After the ice age, the entire Sahara was a green bush and tree savanna, rich in water but with periodic wide fluctuations of climate. Between 6000 and 5000 B.C. there was an arid period similar to today’s conditions. Before and after this period, a favorable climate supported a riotous abundance of wildlife, and created ideal conditions for hunters, and later for herdsmen, whose artistic legacy survives in an astonishing and prolific wealth of rock drawings (petroglyphs) and rock paintings (pictographs). This treasure trove of ancient rock art found in the mountainous regions of the Sahara startles the modern observer with an unusually fresh and forceful creative energy.

This rock art can be found in a wide belt that stretches between the Nile River in the East and the Atlas mountains in the far western corner of North Africa. The largest concentration of petroglyphs is found in the Southern Fezzan, especially in the Messak but also in the Acacus region, both of which are in Libya. The rock paintings, on the other hand, are primarily found in the region of Tassily n’Ajjer in Algeria. In the surrounding areas there are also many very interesting additional examples, often exhibiting highly original and characteristically local styles.

Dating
Accurate dating of the rock art of the Sahara has not yet been possible, however the approximate age of the paintings and petroglyphs can be determined by correlating the depicted human activities with known stages of human cultural development. For example, the absence or the presence of wild and domesticated animals, representation
An elevated stony slab at the entrance to the Oued Djerat, where the first petroglyphs are found, offers ideal conditions for the first frottage of a magnificent bovine. At that time this may have been the large delta that provided nourishment for animal and man alike.

The perfectly carved bovine overlies images of numerous feet and two further less clearly defined cattle that lie just above the image of a hand. The collar around the steer’s neck indicates it was domesticated. The hand may be a symbol of possession or perhaps of protection.

Length 1 m. Pastoral Period.
Pictures of fish are very rare in the Sahara! These are big fish, and once more the precision with which animals are rendered throughout the Djerat Valley is impressive. Here we see "Nilbuntbarsche" (Tilapia nilotica) characterized by very fine lines cut into the coarse texture of the stony surface – further evidence that a large body of water once stood here.

A dynamic depiction of two running animals, very deeply carved during the Hunter period. Perhaps the hard oxidation layer was absent in this early era, allowing the lines to be etched directly into the comparatively soft sandstone of the Tassili n’ Ajjer.

Here we have the one and only representation of a flock of “shoebeaks” (Balaeniceps rex), the bird whose beak resembles a wooden shoe! The characteristic beak with the curved tip gives this bird species its name. The shoe-beak likes to hide in thick vegetation found on the banks of lakes and ponds. A later addition to this petroglyph is the horizontal line indicating the back of a bovine, with head turned upwards. 120 X 132 cm
This deftly rendered rhinoceros from the Hunter Period is carved into a horizontal stony slab; the hump on his back and both horns have been polished.

A sensitively drawn cow from the Pastoral Period. In addition to the animal's outline we see areas of polished stone indicating a variegated coat, which are carefully extended down to include the legs. In addition there are other animal forms and a small human figure in the upper right – could he be praying?

The so-called “garamanten” from the Horse Period are often seen in rock paintings. Here is a petroglyph showing two galloping horses pulling a charioteer with a feather in his cap riding in a two-wheeled cart adorned with two lances. Below this we see traces of two small giraffes, above it a runner with a whip as a humorous afterthought. 62 X 102 cm
Camel and rider. In this example it is easy to appreciate that the image is created by countless individual blows to the rock, each of which breaks away a small bit of the dark “desert varnish”. In this way the picture is revealed by the different color of the underlying layer. In the Camel Period such petroglyphs were not further accentuated through grinding.

Four ostriches overlying one another. This is a good example of various stages of darkening by the iron-manganese hydroxide layer.

Now that the valley is dry and eroded, this petroglyph stands too high up to capture easily in frottage. No problem, my friends built me a pedestal of broken stones and one scrambled up the cliff to help secure the paper.
This elephant, with his elegant gait and patterned ear decoration, shows typical characteristics of the Hunter Period style: He is well-proportioned, dynamic in his movement, ground in with a deep and precise line, and displays a lively charm. Above sits a small crouching archer. 99 X 102 cm.

In the center of this evocative drawing stands an ancient buffalo (Homoioceras antiquus), recognizable by his magnificent huge ribbed horns. He is followed by a masked man wearing feathers on his head and an amulet at his neck. Does this scene represent a hunt, or perhaps a ritual of some kind? To the side stand other masked figures and the head of a bovine, probably from a later period. Drawings of hunters are not unusual in the valley, mostly shown as masked or faceless figures. Hunter Period. 120 X 196 cm.
This delicately-ground drawing of an ancient buffalo with immense outwardly-curving horns combined with an intricate double spiral is one of the finest and most complex petroglyphs of the Sahara. Rendered on the perpendicular surface of a free-standing boulder, the drawing shows clear evidence of a series of additions and refinements to the composition.

The frottage of the double spiral pattern reveals its complexity: an infinite self-contained line spiraling continually up and down. It represents a fluctuating relationship between high and low, perhaps symbolizing earth and cosmos or substance and spirit. Its earthly connection is strengthened by the snake (symbol for earth) that cradles the lower portion of the spiral. In addition we see concentric circles, animals and humans, all postdating the central figures. 120 X 180 cm.

Since it is not possible to determine a precise chronological sequence, the following dating is only an estimate:

10'000 BC  Hunters/Wild Animals Period
7'000 BC    Round Head Period
            (only paintings)
5'000 BC    Pastoral Period
1'500 BC    Horse Period
About 0     Camel Period

**Tassily n’Ajjer**
The Tassili n’Ajjer plateau consists of the oldest soft sandstone sediments of North Africa and is broken up by countless dry river valleys, the so-called Oueds (French) or Wadis (Arabian). This area is famous for bizarrely shaped rock formations, covered by a layer of an iron-manganese-hydroxide. The hard surface of this so-called “desert varnish” provides both a protective shield and the typical reddish-black color of those rock formations.

This region is even better known for its vast numbers of high quality paintings, extending from the Round Head Period till the Camel Period. In this area there are very few sites with petroglyphs but some are masterpieces, such as the 5 meter long, elaborately decorated cow, or the group of resting gazelles on the rocky expanse of the Oued Dider. Other glyphs found here are the splendid »weeping cows« on the large free-standing rock of Terrarart, as well as further drawings of...
The Oued Djerat is absolutely unique in Tassili N’Ajjer because of its many high quality petroglyphs. The Oued Djerat is located in the Fadnoun-Region in the northern Tassili n’Ajjer plateau, near Illizi. Today a new road connects the two desert oasis towns: Djanet in the south and Illizi in the north of the Tassily. This road crossing the whole width of the plateau is about 400 km long and climbs up to an altitude of approximately 1500 meters.

Oued Djerat
This Oued, unlike hundreds of other dry river valleys of the Tassili n’Ajjer plateau, contains very few paintings but a huge number of rare and exquisite petroglyphs from all periods. Henry Lhote and his team investigated this valley extensively in the fifties. The deep canyon, flanked by high stacks of craggy rocks, can only be reached by foot or by camel. The canyon is oriented in a north-south direction, and this offers the Oued significant protection from the otherwise strong desert winds. During our visit in the months of January and February, the temperature was comfortably warm during the day and not too cold at night. By March or April temperatures can become unbearably hot. Petroglyphs are found in numerous sites clustered within a span of 40 km, about half the length of the Oued. Although the Oued is narrow, they are not easy to find and a guide from the area’s indigenous nomadic Touareg people is absolutely necessary. Specially trained camels heroically carried our heavy equipment and supplies for two weeks through winding, narrow paths of loose gravel and sand. Despite their sure-footedness, guides must lead them through these treacherous paths by hand. Riding on a camel in this area is risky and tiring; a fall could have very serious consequences. After about an hour riding high up in a saddle, we usually dismounted and took our chances stumbling along through the gravelly paths on foot.

A heavily laden caravan is blind to the beauties of rock art, therefore making frottages (rubbings) while traveling is impossible. Instead, after finding worthwhile petroglyphs, we had to travel to the next suitable campground to use as a base. Then I made the long walk back to make the rubbing—an exhausting physical challenge—but the drawings were really exceptional and breathtaking, well worth the effort. Some of them are also very large, for example we found two 8-meter long giraffes etched into a tall sloping cliff wall. After finishing the rubbing and returning to camp, my guide and I would go off again on foot, scouting out the next important petroglyphs.

There are several good gueltas (watering holes) in the Oued, where firewood and food for the camels, mainly acacia trees, can be found. It was fascinating to watch them chew the tough, sharp needles of this tree, enjoying them as if they were cookies. Amazingly, the needles provide sufficient nourishment for these huge animals. Fires are essential for cooking—which takes place only after sunset—and for preparing the traditional tea, and warming up during the chilly evenings and mornings. The campfire is also the gathering point for our small team, a wonderful place for discussions of the day’s events, for story-telling and for the exchange of jokes that our Touareg companions so much appreciated, perhaps in contrast to their spare and difficult lives.
Tefedest
The African continental plate is about 400 million years old but the Hoggar, a volcanic region, is only a few million years old. A 200 km long granite mountain range lies north of it: the Tefedest region. In contrast to the soft sandstone of the Tassili N’Ajjer region, this attractive region has gueltas at the foot of the mountains, ideal campgrounds for the Touareg nomads, their camels and their herds of goats.

Skirting the edges of this mountain range one stumbles upon individual petroglyphs or sometimes upon several grouped together, as well as occasional paintings. In order to create petroglyphs in the hard granite one must chip away the dark “desert varnish” layer blow by blow to reveal the lighter stone beneath. This pertains mainly to the later and less important glyphs. They remain quite visible to this day, due to the bi-color effect of the bare rock under the dark desert varnish, but they are difficult to capture in frottage. Happily some of the older, most important petroglyphs from the earliest eras were cut...
On the western side of the Tefedest region, in the area near this unusual dome-shaped mountain with its smooth layered surfaces, there are a large number of rock drawings.

On this badly eroded rock surface only a few drawings are still visible, but they are quite fascinating ones. Seeing these rubbings awakened interest in rock art among our Touareg companions.

The bold and spirited lines of this antelope are carved just barely deep enough to allow a rubbing to be made, albeit with some difficulty. Producing a drawing in the hard granite surface necessitates an entirely different technique than used on the soft sandstone of the Tassili n’Ajjer region. 100 x 138 cm.
A Targi recalled having once seen a drawing that was partly revealed as blowing sands shifted. After some searching, we found the petroglyph completely buried in sand! Here the huge drawing is being painstakingly uncovered.

Our efforts were rewarded with a magnificent ancient buffalo! We used blankets to keep sand away and set up wind protection around the site, and finally were able to make the rubbing. The next day the drawing had disappeared again under the sand.

Recorded in granite with clear bold lines, this powerful animal was captured by the artist for eternity. Looking at such marvelous animal figures in the Sahara, one tends to forget the magical-mythic background that was important for the artist, whose characteristics and energies we can only speculate about.
On the high plateau above Mer-toudek, the paintings of the Pastoral Period are often found hidden in hollows formed by the remarkably sculptural cliff walls.

Painted in a dark red color that is fading in some areas, we see dancing figures and a seated person with a large headdress.

Part of a herd of cattle is painted with a linear shading technique. The animals are skillfully clustered beside one another and showing many different shapes of horn, some curving up and others curving down.
Paintings such as this one from the Horse Period are widely found throughout the Sahara. Typical features are the men’s “hourglass”-shaped leather clothing and the simple lines indicating arms and heads. Originally the line drawing of the heads had round hair silhouettes, the color of which is quite faded. To the right stands a pregnant horse.

more deeply into the hard granite, otherwise they would be nearly invisible today because of the further darkening of the “varnish” layer within the etched lines, and their deep grooves enable excellent rendering through the frottage technique.

On the southern edge of the Tefedest range, near the settlement of Mertoudekk, there are pictographs (rock-paintings) from the Horse Period. Up above, hidden on nearly unreachable terraces, are further excellent pictographs from the Pastoral Period, tucked away in alcoves formed by lovely sculptural walls of stone.

Our search for rock art at these heights would be unthinkable without the strong and nimble donkeys that carry all the luggage, and it requires the most experienced of guides. Without that support, it is difficult to imagine locating even one of these magnificent paintings in the chaotically labyrinthine granite landscape.

Back at the foot of these mountains, however, camels are the ideal mode of locomotion again. Here the paths are wide enough for the rider to maneuver his camel alone, once the guide has helped him climb up on its back, provided that this unpredictable animal doesn’t get any funny ideas.

Conclusion

Pictographs and petroglyphs hold the key to intriguing and fundamental questions about prehistoric man’s earliest artistic impulses. Unfortunately, the increasing popularity of tourism in the Sahara poses an alarming threat to this wealth of ancient art. The rock art of this region is in danger of being destroyed. According to Abdelkhalk Lemjidi, a Moroccan archeologist, more than 50% of the petroglyphs in Morocco have been irreparably destroyed, and it is impossible to provide sufficient protection for the remaining images. Urgent efforts to document these
ancient treasures and to provide information about preserving the rock art are essential if we are to pass this heritage on to future generations.

An exhibit showing 36 of the author’s frottages from the Sahara was on display at the Zoological Museum of the University of Zürich (May 2003-January 2004). A catalog is available from the museum upon request: Karl Schmid Strasse 4, CH-8006, Zürich.

Ernesto Oeschger
CH-6655 Intragna

Bibliography
de Chasseloup Laubat, 1938, Art rupestre au Hoggar (haut Mertoutek), Paris.

Gauthier Y. + Ch., 1996, L’art du Sahara, Seuil.
Lhote H., 1975, Les gravures rupestres de l’oued Djerat, Alger, CRAPE.

We also refer to Adoranten 2003: Inge and Heinz Diethelm: Algeria - The Rock Art of the Desert Mountains called Tassili n’Ajjer - Plateau of many Rivers.

Translation: Lyn Singer Lindpaintner
Copyright Ernesto Oeschger