painted in front of, or under, a waterfall are recurrent all over the Tassili. Can a symbolic meaning in the association of water with mouflons and antelope be hypothesized? Although such association appears plausible, the situation is probably more complex since there are cases of

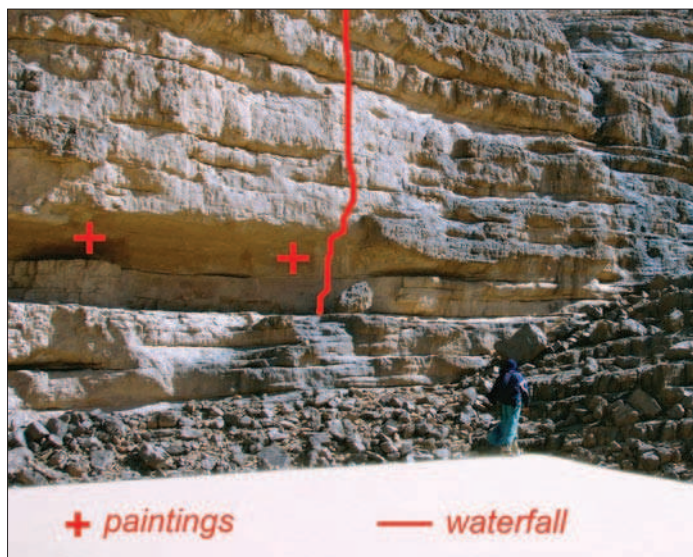


Fig 14 In Temeilt shelter:
(Photo: Jitka Soukopova)

Fig 15 In Temeilt: mouflons facing ancient waterfall. (Photo: Jitka Soukopova)



waterfalls connected to anthropomorphic figures, as in the following site.

Tanshalt Shelter

This vast shelter (Figure 17) is located in a high position above the *wadi* and presents

a long wall suitable for painting; however, the images are accumulated mainly in one spot. There are six anthropomorphic figures, three of which are surely female, others are too faded to be determined. All the figures are painted at the exact point of the wall



Fig 16 In Temeilt: kettles under the waterfall.
(Photo: Jitka Soukopova)

where the ancient waterfall flowed. Here the intention to locate the figures in relation to water is even more evident than in the previous site of In Temeilt. The figures are located one above the other at the point of the wall where the waterfall was passing, whereas the surrounding area is devoid of paintings. New figures were added above the existing ones and not next to them and they were deliberately painted in the area of the shelter that became wet during rainfall.

Can we hypothesize, in this case, that female figures were related to water, possibly symbolizing fertility? This is known from San ethnography where girls are associated with water and rain as a symbol of fertility

and regeneration of both females and rain (Lewis-Williams 1981).

Under the waterfall and the paintings there are two deep kettles and numerous small ones, so that the water was passing through them before exiting the shelter. The relationship between the waterfall, paintings, and kettles in many sites cannot be considered accidental, but further study is needed to investigate this important evidence.

Significance of Mouflons and Antelope

The predominance and importance of mouflons and antelope in Round Head art has been recognized (e.g. Sansoni 1994; Soleilhavoup 2007) but has not yet been studied in depth. The paintings of these animals are not distributed uniformly in the region. In the lower mountains of the Algerian Tadrart and the Acacus their frequency is almost equal to other animal species, whilst their highest occurrence is attested on the Tassili plateau. Could the altitude have influenced this situation? Since the natural habitat of mouflon and antelope are high mountains, they would be particularly numerous in the Tassili and for this reason they may have been depicted here more frequently. On the other hand, excavations (Barich 1987; Cremaschi and Di Lernia 1998) revealed the abundance of mouflons' remains in the Acacus and its lower surroundings, confirming that the distribution of mouflons in rock art does not follow the distribution of these animals in the region.

The concentration of mouflons and antelope on the Tassili plateau was clearly connected to this area, but why? An explanation may be the possible special



Fig 17 Tanshalt shelter. (Photo: Jitka Soukopova)

status of the plateau as the highest place in the region, possessing the greatest number of shelters. For this reason the plateau would become the most important image-making area, which seems to be confirmed by the fact that it contains not only the majority of all Round Head paintings, but also all characteristic elements not represented in the lower mountains. The mouflons and antelope were probably two fundamental animals in the Round Head culture, and their representation and the possible ritualistic nature of the art relating to them might have been reserved for the area of presumed major importance, the Tassili plateau (Figure 18).

The predominance of mouflons and antelope may also be an indicator of social identity. This is apparent if one compares them with the neighboring artistic tradition, the Bubaline engravings. These engravings are located on the borders of the Tassili plateau and also in the Algerian Tadrart and in the Acacus, but they are not mixed with the Round Head paintings. Their main

concentration is in the neighboring massif of Messak, representing a similar special area for engravings as the Tassili plateau for the Round Head paintings.

The difference between the two artistic traditions is the almost total absence of mouflons and antelope in the Bubaline engravings, although these quadrupeds existed in the area. The engravings are dominated by the representations of buffaloes, elephants, and giraffes, which do exist but are rare in the Round Head paintings. The exclusivity of different animal species in two artistic complexes may suggest that these selected animals represented the identity of the neighboring cultures. Thus, buffalo, elephant, and giraffe would represent not only the social identity of groups producing the Bubaline engravings but they would also serve as a visible mark of their territory. With these engravings they would deliberately distinguish themselves from the neighboring populations producing the Round Head imagery.



Fig 18 Mouflons and decorated anthropomorphs. Tan Zoumaitak, Tassili. (Photo: Jitka Soukopova)

The same predominance of one or few animal species also exists in the South African rock art. The ethnography shows that certain animals are believed to have more supernatural potency than others, such as the eland, giraffe, gemsbok, and kudu (Lewis-Williams and Biesele 1978). The prevalence of eland in the South Africa was mentioned by Werner (1908) who states that:

The prominence given to the eland seems to correspond with the place it occupied in the Bushman imagination. It was to them what the ox is to the pastoral Bantu—not only their principal food provide, but in some sense also a sacred animal. (Werner 1908: 393)

The ethnography, however, shows that the eland is not the principal food provider of the !Kung who hunt a large variety of species. The reason for the predominance of eland in the rock art is therefore more ideological than practical. Indeed, the chief personage of the San mythology, a divine creator of all things in

the world, preferred the eland above all other animals. Thus, the eland was considered the supreme antelope with supernatural power (Lewis-Williams 1981). At least one San community spoke of themselves as being “of the eland” (Vinnicombe 1976), expressing their group identity.

Why did some groups choose the eland and not other animals? When seeking for the answer Lewis-Williams (1981) asked a !Kung woman why they perform, at the girls' first menstruation, the Eland Bull Dance and not another antelope's dance. The informant answered that it was because the eland has much fat and the girl is also all fat and they are therefore the same. It was because of the animal's fat that it became privileged in the ideology. We can thus suppose that in the case of the Round Head mouflons and antelope it was because of some of their qualities that they became privileged, qualities that were important, unique, or fundamental for the Early Holocene hunter-gatherers.

These qualities might be related to the locality. If the Tassili plateau, as the highest

massif (dwelling of the gods?) with the most spectacular rock formations, was indeed considered the most important area for the image making, it may have been considered not only special but also a *sacred place*. In such a high altitude the most characteristic animals were certainly mouflons and the antelope, which were able to survive during arid periods. These animals may have been believed to possess supernatural powers and possibly considered the sacred inhabitants of the Tassili plateau because they were the only larger animals able to survive in the region during arid periods.

The ideological meaning of mouflons and antelope in Round Head art is evident from their frequent association with the presumed ritual scenes with masked and decorated anthropomorphic figures, and also from some images in which the relationship of humans and animals is apparent. A composition at Sefar (Tassili) represents a male figure with a probable false tail, holding an enigmatic object resembling a bow (Figure 19). Around it and under the figure there are small crosses—stars? His right hand is exaggeratedly long and it finishes in the antelope's head. The animal's head is thus directly united with the man and vice versa. The composition evokes the previously described scene at Tin Tazarift, with two exceptions. At Tin Tazarift both man and the animal are unrealistic and the animal seems to be led by a rope. At Sefar the figures are realistic in their basic shapes and it does not seem to represent the act of leading but a man–animal unity.

A different unity of a man and an antelope is depicted at Tan Zoumaitak, Tassili (Figure 20). A male figure, perhaps dancing, represents fully human form except for

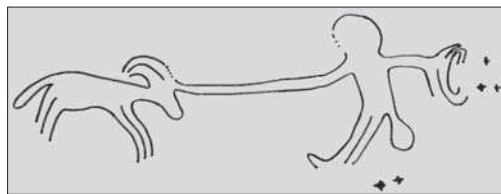


Fig 19 Sefar: man–antelope unity. (Tracing by the author Jitka Soukopova)

his legs. Instead of having human feet, he has antelope's hoofs depicted in the same way as the hoofs of antelope on the same panel. Depictions of half-man half-animal, so abundant in the South African rock art (Lewis-Williams 2004), are extremely rare in the Round Head complex, and therianthropes (human–animal hybrid images), abundant in the neighboring Bubaline engravings, are apparently nonexistent in Round Head art.

A third example of a human–animal unity is the image at In Itinen, Tassili, where a mouflon is depicted with decoration of parallel lines all over its body. The same kind of body decoration is found on male anthropomorphic figures in numerous sites, suggesting that the sphere of the human and animal worlds were thought to be interrelated. The unity of mouflons and antelope with the humans, attested to in the paintings, suggests that both men and animals belonged to the same spiritual world.

Conclusion

The earliest Central Saharan paintings originated probably in the tenth millennium BP when marked climatic and environmental changes occurred. These paintings, concentrated mainly on the Tassili plateau, differ by the technique and



Fig 20 Tan Zoumaitak: anthropomorph with antelope hoofs. (Photo: Jitka Soukopova)

themes from the neighboring Bubaline engravings. The two artistic traditions, separated in space but probably at least partly contemporaneous, are likely to represent different cultures and the respective painted and engraved animals may represent these groups' identity.

According to their visibility, painted sites and panels may be divided into both open and hidden types. The typology corresponds probably to different uses of these places, although the painted motifs appear to be similar everywhere. Traditionally neglected, the interpretation of the Round Head paintings is possible to approach using comparative studies combined with archaeological data. In South African rock art

there are some striking similarities in motifs and themes, such as the predominance of some animal species and the presence of unrealistic animals, very similar in both distant regions.

A long tradition of Central Saharan rock art studies based on mere description of images and styles did not allow other methods of research to be explored and developed. New methodology in the study of the Round Heads is needed in order to bring more information and conclusions of this artistic complex. The natural phenomena such as the landscape and ancient water courses should be examined together with the paintings since they are likely to be interrelated. Also the archaeological evidence must be considered and related to the rock art, especially the pottery, which represents a dated artistic tradition. An interdisciplinary study applying as much information as possible from available scientific fields is the only fruitful approach in the study of any rock art in the world.

Acknowledgments

I would like to thank my supervisors Alistair Pike and George Nash, the University of Bristol, and AHRC for the funding.

References

- Aumassip, G., 1980–1. "Ti-n-Hanakaten, Tassili n'Ajjer, Algérie. Bilan de 6 campagnes de fouilles." *Libyca* 28–9: 115–27.
- Aumassip, G., 2004. *Prehistoire du Sahara et de ses abords*. Paris: Maisonneuve and Larose.
- Barich, B.E. (ed.), 1987. *Archaeology and Environment in the Libyan Sahara: The Excavations in the Tadrart Acacus, 1978–1983*. Oxford: British Archaeological Reports.

- Barich, B.E., 1998. *People, Water and Grain: The Beginnings of Domestication in the Sahara and the Nile Valley*. Rome: L'Erma di Bretschneider.
- Challis, W., 2005. "The Men with Rhebok's Heads; They Tame Elands and Shakes: Incorporating the Rhebok Antelope in the Understanding of Southern African Rock Art." *South African Archaeological Society Goodwin Series* 9: 11–20.
- Crevaschi, M. and Di Lernia, S., 1996a. "Current Research on the Prehistory of the Tadrart Acacus (Libyan Sahara) Survey and Excavations 1991–95." *Nyame Akuma* 45: 50–9.
- Crevaschi, M. and Di Lernia, S., 1996b. "Taming Barbary Sheep: Wild Animal Management by Early Holocene Hunter-Gatherers at Uan Afuda (Libyan Sahara)." *Nyame Akuma* 46: 43–54.
- Crevaschi, M. and Di Lernia, S., 1998. "The Geoarchaeological Survey in Central Tadrart Acacus and Surroundings (Libyan Sahara) Environment and Cultures," in M. Crevaschi and S. Di Lernia (eds), *Wadi Teshuinat. Paleoenvironment and Prehistory in South-Western Fezzan (Libyan Sahara)*. Milan: All'Insegna del Giglio/Cnr, pp. 243–95.
- Crevaschi, M. and Di Lernia, S., 1999. "Holocene Climatic Changes and Cultural Dynamics in the Libyan Sahara." *African Archaeological Review* 16: 211–38.
- Di Lernia, S., 1999. *The Uan Afuda Cave. Hunter-Gatherer Societies of Central Sahara*. Milan: All'Insegna del Giglio.
- Di Lernia, S., 2001. "Dismantling Dung: Delayed Use of Food Resources among Early Holocene Foragers of the Libyan Sahara." *Journal of Anthropological Archaeology* 20: 408–41.
- Di Lernia, S. and Garcea, A.A., 2005. "Some Remarks on Saharan Terminology. Pre-pastoral archaeology from the Libyan Sahara and Middle Nile Valley." *Arkamani, Sudan Electronic Journal of Archaeology and Anthropology* 11. Retrieved on 25 January 2011 from http://arkamani.com/arkamani-library/Neolithic/remarks_on_saharan_upper-nile_terminology.htm.
- Goodman, F., 1988. *Ecstasy, Ritual, and Alternate Reality: Religion in a Pluralistic World*. Bloomington, IN: Indiana University Press.
- Hachid, M., 1998. *Le Tassili des Ajjer. Aux sources de l'Afrique, 50 siècles avant les pyramides*. Paris: Méditerranée.
- Jelinek, J., 2004. *Sahara: Histoire de l'art rupestre libyen*. Grenoble: Editions Jerome Millon.
- Lee, R.B., 1979. *The !Kung San. Men, Women and Work in a Foraging Society*. Cambridge: Cambridge University Press.
- Le Quellec, J.C., 2004. *Arts rupestres et mythologies en Afrique*. Paris: Flammarion.
- Lewis-Williams, D.J., 1981. *Believing and Seeing: Symbolic Meanings in Southern San Rock Paintings*. London: Academic Press.
- Lewis-Williams, D.J., 2004. *The Mind in the Cave: Consciousness and the Origins of Art*. London: Thames & Hudson.
- Lewis-Williams, D.J. and Bieseke, M., 1978. "Eland Hunting Rituals among Northern and Southern San Groups: Striking Similarities." *Africa* 48(2): 117–131.
- Lewis-Williams, D.J. and Pearce, D.G., 2004. "Southern African San Rock Painting as Social Intervention: A Study of Rain-Control Images." *African Archaeological Review* 21(4): 199–229.
- Lhote, H., 1958. *A la découverte de fresques du Tassili*. Paris: Arthaud.
- Maley, J., 2004. "Le bassin du Tchad au Quaternaire récent: formations sédimentaires, paléoenvironnements et préhistoire. La question des Paleotchads," in J. Renault-Miskovsky and A.M. Semah (eds), *Guide de la Préhistoire mondiale*. Paris: Artcom-Errance, pp. 179–217.
- Mbiti, J.S., 1969. *African Religions & Philosophy*. London and Ibadan, Nairobi: Heinemann.
- Mori, F., 2000. *Le grandi civiltà del Sahara antico*. Turin: Bollati Boringhieri editore.
- Muzzolini, A., 1995. *Les images rupestres du Sahara*. Toulouse: author's edition.
- Rice, P.M., 1999. "On the Origins of Pottery." *Journal of Archaeological Method and Theory* 6(1): 1–50.
- Roset, J.P., 1983. "Les plus vieilles céramiques du Sahara." *Archeologia* 183: 43–50.

- Sansoni, U., 1994. *Le più antiche pitture del Sahara. L'arte delle Teste Rotonde*. Milan: Jaca Book.
- Silberbauer, G.B., 1965. *Report to the Government of Bechuanaland on the Bushman Survey*. Gaborone: Bechuanaland Government.
- Soleilhavoup, F., 2007. *L'Art mysterieux des Tetes Rondes au Sahara*. Dijon: Editions Fatou.
- Solomon, A., 1992. "Gender, Representation, and Power in San Ethnography and Rock Art." *Journal of Anthropological Archaeology* 11: 291–329.
- Solomon, A., 1998. "Ethnography and Method in Southern African Rock-art Research," in C. Chippindale and P.S.C. Tacon (eds), *The Archaeology of Rock-Art*. Cambridge: Cambridge University Press, pp. 268–84.
- Tschudi, Y., 1955. *Pitture rupestri del Tasili degli Azger, Sahara Algerino*. Florence: Origines, Sansoni.
- Vinnicombe, P., 1976. *People of the Eland: Rock Paintings of the Drakensburg Bushmen as a Reflection of their Life and Thought*. Pietermaritzburg: University of Natal Press.
- Werner, A., 1908. "Bushmen Paintings." *Journal of the Royal African Society* 7: 387–93.