



KEYWORDS: *Petroglyph – Sahara – Shamanism – Epistemology – Music – Drumming*

## MUSIC AND ROCK ART: A SAHARAN NOTE

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**Abstract.** The relationship between rock art and music is complex and has been studied from many angles. Competing interpretations of this relationship include shamanism, animism, art-for-art's sake (*l'art pour l'art*) and ethnographic parallelism. The study of the Saharan rock art establishes that the authorship of rock art relates to a purely aesthetic activity that articulates local beliefs and sensibilities, independent of any shamanism or animism.

### 1. Trance-vested rock art

#### A. Prelude: shamans, art, and the story of the 'other half'

Shamanism has had its share of detractors and defenders (Narby and Huxley 2001), but as a phenomenon, shamanism can no more explain art than art can explain shamanism. Regarding the nature of the relationship between shamans and art, any serious study should begin with an examination of the historical record. Remarkably, one of the earliest and most unlikely sources is the work of Siyah Qalam, whose work is in the Topkapi collections in Turkey. This 15th-century Muslim artist, who is of Uyghur origin, gave us paintings of Mongolian shamans, as well as scenes of the Qalandar mystics, including their ecstatic dances (Esin 1981: Figs 309, 310 and 353). Shamans are also the subject of early American painters such as George Catlin (1796–1872) and his *Blue Medicine Man*, and *Old Bear, a Medicine Man* (Truettner 1978: Figs 19 and 73), or Karl Bodmer (1809–1893) and his *Cree Medicine Man*. Better yet, there is the artwork of the Native Americans themselves, which, though rare, is still valuable both for its content and for the background information that comes with it. Examples of this artwork include the paintings of the Mandan Mato-Tope ('Four Bears'), and Sih-Chada ('Yellow Feather'). A painting on robe by Mato-Tope, for instance, is beautifully reproduced in *Mandan Buffalo Robe*, which his friend Bodmer executed (Joslyn Art Museum 1984: Fig. 341, see also Fig. 340, and related comment on p. 326). To his other friend, G. Catlin, Mato-Tope gave his own interpretation of the symbols of the scenes on that robe. Bodmer also reproduced a drum that Mato-Tope had decorated and owned (ibid.: Fig. 358). As to the work of Sih-Chada, Marsha V. Gallagher informs us, it included paintings of the traveller Prince Maximilian of Wied-Neuwied, Bodmer, himself, and his comrades (Joslyn Art Museum 1984: 322; also Fig. 316). Some of these works were taken by Prince Maximilian to Germany and are now in museums (ibid.; for later Indian artworks, see Brody 1971)

Important are also the reports of these artists. For

example, when Catlin invited the chiefs to have their portraits made, his request was met with fear and resistance. He quickly discovered that the medicine men were warning their tribesmen not to submit to any magic, and to let the strange painter 'take away' their faces. And even when they yielded to their vanity and the persuasive power of Catlin, the chiefs who posed for him would not tolerate any attempt to draw them in profile. As Larry McMurtry put it, the chiefs and the medicine men wanted to know, 'where was the other half of them' (McMurtry 2001: 169). Karl Bodmer, who came after Catlin, also met similar resistance. But it was not long before Catlin was being called a great 'Ee-cha-zoo-kah-ga-wa-kon', the Sioux term for 'medicine man' (Haverstock 1973: 57). The American Indians even referred to the room that Catlin used for work at Fort Union on the Yellowstone River as the 'medicine room' (ibid.: 62).

But, while the apprehension and interdictions of the medicine men were easily removed, fear of the human ability to produce likeness of people, animals and objects lingered among the ordinary Native Indians. Thus, for example, we learn that James Kipp, the superintendent of Fort Clark, had to retrieve a portrait of his Indian wife from Catlin after the artist had left the fort. This, Kipp did, and at the cost of twenty dollars, because his wife experienced a nosebleed sometime after Catlin had made a portrait of her (Orr, in Joslyn Art Museum 1984: 359). Another Native Indian subject, Ahschupsa Masilhichsi ('Chief of the Pointed Horn'), objected to Bodmer's retaining his portrait for fear that this might hamper his raiding plans (ibid.: 316; Pl. 327).

That the shamans were so easily swayed in this encounter between a new art and ancient traditions is most likely due the fact that they were aware of the practical side of art and its value as a craft. After all, much of what the shamans do vocationally is guided by practical needs (food, health and safety for themselves and their people). The skill of the shamans in matters of control and their 'calculative' thinking also avail them with the ability to suspend their aesthetic emotions, be they religious or

artistic. By contrast, the aesthetic experience of the ordinary individuals in the presence of art, a creative force, is less susceptible to suspension or any distinction between the artistic and the religious. The awareness of existence in these ordinary people is too authentic, stemming from their inner moods, and operating at a pre-theoretical, pre-predicative, level.

What is pertinent is that the Native Americans were awed by their encounter with art. Yet this existential orientation toward creative power and the anxieties that attend it are not unique to the American Indians. Some of the sense of awe that art and creativity inspire in all humans still survives today in the way modern people perceive photography. This, for example, is evident in the language of life and death that surrounds this art: 'She took my picture!', 'Live broadcast!', 'Animation studios'. 'They are shooting a scene', 'Cut!' The mystifying effect of the cinematographic art is also shown in the huge ability of Hollywood to generate icons and to sustain a veritable warship of these icons.

Pre-Historic people may also have experienced the same anxieties in the presence of art, and it is not unlikely that their participation in artistic creation (either as authors or audience) engaged a great deal of their mystical feelings. But the likelihood is high that such an experience of art, which takes place deep at the pre-logical level, is inaccessible to a shaman *qua* shaman, because his/her thinking is highly calculative, involving constant guessing and reading of signs. In the proper vocational orientation of the shaman, art is merely a craft, and artistic acts, just like any other auditory, gustatory, olfactory and sexual acts (e.g. *hieros gamos*), are simply techniques for summoning spirits.

Yet in all its control-orientedness, the shamanic instinct that negotiates this relationship between art and religion is not without sound foundation. Art is humanity's point of access to that which is most transcendental: freedom,<sup>1</sup> that letting-be that Martin Heidegger said discloses to Dasein its temporality, which is the fundamental basis of everyday's existence (Heidegger 2002). As such, art is too dangerous, and too subversive for any religion. This is why, whether it be in the world of the shaman, the Buddhist monk, the rabbi, the priest or the mullah, the spiritual is at peace with art only if art is reduced to a set of precise and ritualised iconic rules that are the dictates of tradition, not the inspiration of the free and creative imagination of an artist. It is true that the spiritual is also fraught with danger, but this is precisely why it is only within the rigid confines of a formal and often graphic symbolism (sand paintings, Buddhist mandalas, Madonna etc.) that the mysterious

powers of the spirit are disclosed and the tremendum of the numinous or daemonic safely experienced. Witness, for example, how when a material image is to be produced for the purpose of worship, as in the Hindu tradition, this, as a technical procedure, must be undertaken by a professional craftsman variously designated as *silpin*, 'craftsman', *yogin*, 'yogi', *sadhaka*, 'adept', or simply *rupakara* or *pratimakara*, 'imager' (Coomaraswamy 2001: 134). Witness also how, in the kivas, where almost every Pueblo picture was painted for a specific religious-ceremonial reason, the motifs are usually formalised and have a 'conventionalized treatment' (Brody 1971: 43).

It is clear, then, that the nature of the holy is sacred and secret, and is susceptible to mediation only through the formalism of craft. But given the mental, emotional and motor capabilities required for artistic activity (Helvenston and Bahn 2003: 216), it is highly improbable that shamans were in fact the authors of pre-Historic rock art. David J. Lewis-Williams himself concedes this much when, on account of workmanship, he says 'that it is unlikely that all shamans painted' (Lewis-Williams 2002: 160). Any (con)fusion of art and shamanism is, therefore, not only detrimental to the traditional role and function of the shaman, but it can also be construed as an opportunistic catering to the malls and the ascendance of New Age tourism, as Marlene Dobkin de Rios has suggested (in Krebs 2001: 8).

### **B. Shamanism and the trance-vested rock art**

The relationship between art and music has always attracted the attention of the students of rock art. But this is not surprising, considering the numerous paintings that apparently depict music playing, dancing and clapping in many places around the globe.

Some believe that these dancing scenes are part of shamanic experience, which may well be the case. But this view is sometimes driven to excess, resulting in a (con)fusion of art and shamanism. This, for example, is the case of Lewis-Williams who not only believes that the portrayal of singing, dancing and clapping is an indication of the San shamanic trances, and a 'demonstration of the shaman's insight', but he also asserts that European parietal art is as an expression of the shamanic phenomenon (Lewis-Williams 2002; and 1997; Winkelmann 2002; for a shamanic interpretation of the Saharan rock art, see e.g. Bisson 1997; and Soleilhavou 2005). In support of his theory, Lewis-Williams makes use of entoptic phenomena, but as A. R. Wilcox (1991), Robert G. Bednarik (1990, 1993), Cyril A. Hromnik (1991), Helvenston and Bahn (2003, 2004), John L. Bradshaw (2003), Chris Knight (2002), Bruno David (2002) and Christopher Chippindale (2002) have amply demonstrated, the theoretical and methodological foundations of this shamanic approach to rock art are deeply flawed.

#### *i. Illusions and the attempt 'to neurologise'*

There is, to begin with, the abuse of the term 'entoptic', which, as John L. Bradshaw, a professor of experimental neurology, has indicated, should only be used in the context

<sup>1</sup> The 'ground of the possibility of Dasein', freedom is 'something prior even to being and time' (Heidegger 2002: 93/133-5). 'Freedom as absolute spontaneity is freedom in the cosmological sense' (ibid. 21-22/16; also 1962: 124/161). Regarding truth and art, Heidegger believes that there is tension in Being that unfolds in a rift between the earth and the work, which constitutes a Gestalt (*Gestell*), a structure, a framing, through which truth is only inadequately revealed as a thing, equipment, or a work of art (Heidegger 1971: 64-5).

of visual events arising from the stimulation of the retinal receptors within the eyeball by means other than simply light (Bradshaw 2003: 218). Entoptic phenomena do not extend to the visual system generally, nor do they include hallucinatory images resulting from psychomimetic influences, as Lewis-Williams at least initially but mistakenly believed.

In their booklet, *Desperately seeking trance plants: testing the three stages of trance model*, Patricia A. Helvenston, a neuropsychologist, and Paul Bahn, one of the foremost experts on rock art, have also provided compelling empirical evidence of the fallacies of the Three Stages of Trance model (TST). This is the model that David J. Lewis-Williams and Thomas A. Dowson extrapolated from two local studies of the rock art of the San (Bushmen) and Shoshonean Coso rock art in the Californian Great Basin (see Lewis-Williams 2002, Chapters 5 and 6). Basically, Lewis-Williams and Dowson postulated that the figures and geometric forms in rock art are hallucinating 'shamans' in their trances. They then analogically transposed this entoptic interpretation onto the cave art of Europe, arguing that the geometric patterns and animal and therianthropomorphic figures are evidence for trance-induced Palaeolithic cave art.

Studying six types of naturally-induced trance states, including ritual dance-induced trance, hypnosis (both heterohypnosis and autohypnosis), meditation, relaxation, peak experiences and psychoanalysis-free associations, Helvenston and Bahn found that none of the subjective reports of altered consciousness reported in these trance states is consistent with the TST model. Only mescaline, psilocybin and LSD-induced trances produce that particular pattern of images. Helvenston and Bahn also found no evidence of the availability of the plants<sup>2</sup> that are associated with these psychedelic substances, either in Palaeolithic Eurasia or in South Africa, let alone their presence in the European cave art sites. Hence, Helvenston and Bahn rightly concluded, the 'rationale for trance-inspired Palaeolithic cave art in Europe collapses' (2003: 222).

Helvenston and Bahn also called attention to the crucial fact that, unlike perception of geometric forms, which has been hard wired in the primate brain over 55 million years, the perceptual abilities of the Palaeolithic artists are, in addition to being associated with thought and emotion, praxis-related, involving motor cortices (Helvenston and Bahn 2003: 216). This later neurological development is unaccounted for in the cognitive approach of the TST model.

Another extremely important point that Helvenston and Bahn made, and which has great bearing on the subject of rock art and music, is that the earliest form of culture is mythical, narrative and oral rather than literate (Helvenston and Bahn 2004: 91). As they indicate, Helvenston and Bahn derived this view of the auditory orientation of early cultural development from the linguistic insights of Walter J. Ong and the anthropological research of M. Donald. A recent

study by Iain Morley on the development of the physiological and neurological capacity to process and produce melody and rhythm also underscores the evolutionary importance of the auditory. Morley (2002) even indicates that the aural and vocal capacity for music may have begun with full bipedalism.

In contrast to this concern for the auditory, the shamanic perspective on music and rock art tends to reduce this cognitive ability to a secondary or derivative role. Thus, for example, in his reflections on music and rock art, Michael Winkelman presents the shaman as the 'mimetic controller', the one who stages dramatic ritual enactments of interaction with the spirit world. 'Mimesis', Winkelman quickly adds, 'is reflected in rhythmic abilities of drumming and dancing, a *supramodal capability derived from integration of visual and motor components*' (Winkelman 2002: 80, emphasis added). And even when he broaches music as such, Winkelman dwells on the vocal, with hardly any attention to the aural (*ibid.*: 78-9). The treatment of the auditory as a prop for the visual is also found in Lewis-Williams's discourse on sonority, echoes and what he calls 'audio-driving, prolonged rhythmic movement' in connection with cave art (Lewis-Williams 2002: 223-6).

#### ii. *Plato's cave, Lewis-Williams and Irigaray*

Clearly, although the proponents of trance-vested rock art do refer to auditory phenomena in connection the authorship of rock paintings and petroglyphs, they do so only to the extent that these auditory phenomena are mechanically subservient to the process of visual hallucinations.

To be sure, the proponents of the trance-vested approach to rock art try hard to appeal to science, but their understanding of the evolutionary neurology and physiology of artistic creation remains speculative, merely an attempt to 'neurologise', to use the term of Helvenston and Bahn. Yet the ocular reasoning of this neurologising is also an instance of the phallogocentric and hierarchical thinking that characterises modern discourse. This thinking and its underlying privileging of sight is most demonstrable in Lewis-Williams and his enthusiastic appeal to Plato's cave<sup>3</sup> and its philosophy of luminosity (Lewis-Williams 2002: 227). Ironically, this is precisely the mythical cave where Lucy

<sup>3</sup> It is a cave with an entrance a long way up, inside which lived human beings, chained so that their faces are fixed. All they see are shadows on the inner wall in front of them and they hear only echoes. These shadows emanate from a fire behind them, projecting through puppetries staged on a wall standing between the wretched captives and the fire. These captives represent the bulk of humanity that takes the dark shadows and echoes for the truth. If freed, a captive would experience a blinding and painful contact with the reality of the things that hereto were projected to him as shadows and echoes. His pain is even greater when dragged outside the cave and forced to look at the sun, the realm of pure Forms and Good. Elaborating on this visual and graphic representation of knowledge, Plato said, approvingly, that the captive 'would infer and conclude that the sun provides the seasons, and the years, governs everything in the visible world, and is in some way the cause of all things he used to see' (Rep. 517b).

<sup>2</sup> These are Henbane, or *Hyoscyamus niger*; *Datura*, or *D. metel*, and the mushroom Fly Agric, or *Amanita muscaria*.

Irigaray found the roots of the masculine orientation of modern representation (Irigaray 1995: 245–6 and 266). There, Irigaray found that Plato had laid down the foundation of knowledge on the paths of light, projection and reflection. But what Plato left out, she says, are the auditory paths, the paths of the womb and hysteria. These paths of the Other, the passages of the womb, the originative matrix, were excluded because they do not obey the laws of binary thinking — the rules of analogy and categorical differences. This ruthless quest for sameness, for mimesis, which seeks filial purity in a relationship to light, ignores the womb, the *antre*,<sup>4</sup> ‘the hideous’ wound that bleeds, and whose blood is to be purified into a white, lymphatic, nourishing substance (*sans blanc/semblant*) (ibid.: 221; also Battersby 1996: 263).

iii. *Ethnocentrism, or the view from Lewis-Williams’s ‘post-Enlightenment, post-Darwin Western society’*

These epistemological remarks are not made here for impertinence sake, or ‘a muddying of the waters with political correctness’, as Lewis-Williams would say; they are warranted at least by the blatantly ethnocentric reasoning that characterises some of the shamanic interpretations of rock art. A prime example of this is provided by Lewis-Williams himself, and this is how: image-making during the Upper Palaeolithic, he says, “was not a consequence of an inherent ‘aesthetic sense’”, and “[t]here never was a time when Upper Palaeolithic people made images of whatever caught their fancy’. Rather, ‘cosmology, image-making, religion, and developing social distinctions were hardly distinguishable from one another’ during these times. Having so declared, Lewis-Williams then says, ‘there must therefore have been a socially accepted set of zoomorphic mental images *before* people began to make representational images of them’ (ibid.: 266; emphasis original). What we call today ‘art’ and ‘religion’, he added, were ‘part and parcel of social discrimination’. This ‘discrimination’ is tied to the human brain/mind, the origin of what he visually terms the ‘spectra ‘of consciousness and its two ends: altered state of consciousness and alert state of consciousness (Lewis-Williams 2003: 264).

People thus did not (by intelligence alone) ‘invent’ images. The environment of at least some people (the seers) was already invested with images — a set of socially agreed upon symbolic images. All that was needed were the social conditions that made it advantageous for the seers and their communities to ‘recreate’ those evanescent images and thereby to gain control over them and to demonstrate to others their contact with the spiritual realms (ibid.: 266).

As to the human responsiveness to seers and their representation of the ‘supernatural’, Lewis-Williams’s answer is simple: hallucination! Why? Because ‘hallucinations are, in numerous societies, not “highly extraordinary”; they are part of daily life and are frequently discussed’ (ibid.: 276).

And it is here, on the top of this circular and spectral reasoning, that ethnocentrism creeps in. ‘In some societies’, Lewis-Williams says, restating the modernist views of Max

Weber,

there are those who challenge the seers’ revelations and (some of) the rules that they try to impose, but within the general framework of belief. These dissidents are able to assert their independence without wishing to overthrow the entire religious system. By contrast, other societies — post-Enlightenment, post-Darwin Western society is the prime example (ibid.: 276)

offering an alternative cosmology that does not require any belief whatsoever in supernatural entities. We now know that the ‘rather natural’ human propensity to believe (to us) manifestly absurd beliefs about spirit is created by the electro-chemical functioning of the human brain, a functioning that is, given the right intellectual circumstances not ineluctable.

And to leave no uncertainty as to his commitment to rationalism, Lewis-Williams concludes:

Because of our present-day Western emphasis on acute, alert intelligence, we (rightly) dismiss any suggestion that dreams are the voice of the gods or spirits urging us to adopt certain courses of action. But that is not true of all communities; nor was it true of the West in medieval time (ibid.: 265).

And so, in this enthusiastic devotion to rationalism, the mother of all totalising concepts, the superstitious non-Western world is relegated to a fateful mental inferiority. But the truly tragic figure in this drama is the shaman, the one who communicates with ‘manifestly absurd’ spirits that are merely the creation ‘the electro-chemical functioning of the human’.

iv. *Trance-vested rock art, or the science of the un-Intelligent Designs*

The sobering reality is that, not long ago, Lewis-Williams’s very best of the post-Enlightenment, post-Darwin Western society gave us: the amiable Ronald Reagan, who enlisted the help of astrology in dealing with the nuclear menace to humanity, and George W. Bush II who seeks guidance from his ‘Father’ in matters of peace and war, not to mention the benevolent Jimmy Carter, who admirably teaches Bible School in his hometown most of the weekends. Nor should we forget the raging debate over Intelligent Design, a theology of which some of the shamanic interpretations of rock art are merely a secular version, and a kind of monadology that teaches that ‘shamanism comes from a shamanic module’, as Chris Knight humorously put it (Knight 2002: 89)

## 2. Acoustic view of rock art

As an acoustic phenomenon, music has also been linked to the production and distribution of rock art. Based on the assumption that sound and echo have been associated with the spiritual world in various cultures and mythologies, it was suggested that sound-reflecting locations such as caves, canyons and cliff faces are prime spots for artistic activity. Thus, according to Lewis-Williams, ‘resonant areas are more likely to have images than non-resonant ones’ (Lewis-Williams 2002: 225). This also means ‘that people performed rituals involving drumming and chanting in the acoustically best areas then followed up these activities by

<sup>4</sup> A French word for both ‘cave’ and ‘vagina’.



**Figure 1.** *Niola Doa, or 'Beautiful Ladies', Ennedi plateau, Chad. Courtesy of Roberta Simonis.*

making images' (ibid.).

Extending this acoustic view that rock art sites possess unique acoustical properties is also the animistic notion that the human, animal and therianthrope forms, as well as other abstract forms such as waves and zigzags etc, are representations of the spirits that inhabit the environment (see e.g. Arsenault 2004: 305; also Soleilhavoup 2005: 96).

### 3. A sonorous desert

None of the above shamanic and animistic views are consistent with the Saharan rock art, where a more direct relationship between music and art is found, and where painted musical scenes are not infrequent. Occurring in the Algerian Tassili, the Libyan Fezzan, Tibesti and Ennedi, these are paintings where musicians, their instruments and audiences are elaborately depicted. The published record indicates that a higher concentration of these scenes exists in Algeria in the Tassili N'Ajjer. The lute seems to be the favoured instrument, as lute players are found in many scenes, including at Ta-n-Kebran in the Ahaggar (Striedter 1984: Figs 167, 168), Iskawen and Ti-n-Teferiest, in the Tassili (Sèbe 1991), and Wadi Afazadjer, in Acacus, Libya (Viallet 1995: Figs 1, 4). But other instruments are also found, including flute playing (Coulson and Campbell 2001: Fig. 190), drums (Simonis et al. 1994: Fig. 3), horn blowing at Tel-Isaghen in the Messak, Libya (Le Quellec 1994: Fig. 4), and even harp-playing scenes in the Ennedi, Chad (Bailloud 1999: Figs 109, 111). A harp-playing scene from Elekeo has even gained international fame, being featured on a postal stamp from Chad. The presence of other instruments such as the lyre is possible but the evidence remains speculative (Viallet 1995: 100 and Fig. 5).

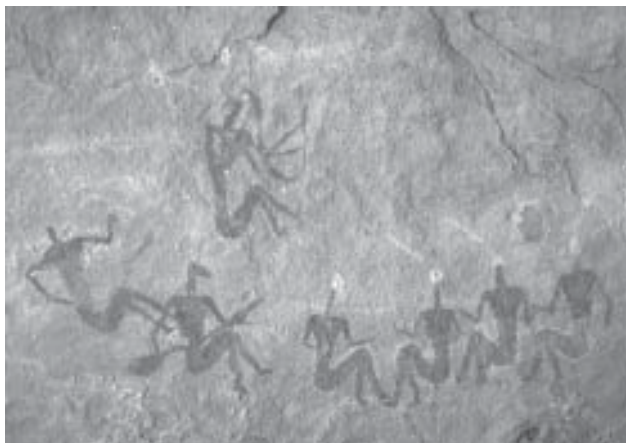
Except for rare cases, most of the musical scenes are

painted in a late Pastoral style (c. 4000 BP). Executed in dark colours, the scenes are delicately stylised, providing useful details relating to the musician, his instrument, and sometimes the audience. Even the mood and liveliness of the scenes depicted are sometimes captured. In fact, so generous are the details that, from studying some of the 'lute playing scenes', Louis-Noël Viallet was able to reach some interesting conclusions regarding the construction of the instrument (the lute) and the technique of performance, e.g. low notes suggested by the position of the hand, and the formation of a chorus (Viallet 1995: 100).

Beyond musical performance, the pre-Historic Saharan rock artist also seems to have had a keen interest in the personal life of the musician and its social context. In a scene at the Eberer Shelter in the Algerian Tassili, for example, no music is being played, but the 'musician', carrying a lute, is seen trekking along with a herd of 'ovines', preceded by a 'woman' and accompanied by a 'dog' (Gauthier and Gauthier 1996: Fig. 66).

#### A. The drums of Niola Doa ...

But there is another, far more fascinating way that testifies to the presence of music in the Saharan rock art. This is found at the Niola Doa, in the Ennedi plateau, Chad, where monumental petroglyphs occur, depicting four large female figures, measuring each more than two metres. Posing naked and slightly turned to the right, the four steatopygous women show intricate labyrinthine patterns all over their bodies, from head to toes. These voluptuous females, whom the local Tubu call Niola Doa, or 'Beautiful Ladies', wear bands across their waists, bracelets on their arms and feet and necklaces tied in the shape of a 'papillon' to the side of their necks. Each of the four figures holds in



**Figure 2.** Two possible depictions of music playing from *Ti-n-Anneuin, Acacus, Libya*. Courtesy of Yves and Christine Gauthier.

her right hand a 'stick' that rests on her shoulder in a manner similar to how herders often carry their batons. Facing the four ladies is a much smaller steatopygous woman, who, unlike them, is apparently clothed in a long dress. Present among the four main figures are also two other, even smaller women, one standing between the two ladies of the middle, and the other between the third and fourth to the right. Behind this lady on the right stand two very tiny persons, each playing a 'two-sided drum' held horizontally in front of him (her?) (cf. Le Quellec 1994).

Interestingly, this composition is repeated four times within an area of six square miles, with slight variations, especially in the distribution of the smaller figures. The 'drummers' also appear only in one scene (Simonis et al. 1998, especially the line drawings in Fig 5). A fifth panel has only two ladies.

### **B. ... and the sounds of Africa**

Rhythm is the basis of all African art, as Leopold Senghor said, and, according to the master drummer Babatunde Olatunji, it is also the 'soul of life' (Thomas 2005). In music, rhythm is to the Africans what harmony is to the Europeans (Chernoff 1978: 40). What is striking about the Niola Doa petroglyphs is the powerful rhythm they exude, especially the first two panels recorded by Courtet in 1954, and the one recorded by Simonis et al. in 1993 (Simonis et al. 1998: Figs 5a, 5b). In these panels, the alternation of the large and minor figures seems to echo the beat that emanates from the drummers portrayed in one of the scenes. Just as in the African drumming traditions, there is in the Niola Doa panel a constant dialogue between drums and bodies, those of the drummers and those of dancers, who 'provide a crucial source of inspiration for the improvising musician[s]' (Locke 1987: 9). The alternation of figures also suggests that, like the *dondons* of the African dances, these drummers are engaged in a beautiful conversation of drums, playing independent but interlocked rhythms. The clashes of these rhythms can be seen in the complex intertwining of the labyrinthine designs on the bodies of the naked ladies. These intriguing labyrinthine patterns could also very well be the graphic expression of the visceral response of the steatopygous women as their

bodies absorb the cross-rhythms of these instruments.

The effect of music and its power to induce in its listeners a mystical influence is well known. This is particularly true of drumming, whose influence on human emotions and behaviour can sometimes culminate in a transcendental experience, or what Bayo Martins spoke of as 'the mysticism of drums' (Martins 1983: 21). In the Niola Doa panel, this aesthetic effect of drumming is magnificently illustrated by the diminished size of the drummers in relation to the enormous bodies that are sated with the polyrhythmic sonority of their instruments.

The number symbolism in these petroglyphs is also strongly associated with music and the musical lore of Africa, especially the number four, which is the number of the main Niola Doa ladies in four out of the five panels. There is in this number an echo of the Yaruba legend from Nigeria, according to which the deity Obatal had four wives, who clapped and sang for him every night. Consequently, he decided to make four drums and named them after his wives: *Iya-Agan*, *Iya-Illu*, *Omele-Aboh* and *Akere* (Martins 1983: 29). The symbolism of the four drums is also found in the *Ofala* Festival of the Igbos, in Nigeria, and their four ceremonial drums (*Osi*, *Idah*, *Okuye* and *N'nwoko*). Similarly the *Ibibio Uta* people, also from Nigeria, use four drums: *Eka-Utah*, *Akpan Udoh*, *Udoh* and *Etuk-Udoh Utahs* (ibid.). A quaternary structure also marks the *Gahu* dance and drumming of the Ewe people of south-eastern Ghana. In these dances, the dancers 'move counter-clockwise in a four count pattern, divided into two, two counts patterns' (Locke 1987: 6). Interestingly, and perhaps a sign of its deep-rootedness, this quaternary pattern of music is also observed in the Mandan 'O-Kee-Pa' ceremony. In this ceremony, which G. Catlin depicted in *Bull Dance*, *Mandan O-Kee-Pa*, and also described it in his letters (see Catlin 1989: 159–60), there are four drummers surrounded by four pairs of dancers, facing the four cardinal points.

Five, the number of the panels, may also be musically significant. Indeed, this quinary pattern could be a reminder of the pentatonic scale<sup>5</sup> that characterises the rhythm of the *tendi n-emans* or mortar drums, which the Tuareg play on their joyous occasions (Wendt 1980: 585, 546). One of these occasions is the camel-festival at the end of the

summer rainy season, which brings the Tuareg of Niger and their camels to the In-Gall region for their seasonal *cure salée*.

### Conclusion

And, as we can see, there is a fantastic richness in the sonority of the Saharan mountains and the artistic beauty and magic they so prodigiously display. Echoes of certain *Ancient airs and dances*, these poetic images of music in the Sahara are also a silent anticipation of some joyous *Pictures at an exhibition*, where life and creativity are toasted: 'To art!'

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Final MS received 12 December 2005.

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<sup>5</sup> It is a scale using five different pitches within an octave. The pentatonic scale, thought to be an early stage of musical development, is the basis of music in many parts of Asia, Africa and Europe. The Gamelan tradition of Java and Bali, which uses drums and gongs, so enchanted Debussy in 1889 at the Paris Exhibitions that he used its pentatonic scale for special effect (Sadie 2000: 313).

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