4. WHAT’S NEW IN THE SAHARA, 2000–2004?

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"The Sahara has contributed virtually nothing to furthering our knowledge of rock art"
Christopher Chippindale, in Keenan 2005.

Introduction
The above epigraph shows the extent to which work on Saharan rock art remains poorly known, if not scorned, by certain archaeologists. There are doubtless several reasons for this, one of which is no doubt that a number of excessively reckless interpretations have recently led to the belief that, in this domain, it does not matter what gets written. But although, alas, this approach is still to be found in some authors, the tendency to let the imagination wander has calmed down a great deal, and every year it gives way a little to increasingly serious research. Another reason is that, apart from two non-institutional journals (Sahara and Les Cahiers de l’AARS) which are entirely or largely devoted to this subject, the literature is very dispersed, and often confined to periodicals that are privately distributed. The disaffection for work carried out in this region is doubtless also due to the fact that, apart from a few (highly unfortunate) attempts, the authors concerned remain outside current fashions, such as cognitivism. But the most important cause is certainly the fact that access to sources cannot only be done through English. Merely to inform oneself about the studies carried out in the subject from 2000 to 2004, it is imperative to read German, French, Italian, Spanish and Catalan. Barely a third of the publications have been in English, more than half in French, 6% in Italian, 5% in German. Spanish and Catalan form around 1%, but just those nevertheless represent several hundred pages. Personally, I find situation very interesting, but there is no doubt that it will have somewhat discouraged monolingual lovers of hasty judgements.

The following text summarises and analyses some 260 publications from 2000 to 2004 inclusive, directly concerning the rock art of the immense Sahara Desert. First we will present those reporting new discoveries, still numerous despite the difficulties inherent in the Sahara’s geopolitical situation; then those which seek to specify the question of the identification of styles, and their interrelationships, their relative and absolute chronology. A special subsection is devoted to large-scale regional studies, theses and monographs. Finally, we conclude by reviewing most of the thematic analyses and general syntheses of which we are aware. I hope this will draw attention to an area of research which, whatever some people say, is developing rapidly.

New discoveries

Morocco
In this country where the destruction of sites is in full swing, publications on rock art, even when not true corpuses, are extremely precious (Rodrigue 2001a). Hence, some new isolated anthropomorphs were reported by Bouchra Kaache in the Moroccan pre-Sahara: one at Aït Ouazzik, accompanied by a rectangular shield and at least one sword (Kaache 2001, fig. 1), another at Bourkerkour (Msissi) (ibid., fig. 2), a third at Anou n’Ouamersemal (Tazzarine) (ibid., fig. 3). Only tracings have been published, and the first specimen is attributed to assemblage Ib (with filiform legs and full body) corresponding to the Early Bronze Age, around 4000 BP. Some monochrome paintings (red to violet) – discovered by nomads in a shelter at Laouinat, 130
km south-east of Tan-Tan – have appeared in a preliminary publication by Susan Searight and the late Gyu Martinet (Searight and Martinet 2001). One can see a collective scene implying very elongated, ithyphallic archers, a frieze of 23 small anthropomorphs, other people perhaps wearing a mid-length skirt, and three schematic chariots that look more recent than the rest, and are similar to those engraved everywhere in southern (Searight and Martinet 2001, fig. 3, 5). The bestiary comprises sheep, bovine, antelope, ostriches, a probable giraffe, and a mounted quadruped (donkey?) The importance of this discovery lies in the fact that these works are more similar to those of the central Sahara than all those in the other twelve painted sites in Morocco (as much through the style of the people as through the absence of geometric signs) – but the most direct comparison can be made with the paintings of Tifariti in the Saguent el-Hamra, which are a hundred kilometres farther south (cf. infra). A few modest contributions to the inventories of already-known sites should be mentioned – such as those of Biouafen, Taouraght and Tamzarar, in the region of Akka (Desgain and Searight 2004), Wazzouzount in the region of Taghjijt (Rodrique et al. 2004) and Jebel Rat in the High Atlas (Rodrique 2001b); or totally new sites, such as the engraved assemblage of Tazinian style at Jebel Talrazit to the south of Jebel Ouarkiz, the few paintings of Wadi Asleg (Masy 2004), site III at Taouz, comprising about forty engravings of gazelles and bovines (Pichler 2002, fig. 8, 9), seven new sites at Imâoun in which bovines predominate (Salih and Heckendorf 2000) or the two locations at Tiouli, which are unusual in that the engravings (of bovines) are situated on the plateau and not in a valley (Pichler and Rodrigue 2001a). The engraved site of Guetta Oukas, in Wadi Tamanart on the flank of the Anti-Atlas, was completely recorded, with a distribution map of all the figures (Blanc et al. 2003). Cattle are omnipresent (80 examples out of 178 engravings) but the originality of the place lies in the presence of about thirty caprines, which indicates the start of the plant cover growing poorer. Nevertheless, wild fauna is still represented, with a dozen elephants, ostriches, and antelopes, a feline, and a curious snake (Blanc et al. 2003, fig. 53) with a single, long horn: is this perhaps a mythical reptile of which several are known in the central Sahara?

Western Sahara

An Anglo-Italian expedition in September-October 2002 enabled its members to visit the rock engravings of Tazina style at Sluguilla: antelopes, bovine, ostrich (Brooks et al. 2003, fig. 4), but also to discover other engravings at the same site: elephant, rhinoceros (Brooks et al. 2003, fig. 5) with a darker patina and of a different style, which looked older to the visitors. In fact, this site forms part of those being studied since 1995 by researchers from the University of Girona at Sluguilla Lawaj, but also at Blubzeimat, Leyuad, Dirt and Gleb Dan Dan. Sluguilla is a homogeneous site with engravings on horizontal slabs in Tazina style, in which 24 sectors comprising 471 localities, with more than a thousand engraved figures, have been documented. There are 180 zoomorphs including 84 boids, 19 rhinoceroses, 17 birds (ostriches and others), 15 giraffes, a dozen carnivores (felines and canids), six elephants, four equids. Among the boids one can distinguish twelve gazelles, eight oryx, various antelopes which one should doubtless not try to identify too precisely, two big ancient buffalos, three caprids, and 22 indeterminate figures. Out of the twenty “signs” observed, there are no less than sixteen “fishing baskets” (Soler Masferrer et al. 2005: 82–84). Blugzeimat (also previously called Gleb Terzug, by mistake) has only yielded pecked engravings, especially zoomorphs (bovines, giraffes, rhinoceroses), three definite anthropomorphs (and other doubtful ones) including an archer (ibid., fig. 2) and a person probably holding a round shield (ibid., fig. 3). Some enigmatic figures (ovals, sandal prints, lizzard-shapes) have also been recorded (ibid.: 81). At Leyuad, a long-known assemblage of sites, a few paintings have been listed, but especially engravings of animals (some mounted), anthropomorphs, zigzags and other enigmatic figures (big arches stretching 1m and 2 m). In the big shelter of the “Cueva del Diablo”, a group of anthropomorphs in bas-relief, life-size, is particularly remarkable (ibid.: 82). The site of Dirt 1 is characterised by patinated engravings in Tazina style (five in all: 1 carnivore, 1 bovid, 1 elephant and 2 antelopes) as at Sluguilla Lawaj, but they were made on the vertical edges of sandstone outcrops and blocks. The other figures, pecked, consist of “geometric symbols” and inscriptions in Tifinagh characters, all spread out over horizontal surfaces and with a very light patina. The Tazina school is also represented at Dirt 2, by 4 figures: an ostrich, an elephant, a pair of bovines with a line on the neck that could represent a collar – all with total patina; then come geometric signs with a lighter patina, and an Arabic inscription (ibid.: 85–86). Gleb Dan Dan is a new site discovered in 2001, and currently the southernmost in the Western Sahara. About fifty engravings are superficially pecked there (the rock is very hard): zoomorphs, anthropomorphs, and complex geometric signs, but their study has only just begun (ibid.: 86). An inventory of painted sites has been published: there are five in the Zemmur, three on the plateau of the Tiris, seven in the massif of Leyuad. These localities contain images of the large wild fauna (rhinoceroses, giraffes, antelopids, felids, canids), anthropomorphs (including a few archers) and horsemen, as well as geometric figures and inscriptions in Tifinagh and Arabic characters, but it has not been possible to obtain direct dates, nor to place these images in relation with other archaeological sites (Soler Subils et al. 2005). Another member of the Girona group, Joan Escolá Pujol, produced a complete iconographic study of the big shelter of Kkeiz, located north-east of Tifariti: positive hands comprise more than 53% of the figures, and numerically are followed by anthropomorphs (22%) and
zoomorphs (25.4%) – especially giraffes and ostriches, with a few bovids too (Escolà Pujol 2003). A new painted site has been discovered at Bou Dheir by other researchers (Brooks et al. 2003, fig. 8–11). The wild bestiary is painted in “a specific local style” (ibid.: 69) often at great size (up to 140 cm), and a remarkable ancient buffalo is included (ibid., fig. 10).

Mauritania
Since sites with rock paintings are quite rare in this country, the one that has been reported by Mie Suy and Jacques Choppay in the el-Aguer chain, south-east of Aïn Safra, deserves fuller documentation. It comprises elongated people, sometimes stick figures, and a herd of bovines with cloven hooves, two cows with the udders between the back legs, as in the eastern Sahara, albeit in a different style (Suy and Choppay 2001). Engraving sites have only been published occasionally, most often in the form of tracings, which makes the inventory underway by Pascal Lluch and Sylvain Philipp particularly promising (Lluch and Philip 2003). In a first overview, they have published photos from Wadi Ifenouar (engravings of big people and a rhinoceros following its young, paintings of bovines, people and horses), and el-Kneibis where there are two schematic chariots (ibid., fig. 7). They also illustrate engravings from Wadi Enghedâne (schematic people, bovines sometimes decorated with spirals and/or with a pendant, lizard, antelope frieze, elephant and its young near a rhinoceros and bovine) as well as, in the same site, a schematic chariot painted in red among geometric drawings (ibid., fig. 21). Finally, they complete the documentation of the engravings of the vicinity of the circus of el-Beyyed: bovines with pendants (ibid., fig. 31, 32), giraffe (ibid., fig. 33), schematic chariot (ibid., fig. 34), ostrich with spread wings (ibid., fig. 35), and engraved assemblages around the spring of Tililit: horsemen, antelopes and Libyco-Berber inscriptions (ibid., fig. 36), elephant with butterfly-wing ears (ibid., fig. 37), ostrich and lancer with a small round shield (ibid., fig. 37). All these images are for the most part linked to water sources, or are located at ancient points of passage.

Canary Islands
The huge inventory project begun at the initiative of Werner Pichler is going to make it possible to carry through a number of useful observations. The first section published concerns the engravings of the north of Fuerteventura with 2866 individual figures. All the precise locations are given, as well as numerous statistics and typologies, which in particular reveal a preferential orientation of decorated panels towards the South. The author distinguishes cupules (6 examples), lines (640), geometric signs (98), scripts (early Latin: 1251, recent Latin: 80, Libyco-Berber: 171), iconic signs (partial anthropomorphic representations such as the 225 footprints, 102 boats, for only 2 zoomorphs and no complete anthropomorph). This exemplary work is accompanied by a visual catalogue of tracings (Pichler 2004). The publication of an engraved anthropomorph from Aripe 2 (Tenerife) has been added to the documents of the same kind which have already been compared to caballine Saharan engravings, and there is no doubt that a Saharan influence was felt on the islands of La Palma or Tenerife, in a protohistoric period that remains to be specified (Farruja de la Rosa and García Marín 2005). A new rock engraving of a boat has been reported at Guinate (Haria), but it is a vessel datable to the first half of the 19th century (Sommer 2003, fig. 2). It is true that a number of engravings resist all interpretation: for example, those inventoried by Hans-Marin Sommer, and which consist most often of parallel lines (at Haria, Tahiche, San Bartolome, Llano de Zonzamas), sometimes intersecting lines. “Grids” are rarer (San Bartolome) as are other “signs” such as squares, circles or crosses (Arrecife, San Bartolome) (Sommer 2000).

Tunisia
A few complements brought to the inventory of Tunisian rock art sites add (to the already-known elements) some anthropomorphs, an undetermined zoomorph, a bovine, groups of dots, and starred signs (Ben Nasr 2001). The decorated shelter of Aïn Khanfûs, 40 m long and 4 m to 5 m deep, was discovered in 1988, but Jaâfar Ben Nasr has noticed some new figures in it: eight anthropomorphs, including 4 archers (Ben Nasr 2003, fig. 3–5, 6, 8), a bovine with a single forward-projecting horn (ibid., fig. 10) drawn in a brick-coloured ochre outline, and a quadruped with a missing front end, surmounted by a four-branched sign (ibid., fig. 11). Since Tunisia’s rock art is poorly known, and doubtless still has some surprises in store, it is regrettable that only a photo of one of these paintings has been published, the rest of the article being illustrated with tracings (three of them with no scale) whose degree of reliability is difficult to assess. Equally regrettable is the identification, by the author, of the bovine as a Bos ibericus… a species which in reality does not exist (Gautier 1988).

Algeria: Atlas, Mzab
François Soleilhavoup has published old photographs of the rock engravings of the Saharan Atlas, taken by him at sites that are now difficult to reach, coupled with excellent analytical tracings (Soleilhavoup 2003a, 2004). About a hundred engravings, distributed over 80 horizontal limestone slabs, were recently discovered on the occasion of a building development on a rocky plateau east of Beni Isguen. They were produced by indirect percussion using a metal implement, and only one of them, depicting a quadruped with total patina, is figurative. All the others have a straw- or ochre-coloured yellow patina; many are arch-shaped, and a few make one think of images of daggers
or swords. As a hypothesis, Nadjib Ferhat has proposed an attribution to the Bronze Age, and the managers of the building project have suggested that this discovery’s importance should be recognised by integrating it with their project. So the site’s study will continue (Ferhat 2003a).

**Central Sahara**

In the far north of this vast rock art province, at el-Moor (Libya), some engravings in Tazina style have been reported, which add an interesting north-eastern extension to this school (Muzzolini and Pottier 2002). The publications of Philippe Masy and François Soleilhavoup have given an idea of the richness in paintings of the region of the Ararat, located at the border of Algeria and Libya around 26° N. In particular, one can note two big ancient buffalos painted in the Wadi Tabarakat, in a style evoking that of Abaniora, and especially two other buffalos “at a flying gallop” painted in the style of Iheren-Tahillâhi at I-n-Lalan (Soleilhavoup et al. 2000, fig. 4, fig. 3): these images prove that the idea that depictions of the big ancient buffalo characterise early periods is to be consigned to the past – as had already been realised Jan Jelinek and other researchers (Jelinek 2004: 63, 67). It is a pity that the very verbose commentary accompanying these documents provides very little information, and perpetuates another legend: that of the existence of “short-horned cattle” among the Saharan herders (Soleilhavoup et al. 2000: 57), not to mention the evocation of “shamanic” practices, which is practically inevitable with this author (ibid.: 60), despite being utterly unfounded, here as in Morocco where it has also been evoked by others (Otte 2000: 260). Apart from new paintings of Iheren style – including a ram with a cephalic ornament and a flock of sheep (Masy and Soleilhavoup 2001, fig. 13–14) – this zone has also yielded a few more-or-less typical Round Head images. So this painting style has some interesting extensions. Other interesting elements in the Ararat are: eight painted chariots, one of them pulled by two oxen (Soleilhavoup et al. 2000, fig. 39), two schematic (ibid., fig. 40), one unhitched (ibid., fig. 41) and one mounted by a “Libyan warrior” (ibid., fig. 42) – the others are two-horse chariots “at a flying gallop”. Among the engravings in the same zone are some interesting ithyphallic anthropomorphs (Soleilhavoup 2003b, fig. 4, 5), some of which, clearly mythical (ibid., fig. 7, 15–17, 19), complete the series of those already known in the central Saharan massifs. Moreover, a shelter in Wadi Tabarakat has yielded the first known example of a painted homologue – in the Iheren style – for these surreal beings (ibid., fig. 22). Just as interesting are the new engraving sites discovered in the Wadi Kel Djanet, with mostly bovines, one of them mounted, and antelopes, but also an elephant, an ostrich, an archer, a few inscriptions in Tifinâgh characters. Others are located on the plateau of I-n-Tabakat: very big bovines (L = 3.2 m), a probable rhinoceros, elephant, feline, giraffe. Two sites at Tissatin comprise a rhinoceros (Masy and Soleilhavoup 2003, fig. 6), six big elephants (ibid., fig. 4), at least five bovines (ibid., fig. 7) including one with a plaited collar (ibid., fig. 8), three giraffes, an ancient buffalo (ibid., fig. 6), a big anthropomorph seen from the front (ibid., fig. 9), a feline, and a big ithyphallic therianthrope two metres high and with a raised tail (ibid., fig. 5). Another site has animal engravings in Tazinoid style (small elephant preceded by an anthropomorph, three rhinoceroses, a cow), some concentric circles joined together, various lines and dots, as well as a “fishing basket” (ibid., fig. 10). The place called Wa-n-Khalia is characterised by big horizontal engravings: thirteen giraffes (ibid., fig. 11, 12, 17, 18), six rhinoceroses including one defecating (ibid., fig. 15, 19), sixteen bovines (ibid., fig. 13), three felines (ibid., fig. 16), an ithyphallic anthropomorph (perhaps a therianthrope?) armed with an axe (ibid., fig. 14), two elephants including one more than four metres long. Among the smaller figures, there are bovines, an antelope, a probable ancient buffalo, and a few engravings of Tazina style. Nearby there are a few atypical engravings, notably a monkey that seems threatened by a feline (Maestrucci and Giannelli 2004, fig. 1, 3), some concentric circles joined in a series (ibid., fig. 18), and a “fishing basket” (ibid., fig. 15). The assemblage is in Bubaline style which reminds one more of the Tassili engravings than those of the Messak. This impression is corroborated by the discovery of a pebble decorated with a double spiral and concentric circles – themes that are generally more western – in immediate proximity to the site (Soleilhavoup 2001c: 64).

Farther south, in the Tadrart Akâkûs (Libya), a miniature engraving discovered at Ti-n-Taborak has made it possible to reconsider the relationship between rock paintings and engravings in the central Sahara (Le Quellec 2004a). In the same massif, an assemblage of Round Head humans is close to an elephant in the so-called “Martian” style, in the Wadi Afar (Maestrucci and Giannelli 2004). This animal’s ears are of “butterfly-wings” type, which makes one refrain from seeing this stereotype as a late feature, as was commonly done until now. Among the fifteen anthropomorphs aligned on an eight-metre wall, one notices four women with hanging breasts, one of them perhaps wearing a mouflon mask. To the south of the Awis, in the central part of the massif, Jacques and Brigitte Choppy have made an inventory of about fifty new sites, thirty of them in the Wadi Ta-n-Gurgur and a dozen in the Ti-Hedin, that is, a total of 920 subjects: 340 anthropomorphs and 580 animal figures. The latter are dominated by giraffes (9% of the animals), followed by elephants (5%), rhinoceroses (0,5%), a dozen hippopotamuses, including ten on the same panel (Choppy and Scarpa Falce 2004, fig. 3), a big bubalus, an oryx, a lion (ibid., fig. 4). One site in the Awis is to be added to the list of those which contain engraved “fishing baskets” or “gourd motifs”. These figures are not located in a typical Tazinian environment, and display no particular association with it (Masy 2003).
From the shelter of Wa-n-Telokat, Rosanna Ponti has reported a deteriorated ochre painting that is difficult to read; it is about two metres long, and very unusual. In it one sees, from right to left, a group of a dozen signs of arrows with points upward, a group of Round Head people including one woman, a kind of big snake on which is superimposed a series of 35 crescents and arch signs: two of the people seem to be in a kind of “U”-shaped enclosure (Ponti 2003).

Close to the northern part of the same massif, the little engraved site of I-n-Lejdi, known for a long time, was examined by Jan Jelinek, who recognised essentially bovines (a dozen), one of which probably has a tent attached to its horns (Jelinek 2000, fig. 7), but also a few people (seven in total), two giraffes threatened by two anthropomorphs (ibid., fig. 5), and four elephants (ibid., fig. 12–14). Particularly notable is a bovine, 155 cm in length (ibid., fig. 2). The affinities of several of these images with the engravings of the Messak are obvious, an important observation in view of the site’s geographical position, closer to the Tadrart Akakus than the Messak.

In a very southern part of the massif, Adriana and the late Sergio Scarpa Falce have discovered a fresco extending for more than ten metres, the main part of which comprises an enigmatic motif that reminds its discoverers of the processional “dragons” of Europe (strictly in terms of shape, of course). This motif is associated with a series of therianthropes, three of them with a rhinoceros head and one with a feline head, associated with (or holding) enigmatic bent objects – in an ensemble that is unique in and one with a feline head, associated with (or holding) a series of “style” and “phase”, and the construction of some of their predecessors who published in other languages – an important observation in view of the site’s geographical position, closer to the Tadrart Akakus than the Messak.

The use of infra-red film and oblique light made it possible for Fabio Maestrucci and Gianna Giannelli to make a precise recording of the little group of engravings beneath paintings at the site of Afozzigar. The engraved part has a mouflon surrounded by anthropomorphs (Maestrucci and Giannelli 2005, fig. 3, 5, 6) and the paintings are only people which the authors consider to be Round Heads (ibid., fig. 2, 4, 15–17). Several “ichthyomorphic” or “Kel Essuf” figures (Ferhat et al. 2000), painted or engraved in the vicinity, have also been documented (ibid., fig. 9–14; see also Choppy 2004). Attention has also been drawn to some concentric arches next to one of them in Wadi Afar (ibid., fig. 7) and to vertical red lines running parallel above an individual in the shelter of Wa-n-Afuda (ibid., fig. 8).

In the Messak, where some operations of preventive archaeology have been continued within the framework of the search for oil (Ringenbach and Le Quellec 2003), Brigitte and Jacques Choppy have carried out the photographic coverage of a big broken block (2.5 m × 1.25 m) bearing two large people, which made it possible for them to produce a tracing (Choppy 2003), while Gérard and Annie Garcin have presented a new engraved “portrait” in the Tilizaghen (Garcin 2001: 44, and fig. 6a, 6b) and Yves and Christine Gauthier have recorded an astonishing “scorpion” (Gauthier 2004, fig. 1). The northern edge of the massif has seen prospections by Tertia Barnett and her team, who have documented several hundred engravings. In the published reports, there is a frequent confusion of “style” and “phase”, and the construction of some of the stylistic categories remains imprecise; hence, phase I is called “semi-naturalistic” whereas phase II is called “semi-schematic” (Barnett 2001, 2003a, 2003b). The newly reported documents include three schematic chariots (Barnett and Mattingly 2003, fig. 8.28) and numerous inscriptions in Tifinagh characters (ibid., fig. 8.30–31, 33–40), and in Libye (ibid, fig. 8/32). This work was carried out by anglophone researchers who, for clearly linguistic reasons, were not sufficiently familiar with the work of their predecessors who published in other languages – an observation that is made regrettably frequently, as though the academic adage “publish or perish” had surreptitiously been changed to “publish in English or perish”...

At the Algerian side of the Tadrart, the first results of the programme of the pre-inventory carried out on the initiative of the Office of the Parc National du Tassili have received a preliminary publication. On this occasion, some engravings of the “Messak school” defined by Jean-Loïc Le Quellec (Le Quellec 1996) have been recognised in the Wadi I-n-Ezzan: a hippopotamus and some bovines with a double outline, therianthropes with canid heads and perhaps crocodile heads... (Striedter and Taueron 2005). Other domestic bovines (with very clear collars) in the same style occur at Wa-n-Zawaten and at the confluence of the Wadis Iberdjen and Markawendi. They have horns of various shapes, and some very clearly are wearing a collar: they are therefore domestic (Taueron 2003a). In

the abri Freulon, an assemblage of typical Round Heads comprises a mouflon framed by two archers, and a figure which seems to represent a person in a boat, beside some enigmatic figures. There is also another archer threatening a bovine, three hand stencils, an outlined hand, as well as a mounted quadruped. However, painted engravings are quite common in this region: for example, at Aman Smerdzn where drawings of a style resembling that of Iheren were produced with an ochre crayon (elephant, bovines, rhinoceros, people) (Tauveron et al. 2005). Others occur at Wa-n-Seklem and in the abri Freulon. Some paintings in the typical Iheren style (people with a tuft at the front) occur in a shelter in the Wadi Iberden wa-n-Tabarakat. A bovine with a “V”-shaped pommelled saddle bears two people, in the Wadi Tidunadj, where one can also see bovines painted in flatwash (doubtless in the Abaniora style). At Ti-n-Aressu, two people of Iheren style are shown drinking with straws from the same vessel. There is also a scene of lion-hunting (with a spear) in the same style, and which greatly resembles another at Ti-n-Hanakaten. Some painted assemblages in caballine style show that bovines were still very present at the start of this period, which confirms the hypothesis of a gentle transition from one period to the other. A few engravings of ribbed spearpoints, definitely metallic, and apparently polished on slabs, are illustrated in a photo with no precise location (Tauveron 2003a). It should be noted that such depictions of weapons are very rare in the central Sahara, but some have been recorded in the Fezzân (Barnett and Mattingly 2003: fig. 8.22c et 8.23).

To the east of Aman Smerdzn, a rock-shelter with neolithic remains on its floor (including “a few fragments of ochre which could have been used as crayons”), contains rock art (bovines, elephant, rhinoceros, antelope, gazelle, people) which at first sight comprises extremely fine engravings, with unpatinated lines of less than a millimetre. Analysis has shown that, originally, these were drawings made with a very hard mineral crayon “which, when strongly applied to the rock, scores it deeply and, at the same time, leaves a coloured deposit in this fine groove” (Tauveron et al. 2005: 37). Some subjects were painted later, in both outline and internal flatwash, but in the course of time this painting may be the first to disappear; then it is the turn of the dry colouring applied by crayon, and today all that is left is a fine line, lighter than the support (since the colour protected it for a long time). This observation renews the approach to the question of the extremely fine engravings with a light patina that are also present in the Akkûs and the Messak. The hypothesis put forward by Michel Tauveron and Karl Heinz Striedter is that these could be preliminary lines, and so what one has here are “sketches that remained unfinished” (ibid.: 38).
This certainly seems probable in the case of the biggest of these images, close to a metre, but it is less certain for the miniature works (Le Quellec 2004a), and this interesting idea remains very difficult to prove. Although it is regrettable that the authors only publish a few photos of the site they are presenting, and that they do not give a global record of it, their analysis should be kept in mind in all studies of “graffiti”-type engravings.

As for the Tassili-n-Azjer, while certain “discoveries” have received excessive media coverage (Coulson 2005) and in fact amount to very little for anyone with the slightest acquaintance with Saharan literature, that is not the case with the results obtained by Ulrich and Brigitte Hallier, who have published the big hippopotamus painting of Ifedaniouène (three metres long) as well as the other Round Head paintings (antelopes, people) which accompany it and the herd of bovines, of Bovidian age, which is superimposed on it (Hallier and Hallier 2000, fig. 1–5). Undated later renewals are visible both on certain parts of the hippopotamus and on several of the surrounding paintings. Other Round Head paintings have also been discovered in the region by these same researchers: an elephant in the sector of the Wadi Ti-n-Edjedjele (ibid., fig. 6); a group of seven people in the high Tasset (ibid., fig. 7–9) and an anthropomorph whose eyes are represented by circular gaps in the dark brown flatwash (ibid., fig. 10). Another anthropomorph, at Djebel Ifedaniouène, in flatwash with light spots (ibid., fig. 11), perhaps belongs to the same cultural horizon. Among the paintings photographed by B. and U. Hallier in the south-eastern zone of the Ifedaniouène mountains are some magnificent bovines with horns of different types (long, short and fine, forward-pointing, pendant), one of them being mounted (Hallier and Hallier 2001, fig. 1). A small crouching man bends his bow, a woman holds a child by the waist (ibid., pl. T), a very fine sheep and two men are running together, the men holding in their hands a throwing weapon of a type often depicted in the region (ibid., fig. 5 et pl. V); two rows of people, some armed (bow, curved weapon) and others accompanied by a child and bent under what seem to be guerbas (goatskin bottles) apparently should be grouped with the images that provide evidence for the sexual division of tasks among the herders of Iheren-Tahillâhi (Hallier and Hallier 2002: 117 et fig. 8). From the Wadi Tasset, the authors also publish a very fine fresco showing a herder accompanying a herd in which each animal is represented with peculiar properties, and in different attitudes, one of them with a striped coat: this is one of the most accomplished works by the painters of the Iheren school (Hallier and Hallier 2001, fig. 7 and pl. W-Z). Ulrich and Brigitte Hallier have also had the good fortune to discover magnificent paintings at Tissebouk and Irrekam Aharhar (central Tassili): a herd and its herders (Hallier and Hallier 2003a, fig. 1) or “boxers” in the first location (ibid., fig. 2 and pl. R), whereas in the second, a painter of the Iheren-Tahillâhi style produced an exceptional composition that occupies the whole interior of a niche with a liberty of line, a variety of individuals and a general equilibrium worthy of the greatest masterpieces (ibid., fig. 3, 4, and pl. R). But the scene represented, albeit familiar in some respects, remains determinedly enigmatic.

Yves Gauthier and Denis Lionnet have made known some paintings on the plateau of Tadjelaha, from little-visited sites which Lhote did not see during his 1969 mission: a fight scene (Gauthier and Lionnet 2005, fig. 2, pl. Q-T) and a line of anthropomorphs with big bellies (fig. 4) at Imerda; a coitus scene (ibid., pl. U) and bovines that are partly superimposed on a group of three big people with Round Head affinities (ibid., fig. 5 et pl. V) at Tadrast (Tadghast). In the vicinity there are other images in the Abaniara style (ibid., fig. 7, 8, pl. W).

In the Immidir, Yves and Christine Gauthier have noticed some assemblages that are particularly interesting through their style or their theme. One can note that if the off-white paintings of the big shelter of Ufsé have indeed been made with plaster, then one could take the opportunity of obtaining direct dates, since it is now possible to date this material. The authors also give several cases of relationships between paintings and engravings, including an exceptional open woman brandishing an axe and engraved on the white flatwash of a big bovine (Gauthier and Gauthier 2003, fig. 2). One also notes an elephant in white flatwash and butterfly-wing ears (ibid., fig. 3). The identification of two of the bovines of Anaserfa as ancient buffalos (ibid., fig. 14) is not very convincing. In a book devoted to this massif, Jean-Louis Bernezat devotes a full chapter to prehistory, which gives him the chance to publish colour photos of various remarkable paintings, especially Round Heads, but the regional styles are very varied (Bernezat 2002: 137–169).

In the Fadnoun, some paintings in Iheren-Tahillâhi style and, for the male figures, mostly of Abaniara, have been recorded at I-n-Selouf where two of the walls were prepared (perhaps by scraping) before being painted (Leeuwen 2001). A bichrome cow bears a big “pot” attached to its horns by very visible ropes (ibid., fig. 4b). The fine long horns of the bovines are in white, and often asymmetrical (one turned upwards and one down). Two women, both mounted on oxen, are wearing a pointed hat comparable to those known in the engravings of Djérâst (ibid., fig. 8, 11b). One panel shows a battle of archers (ibid., fig. 12a), two of them with a false bushy tail and a median notch, like those also known in the engravings of Djérâst (ibid., fig. 12b). In a scene that recalls the famous fresco of Iheren, a flock of about forty sheep face a circle of vegetation in which two women seem to be sitting (ibid., fig. 10a). Finally, Jean-Louis Bernezat has reported the existence of ancient or prehistoric tracks adjusted by displacing big blocks, probably in order to facilitate access to water-sources for the herds of bovines depicted in the paintings. Certainly such
tracks would have been too wide – and largely useless – for humans or ovicaprines (Bernezat 2004). The discovery of two astonishing engravings on a rock in the centre of a palaeo-lake, north-west of the well of I-n-Azawa, has made it possible to identify a particular “school” of engravers who liked to depict antelopes endowed with numerous fantastic characteristics: the enormous belly of a pregnant female under which there hangs a curious appendage, and arched protuberances, and a zigzag line leaving the mouth… Another engraving of this type exists at Yuf Elhak in Ahaggar, 140 km north-west of I-n-Azawa, and the circulation between these two points is facilitated by Wadi Ti-n-Tarabin, whence the name of the school of “Ti-n-Tarabin” that has been proposed for designating this particular style (Scurtu and Le Quellec 2002).

_Aïr_

The only new work is a systematic inventory of the site of Dabbous, formerly studied by Christian Dupuy (Dupuy 1987, 1988). A team led by Jean Clottes (Clottes 2000) has recorded 828 subjects, including 704 zoomorphs, 61 anthropomorphs, and 17 inscriptions in Tifinagh characters. Among the animals identified, bovines dominate (46%), followed by ostriches (16%), antelopes and gazelles (16%), giraffes (16%), and finally 12 dromedaries, 11 canids, 6 rhinoceroses, 3 equids (horses or donkeys), 2 monkeys, 2 elephants, 1 lion. The study’s only conclusion is simply that this work, carried out by three professional researchers and heavily subsidized, produced results practically identical to those obtained by Christian Dupuy, a simple amateur working at his own expense. I confess that I have problems grasping what the authors of this publication are trying to say when they conclude that “this is of great importance from the methodological point of view for the study of rock art in the _Aïr_” (ibid.: 13). In any case one can certainly wonder about the cost and the interest of an operation that consisted of installing, at Agadez airport, an aluminium cast (of 23 m2) of the two biggest giraffes from this site (Clottes 2001).

_Tibesti_

Aldo Boccazzi and Donatella Calati have made known the extraordinary site of Ouri (eastern Tibesti) where the paintings, located on the vertical walls of a big inselberg, are exposed to the sun and to atmospheric agents (Boccazzi and Calati 2001, fig. 1) and yet are rather well preserved, which makes possible numerous observations about the material culture of their creators: the details of clothing are often very carefully depicted, especially the hides or fibres (ibid., pl. P) and one notices, for example, that during their journeys, the men carried their headrest on their shoulder (ibid., pl. Q). The main assemblage, in the Karnasahi style, extends over 36 m2, and comprises 146 people, very rich in ethnographic details (ibid., pl. N). In particular one sees (ibid., fig. 6) a group of men busying themselves around an antelope on its back (as in certain paintings of the Tassili and engravings in the Messak) while others are drinking or making music (ibid., fig. 7).

_Ennedi_

Jacques and Brigitte Choppy have produced the third instalment of their catalogue of the rock art sites of Ennedi, this time dealing with the centre and south-east (Choppy and Scarpa Falce 2003). On the high plateau of Bodhoué, in the central-west part of the Massif, Gérard Jacquet has visited 25 shelter containing some 300 paintings and engravings. The most interesting figure is the line-drawing of a crescent-shaped boat, probably made of tied reeds, with its pilot seated at the back and holding in this hand a long oar or scull (Jacquet 2000: 142 and pl. K). The author claims to see “analogies” between one of the people painted in the region and Egyptian depictions of Bes (ibid., fig. 7) – a comparison which has no confirmation. A number of the people painted in red flatwash (ibid., fig. 8, 9) could more usefully compared with the “Libyan warriors” that are so abundant in the southern Sahara and which they resemble as much through their posture, their silhouette and their mushroom-shaped head as by the big-pointed spear they carry in their hand. Two paintings with a broad outline in dark red or violet, each comprising two people (ibid., fig. 12, 13), strongly recall the Round Head style and could represent an unknown extension of that style – but this still needs confirmation, because the works in question are very poorly preserved. Some enigmatic striped oval shapes have been noticed, two of them close to probably female figures (ibid., fig. 14–17). These figures differ from the enclosures or dwellings that are also present in the region (ibid., fig. 18, 19). Several engravings show a tapering object which defies interpretation (ibid., fig. 20a, 20b) and in an engraved couple, the man, wearing heeled shoes, seems to brandish what bears a close resemblance to a Bren gun (ibid., fig. 20c)! In the vicinity, there are about 150 tombs which can perhaps be related to the art; the published photo shows some kind of regular tumuli (?) and the ensemble suggests a very rich area, which should be carefully documented.

The eastern part of the massif was crossed by the 1999 Italian expedition “Cruise of the Sands” (Rossi 2004), which made it possible to discover new sites, briefly reported by Lucanio Rossi (Rossi 2000). At the start, a painted bovine with a striped body, of a type common in Chad, was photographed to the north-west of Fada (ibid., fig. 2), and on the same site there is a schematic person with falling tresses (ibid., fig. 3). Farther to the north-east, on the Plain of Aloubo (Mourdi depression), a large tumulus is surrounded by smaller tombs, the whole lot being in a place abounding in pastoral engravings. An assemblage
of reticulated engravings has been found a few kilometres from Azrenga (ex.: ibid., fig. 4) and the author interprets them as traps. Four decorated shelters occur close to the water source of Halenia. In particular one can see schematic feathered lancers, painted in flatwash (ibid., fig. 7). The shelter visited in the Wadi Tegroba contains headless dromedaries mounted by people with “stick-shaped” heads, close to women in the same style (ibid., fig. 10). With regard to them, the author revives the proposition of seeing them as “pre-Tuaregs” who entered into relations with the late herders of Ennedi and Tibesti.

Paintings of bovines in dark ochre flatwash, with a very massive body and very fine legs and horns, were later reported to have been discovered in the centre of Ennedi by the Acacia mission (“Arid Climate, Adaptation and Cultural Innovation in Africa”) from Cologne (Uwe 2004a, 2004b). The herders accompanying them are crudely bitriangular, with a big elliptical head (Kröpelin 2004: 116–117 and pl. T). Finally, a panel in the region of Ona Guior Avoa, close to Archei, decorated with a group of horsemen at flying gallop in red flatwash, armed with spears, was presented by Giancarlo Iliprandi (Iliprandi 2003).

**Sudan**

Several engraved sites have been reported by Stefan Kröpelin. In the “Dry Selima” depression, some figures associated with a palaeo-lake show wild animals (antelopes, ostriches, mouflons, and giraffes that are older because more patinated) and domestic ones (probable donkeys, long-horned bovines, people with long objects (spears or sticks?) and signs (spirals, sandal prints, short parallel grooves). A few schematic boats pose the question of whether they were used in the neighbouring lake, which is about a hundred kilometres from the Nile (Kröpelin 2004: 111–113). Three other sites were studied along the Wâdi Howar, a former tributary of the Nile. Friederike Jesse counted 502 engraved subjects on 235 horizontal slabs between 110 and 150 km west of the Nile Valley. The assemblage is made up of schematic signs (66.5% “grids”, then 6.6% and less for “ovals”, “ovals with intersecting lines”, “horseshoe-shaped forms”, “floral motifs” and serpentiforms), animals (bovines, elephants, gazelles, giraffes, ostriches, dromedary, perhaps serpents and scorpions, that is, 1.2 % in total) and a few anthropomorphs (2.2 %). Other engravings occur at Zolat el-Hammad, 450 kilometres from the Nile, a site whose western part was already known through old publications by Newbold (Newbold 1924) and Rhotert (Rhotert 1952), but some new documents have now been reported in its eastern part. These are mostly bovines with long horns and with “a single horn at the front”, as well as mouflons and goats with a lighter patina. The ostriches seem to coexist with the bovines, and the giraffes are often obliterated by them, and are associated with elongated people with very big rounded heads, in a static position. These people are of a new type, different from the “Round Heads” of the central Sahara, and belong to an early local phase, because some are associated with rhinoceroses (Kröpelin 2004: 114–116).

**Alphabetical inscriptions**

Among the zoomorphic and anthropomorphic figures in the five painted shelters of Ifran-n-Taska to the south-west of Zagora (southern Morocco) there is a rare Libyco-Berber inscription of twelve or thirteen signs painted in a lighter red than the other motifs, and which remains undeciphered for the moment (Skounti and Nami 2004). Also in southern Morocco, Foum Chenna is an engraved site on a small tributary of the Draa, about seven kilometres west of Tinzouline. Thirty inscriptions occur here among hundreds of caballine and cameline engravings and, although the site was discovered by M. Reine in 1942 and is very easy to reach, Werner Pichler is the first to have documented it correctly. He estimates that they date back to the second half of the first millennium BC, although they contain punctiform signs that are reputed to appear later (Pichler 2000a, 2000b). Since that publication, this site has been the subject of other studies which confirm its exceptional nature (Skounti 2004, Skounti et al. 2004). In the four inscriptions recorded in the Wadi Meskaou, punctiform signs only appear in that with the lighter patina (Pichler and Rodrigue 2001b). Certain inscriptions reported formerly have been reviewed and their recording has been corrected (Pichler 2002, fig. 5–7; Skounti et al. 2004: 193) while others, completely new, have been recorded at Aït Ouazik, Ikhf n’Ouaroun, Tazzarine, Tibaskoextine, Assif Wiggane (Pichler and Rodrigue 2003b) and Msemrir where the diabolo sign appears for the first time in Morocco (Pichler and Rodrigue 2000).

In Libya, Mario Liverani (Liverani 2000) has published the photo of a panel covered in Libyco-Berber inscriptions and engravings of horses and “ancient” camels, located in the pass of Irlarlaren (Akâkûs, Libya).

In Egypt, Giancarlo Negro reminds us that two inscriptions of Libyco-Berber aspect are engraved at the entrance of the Great Pyramid (Negro 2001, fig. 5–9), and returns to the subject of the eastern limit of the diffusion of this writing. Some architectural considerations make it possible for him to date these documents either to after the 14th century, or—as seems more probable to the author—to before 1240 BC (between these two dates, the place where they occur was not accessible). One of them is transliterated, extremely hypothetically, as R’LBV, and supposedly is an allusion to the Rebû (Lebû), a Libyan confederation that appears on the Egyptian scene under Rameses II. For the author, the earliest Libyco-Berber inscriptions in the central Sahara, like that of Azib n’Ikki in Morocco, date back to the 2nd millennium BC, which would thus make it impossible to derive the Libyco-Berber characters from the Phoenician alphabet, and leads some to favour the hypothesis of a local development from tribes (wusûm) and potters marks.
Two inscriptions discovered by Giancarlo Negro in the Libyan desert have been studied by André Lemaire. One of them, evoking a (poor) Aramaic script of the 6th–5th centuries BC, was recorded at the famous site of Wâdi Sûra, and the other is close to Baharia, a region where G. Negro has also found three chariot engravings. The first document could be the westernmost Aramaic inscription of the Achaemenid period – and the legend of the army of Cambyses is cautiously evoked in this regard – but it remains very enigmatic. The second is no less enigmatic, and makes one think of an inscription that is either Libyco-Berber (and thus one of the easternmost), or Thamudian (and thus the westernmost) (Lemaire and Negro 2000). In the Sudan, among the thousands of engraved signs all round the ruins of Selima, sixteen regular arrangements, which could seriously make one think of a script, have been analysed by Werner Pichler, whose cautious conclusion is the possibility of short, very eccentric Libyco-Berber texts (Pichler and Negro 2005).

**Styles and dating**

Totally unqualified opinions continue to be circulated about these topics, as is proved, alas, by a text by André Laronde which strings together falsehoods, claiming that “desertification had not yet begun in the 4th millennium BC” and that the purpose of the Messak engravings was “to attract success to these hunters of the 4th and 3rd millennia BC” (Laronde 2000: 10). But rather than spend more time on such howlers, we shall now examine the theories proposed by more serious authors.

For Andrew B. Smith, the earliest paintings, those of the Round Heads, date back to around 7500 BP “before the advent of pastoralism in the Sahara”, and the chariots appeared at the end of the Hyksos period, around 3300 BP (Smith 2004: 45). Michel Taureron places the first paintings even farther back, before 10,000 BC for those of the Tadrart (Taureron 2003a), but these dates are based on the most fragile reasoning, which cannot be accepted without discussion.

The same is true, by extension, for the dates proposed for the Kel Essuf of the Tadrart (Striedter and Taureron 2002; Ferhat 2003b). A superimposition noticed in the rock shelter of Aman Smerdin north shows a giraffe, 1.6m high, in red flatwash, unquestionably on top of several others. Since this giraffe has been attributed to the Round Heads (on the basis of criteria unknown), it has been said that the engravings below it cannot be later than 8500 BC, and a date of 10,000 BC has even been put forward (Taureron 2003a). Although these speculations are not very convincing, it is true that typical Round Head paintings bear a strong resemblance to the engraved Kel Essuf, which suggests a certain form of continuity, at least in culture, between the two traditions. Nevertheless, one needs to bear in mind the existence of a few rare mounted quadrupeds among paintings which nobody objects to attributing to the Round Heads, like those of the abri Freulon (ibid.), which could indicate a later date for this style.

Ulrich and Brigitte Hallier have tried to verify a hypothesis that they have been boldly defending for twenty years, and which can be summarized as follows (Hallier and Hallier 2003b: 28):

1. The rock art of the central Sahara originated in the Nile Valley;
2. The technique of the oldest engravings is pecking;
3. The theme of the earliest art is geometric (curvilinear signs, concentric circles, nested arcs, etc);
4. This “first” art spread westwards, evolving towards greater realism: hands, human and animal tracks, then simple quadrupeds and anthropomorphs, and finally narrative scenes;
5. A major part of this development took place in Djado (Northern Niger). This is also where painting developed;
6. This pictorial development went through several stages: first came the anthropomorphs of “Christmas tree” type, then the Round Heads, which in engraving gave birth to the Kel Essuf;
7. The creators of the Round Heads of Djado were the “ethnic and artistic” ancestors of those of the Tassili, and so these are the earliest paintings of the Sahara.

A vast programme!… and to demonstrate it, the authors first report a series of previously unknown engravings of Djado which they attribute to “an early phase of the Round Heads […] for a very great number of reasons” (ibid.: 29) which they do not give us, and the nature of which escapes me totally. As an example of the “typical pecked engravings of the Round Heads” they first only present (ibid.: 30) four or five “long lines” and several “piles of semi-circles” (nested arcs) associated with circles, ovals, cupules and a few extremely schematic quadrupeds. If such an assemblage is “typical of the Round Heads”, as the authors write, then there must be Round Heads at least in the whole of Africa…or we need to be told why this particular assemblage belongs to that style, and not those of Malawi or Zambia. Next (ibid.: 31), U. and B. Hallier tell us that “another type of symbol that is very characteristic of the Round Heads […] shows the tracks of different animals”… whereas this type of engraving abounds as far as South Africa, but is never present among the true Round Heads of the Tassili-n-Ajjer. Concentric circles are also presented (ibid.: 35) as the “most typical form in the rock art of the Round Heads” (whereas they are no more abundant than tracks in the paintings of the true Tassili Round Heads). This time, there can be no more doubt: either the Round Heads colonized the entire world…or the authors are somewhat mistaken, and are making unmethodical comparisons. The “round kettles” formerly reported by Henri Lhote are also considered “very typical of the Round Heads” for the simple reason that this is also the opinion of Fabrizio Mori. But in fact, the latter simply wrote that this is very probable, on
the basis of a single date, that of Wa-n-Muhuggiag (7500 BC)… which is now recognized to be certainly wrong. One can certainly accept that, to demonstrate their starting hypothesis, the authors are keen to draw parallels between works of Djado and the Tassili-n-Azjer, but they only base themselves on undated and undatable elements made up of signs that are ubiquitous because very simple (lines, cupules, circles, arcs…). This only wins the conviction of supporters who are already convinced and hence, of course, they certainly do not have mine. This is not very serious, because I feel the essential thing is to establish a reliable documentation, a task that has also been tackled by the Halliers for some years, by publishing a number of new documents, or “revisiting” already known sites. In one of their publications, they return to the abri d’I-n-Temeilt discovered in the Tassili-n-Azjer by Jorgen Kunz in 1971, and publish a more detailed recording of it. Hence they report some interesting Tassili Round Head paintings, in particular a probable Hippopotamus depiction (ibid., fig. 4–5), a curious horned quadruped with a long dorsal protuberance (ibid., fig. 7–8), a rhinoceros (ibid., fig. 9), a magnificent group of seven Barbary sheep depicted almost life-size (ibid., fig. 14–15), and an astonishing bird with legs 2.5 m long, which looks like a crane or a secretary bird (ibid., fig. 13). An interesting detail that is rightly stressed by the authors is that several animal figures show that, in the local Round Head paintings, the quadrupeds are depicted by dark flatwash edged in white (the opposite of what has usually been seen hitherto), and that this white outline was applied at the end, after the red flatwash silhouette of the quadrupeds.

For his part, Christian Dupuy has made an inventory of the bovine images left by the Round Head painters (Dupuy 2006, fig. 4), and raises a difficulty: if the artists had represented scenes concerning a neighbouring population, then their works might not testify to the practice of stockrearing among the Round Heads, but among these hypothetical neighbours. However, he recognizes that, in any case, these images cannot be earlier than the 6th–5th millennia (ibid.: 91). Nothing enables one to associate the traces of paint dated to the 8th millennium BC in the cave of Wa-n-Afīda with rock art, and a possible vestige of Round Head paintings at Wa-n-Telogat was covered by a layer of the 6th millennium. Basing himself on statistical considerations (three paintings made every four years in the central Sahara, from the perspective of a “long” chronology), Christian Dupuy proposes in conclusion that one should “shorten the chronological bracket and centre the age of full expression of the ‘Round Head’ art on the 6th-5th millennia BC” (ibid.: 95) – a proposition which, at present, is doubtless the most reasonable.

As for the Bubaline, which some persist in considering as a period when it is merely a style, some highly acrobatic speculations have tried to date it as far back as around 15,000 BC for its earliest forms (Tauveron 2003a) – even between 15,000 and 30,000 BC (Aumassip 2001: 100) – but no new elements have arisen to contradict the refutation of such an excessive attribution (Le Quellec 1997). On the contrary, climatic and archaeozoological arguments allow the most moderate observers to demonstrate that the tradition of “naturalist” rock engravings of the central Sahara must be situated between the 6th and the end of the 4th millennia BC (Dupuy 2000; Van Albada and Van Albada 2000; Pigeaud 2003; Barnett and Mattingly 2003: 285). One can certainly be intrigued by the attitude of those who ignore these demonstrations. They generally do this at the cost of seriously imprecise vocabulary, for example a tendency to treat as synonymous (without defining them) expressions like “naturalistic period”, “naturalist Bubaline style”, and “phase known as naturalist Bubaline” (Soleilhavoup 2004), whereas the recognition of a style does not imply ipso facto that of a “phase” or “period”. This type of association is certainly possible, but it requires some arguments. And the blurred nature of the definitions, when they are not completely absent, makes possible all claims, like the one – in reality untenable – by Mustapha Nami, who proposes that the “naturalist Bubaline” is present in Morocco (Nami 2005: 11).

Other authors content themselves with presenting the periodisation that distinguishes a “Bubaline period” saying that this is acquired knowledge that is “accepted today” (Vidal et al. 2003), whereas at best it is a hypothesis that remains more questionable than ever.

Yet others repeat their touching profession of faith in the chronology conjured up by Théodore Monod in the early 1930s, and even take their devotion so far as to write that “nothing permits one to call [if] into question” (Tauveron 2003c).

Some caricature or distort the theories which they want to oppose. One woeful example is to be found in the discussion by Mustapha Nami of the “long” and “short” chronologies, in which he gives a completely erroneous summary of Alfred Muzzolini’s position, going as far as to claim, for example, that “Muzzolini’s third period, corresponding to the ‘Bovidian’ dates to 1000 BC” (Nami 2005: 13). He has not even realized that this only applies to the “final Bovidian”, whereas the late Muzzolini placed the start of the “early Bovidian” in the 5th millennium BC! Of course, making an erroneous presentation of an author’s theories enables one to combat them more easily, and Mustapha Nami concludes by revealing to us that “the Bovidian period…is…much older than suggested by A. Muzzolini”, as if this author had ever claimed the opposite!

Finally, others try to reify their past hypotheses. An excellent example of this is given by the arguments linked to the terraces of Tidunaj in the Algerian Tadart (Ferhat et al. 1997). Whereas in the original publication it was written (p. 76) that “the second level of the terrace may… constitute the break linked to the arid phase of the mid-Holocene period, and its deposits are perhaps earlier than this period which starts around 7500 BP” (my emphasis), a
new article (Striedter 2003) cites this text and now claims that “the deposits of the upper terrace are attributable to the humid period preceding the arid mid-Holocene which starts around 7500 BP” (my emphasis again). However, the initial uncertainty remains, especially as, in another publication, the same author had placed the same terrace “beyond 6500, even 7000 BP” (Striedter 1996: 130). Hence, not only is this supposed “limit ante quem for the Bubaline art of the central Sahara” reified, but what’s more, it is being pushed back in time as the references multiply, passing, with no further argument, from “6500, even 7000 BP” to a possible 7500 BP, then to a definite 7500 BP, although no new argument had been put forward. This is certainly an interesting phenomenon. For the sake of completeness, one should also cite those who content themselves with repeating, like so many mantras, phrases that take “Bubaline” art back to the Pleistocene: thus, Nagette Ain Seba places “Bubaline art ... beyond 20,000 years” (Ain Seba 2003b: 17), Michel Taueron and Ginette Aumassip do not rule out “that rock engravings or paintings may be some tens of thousands of years old” (Taueron and Aumassip 2001: 243) and Yasmina Chaid Saoudi beats all records by writing that the engravings of the Sud-Oranais are situated “on the threshold of the Upper Palaeolithic (around 30,000 years ago)” – simply on the basis of a single engraving at Guébar-Réchim, and because Pomel had seen in it (with a great deal of wishful thinking) a Loxodonta atlantica (Chaid-Saoudi 2003: 69). One hopes that these essayists will have a chance to contemplate this warning by Denis Vialou: “In general, the great classifications which have a domesticated fauna following a wild fauna on the walls of sites in Saharo-North-African art, as elsewhere, are based only on the a priori of the researchers who present them, with no archaeological foundation” (Vialou 2003: 46–47).

Having listed some 500 sites in the Algerian Tadrart between 1994 and 1997, Karl Heinz Striedter and Michel Taueron have reported three of them where one finds “perceptible influences” of what they call “Fezzan rock art”. This is a most unfortunate name, because in reality “Fezzan rock art” groups together assemblages which differ greatly from the stylistic, if not the chronological, as had already
been well observed by Paolo Graziosi in 1942. What the authors give this name to, is in reality what I defined more than ten years ago as “the classic art of the Messak culture” (Le Quellec 1996), or subsequently, and better, as “the Messak school” (Le Quellec 1998b: 145–154). Moreover, the authors (Striedter and Tauveron 2005: 17) use the expression of “classic theme […] of the Messak”. Basing themselves on the theme of the engravings, and the single stylistic criterion of the double outline, they present a series of documents which display very convincingly a close relationship with the Messak. It is a pity that they use without any discussion – and thus give credence to – the chronology of the Ancient Bubali developed by the Lutzes, which, alas, does not hold water in any way (see demonstration in Le Quellec 1998b: 254–258). They even consider that “the only chronostylistic framework currently proposed for the rock art of the Messak” (ibid.: 17–18) is that of the Lutzes (Lutz 1995), which shows to what extent their wish to avoid quoting certain authors (Muzzolini, Gauthier, Le Quellec: horresco referens!) – who have nevertheless proposed different “chronostylistic” frameworks – leads them to write such flagrant falsehoods. To believe that the theories of certain colleagues are wrong is one thing, but to act as though they did not exist is quite another, the scientific motives for which escape me.

The remains of ancient images which can sometimes be seen partly, and with difficulty, under other more visible ones could perhaps make it possible one day to identify some “archaic” stages in rock art, especially for the Messak engravings, but this question of “retouching” – very poorly studied until now because it is distorted by a desire to make the art older at all costs (Tauveron and Striedter 2003; Tauveron and Aumassip 2001: 242) – needs to be taken up again entirely. Another approach, focused on the reconstruction of the “chaîne opératoire”, the modus operandi followed to achieve different kinds of images, has not yet produced many significant results (Holl 2002).

Increasingly numerous discoveries rule out the separate study of paintings and engravings, but researchers who are starting to accept that fact (Striedter and Tauveron 2003) continue in their desire to make an artificial dissociation of the so-called “Bubaline” engravings from those called Pastoral. Nevertheless, it has been possible to demonstrate that the engravings of Ti-n-Taborak (Akakkû) were incised in a style (called Iheren-Tahillâhi) that hitherto was only known in paintings, and that they belong to the same cultural horizon (Le Quellec 2004a). It depicts caprines, and it is known that they could not have been introduced to the central Sahara before the start of the 6th millennium BC, which gives an acceptable post quem date for this type of images. But this remark means that one also needs to place all images of sheep after this period, especially those found among the “naturalist Bubaline” figures. This notion thus needs some revision, because it no longer fits the “archaic” horizon or the “Hunters” stage which it was long thought to represent, and the question of the origin of Saharan rock arts remains unresolved. For Noura Rahmani and David Lubell, however, such a rejuvenation of the “Bubaline” style, confirmed by the observations of Jan Jelínek (Jelínek 2003), “makes it possible to envisage some involvement of the final Epipalaeanolithic cultures of the Maghreb in the appearance and blossoming of this art” (Rahmani and Lubell 2005: 52).

Since Capsian territory expanded southwards after 8000 bp – certain Capsian sites of the northern edge of the Sahara are of relatively recent age (Rahmani 2003, 2004) – and since the study of pottery reveals a Saharan contribution to that of the Neolithic of Capsian Tradition (Aumassip 1987), everything leads one to evoke the possibility of mutual connections between Maghreb and Sahara around 7000 bp. That is also the opinion of Malika Hachid, who envisages such reciprocal interactions in the heart of a highly permeable Sahara (Hachid 2000). Hence, even if the question of the ultimate origin of this art remains unresolved, and despite certain reckless claims (Aumassip 2004: 269; Tauveron and Aumassip 2001) trying to take it back to the Palaeolithic, for the moment there are no grounds for associating the Aterian “or a moisteroid facies” with the artistic manifestations of the Bubaline style.

The paintings that overlie the engravings of Afozzigiar reported by Fabio Maestrucci and Gianna Giannelli are considered as Round Heads by these researchers (Maestrucci and Giannelli 2005), who thus add this document to the two other superimpositions of this type already known: that of Wadi Afar (Jelínek 2004: 42 and fig. 549), and that of Wa-n-Tabaraka in the Algerian Tadrart (Striedter 1996: 129 and fig. 2). But before drawing conclusions from the point of view of chronology, or assuming a continuity between engravings and paintings of the Round Heads, it is perhaps necessary to obtain more solid arguments for the stylistic attribution of these images, because neither the recordings nor the published black-and-white photographs are really convincing.

In the Tassili-n-Ajjer, the observation of new paintings confirms the existence of a continuity, even a “gentle evolution” between the Abaniora school and that of Iheren-Tahillâhi (Gauthier and Lionnet 2005:135), and it is suggested that the bovines drawn in white (ibid., pl. V) belong to the first of these schools (ibid.: 135). In the same way, the dog-headed anthropomorph followed by a decorated sheep that is painted at Iheren, which was only known through a tracing by Lhote whose authenticity was challenged (Hachid 2000: 304), has been documented by a photograph and a new recording showing that they seem to be attacked by another archer, to the right (ibid., fig. 9, 10). The important point is that this group clearly belongs to the Iheren school, confirming the existence of therianthropes and of the theme of the “helmeted ram” in this assemblage. Two other therianthropes, engraved this time, have been noticed within the group of works attributable to the “Messak school” of the Tadrart, at 1-n-Ezzan: this is a remarkable extension to the south-west of this style (Tauveron 2003a).
In the central Sahara, certain images at Immidir suggest some interesting comparisons with Tassili sites (e.g.: the bovines with pendant horns or the recumbent giraffe of Ufés) (Gauthier and Gauthier 2003). In the same way, some curious humans hunched up in an ample garment at I-n-Eghal evoke a little some of those at Ti-n-Moussa (ibid., fig. 10), which leads one to extend towards Immidir the influence of the painters of the Iheren-Tahillâhi style – an extension that is, moreover, confirmed by the style of the recumbent giraffes (ibid., pl. N) and the bovines of the same site (ibid., fig. 6). Others display some resemblance with the Tekembar group (e.g.: ibid., fig. 20), but nevertheless they are different. So one comes up against a problem of method, insofar as “similarities or associations of characteristic points can lead one, through successive analogies, towards sub-assemblages that one would find disconnected if one compared them “harshly with strict criteria” (ibid.: 144). A superimposition recorded at Tissebouk confirms that the Ti-n-Abanîher–Abaniora style is earlier than that of Iheren-Tahillâhi: all known superimpositions indicate the same (Hallier and Hallier 2003a, fig. 1b).

In the course of his useful synthesis on the prehistory of Morocco, Alain Rodrigue establishes that rock art began in this country with the arrival of engravers fleeing the increasing aridity of the central Sahara and “who would continue to express themselves on the rocks of southern Morocco, like their ancestors had done in the Hoggar or the Tibesti” (Rodrigue 2002a: 97). Although the Tibesti doubtless has little to do with this process, and since at least some of the engravings located there must have been made by people who had “come down” from the central Sahara, this type of scheme is broadly confirmed by painted humans at Bhous Dheir in the western Sahara, because they have a kind of raised quiff that has been compared to certain paintings of the Akâkûs (Brooks et al. 2003: 70), which does indeed indicate relations with the central Sahara. And it is true that the “manner” of the great buffalo at this site does resemble that of Iheren. Several dozen funerary monuments have been found in the surrounding area, especially simple tumuli (ibid., fig. 12), but also various arrangements of stelae in the Tifariti region (ibid., fig. 13–15), as well as platforms (ibid., fig. 16) up to ten metres in diameter, and crescent-shaped tombs at Bou Dheir and Erquez (ibid., fig. 17); in the latter place, the tombs are just above the rock art site, which again poses the problem of relations between the art and the funerary monuments. Moreover, axle-shaped monuments are found at Achach and close to Erquez Lahmar (ibid., fig. 18) and a monument with two “V”-shaped antennae has been recorded between Bhou Lahmar and Bou Dheir (ibid., fig. 19); the latter also point to Saharan traditions, while, for the authors, the bazinas of Wadi Tirnit (ibid., fig. 20) and Erquez Lahmar (ibid., fig. 21) rather indicate relations with the Mediterranean region (ibid.: 75, 77). Alain Rodrigue also thinks that north-south relations must have been complex, concerning both the Saharan area and the Mediterranean world (Rodrique 2004). Regarding the engravings in Tazina style at Sluguilla, it is curious that certain authors think that “the abnormal elongation of some features of the subjects represented at Sluguilla (mostly legs, but also horns and necks) may indicate a specific local tradition” (ibid.: 68), when this is a widespread characteristic of the Tazina style, which is found in numerous other parts of the Sahara. In any case, in the zone in question, the variety of rock art styles and monuments indicates the succession of several different traditions through the ages. Among the rare painted sites of southern Morocco, that of Wadi Asleg, newly discovered, presents people in flatwash which, for the discoverer, “evoke the early Bovidian of the central Sahara” (Masy 2004). The published photos even let one envisage a more precise comparison, with the Abaniora style.

Among the images in Tazina style, “the presence of metal weapons that have come from the north and not the depths of the Sahara” prevents assigning an excessive age to this artistic expression that is apparently linked to topography, hydrology “and doubtless also the geological nature of the support” (Rodrigue 2002a: 100). Certainly, it is becoming clear that the fineness and the hardness of the support play a role in the distribution of the Tazina style. Rather than wondering “why […] did the neolithic groups responsible for the engravings of the sub-naturalist Tazina style almost systematically choose surfaces on outcrops of fine sandstones […] while their predecessors of the naturalist “Bubaline” school always left their (often monumental) engravings on big vertical surfaces,
sometimes cliff-faces?” (Soleilhavoup 2003a: 35), it would doubtless be better to wonder if, by chance, these are not two different expressions of the same culture, choosing its means in accordance with the size and nature of the available supports. Moreover, even François Soleilhavoup admits that it would be “risky to suppose that the works of the ‘tazina school’ were produced by a different ethnic group from that which produced the works of a stylized naturalist style” (ibid.: 60).

Images of weapons have regularly been used to date Moroccan rock art thanks to their Cantabrian homologues, and it should be emphasized that “in the site of Rehamna, the northernmost of the country, are depictions of long sabres which make one think of Arabian curved sabres! Which would mean that in Morocco the tradition of writing on stone lasted until the Arab conquest” (Rodrigue 2002a: 109). In the same spirit, it should also be noted that the particular morphology, unique in Morocco, of the pots from the site of el-Kiffen (near Casablanca) recalls that of those found in the Almerian of South-East Spain, around 4000–2600 BC, which, unless one “envisages, for the Middle Neolithic, the possibility of imports to Morocco of pots made in the Almerian region” (ibid.: 68), could at least testify to stylistic influences. In the same way, the “Haouzian” (a technical phase with hoes on the plain of Hauz), probably around 2500 BC, has homologues in Portugal. Returning to the Tazina style, Werner Pichler and Alain Rodrigue have produced the first serious statistical approach (Pichler and Rodrigue 2003a). After presenting a history of this style which has already caused a lot of ink to flow, the two authors consider it as a “sub-product” of the “Great naturalist style” (which they do not define), dating back to at least 4000 BC. Subsequently, they “revisit” the eponymous Algerian site, basing themselves on its publications, because this site is, alas, not accessible at present. They draw up a list of the variables observed in these images, in order to establish a test of correlation between the fifteen engravings concerned, and thus reveal the great coherence of the assemblage, and then they extend the same procedure to the whole Tazina region. This enables them to give a good definition of the animal engravings in the style of this name: they have to be in profile, facing right, with two vertical legs, without hoofs, drawn with an open outline (except if there are horns – which are generally straight and vertical) and with no indication of sex. This definition is then tested at five Moroccan sites selected because they are among the most important, which enables them to verify (or refute) as they go along the identifying criteria of the same style proposed previously by other authors. W. Pichler and A. Rodrigue also study the variation in outlines on the basis of the number of lines and the number of interruptions, greatly improving the system I proposed in 1987. The study shows that there is no significant difference between the images of all the locations analysed, the farthest of which are 900 km apart; but it is true that the locations of this style seem to be linked – at least partly through geographical and geological constraints – to the presence of very fine sandstones that can be scratched with a fingernail (Rodrigue 2002b). One of the somewhat surprising conclusions of this remarkable work is that the “kettles” are not significantly associated with this style. But while this is certainly the case at certain Moroccan sites like Imâoun (Garcin 2004, fig. 26, 28), this observation should not be generalized before one is sure that it does not depend on the choice of sites studied. To verify this, and to obtain more information, it would therefore be very useful to extend the procedure of Werner Pichler and Alain Rodrigue to all zones where engravings of the “Tazina Style” have been reported.

One particular case linked to the study of this style is that of the enigmatic “kettles” or “gourd motifs” (conventional names), which were defined by Philippe Masy before he continued the inventory of claims for this “bottle-shaped motif” endowed with an “appendage placed transversally at the narrow end of the body” (Masy 2003: 11). It is not known what these images depict, and they have been the subject of numerous imaginative hypotheses (these drawings supposedly represent: leaf, plant, fish, trap, gourd, sandal or G-string!). At Sidi Mulud in the western Sahara, Pellicer i Acosta had seen them as bovids in a zenithal view, a hypothesis which has not sufficiently been taken into account, in my view. Their greatest concentration is found in Morocco and the western Sahara, but similar

Fig. 4.4. Example of “kettle” in the Tazina style, at Aït Wazik (Morocco).
engravings are known in the Messak, at Jebel Ben Ghnêma, in the region of Aramat, in DJerat, in the Ahaggar, Air, Djado, Adrar of the Ifoghas, the Saharan Atlas, and it seems premature to want to attach a functional label to this motif. However, as Philippe Masy remarks, “the variation of shapes makes one think of a class of object rather than a specific object” (ibid.: 15). It should be noted that the Catalan authors call them “zeppelins” and, while also stressing their diversity of form, rightly think that these figures could provide a good cultural indicator at the Saharan level (Soler Masferrer et al. 2005: 85).

At the eastern side, it currently appears that one can confirm the existence of two stages that are the earliest in the region, one comprising people with a triangular chest in “Sora style”, the other anthropomorphs with a discoïd head which could be called “Round Heads of the Libyan Desert” so as not to force an excessively hasty comparison with the “true” Round Heads of the central Saharan massifs (Zboray 2003a, fig. 8, 9, 15, 28). Then come the groups of archers and pastoral scenes with huts, bovines and caprines, the latter sometimes shown tethered (ibid., fig. 19, pl. K). The fact that the little violet people in Sora style are earlier than these pastoral scenes is confirmed by new superimpositions observed at Wadi Wahesh (Zboray 2005a, pl. Cx).

Among the newly reported sites in the Wâdi Howar, the engraving of a giraffe at Gala Abu Ahmed 02/2 was partially covered by sediments dating back to 1200/1300 BC, which gives an ante quem date for all the engravings of this zone (Jesse 2005: 33 and fig. 11). Some comparisons have been made on the one hand with the sites with schematic engravings at Abka and Taar Doi in the central-southern Sahara, and, on the other, with Egypt since one of the signs recalls the Egyptian ankh. It is known that a humid episode occurred in the Wâdi Howar around 2000 BP (ibid.: 28), that a complete giraffe skull has been dated there to ca. 2200 cal BC, that elephant remains are older there (Vth and Vth millennia BC) and that the camel is known in north-east Africa by the first millennium BC (ibid.: 36).

The comparison – certainly very vague – of the reticulated signs of this region with those of the Mourdi depression, 650 km farther west (Simonis 1996) seems to confirm the role of an east-west link that the Wadi Howard could have played (Kröpelin 2004: 113–114).

Friedrich Berger challenges the date proposed by Jean-Loïc Le Quellec (Le Quellec 1998a) for the artistic flowering of the Libyan desert (that is, after 4000 BP) by using an argument a silentio: supposedly there were never any elephants in this region throughout the Holocene, because of the climatic conditions, and so one could not use their absence in the rock art to make it younger. But since then, several images of pachyderms have been found in this zone – where they remain very rare – which leads one to think that the animal was indeed present, but that the huge majority of works are dated to after its disappearance (Le Quellec et al. 2005). The author rightly stresses the fact that reasoning of this kind, based on domestic fauna, need to be modulated because man “helped” his stock to resist drought (Berger 2000).

The late Alfred Muzzolini has often been reproached because his “core method” ignored many paintings – something he never concealed – but when the quantity and quality of the documentation are sufficient, it becomes possible to reduce the number of the “unclassifiables”. Thanks to the very numerous new documents from the Libyan desert, Jean-Loïc Le Quellec has been able to identify or confirm the existence of several regional styles of anthropomorphs: the “long lines”, the “filiforms with bird-beak head”, the people in “Sora style”, the “little striped ones”, the “miniature style”. The existence of the “swimmers” type and the “Round Heads of Djebel el-Uweynät” (which must above all not be confused with the Tassili Round Heads) has been reinforced elsewhere (Le Quellec et al. 2005: 276–279).

For the most recent period of the southern Sahara, Christian Dupuy and his collaborators (Dupuy et al. 2001) have reported a double collection of documents: on the one hand, several dozen engravings of metal objects at the Adrar of the Ifoghas (Malian Sahara), and on the other, a furnace discovered near Kouissané (Valley of the Kollimbine, upper basin of Senegal). The age of the former is estimated at the IInd millennium BC, while that of the latter is dated to the IInd–IIIrd centuries AD. The authors wonder about the reasons for this great chronological difference, and put forward two hypotheses: either this chronological hiatus will soon be filled by the results of excavations and research to come, which may prove local manufacture, during the IInd millennium BC, of the metal objects depicted in the rock engravings; or these objects were produced in remote workshops, which also functioned during the IInd millennium BC but which have yet to be discovered. For the moment, and according to the terms of their own conclusion, the very detailed investigation by the authors “brings no decisive element to the problem”. And I will add a third hypothesis to the two already envisaged: that is, that the estimation of the age of the engravings is very hypothetical and excessively old. Because even taking into account the proposed stylistic comparisons, nothing proves that these images are not far more recent, and roughly contemporary with the period during which the furnace of Kouissanté was functioning. In fact this is the most economic hypothesis, and hence the most probable. It is advisable not to envisage rock art as a simple “reflection”, and caution is needed in relation to the possibilities of using the works to deduce a general view of the social organization of the societies within which they were produced. An example is the theory, championed by Christian Dupuy (Dupuy 2000), that the early engravings were made by men, which would explain the under-representation of females. In contrast, another position championed by this same author, that of the coming of warrior aristocracies (bearing spears, chariots, horses) in
the most recent periods preceding the arrival of the camel drivers is totally convincing. Moreover, the material in tombs excavated in the Air displays Berber affinities testifying to “North African influences and exchanges with the Berber world, in a period when the Air and the Adrar of the Iforas were settled by horsemen and camel drivers, ancestors of the Tuaregs whose presence is confirmed by the VIIIth century AD.”

It is regrettable to have to write that certain errors are caused by insufficient knowledge of the field of art history. The reading of some old authors is always profitable, and that of Salomon Reinach would have prevented Jörg Hansen from making the enormous blunder that he committed by re-opening the dossier of depictions of “flying gallop” chariots. He tells us that this stylistic type appears in the Creto-Mycenean group MM III (around 1730 BC), that it arrived in North Africa in the XVIth–XIVth centuries from Crete or via Crete, where the “flying gallop” is a completely characteristic part of the culture. Since the four-horse chariots of “classic” type appear around 400 BC (cf. that of Ikadnouchère in the central Sahara), there is gap of at least 1000 years between the “flying gallop” and the appearance of the four-horse chariots. In the meantime, schematic chariots supposedly arrived from the west, via the Straits of Gibraltar, and had 1000 years to spread as far as the central Sahara (Hansen 2001). This pleasant fairy-tale is based on the idea that the “flying gallop” is culturally specific, as is clearly indicated in the title the author gave his study… but this idea had already been brilliantly – and definitively – refuted by Salomon Reinach in a series of articles published in the Revue Archéologique in 1900 and 1901 (Reinach 1901). So it needs stating and repeating: the “flying gallop” was certainly known to the Cretans, but also in Bactria, Sassanid Persia, and China in the 2nd century AD, not to mention that it is found in Europe from the end of the 18th century and especially in the 19th century, for example in a painting by Pierre Vernet depicting the “Chantilly Races in 1836” or in that by Géricault showing “The Epsom Derby” in 1821. This type was only abandoned by painters after the American Muybridge had shown, for the first time, through his photographs which broke down the movement, that it did not correspond to reality (Muybridge 1872). For Catherine Rommelaere who reports a few Egyptian examples from the XVIIIth dynasty, it is a
kind of depiction that one finds “more or less everywhere, in all periods and in all the civilizations that had the horse” (Rommelaere 1991: 64). So to wish to (re)make it into a cultural marker was a very bad idea.

Far better, from the methodological point of view, is that which consists of comparing not isolated features (like the flying gallop) but associations that are reckoned significant, for example that of the chariots and spirals and interlaced designs, as proposed by Christian Dupuy (Dupuy 2005: 71). This association, reported in the Adrar of the Ifoghas (Dupuy 2001, fig. 1) and at Weiresen in the Tassili-n-Azjer (ibid., fig. 2), reminds him of the motifs engraved on three funerary stelae from the shaft graves of circle A at Mycenae (XVIth century BC). Certainly – as he recognises – “the platform of Mycenean chariots [...] is centred on the axle, whereas the chariots of Weiresen, farther forward, is supported by the shaft”, but that seems insufficient to him “to discard the hypothesis of cultural interferences between the Aegean and the Sahara, via the Libyo-Egyptian littoral” (ibid.: 25). Amongst other arguments, the reasoning is based on the fact that some Cretan painters supposedly decorated the palace of Avaris (in the eastern Nile Delta) in the manner of that of Knossos, probably in the reign of Amosis, around 1555–1530 BC. So, in the author’s view, “a transmission by degrees of a few cultural traditions and elements which percolated from relations between Libyans and Aegeans on the littoral of Cyrenaica and Marmarica, can explain the presence in the Sahara of interlaced designs comparable to those of the Aegean world” (ibid.: 28). This theory is not completely convincing, insofar as the comparison of the interlaced designs of the Aegean world with those of the Sahara shows above all that they are very different. Moreover, in those which are associated with chariots, the horse is “rearing at full stretch” in the Aegean, but in a flying gallop at Weiresen, whereas in the Adrar of the Ifoghas, they are schematic chariots with no horse depicted. And it is hard to understand why the association of the chariot and the spirals/interlaced designs, which is not found in the Aegean frescoes of Avaris, could have spread by this route, and not the themes of the acrobats or of bull-leaping, which are well attested at Avaris (Shaw 1995). All the more so since the religious meaning of the Avaris frescoes has been demonstrated (Davies and Schofield 1995). One should also take into account the fact that numerous anomalies appear in the Avaris frescoes in relation to Cretan tradition (Rehak 1997: 401), and so the hypothesis of artists who were not Cretan but were perhaps trained in Crete seems to be more plausible. In this domain, a good question has been posed by Paul Rehak, who wants to know “why we “need” to find resident Cretans in Egypt” (ibid.: 402).

Moreover Christian Dupuy rightly reminds us that the horse was mounted in Egypt in the reign of Thutmosis IV (around 1400 BC), that from the end of the 13th century the Libyan tribe of the Ribou possessed horses, and that after his victory against a coalition of Libyans and “Sea Peoples”, in the year 11 of his reign, the booty of Ramesses III comprised swords of Mycenean origin and horse-drawn chariots.

Christian Dupuy has also stressed that, in the Tassili-n-Azjer, the engravings of spirals belong as a group to a tradition that is different from those called “naturalist”, without it being possible to place them chronologically in relation to each other (Dupuy 2003b). In the Ahaggar, by contrast, spirals and meanders are integrated with the drawing of certain animals (bovines, elephants), and the same author then puts forward the hypothesis of a relatively younger age, around the chariot period (ibid.) – contrary to the old theory of Paul Huard which saw these as archaic “hunters’ signs”. Let us add that in Morocco, spirals, meanders and interlaced designs of various types have been abundantly documented at Imâoun (Salih and Heckendorf 2000: 8; Garcin 2004, fig. 17–25, 30 and pl. C-E), at Taouraght (Desgain and Searight 2004, fig. 15, 17, 18) and three kilometres east of the site of Talrazit (Masy 2004). Michel Tauveron, who has taken up the inventory of the engraved and painted “meanders” of the Sahara, champions the “economic” hypothesis according to which these complex figures developed from spiral engravings present in the preceding periods, but whose existence is not taken into account in the hypothesis of a Mediterranean contribution. The latter theory comes up against an even greater difficulty, if one considers that the distribution of chariots and that of spirals are separate, the two assemblages being close in very few sites (Tauveron 2003b: 223). One is compelled to admit that no really convincing argument or comparison has yet come to support one or the other of the currently competing theories about the origin and chronology of the horse and chariot, and it is not sure that they had the monopoly on certain characteristics of the “Libyan warriors” (crossed belt,
Fig. 4.7. Some of the few fakes produced by Henri Lhote’s team of painters had a great deal of success, like for example this pseudo-Egyptian scene reproduced on a mosaic in Djanet airport (Algeria).

Feathers stuck in the hair. Moreover, nothing, in the recent excavations of Garamant sites, has brought the slightest support to the tradition (owed to Herodotus) of a use of chariots by this people (Mattingly 2003; Tauveron 2003b: 230).

Even more fragile than the previous proposition is the one put forward by Susan Searight and Christian Dupuy of linking the engravings of Imâoun (southern Morocco) and Issamadanen (Adrar of the Ifoghas, Mali) – sites that are 1500 km apart – with the Iberian traditions of the Chalcolithic and the Bronze Age, on the sole basis of the presence of “circles, spirals, wavy and cruciform lines” (Dupuy 2003b: 65; Dupuy and Searight 2005). Certainly, the links between Morocco and Spain are motivated by generally accepted archaeological reasons – the chronology of real metal weapons (Spain) making possible that of their engraved depictions (Morocco) – but the integration of Adrar of the Ifoghas with this assemblage on the sole basis of the rock art repertoire is not convincing, because it is too dependent on ubiquitous images of unknown meaning. Curiously, the authors have not taken into account the sign known as a “kettle” and which is highly specific (cf. supra), although there are several examples at Imaouine (Garcin 2004) and it also seems to be present at Issamadanen (Dupuy and Searight 2005, fig. 3).

Although they cannot be rejected a priori, such transcontinental comparisons need better arguments. Hence, one cannot agree with Ulrich and Brigitte Hallier when they claim that the presence of “pendant horns” on bovines depicted in the Tassili-n-Az杰 and in the Nile region is “a consequence of transcontinental migrations” which took place in the Vth Egyptian dynasty (Hallier and Hallier 2004: 7–8). This type of horn appears spontaneously in herds, unlike horns that are truly deformed artificially. In chapter XIV of The Origin of Species, Darwin already cited “the reappearance of small pendant horns in races of hornless cattle, and especially… in young animals”. In Rwanda, bulls afflicted with this anomaly are sufficiently well known to be cited in popular tales and be given the special name of rutenderi (Smith 1975: 284–288): so is it necessary to talk of migrations?

One question that is regularly debated is that of the fakes made by Lhote’s team. This time, the painstaking enquiry by Bernard Fouilleux has established once and for all that the famous “bird-headed goddesses” were made in gouache by Claude Guichard, from a few old stains that were on the same panel as the “Young Fulani girls”. They were still slightly visible in 1961 (Fouilleux et al. 2005, fig. 2) but have totally disappeared since then. As for the so-called “Young Fulani girls”, they are authentic but, as admitted by their author, their recording was largely interpreted with inspiration from Modigliani (ibid.: 145)! The famous “Antinea” is also authentic, contrary to what has been claimed too hastily (Hachid 2003; Keenan 2004: 207–208, 217, 277). The same applies to the painting of the “dancers” of Ti-n-Tazarift, which had been suspected of being inauthentic by Alfred Muzzolini (Muzzolini 1995: 240). This last work is, on the contrary, very interesting, because it contributes some hitherto unknown technical elements, showing that the painter first drew the outline before doing the infill; the hands and head were drawn later (fig. 15). Moreover, it would be pertinent to take more interest in the artists’ technique, as was done by Christian Dupuy for an engraving in the Adrar of the Ifoghas (Dupuy 2003a). In any case, the important thing here is that there is no reason systematically to doubt the honesty of the recordings by the Lhote team, as some people tend to do excessively, without the slightest evidence (Keenan 2002, 2004). It is obvious that these recordings vary in their degree of accuracy, but to talk of systematic “fakes” is a travesty of the truth. One is astonished at the monomania of Jeremy Keenan, who only attacks Henri Lhote and French researchers, whereas similar reproaches could be made, for example, of Fabrizio Mori and Italian researchers: it is now known that about thirty years ago (and thus during the work of Fabrizio Mori’s team, and under his responsibility), several experiments were tried out on the paintings of the Akâkūs, with the application of an acrylic resin (“Palaroid B72”), which caused an alteration in colour. In the 2000s, an Italian team attempted to repair this mistake (Ponti and Persia 2002).

For the moment, the only direct datings of paintings ever carried out in the central Sahara have been obtained in the Akâkūs (Ponti and Sinibaldi 2005):

1. at Lancusi some traces of red paintings attributed to
a vague pastoral phase have been dated to 6145 ± 70 BP;
2. at Ta-Fozzigiart, some “uncertain outlines”, perhaps forming to an animal figure attributed to the Round Heads because of the presence of “spaced circles more or less filled in with white colour”, have been dated to 5360 ± 50 BP, which certainly corresponds to the occupation dates obtained during the excavation (7900 to 5260 ± 160 BP), but seems very far from the period in which most authors place the Round Heads (IXth-VIIIth millennia);
3. at A-Fozzigiart, a sample taken from a scene comprising red and white bovines has been dated to 4990 ± 50 BP;
4. at Ta-Fozzigiart II, the sample was taken from a panel of small red anthropomorphs with a white outline, superimposed on small red circles, the whole thing considered as belonging to a final phase of the Round Heads, but the date obtained is 5580 ± 210 BP, and so, here again, it is much more recent than expected by the authors.
5. at Ti-n-Torha Nord, a sample from a panel of red anthropomorphs has yielded a date of 4040 ± 200 BP, and thus more recent than those from the deposit in the shelter (7070 ± 60 BP to 5260 ± 130 BP) – hence, once again, well after the final phase of the Round Heads, as remarked by the authors. The latter end by stating that five dates are too few to draw definitive conclusions, but it is at least possible to note also that the two dates obtained for images assumed to be pastoral are no surprise, whereas the three paintings attributed to the Round Heads present a gap of several millennia from those which some people were expecting. If these dates were correct, this could mean either than at least certain Round Head paintings are far more recent than claimed by supporters of the usual “long chronology” – and that would be no surprise, since domestic bovines appear in certain images of this style, especially in the Akâkûs (Jelínek 2004: 100) – or the examined paintings did not belong to this style. So one regrets that no illustrations of the images concerned are given in the publication, which does not enable readers to come to their own conclusions on this matter.

Other dates have been obtained in Egypt by Dirk Huyge (see p. **, this volume) from what he considers to be engravings of enclosures and fish traps. He and his collaborators took forty samples at el-Hosh, but only four of them contained enough carbon to obtain AMS dates, and the results span a period between 6690 ± 270 BP and 2280 ± 320 BP. For the authors, the earliest date (corresponding to a period that was 68 % included between 5900 and 5300 BP) is “striking”, and it indicates that the images of this date “are certainly beyond the age of all other graphic activity known in the Nile valley” (Huyge 2002b, 2002c, 2005; Huyge et al. 2001, 2002) – which certainly does not display an excess of pessimism.

Friedrich Berger has investigated the distribution of different ways of representing cows’ udders, and especially that which dominates in the eastern Sahara (Berger 2001). Others have wondered with him about certain peculiarities in the images of quadrupeds depicted in a “seated” or erect position, with a vertical (or almost vertical) dorsal line, and a psychologising explanation has been given (Deregowski and Berger 1997) which Maarten van Hoeck has excellently refuted (Hoeck 2005). It seems simplest to me to see these images as a result of a particular way of transcribing perspective, already described for other periods and cultures (Garlarza 1995; Magni 2003).

Seeking to go beyond the usual observations about figures of the recent periods, for example the geometrisation of forms (Amara 2003), and returning to the figures traditionally called “Libyan warrior”, Yves and Christine Gauthier complete and correct the positions of Alfred Muzzolini and Christian Dupuy, thanks to the contribution of a good number of images, mostly unknown: paintings from the Akâkûs, the Amâmat and the plateau of Tadjelahin, engravings of the Messak, paintings and engravings of the Algerian Tadrart, Djerât and the Immidir. Among other activities, these people drive chariots, hunt ostriches, fight each other, lead their cattle; their shields are round or oval, more rarely rectangular. The documents cited force one to extend to the north-east (Tadrart, Akâkûs, Messak) and north-west (Djerât, Immidir) the area of distribution hitherto attributed to this type, and to conclude that the Libyan warriors occupied the same region as the Caballines (Gauthier 2003b).

The first statistical data developed from those collected by the Italian researchers from Rome’s La Sapienza University have begun to emerge. These accounts have been produced from photographic archives constituted in the Tadrart Akâkûs since 1995 following a protocol comprising four kinds of forms (per site, per decorated wall, per scene and per subject) and the results from the north and south parts of the massif. Research in the first region has made it possible to record 42 sites with a total of 393 subjects (235 engraved, 158 painted) in the Wadis Tihedine, Ti-n-Tamat, Ti-n-Torha, Ajando, Ti-n-Tabarakat and Aghum-n-Udaden, whereas only twelve sites were studied in the southern part, with a total of 134 subjects (99 painted and 35 engraved) in the Wadis A-Fozzigiart and ta-Fozzigiart, which join together in the Fozzigiaren. Among the engravings in the north, animals outnumber humans (66% versus 19%), while the opposite is true in the paintings (22% versus 41%). In the engravings, domestic and wild animals are in roughly equal numbers, but the bovines dominate overall (45%, versus 19% giraffes, 9% elephants, 6% rhinoceroses, 5% antelopids, two donkeys, a mouflon, a feline and a goat). Where paintings are concerned, domestic animals clearly dominate (80%), with bovines once again dominating (66%), followed by dogs (11%) and mouflons (8%), the other recognizable species (horse, antelope, feline,
and archaeozoological data now enables one to produce a fairly precise image of the changes that have taken place in the semi-continent since the Holocene: this shows clearly that in the central Sahara, the great flowering of rock art cannot be earlier than the Vth millennium BC, and that it most likely took place in the Vth (Le Quellec 2006).

Theses and major regional studies

Morocco

El-Hassan Ezziani presented his thesis on the engravings of anthropomorphs of the High Atlas (Ezziani 2002), and used its elements in various articles (Ezziani 2004a, 2004b). Making full use of the work of his predecessors Jean Malhomme and especially Alain Rodrigue, he carried out an interesting statistical analysis of a corpus of 160 images, which enabled him to distinguish the following six groups of anthropomorphs: I – with a violin-shaped body; II – with pecked infill; III – with a cylindrical body and non-filiform legs; IV – with a rectangular body; V – with a cylindrical body and filiform legs; VI – with a filiform body (“stick figures”). The statistical analysis then shows that the groups that are farthest apart from the point of view of shape (I and IV) are also farthest apart geographically (I: Oukaimeden, II = Yagour), whereas on the other hand groups V and VI are quite close to each other. On the basis of stylistic considerations, all these groups are then split into two “super-groups”: A, comprising the anthropomorphs with a trunk drawn by two lines (I + III + IV + V) and B, comprising those whose trunks made with a single line (II + VI). One then discovers an interesting contrast: group A comprises big anthropomorphs, isolated, sexed, surrounded by weapons and domestic animals, whereas group B comprises small figures, schematic, asexual, weaponless, grouped, with wild animals. Turning to the problem of metal weapons and that of the age of the oldest Libyco-Berber inscriptions, the author shows that the first group dates back to the “Atlasic” Bronze Age with a possible prolongation to the VIIth–VIIIth centuries BC (the date generally accepted for the first Libyan inscriptions) – and that the second group is that of the “Libyco-Berber period”. The first predominates at Oukaimeden, both occur in the Yagour, and the second dominates in the peripheral sites. All this therefore confirms Alain Rodrigue’s hypothesis that Oukaimeden was occupied before the Yagour, then gradually abandoned in favour of the latter. The chronology proposed by the author makes that of Alain Rodrigue very slightly older (starting it around 1600 BC rather than around 1500 BC) and prolongs it to the start of the Christian era.

El-Hassan Ezziani stresses that the images in his Group II are due, as he thinks, to an “intrusive” Libyco-Berber group, whereas “Group VI is the last incarnation of the traditional local culture, when it was confronted by the bearers of the new culture” (Ezziani 2004a: 562). The whole of this reasoning is carried out so briskly that it almost makes
one forget that the argument of a chronological continuity (for example between groups III and IV) on the basis of a stylistic continuity is rather feeble. These are two different types of “continuity”, and to pass from to the other would require a recourse to external arguments.

Susan Searight also produced a synthesis of her numerous years of research on rock art in Morocco in a thesis presented in 2001, but published in 2004 (Searight 2004) and which therefore could not take the work of El-Hassan Ezziani into account. She lists 290 sites in Morocco, of which she has personally visited half. The resulting publication starts by outlining the history of research, and assesses our knowledge in the palaeoenvironmental context of the Holocene and Moroccan prehistory in general, before tackling the rock art proper. She presents an inventory of the main figurative themes, and then the author carries out a survey of the principal sites, classified into nine major areas (north and centre, east, Atlas, south-east, extreme south-east, Anti-Atlas, south-west, eastern Sahara). Four sites are studied in more detail, and then the distribution of the four main types of engravings is presented: the “Mainly Pecked Cattle Sites” are located in the south; the “Mainly Tazina Sites” are in the south-east, the south and the eastern Sahara, but are absent from the Anti-Atlas; the “Mainly Dagger + Halberd + Anthropomorphs sites” (DHA) predominate in the High Atlas; the “Libyco-Berber Stick-Figures” appear as a minority in a number of the preceding sites. After discussion (Searight 2004: 124–138) the proposed chronology has the DHA group starting around 1500 BC, chariots and horsemen around 1000 BC, the Libyco-Berber inscriptions, dromedaries and saddled horses from 500 BC. The engravings of other styles (notably Tazina) cannot be earlier than 4500–4000 BC, and the author places their appearance around 2500 BC, the Tazina style being slightly earlier that the engravings of “Pecked Cattle” type. Concerning the meaning of the works, the author rightly rejects theories involving a supposed pan-Saharan “Hunter Culture”, extending for millennia from the Nile to the Atlantic, without for all that rejecting the possibility of a Saharan heritage which gradually percolated into the rock images of Morocco (ibid. 2004: 165).

Western Sahara

In order to achieve the “Suficiencia Investigadora” Joaquim Soler i Subils chose to study the paintings in a collection of sites in the Wadi Kenta, in the Zemmur (Soler Subils 2002). After a general presentation of this province (geology, geomorphology, climate, fauna and flora), the author explains the state of knowledge about the prehistory of the region. A plan of each of the shelters studied is given, which indicates the location of the paintings, which are then recorded by means of digital tracings from digital photos. Each time, the author is careful to present a general view of all the panels, and then details. The inventory mostly comprises linear anthropomorphs seen from the front or in profile, pectiniform animals and geometric signs (crosses, radiating circles, quadrangular signs, nested chevrons, serpentiniforms, etc), which the author calls “non-figurative graphemes” and which are in the majority (35.8 %, versus 26 % of “figurative graphemes”, 2.5 % of positive hands, and a little more than 35 % of undetermined images). There are also a few animal figures done in simple outline or flatwash, and the recognizable species are, by decreasing numerical importance: Oryx (17 %), Gazelle sp. (14 %), hippopotagus (3 %), ostrich (3 %) giraffe (2 %), elephant (2 %), but it is the undetermined quadrupeds which dominate by far (59 %). The huge majority of figures are in red flatwash, with few in white or black. Stylistic analysis of the images leads Soler i Subils to define local styles, after an interesting discussion of the notion of style itself and of its use in archaeology. He then shows that the spatial distribution of images defined as belonging to what he calls the “non-figurative style” differs from those belonging to his “figurative style”, which proves that this stylistic distinction, made a priori, is locally significant. One can deduce from this that the images peculiar to these two styles were made by different groups, which now need to be identified. One of the interesting aspects of the decorated shelters of Wâdi Kenta is that several of them have yielded archaeological material (lithic objects, ceramics, fragments of decorated ostrich eggs, drystone structures) which, although not directly linked to the paintings, enables one to have an idea of he occupation of the place. Unfortunately, it has not been possible to date the paintings studied by a direct process (absence of organic material or carbon), which is highly regrettable because, in my view, one cannot agree with Dowson’s claim (cited by the author pp. 303–304) that “the way forward in rock-art analysis is not to address issues of chronology but to theorize the art.” On the contrary, the possibility of such a theorisation can only be envisaged within a chronological framework, even a loose one. Here, the absence of horses or dromedaries in the paintings, as well as the presence of the bow, leads one to believe that the works predate the arrival of the Berbers (who use spears). Nevertheless the results presented in this thesis constitute an excellent first approach to the rock paintings of the region, which the author intends to complete. So this is a work in progress to be followed attentively, and one wishes him the success he deserves.

Algeria

In 2001, a thesis on the rock art of the Atlas was presented by Iddir Amara (Amara 2001), who subsequently summarized its contents in several articles although, it must be said, it is quite difficult to find one’s bearings in these texts (Amara 2003, 2005). In his last text on this subject, the author claims (Amara 2005: 25) that “1617 figures have been listed and have benefited from a detailed study”, while announcing (ibid.: 27) that “the inventory, completed in
1995, led to the development of a corpus grouping the whole of the engravings known in the Saharan Atlas” (my emphasis). But in the course of the text (ibid.: 27) one learns that this in fact corresponds only to the figures “of recent age”, although the total of the figures given on the following page for the whole of the “corpus” is indeed 1617. Moreover, wondering about the respective roles played by Saharan influences and the Moroccan Atlas, the author believes that “only a prospection carried out in well defined sectors of the Atlas region will make it possible to answer the question” (ibid.: 30), so that leads one to think that, in reality, the corpus and the prospection still remain to be done. Besides, the presentation of the caballine figures on plaquettes from Djorf Torba (ibid.: 29) ignores the important synthesis by Gabriel Camps (Camps 1995), the consultation of which would have prevented the author from writing that “the sandstone plaques were used as grave stones” – which is certainly not the case – and it would also have enabled him to give a correct inventory of the figures (since his own is notably incomplete). Finally, a careful examination of this site’s paintings would have enabled him to notice that two women accompanied by bearded men arebrandishing a cross, which is evidence for the Christianisation of the local Berbers. Gabriel Camps had also, very pertinently, compared these images with those to be seen on 6th-century Byzantine coins, while noting that the geometric frame of another stela from the same site displays “the closest analogies with the motifs bordering Christian epitaphs of the 5th and 6th centuries in the Mauretanian cities of Altava and Volubilis which are, with Numerus Syrorum and Pomaria, the nearest Roman towns to Djorf Torba” (Camps 1995: 29). Iddr Amara’s chronological proposal, which dates these stelae back to the period of Syphax and thus to the 3rd century BC, is thus particularly unlikely.

The thesis by Nagette Ain Seba deals with a region of the Ahaggar: the Serkout, named after a mountain of 2306 m altitude, about 200 km north-east of Tamanrasset. Some 400 engraved walls were examined to prepare this work, but it is only illustrated by very elementary tracings (from slides) or sketches done freehand, which makes the whole thing largely unusable. Similarly, the statistics provided are hard to evaluate, insofar as they are based on stylistic categories (naturalism, subnaturalism, subschematism and schematism) or zoological ones (Bos ibericus) that are imprecise or wrong. Nevertheless, this work reveals that, out of 784 subjects observed, zoomorphs are strongly predominant (73%) and, within that group, bovines (54.5%) (Ain Seba-Bouchekal 2001: 237, 238). The “symbolic figures” [sic] are dominated by 74 spirals (ibid.: 256) and what the author writes about some of them is astonishing: “one can see the spiral as the representation of a snailshell [...] In one figure, a spiral motif can also represent an open woman” (ibid.: 254). The author thinks that the bovines are generally domestic, judging by their frequent harnesses. She even suggests that four bovines are yoked to a ploughshare – which is open to serious doubt (as is the so-called engraving of an “insect plunging its head into a flower”, cited p. 250) and unfortunately cannot be verified on the illustrations accompanying the text (ibid.: 240). It is staggering that this volume’s last page concludes with a claim that Saharan rock art has been “made younger to the utmost”, and that one should take its early beginnings back to the Upper Palaeolithic – a claim that has no connection with the data presented in the thesis (ibid.: 284). Like the previous example, this work is not of the quality that one might expect of a diploma presented at the Sorbonne: one need only compare these mediocre works with the masterly volume by Joaquim Soler i Subils mentioned above (Soler Subils 2002). But this negative criticism is not directed at the students, because they have been the victims – the word is not too strong – of a professor who clearly did not supervise their work correctly.

Several volumes have appeared on the Tassili-n-Azjer. In one of these, published by the “Association of the Friends of the Tassili”, it is claimed straightaway, in the first chapter devoted to geology (Aumassip et al. 2001: 33) and in relation to rock shelters, that “numerous paintings cover their walls, evoking the succession of populations spanning more than 10,000 years” (no less!). The following chapter is devoted to the riches of the park, which led it to World Heritage status in 1982. There is an interesting overview of ethnobotany and a rapid panorama of the fauna. Another chapter next introduces the first inhabitants, known thanks to numerous remains which are examined, from worked pebbles to the Neolithic. The site of Tidunadj is then brought into the spotlight, and on p. 81 (fig. 58) the author of this part of the text modestly specifies that this wall “has been of capital importance for the chronology of Saharan art”, because, according to a highly questionable reading of the site, it makes it possible to date the earliest engraved art of the Sahara fully to the Pleistocene. As was predictable, this hypothesis (albeit refuted: Le Quellec 1997) is now reified by its promoters (ibid.: 82; cf. supra). For the author, “various indications” incline one to think that “many engravings, the earliest, those which depict big, generally isolated animals that are drawn with a broad, deep line” should be attributed to Aterian peoples (Aumassip et al. 2001: 82). The most important of these “indications” is in fact located at Tidunadj, where two engravings of (domestic) bovines have the bottom of their legs partially covered by sediments, the very early dating of which supposedly justifies this chronological revision of the rock engravings. On one page of this book, we are told that “N. Ferhat has been able to show that these deposits cannot be later than the 6th millennium” (ibid.: 82) whereas on the preceding page it had been claimed that they “were deposited, at the latest, between the 10th and 7th millennia”. Certainly these two declarations are not contradictory, but one would like a little more rigour in the manipulation of dates, because the first claim places the engravings before the 6th millennium at least, and the second before the 7th,
which is quite important, since these are domestic bovines (especially as the author of this text clearly says, p. 107, that “in the Tassili, no bone attributable to bovines has been identified before 6500”). In reality, the terrace in question has never been dated absolutely, and this age is only an estimate – respectable, of course, but still an estimate! To deduce, as Michel Taueron does, that the engravings date back 14,000 years is to take wishful thinking a little far. Another bit of “do-it-yourself” with dates can be seen a little later in an ad hoc summary of the work of Mauro Cremaschi on the patinas of engravings, the formation of which, we are assured here, “needs a temperature and a humidity which have not coincided, except locally, since the end of the 7th millennium” (ibid.: 86). But, as perfectly demonstrated by Mauro Cremaschi, on the contrary the “black” patina, characteristic of the earliest engravings, was still being formed in the Messak at 4915 ± 79 BP, that is (taking the calibration into account), in the 4th millennium BC. Even with the best intentions, it is hard to see how one can deduce from this an Aterian age for the engravings. And yet an even greater age for Saharan rock art is presented farther on, rather insidiously, since a chronological table (p. 90) has the Bubaline starting about 25,000 years ago! It is claimed (ibid.: 93) that fish are depicted “in the Round Head period and only then”, and this is repeated in another way on p. 101, where it is stipulated that the art of the bovidian peoples “no longer depicts them”: a fine example of claims that are as peremptory as they are easy to contradict – there is at least one Tassili bas-relief depicting a silurid, and fishes certainly exist among the works of other schools, engraved in the southern Tadrart, the Djérat and the Messak, or painted at Ti-n-Mûsâ in the style of Iheren-Tahilâhi. The excavations at Ti-n-Hanakaten are then presented, but it is quite difficult to follow this, in the absence of a detailed report on this extraordinary site (and one wonders, some thirty years after the start of the excavations, if such a synthesis will ever appear). It thus seems that “the Round Head period has not been recognized there” (ibid.: 102), whereas Michel Taueron and Karl Heinz Striedter, of the same team, claim the opposite (Taueron and Striedter 2003: 85–86). More serious is the very convincing identification of a basenji dog in a painting at Tikdewin (Aumassip et al. 2001: 122).

Malika Hachid alone has added two new books to the list of those that have recently appeared about the Tassili-n-Ajjer. One is a big, highly illustrated album, in which the author, who used to be the director of the Tassili National Park, offers a general account of the massif, presenting all of its aspects: geology, fauna, flora, ethnology, and of course prehistory from the Lower Palaeolithic onwards. Rock art occupies a large part of this book, and it is fortunate that the publisher was able to present, most often in colour, numerous little-known or unpublished documents. So paintings of certain famous sites like Jabbaren or Sefar, which were hitherto only known from the more or less faithful tracings by the Lhote missions, are presented for the first time by photographs, as are documents from newly discovered sites like Mankhor (Hachid 1998). The second book by Malika Hachid, which is more specifically devoted to an enquiry into the origins of the Berbers, also contains a great deal of Saharan rock art, mostly in the form of excellent photographs (Hachid 2000). In this regard, one excellent surprise is the publication of M. Morey’s brown photos (ibid., fig. 42, 48, 49, 69, 70, 132, 138): their quality, which has never been surpassed, is such that even at small size one can make out all the details of the miniatures of Iheren-Tahilâhi style. As for the basic theory put forward in these two books, which is that of a cultural persistence over a very long time, it is linked to the author’s support of a long chronology for rock art, for example placing the start of the activity of the Round Head painters around 12,000 BP (ibid.: 12),... which is very far from proven (cf. supra). In this domain, it seems that only direct dating of paintings will make it possible to escape one day from the endless circle of debate.

François Soleilhavoup published a book on the rock engravings of the Atlas, illustrated with photographs taken during his visits to the region more than thirty years ago, accompanying them with always useful analytical recordings (Soleilhavoup 2003a). On the other hand, in his text, the author cannot resist evoking (once again!) a shaman in relation to the people in two scenes (ibid.: 17, 58) and his comments on styles and chronology are strangely incoherent. He uses the terms “naturalistic” and “subnaturalistic” for periods whereas these terms (which are best avoided in any case) designate styles. The first of these “periods” is sub-divided “figurative naturalistic style”, “stylised naturalistic style” [sic] and “Tazina style” (ibid.: 55) – which therefore leads one to suppose that the latter is “naturalistic”! And yet the same author evokes, on the next page, images of Gouiret ben Saloul “whose stylistic attribution is uncertain, neither naturalistic, nor Tazina” (ibid.: 56). Regarding the meaning of the engravings, the author – an unwavering follower of an ahistorical Eladian, Durandian or Jungian pan-symbolism – goes as far as to describe an engraving by evoking “quadrangular signs belonging to a general symbolism, from Africa to the Andes, for example” (ibid.: 159). Finally, he sets great store by a “symbolic triad” made up of the ancient buffalo, the elephant and the ram (or sheep), which he says is regularly seen, and which he considers characteristic of the Atlas (ibid.: 59, 68, 71, 76–77, 131, 160), but contrary to what he claims, nothing here permits one to “put forward the hypothesis of an example of zoalatry” (ibid.: 59, 131). The speculations of which François Soleilhavoup is so fond now reach great heights, for example when he wonders, after repeating several times that his “triad” comprised three different animal species, two wild and one domestic: “Does the association of two rams...and a big ancient buffalo on the great wall of Hassiane el-Krima form part of this symbolic triad, even in the absence of the elephant and the person accompanying the ram?” (ibid.: 59). This
very innovative idea of a triad with two elements may explain the many contradictions of an author who accepts the domestic status of the ram (ibid.: 144) while making that animal the main feature of a pre-neolithic “naturalistic period” (ibid.: 66).

Finally, Augustin Holl devoted a whole book to a single rock shelter decorated with rock paintings which is a first for the Sahara (Holl 2004a). His excellent idea was to carry out an iconological analysis, but the author did not take the trouble to go to the site, and only works from a copy of the tracing by Pierre Colombel. Had he gone to Iheren, the location of the shelter he wanted to study, he would have realized how faulty this copy of a copy is. It is not only wrong in several details, but also and especially in the general layout of the images on the wall: in reality, the group of giraffes is not at all located where one sees it in the assemblage used by Augustin Holl (ibid., fig. 8.2). Since a crucial part of the author’s reasoning is based on the relative distribution of the different groups of paintings, his entire demonstration collapses!

**Libya**

A fine publication did justice to the work carried out by Paolo Graziosi in the Messak. In the years 1967–1968, and which he was still intending to publish when death interrupted his plans in 1988 (Graziosi 2005). The excellent photos, accompanied by the great prehistorian’s notes, plans and field sketches, concern the famous sites of I-n-Habeter, I-n-Galgiwen, el-Warer and Tilizzaghren; but a few documents from the valley of the Ti-n-Iblâl are also presented. The chronological analysis attempted at the end of the book by the publisher merely returns to the convictions expressed by Fabrizio Mori (2000), who grouped together the images of large wild fauna within an “arte venatoria” (“hunters’ art”) that is supposed to date back to about 12,000 BP. They were supposedly followed by the engravings of “pastoral art” (Graziosi 2005: 169). This makes it all the more regrettable that Paolo Graziosi did not have enough time to give us his final thoughts on this subject, since, on his return from the 1968 mission, he had already understood that it was impossible to separate two such groups of engravings in the Messak sites he had visited.

Another posthumous publication collects together the studies carried out on the Messak since 1976 by Jan Jelínk (Jelínk 2004). The author was one of the few who, in the 1970s, understood that this zone should be infinitely richer than had been suggested by the publications by Barth, Frobenius, Graziosi and Pesce. The book is divided into two major parts: one (ibid.: 11–174) first presents the geographical framework, the history of research and the author’s analyses (location of sites, chronology, archaeological context, archaeozoology, palaeoclimatology, style, subjects depicted, and an approach to their symbolic, decorative or narrative meaning); while the second, which is the most voluminous (ibid.: 174–541) makes available – and easy to consult – all of the documents used (photographs and tracings), accompanying them with detailed descriptions. The descriptive part, which gives an annotated inventory of numerous Tripolitanian, Cyrenanean and Fezzan sites, is strictly documentary and can therefore scarcely be a cause for debate. The situation is different in the first part, in which the author presents his own view of the art and the problems posed by its dating and interpretation. One cannot agree with him when he claims the presence of true Tassiliian Round Head paintings in the Jebel el-‘Uweynât (ibid.: 20). Despite the rejection of the terms “naturalistic” (ibid.: 44) and “sub-naturalistic” (ibid.: 60), and in spite of a preference for the use of the expression “artistic tradition” instead of the term “school”, and although style is defined (ibid.: 21) as a category grouping “behavioural traits specific to an individual, a group of individuals or a population”, the use of these different notions throughout the book poses a few problems. Hence, arguing for the existence in Djado of an elephant that is “static, with a simplified outline, with no detail on the head”, the author deduces that the “bubaline tradition… presents surprising stylistic variability” (ibid.: 20–21), whereas the chosen example simply does not belong to this tradition! Similarly, his discussion (ibid.: 49) of the anthropological type of certain Round Head figures (“negroid” according to him, whereas Alfred Muzzolini saw them as “europoids”) arouses serious reservations, as always in this field, notably because the images under consideration here are artistic figures whose motivation is not strictly illustrative, and which one obviously cannot consider to be like the plates in a 19th-century treatise of physical anthropology. The author is certainly right to reject the hypothesis that the art of the Messak is the result of influences from pharaonic Egypt, but one cannot agree when he claims that today “we know it is the other way round” (ibid.: 120). These criticisms should not conceal the fact that the book has numerous positive elements. Jan Jelínk dispatches the shamanic interpretation in a page and a half (ibid.: 93–94), rightly insists on the contemporaneity of certain lithic monuments and the great artistic tradition of the Messak (ibid.: 27–28), reports the existence of engravings earlier than this tradition (ibid.: 43), suggests an affinity of the fine engravings of Tripolitania and Cyrenaica with those of the Niscemi cave at Addaura in Sicily (ibid.: 38–39), rejects the hypothesis of “incipient domestication” by showing that bovines which are mounted or carrying things could only be castrated bulls (ibid.: 96), which indicates an advanced stage of domestication. Several claims by this author, who was known for his exemplary caution, will certainly startle supporters of the “long” chronology for Saharan rock art. Hence, p. 47: “In general, the engravings of the bubaline tradition are associated with pastoral activities”, or p. 50: “the populations of the Acacus of the Round Head tradition had some knowledge, at least rudimentary, of the domestication of livestock” (cf. also p. 100), and again p. 63 and 67, when it is said, quite
rightly, that the ancient Bubal cannot serve as a reliable chronological marker. But these claims are very correctly argued, and will make a useful contribution to the current which, for a decade now, has been proposing a critical revision of the chronologies and stylistic classifications that have been too rapidly generalized to the whole Sahara. Thus, despite its imperfections and its unfinished nature, this book is doubly useful: on the one hand by providing a corpus and a painstaking description of several sites that are hard to reach today (military areas), if not destroyed, and on the other by contributing to the current debates about the chronology and interpretation of rock images.

Léone Allard-Huard has published the second volume in her “Nile-Sahara” series, this time dealing with pastoral figures (Allard-Huard 2000). In doing so, she follows the line of research initiated by her late husband, General Huard, looking for “cultural traits” in the rock paintings and engravings that extend “from the Nile to the Red Sea”, in order to establish cultural relationships over very long distances. Unfortunately, too little attention is paid to styles and the development of a precise and reliable periodisation, which means that one cannot really follow the author in her diffusionist theories. Nevertheless, the numerous photographs that illustrate the book make it a very useful thematic catalogue, which notably permits interregional comparisons.

The much awaited book by Axel and Anne-Michelle Van Albada and Pauline and Philippe de Flers, and which takes stock of our knowledge of the region while also providing numerous unpublished documents (Le Quellec et al. 2005); the other is the DVD in which András Zboray has made available the bulk of the very rich photographic documentation that he has patiently gathered on this same region, forming a corpus that is presented in an exemplary way, and completed with permanent updates on the internet (Zboray 2005b).

The exceptional rock-art documentation illustrated in these two publications casts fresh light on the complex subject of relations between the Nile Valley and the eastern Sahara. Although one must doubtless stop seeing in Saharan rock images the traces of a unitary “culture” which was supposedly the source of Egyptian civilization, it is still true that the latter probably played a role in its multiple heritage, part of its world view, rites, and myths that were also the basis of the iconography of the Gilf Kebir and Jebel el-Uweynât. Here as elsewhere, one now needs to obtain direct dates from paintings, in order to verify the chronological framework of these images.

**Thematic analyses and general syntheses**

*On hunting and animal figures*

Rock images constitute a bestiary which, while obviously linked to the fauna present in the period of the artists, is not a faithful reflection of it. So the choice of species depicted records both nature and culture, which complicates its study (Rodrigue 2000). A first approach consists of studying the works “from the inside”, taking note only of the method of production of the painters and engravers, their way of constructing figures, but this method has rarely been adopted until now (Holl 2002; Dupuy 2003c). The over-representation of certain species is certainly significant, and one must be
careful not to artificially dissociate certain types of images, like for example those which connote hunting or game. Moreover, the study of pastoral images makes one realize that the bovine “here goes beyond a simple economic role and fills the community’s sacred space” (Aïn Seba 2003a).

Bouchra Kaache has produced a synthesis of the engraved equids of south-eastern Morocco, that is, just twelve subjects, among which she thinks she can recognize six horses and six asses, without being able to say if they were domestic or not (Kaache 2004). Moreover, these images belong to the Tazina style, which is not particularly reputed for its fidelity to nature, which means that some of these quadrupeds may not be equids at all. Ginette Aumassip and A. Kadri have also taken an interest in the equids in rock art, and have made a useful distinction between Barbary and Arab horses: although the Indo-European origins of the former cannot be doubted, the latter could perhaps prolong the stock of very ancient horses that appear in Aterian sites (Aumassip and Kadri 2002).

Some recent work on mitochondrial DNA, indicating the probable existence of several centres of domestication of the horse, even make it possible seriously to propose a local domestication of a prehistoric wild horse of the Maghreb (Equus algericus) (Aumassip 2003a, 2003b: 79).

Bouchra Kaache has also drawn attention to two Moroccan axe-bearers, one of them approaching a rhinoceros from behind (at Tiourine, Tazzarine), the other doing the same to a lion (at Boukerkour, Missssi). The first of these images is compared with ancient texts (Strabo XVi, 4, 10; Pliny VIII, 26; Diodorus III, 26) that describe techniques for hunting elephant in which stalking and approaching the pachyderms from behind were favoured. But these hunting techniques are so widespread that this is scarcely significant, especially if one takes into account that Bouchra Kaache herself cites, in the same region, another axe-bearer at Aït Ouazik (Tazzarine) who is standing in front of a rhinoceros (Kaache 2001: 120).

The “throwing sticks” or “curved weapons” of the pastoralists of Iheren-Tahillâhi are very different, and these names should simply be considered conventions as long as this object has not been precisely identified. Ullrich and Brigitte Hallier wonder about the nature of this weapon, which they suppose to be carved in wood (Hallier and Hallier 2001: 122; 2002: 111), but I notice that it has exactly the same horn-shape as certain bovines of the same style, on the same walls. These weapons could have been made of horn, which would explain why none has ever been found, but it must be said that work on comparing the material culture visible in the paintings and engravings with what can be known through traditional archaeology has barely begun (Le Quellec 2003b).

Maarten van Hoeck has compared the “giraffes on a leash” of the central Sahara and Namibia, and concludes that there is a possible common symbolism (Hoeck 2003). The distribution of this motif includes most of the Sahara and the south-west of southern Africa. In the Sahara, explanations so far have concerned techniques of taming, hunting or magic on the one hand, and, on the other, psychological motivations (domination, possession) or a spiritual or symbolic role. In Namibia (sites of Piet Algerts Kopjes, Twyfelfontein, and the Brandberg), the comparable images are never associated with anthropomorphs. It is supposed that they are figures displaying the gesture of giraffes surprised while drinking: they abruptly raise the head, and the supposed tether is merely the water falling from their mouth. Because of its long neck and head “in the clouds”, the giraffe could have been seen as a kind of intermediary between sky and earth, which would have predisposed it to become one of the “rain animals” dear to the San. On the basis of the possibility that, in southern Africa, this animal would thus have constituted a symbol of rain and fertility, the author wonders if the same was not true in the Sahara, and implies that contact could have existed between the two areas, without hiding the fact that this is an unproved speculation. One should add that this is all the more true since the existence of tamed giraffes (not “domesticated”) held on a leash is well attested in recent periods on the southern fringe of the Sahara. And at Jebel el-’Uweynât, the giraffe that is very clearly held by a leash at the Wadi Wahesh (Zboray 2005a, fig. 7) strongly contradicts the interpretation of falling water. Moreover, at el-Kab in Upper Egypt, Dirk Huyge has shown that 60% of the engraved giraffes look westwards, whereas 70% of the other engravings point eastwards. The west is the place where the sun sets, where its adversaries put the star in peril, which could be linked with the old hypothesis by Egyptologist Wolfhart Westendorf who saw this animal as a solar being (Huyge 2002a: 199–200). One can see in these two – incompatible – examples of the “rain giraffe” and the “solar giraffe”, that it is an illusion to want to elucidate symbols in the absence of their context.

After reminding us that in south-west Libya of the 11th-10th millennia BP the mouflon was the most hunted animal in the Akâkûs (up to more than 80% of the faunal remains), especially at Wa-n-Aľuda, Wa-n-Tabu, and Ti-n-Torha, whereas from the 7th to the 6th millennia BP, the number of this species’ remains decreases with the pastoral era, Felice Cesarino notes that in rock art, the precise opposite seems to happen: mouflon depictions are rare in the Round Head paintings, and more frequent afterwards. In fact, this contrast is even greater than the author says, because he follows Mori’s chronology and considers as “Fase Pastorale antica” some figures which are in reality of the Iheren-Tahillâhi / Wa-n-Amîl style – and thus of the final pastoral phase. In particular, hunting scenes become numerous in recent periods, and the author suggests (Cesarino 2000: 116) that when men appear without weapons, it is a scene of adoration or prayer (which seems extremely improbable as the mouflon is so difficult to approach, and since in these images the dogs are often shown attacking it, even biting it). It also suggests an attempt at mastery and control of the animal by means
of dogs (and drystone enclosures, cf. p. 118–119) – but the hypothesis of hunting scenes is far more probable, especially as a painting in the Akâkus (of undetermined pastoral age) shows a mouflon blocked by the same type of trap (ibid. fig. 4) as is still used today by the Tuaregs of the same region.

Basing himself on medieval Arab authors, Ahmed Achrati has suggested that the sheep with a cephalic attribute in Saharan rock art could be the equivalents of the ram called *al-karrâz* in Arabic (from *karza*: “saddle bag”) attested among the pastoralists of the Middle Ages – al-Jâhiz even specifies, in the 9th century AD, that the ram carried not only the shepherd’s gear but also the shepherd, mounted like on a donkey (Achrati 2003). But apart from the major chronological gap between the rock art and these texts, there is no reliable depiction to support this hypothesis. And although in the Sahara there are certainly numerous paintings and engravings of cattle carrying things, there is not one of a “ram of burden”. Moreover, certain images make one hesitate about how much of them is faithful to reality and how much is artistic licence (Cesarino 2003). Hence, the fineness of the muzzle of the cattle painted by the pastoralists of Iheren-Tahillâhi could either correspond to a particular bovine race, or could simply be the result of artistic licence (Hallier and Hallier 2004). So, returning to the theme of the “helmeted ram”, it seems preferable for the moment to limit oneself to noting its extent in the central massifs, already attested in the Arâmât region (Le Quellec 1995) and now also between Jabbar and Oazaneere (Masy *et al.* 2004). As for the rare depictions of “stags” which people claim to have seen from time to time in the rock art of the Maghreb and the Sahara, they have been reviewed by the late Gabriel Camps, who concluded that, although this animal was present in the Holocene, the figures “are completely unconvincing” (Camps 2002: 78). In southern Morocco, a dozen “corniforms” engraved in the Tazina style from the south of Smara to the east of Føum Zguid have been seen by Richard Wolff as heads of big ancient buffalos which were simplified to the point of being reduced to a kind of ideogram (Wolff 2001).

**On sexuality:**
François Soleilhavoup has attempted to establish an “organized thematic typology” of figures with sexual connotations in the Sahara, but this very incomplete work.
is burdened by the author’s propensity to see these images as depictions of genital aberrations or pathologies. He even goes so far as to wonder if a therianthrope – assuredly mythical – in the Ahaggar is suffering from Lapeyronie’s disease, which revives the old theories that insist on seeing, in ancient imagery illustrating certain protagonists of mythology, depictions of real monstrosities. Even if it ends with a futile evocation of shamanism (Soleilhavoup 2003b: 47), at least this attempt has the merit of showing, a contrario, that there is no way of distinguishing in such rock art assemblages what is realistic (depictions of real genital anomalies) from what is “imaginary” (scenes of bestiality with wild animals such as the rhinoceros, or animals imbued with contact between the living and the spiritual world; and the difference in clothing and attitude between the right and left parts? nothing obliges one to choose one reading of the work behind the paintings, he repeats the readings proposed by Amadou Hampaté Bâ and Germaine Dieterlen, while recognizing that these types of interpretation “are not without their critics” (ibid: 46), but this caveat is utterly insufficient since the comparisons proposed by these authors with the traditions of the Fulbe have been annihilated (Le Quellec 2002). Even more incautiously, this author proposes an interpretation of the bovines whose hide is decorated with wavy lines as “a metaphor for the fire-djinn”; these animals “may have been holy animals, or animals imbued with contact between the living and the spiritual world”, and that would permit one to date the Berbers’ “fire-worship” back to the end of the Neolithic (Smith 2004: 46–47, 52). According to Smith, “it is tempting to think of the ‘wavy-line’ motif as representing the flickering of fire” (Smith 2003: 253, 258–259; 2004: 53), but there is no indication that obliges one to read these wavy lines as a symbol of fire rather than water or wind, for example. Extending his interpretation to all the “striped cattle” visible in the Chadian massifs (Ennedi) and as far as the Nile valley, without taking stylistic types into account, he suggests, albeit without affirming it clearly, something like a common culture, or like a diffusion over the whole of the Sahara (Smith 2004: 47).

All over the world, rock art regularly evokes extremely far-fetched speculations, the least of which tries to see the earliest art as “the infancy of an original writing” and of which the worst examples, in the Sahara, try to explain the palaeolithic signs of Lascaux or of El Castillo by the arrangement of the acacia framework of Tuareg tents (Belkadi 2005)! Avoiding these errors, authors such as Ahmed Achrati and M’Hamed Krimo Boukreta prefer to indulge in long philosophical musings, both erudite and poetic, on themes of Saharan inspiration, for example about the “tears” that seem to flow from the eyes of certain animals engraved in the central Sahara – but, while perfectly legitimate, such a procedure can scarcely cast light on the engravers’ intentions (Achrati and Boukreta 2005). Finally, the most useful analyses are sometimes the least ambitious. Hence, faced with the exceptional painted assemblage at Ouri (eastern Tibesti), its discoverers propose to interpret its “story”: it could represent the encounter of two neighbouring populations – one of stockherders (left group) apparently involved in some collective festivity, and the other of hunters (right group) dressed differently and running to the festivity. The existence of such a ritual would imply that of a myth to justify it, a myth which would be linked to the aspects of this fresco which, to our eyes, remain impenetrable (Boccazzi and Calati 2001: 109–113). The fact that this reading, presented cautiously, is quite seductive should not conceal the fact that it is an unverifiable speculation, and that other interpretations are possible. For example, why not see it as a single human group, but shown in two different circumstances, hence the difference in clothing and attitude between the right and left parts? Nothing obliges one to choose one reading

On mythology in general

Andrew B. Smith (Smith 2004: 45) suggests that certain “concepts” of the Saharan pastoralists diffused from the Sahara to the Nile valley. Seeking the “deep meaning”
or the other, and it is always possible to imagine others…. This type of situation (the presentation of an attractive but undemonstrable idea) can be found in other readings, like that of the Atlas engravings by François Soleilhavoup: we saw earlier that he presents the idea of a possible “symbolic triad” that was peculiar to this rock-art province, and which united ram—ancient buffalo—elephant, man—ram—buffalo or man—ram—elephant. In such a framework, the ram could have been a kind of mediator between man and nature – a very interesting hypothesis but, alas, particularly difficult to prove since the notions of “nature” and “culture” may perhaps have been totally foreign to the engravers (Soleilhavoup 2004).

Sometimes, figures that used to be considered as “inexplicable symbols” or that had been given erroneous explanations (Soleilhavoup 1999: 20–21) are in reality easy to elucidate; this is the case with the schematic paintings of palanquins which are not rare among the cameline assemblages (Soleilhavoup 2001b). But need one point out that the motivation of the immense majority of images remains inaccessible to us, even when we recognised the objects or animals depicted. Is it possible to imagine a method capable of overcoming this difficulty? According to Andrew Smith (Smith 2005), Saharan rock art does not interest specialists in rock art in general, or in that of other regions, because its study lacks the “descriptive paradigm”, as it was called by Augustin Holl in 1989. Since that date, only the work of Holl himself has brought in innovative ideas, suggesting that the paintings (of Iheren, as it happens) were territorial markers associated with inter-group relationships reactivated on a calendrical basis. Smith goes farther by suggesting that “the paintings were mnemonics for a cognitive system where they were linked by paths, each panel being connected to another to form a larger accumulative whole”. Why not? After summarising the chronology proposed by Savino di Lernia for the Pastoral of the Akâkûs (Early Pastoral: 7400–6410 BP, Middle Pastoral: 6080–5100 BP, Late Pastoral: 5100–3500 BP), the author is no less critical of the readings by Augustin Holl who proposed seeing a fresco of Tikadiouine (Tassili-
n-Azjer) as the stages in the passage of a young boy to adulthood, and another at Iheren (same region) as the stages in the annual pastoral cycle. This supposes that these images can be immediately decipherable by a present-day observer, and nothing is less certain. So Andrew Smith wants to propose an “alternative approach” based on the tracing, by Pierre Colombel, of a scene in Iheren-Tahillâhi style, showing four men and a woman accompanied by two bovines with coats partly striped with “wavy-lines”, which are certainly not realistic. The data presented by Savino di Lernia show that from 4500 BP onwards, it must have been increasingly difficult to raise cattle in the central Sahara.

Smith deduces – curiously, in my view – that the scene in question represents a ceremony associated with fire “which continues to play an important role in the modern pastoral societies of the Sahara”. The problem here is that the three men on the left of the scene are perhaps busy with the fire, but this is not certain at all. Personally, I would even confess that I do not have the slightest idea of what they are doing, and Smith is the victim of the same shortcomings that he denounces in Augustin Holl: the blind spot in his theory is that this scene is immediately readable. But the author goes even farther, and concludes, citing Lewis-Williams, that if the fire ritual he has detected (imagined?) in the scene “can be extrapolated to include modern ethnographic behaviour of spirit possession among fire-specialists of the Tuareg, then we might suggest that there is deep meaning attached to those paintings depicting ‘wavy-line’ cattle. The paintings could thus have become mnemonics for ritual belief, and possible metaphors for activities under altered states of consciousness during spirit possession”. Personally, I would deduce that desire for the “new paradigm” must be very strong for the author to reach conclusions that are so remote from his premises and so fragile in relation to the data that are really observable.

With regard to the painted assemblage at Wa-n-Telokat (Akâkûs), Rosanna Ponti supposes – rightly, I believe – that it must refer to some lost myth (Ponti 2003). It is difficult to do farther, because one has no other painting directly comparable to this one, but some of the elements of which it is comprised (snake, possible boat, group of people) are found elsewhere in the Akakus (at Wa-n-Afuda and Wa-n-Muhuggiag). The hypothesis that comes to mind is then that all these images may illustrate variations of a single myth, but for the moment one cannot really see how to verify this idea. It should be stressed that, among the new paintings reported in the Immidir, several serpentiform motifs with longitudinal bichrome stripes do not correspond to a real animal, and “pull” part of the figures towards mythology (Gauthier and Gauthier 2003, fig. 11: Tassili-n-Timesidjan, fig. 12: I-n-Mete). Similarly, the back legs of the “scorpion” of Imatawert are in reality those of a quadruped, and so it is a chimera, not the depiction of a real arthropod (Gauthier 2004, fig. 1).

An attempt at a “direct” reading of the rock images of the Tassili-n-Azjer using present-day traditions, that of the Fulani, has had a great deal of media attention since it was proposed in the early 1960s, but a review of this problem has shown its utter futility (Le Quellec 2002, Le Quellec 2004c: 18–26). Finally, after several fruitless attempts, it seems somewhat pointless to try and establish a kind of “dictionary of symbols” for Saharan rock art, for example by trying to determine the possible meaning of bovine horns for the painters and engravers (Aïn Seba 2002). Another example is that of the “circular symbols” of the Oukaïmeden in Morocco, for which a similar approach has been proposed, claiming that they “suggest a wheel, time, the course of the sun, but also their destiny, life and intelligence” (Otte 2000: 258)... whereas the most probable hypothesis is that these are shields decorated with identifying blazons (Rodrigue 1988) whose representation fits logically with the 60% of depictions of weapons in this massif. A final example, again from Morocco: the cameline engravings of Tin zouline have been said to represent an animal that “evokes sobriety and temperance” (Otte 2000: 258), an interpretation whose poverty and ethnocentrism contrast with the richness of the Tuareg depictions constructed around the camel.

The comparison of pre- and proto-historic images with oral traditions that were, by definition, collected recently is always delicate. However, it should be recalled that in Morocco, the Amghar (“chief”) of the Aït Affan designated as Afulul-n-uyus (“Rock of the Horse”) a slab engraved with hand- and foot-prints (but no horse). He added that these engravings had been made by young people who came there to put their hands and feet on the rock to trace the outline, and that they could recognise their own prints long afterwards… which is remarkable, because since the prints in question are deeply patinated and very eroded, they appear very ancient (Topper 2003: 41–42). So one needs to be very circumspect about attempts like those by Joaquin Caridad Arias who tried to elucidate certain rock engravings in the Canaries by lumping together, like Marija Gimbutas, des palaeolithic and neolithic figures from the whole of southern Europe and the Balkans (Caridad Arias 2003)… and it is no surprise that he always finds depictions of the “Earth-Mother” and her attributes (birth, water, fertility)! The engravings of the so-called “linear geometric style” at Lanzarote (Canaries), mostly comprising series of parallel lines, and, to a lesser extent, crisscross lines or simple geometric figures (circle, square, compartmentalised rectangle…) have been subjected to an attempt at interpretation of the same kind, by Hans-Joaquim Ulbrich. Since 62% of them are on panels orientated from south-west to south-east (26% of the rest being orientated from east to south-east), they have been linked with a possible solar cult; the parallel rays would thus represent the sun’s rays (or rain!); the compartmented rectangles would symbolise agricultural topography, while triangles, crosses and ovals are considered as female symbols (?), the whole thing being linked to the cult of the “Great Mother” (ulbrich 2000a) – one can see how fragile these readings are, being
directly inspired by the theories of Marija Gimbutas. The same applies to the one proposed by the same author in his analysis of a single very schematic engraving (four arcs leaving the end of a segment) at Maleza de Los Medianos, when he compares it to various “Mother Goddesses”, the “Venus” of Sireuil, a neolithic statue-menhir from southern France, small alabasters from the Neolithic of Sardinia, Iranian statuettes, Anatolian figures, etc (Ulbrich 2000b).

Augustin Holl has attempted a reading of paintings that is based on a “replicable” method (Holl 2004b), and for this purpose chose a site at Tikadiouine (Tassili-n-Ajjer) which he studied thanks to the documents and publications of Alfred Mazzolini and Aldo Boccazi (Mazzolini and Boccazi 1991). This method consists of identifying the “elements” which, when combined, produce “motifs”, which are combined in “scenes” to finally produce “a localized narrative, a maximal theme” that conveys a direct or coded social message (Holl 2004b: 85). The blind spot of this procedure occurs at the point where “motifs” are recorded, because to constitute them the author selects and assembles the elements as he pleases (Holl 2004b, fig. 4.3) whereas other combinations would have been possible. Despite the initial methodological effort, the readings proposed are as arbitrary as many of those which are based on less cautious comparisons. To take just one example, one wonders why two people facing a gazelle head, one of them armed with a probable knife, “may suggest that they are engaged in a peculiar process of passage from one social level to another or, for short, one aspect of the process of initiation” (Holl 2004b: 94). The analysis piles up gratuitous inferences of this type, and one cannot see how it all follows a replicable and testable methodology. The fundamental question is that of how legitimate are ethnographic comparisons. Amina Amrane answers that the relatively recent nature of Saharan art (compared to the Franco-Cantabrian parietal complex) and its unity of place make it possible to have recourse to ethnology to try and interpret certain works. Hence, as a kind of test, a link has been made between rock images of jackals, of manjackal hybrids, and Berber traditions in which this animal plays a very prominent role. The basic argument is that, in their complexity present-day and recent mythologies must have developed over a long period (Amrane 2000). But the interpretation encounters its first limits in the identification of the species concerned: all therianthropes are not hybrids with jackals, even if most of them are beings with a canid head. Taking into account the specific identification thus makes it possible to enrich the analysis by bringing to light a series of significant oppositions (Le Quellec 2003a, 2004c: 29–32).

So it is necessary to bear in mind that mythologists have abandoned any type of procedure that employs random comparisons of separate elements or a univocal “translation” of symbols. Comparing differences is sometimes more useful, and, like contemporary mythologists, it is preferable to work on assemblages, and if possible on structures (Le Quellec 2003a).

Conclusion

It is pretty astonishing that after half a century of official research in the Akâkûs (Di Lernia 2004) not Libyan team worthy of the name has yet been formed, that we still have no corpus available of the massif or even of a single one of its valleys, and that we have only just started hearing of a statistical treatment of images (Guidoni and Ponti 2004a). Similarly, it is also surprising that a site as remarkable and as frequently cited as the cave princeps of Tahillâhi has not yet been completely recorded (Boccazzi and Calati 2003). As for the tracings by Henri Lhote, even if they can be criticised, they should long ago have been the subject of a publication in an album (Hallier and Hallier 2002). All over the place, sites are threatened by industrial projects or by pillagers, from the Atlantic to the Red Sea (Huysse et al. 2002). Vandals are still active, as is shown – among a thousand other examples – by the disappearance of the two hares of Djebel Hesbaïa in the Atlas (Soleilhavoup 2003a: 173). When they deign to be concerned about the archaeological environment, the oil companies – some of which have been very destructive (Kröpelin 2002) – often content themselves with redemptive actions, or do not keep their promises: most of those made by “LASMO Grand Maghreb” (Coulson 2001) have not been kept.

So the most urgent task seems to be, on the one hand, to heighten the awareness of the public, businesssens and administrative and political officials. Attention must be called to the patrimonial, documentary and artistic interest of rock art (for an example in Morocco: El-Graoui 2002) and, on the other hand, set in place some major recording campaigns (Searight 2004: 9). To do this, it is necessary to form specialists in the recording of data on site, as well as analysts whose training will protect them with the theoretical traps into which commentators are still falling too often. It is also desirable that a communal archive should be established for copies of the tens of thousands of documents already accumulated in various collections. It is obviously in Algeria that the protection of rock art is best taken into account (Bernezat 2002: 138), but a few tremors – still very insufficient – are starting to be felt elsewhere, and it is to be hoped that they will continue (Liverani et al. 2000; Coulson 2000; Ponti and Persia 2002). It is also true that, when documents are published, it is important to combine original photographs with the tracings, in order to avoid misadventures and misinterpretations which sometimes last a long time (Le Quellec 2004b). Work of this kind is underway for the Libyco–Berber inscriptions of Morocco (Lemjidi et al. 2002; Skounti et al. 2004). With current techniques (DVD, internet) the cost of such publications is no longer really a problem, as has been shown with brio by András Zboray, and it is to be hoped that his example will be followed by numerous others. Finally, one must underline the fact that most of
our information on Saharan rock art comes from simple travellers, and passionate amateurs. They do not always have the theoretical training required for correctly analysing their discoveries, but the professionals are not always able to go into the field. Opposing these two catagories, as is sometimes still done, makes no sense, because it is in everyone’s interest to collaborate in the immense work of inventory that still remains to be done.

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