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## Saharan Neolithic rock art

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During the past eight years I had the chance to visit Libya several times and to study the Saharan rock art in diverse Fezzan localities. The results of this study have thrown some doubt upon the validity of the relative chronology of the Saharan rock art that so far has been frequently used. According to this relative chronology, the earliest rock art comprises carvings and deep engravings of the great "Ethiopian" fauna, sometimes accompanied by human figures, mostly archers (the so-called hunting period). The finest of these carvings — representing pachyderms — are to be found in Wadi Berdjush, west of Murzuk. Leo Frobenius, a German scientist who had visited this area as early as 1932, published in 1937 the results of his observations (Frobenius 1937). In the principal localities of the wadi, in Mathrndush (Frobenius, In Habeter III - IV), El Uarer (Frobenius, In Habeter II) and In Abeter (Frobenius, In Habeter I) he found the most important representations of various animals, human and human-like figures and geometrical signs. Most of these rock carvings were deep and Frobenius, as well as other specialists visiting the wadi after him, held that all these deep carvings were of the same age, no matter whether they represented bubalus, elephants, rhinos, hippos or cattle figures. The rock carvings with bubalus were the "markers" of these early representations and other deep carvings of cattle, men *etc.* were added. No paintings were known from that period and region. Not a single bubalus painting was found until 1958, when Lhote published the first bubalus figure from Tassili painted in a quite different style (in the so-called round-head style), believed to be younger than the known engraved bubalus figures. Characteristic round-head paintings were found in Tassili (Lhote 1958; Lajoux 1962) and in Accacus (Mori 1965). The Negroid influence in their style was well recognized. As a rule only paintings have been described for this round-head "period". Mori was the first to define in 1978 some engravings in Tin Ascigh in Accacus as originating from the round-head period. The famous Tassili paintings of pastoralists with domesticated herds of cattle and other domestic animals were recognized as being of a later period and dated with the help of C-14 as Middle-to-



Late Neolithic. The engraved or pecked figures of horse and camels were dated as post-Neolithic on the basis of our historical knowledge of the introduction of these domesticated animals to the Sahara.

The relative chronology did not take into consideration the regional styles and variations, nor the individual styles of the artists. After studying the principal Fezzanese rock art sites and many other recently discovered galleries, I am convinced that the regional styles and the styles of individual artists played an important role in the Saharan prehistoric rock art. Not only this. We must also bear in mind the fact that some figures were copied in the same period or later, some of them even much later, in a different period characterized by a different art style or styles. Another complication in determining the chronology of the Saharan rock art is the fact that only few specialists have admitted or even considered the coexistence of paintings and engravings in certain periods (Mori 1978).

The Wadi Berdjush rock art galleries represent a single local style in the majority of their earliest rock carvings. The carving begins with a slightly pecked pre-design of the outlines, the figure is then carved and often incised deeper and deeper. Deep carving is a characteristic local feature. This technique was used here for some round-head style and pastoral figures, cattle figures and few masked men. The babulus figures and large Ethiopian fauna are sometimes only slightly engraved, without deep carving. This style and technique does not appear in other regional Saharan rock art centres. In Aréchin (South of Ghat), generally considered to be of the same age as Mathrndush and other Wadi Berdjush localities, the animal and human figures are more simplified and not so deeply carved. In the near Tilizahren localities some of the figures mentioned by Barth (1850), Frobenius (1937) and Pesce (1967) are different in style and are not so deeply incised. We can even compare the bubalus and big pachyderms figures from Wadi Berdjush with Oued Djerat (Lhote 1975) and with North African carvings to notice other important differences. In the North Algerian galleries there are big archaic carvings of animals, represented in side view, with two legs only, whereas in Wadi Berdjush all animals — elephants, bulls, rhinos and bubaluses have always all four legs represented. No doubt, the simplified representation with two legs only is a North African regional feature.

In Wadi Berdjush we can see characteristic peckings and grindings on the rock face in some early figures. In certain cases these grindings have the form of a shallow relief — a very decorative feature, not repeated in other regions. In Dider, in North Tassili, the grinding of early rock art figures is executed in a different style, limited to this site only; it can be the individual style of a single artist. Different technique of grinding the rock face is used in Oued Djerat. In small and isolated localities it is difficult to say whether these special features are the result of isolation or if they represent the individual manuscript of a particular artist.

In Mathrndush (Wadi Berdjush, Jelínek 1984a) we find several examples of figures or whole groups of figures being copied in the same period or later. The group of bovidian cattle figures (Fig. 1) was copied in the same period and in the same rock





FIG. 1. Mathrndush. A herd of domesticated cattle represented in bovidian style.  
Note the typical composition of figures and heads

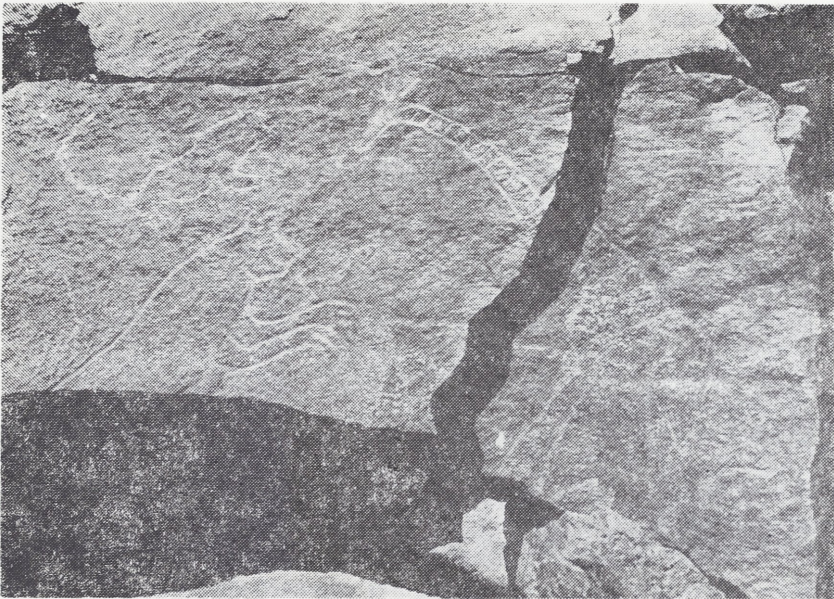


FIG. 2. Mathrndush. A scene with a giraffe and a lion which is copied in the post-Neolithic horse period higher up on the rock face



art style. The lion attacking a giraffe (Fig. 2) from the same locality is an example of a later copy, from the post-Neolithic horse period.

Frequent are also the later additions. The bubalus figure (Fig. 3) in Mathrmdush has an additionally engraved pair of horns. A further back-line and a new long, hanging tail had also been added to it. These additions were realized in later bovidian Neolithic times. The human figures are often later additions to earlier animal figures. So, *e.g.*, in In Galgien in Wadi Berdjush we can see a wonderful parade of three elephants engraved in decorative archaic Neolithic style. Over the trunk of the first elephant we can see a human figure with a throwing knife in his hand (Fig. 4); this figure has been added much later, in the post-Neolithic horse period (Jelínek 1984b). Two other human figures, one below the trunk and the other back below the elephant's tail, were added still later, in the camel period. There are other similar examples to be found in the region. The human figures are small, usually situated separately or in groups in front of the animal (elephant, giraffe, bull) or behind it. They accompany the round-head, decorative or bovidian Neolithic figures. There is also a number of additional bovidian and post-Neolithic-style figures (coming from the horse period, or possibly even from the camel period). Such representations illustrating religious or mythological scenes provide evidence that the traditions which were in the ideological background of such representations survived over long periods ranging sometimes from the Neolithic to the historic camel period.

### Unfinished pre-designs

We find often unfinished figures at different stages of execution. The first stage is a slightly pecked outline. We find such pre-designs of the evidently very old geometrical signs, as well as of much later figures of the horse period. In order to decide upon the age of such unfinished representations we must carefully observe all details of the technique and also of the subject.

### Weathering

The age of the engraving is often determined with the help of the degree of weathering. This method can be used for relative dating, if we compare figures on the same rock face, *i.e.*, figures equally exposed to the weathering effects. The principal weathering factor is sunshine. In places where the rock face is fully exposed to the sunshine, weathering is so advanced that only the post-Neolithic figures have a weak patina, lighter than the rock's surface; earlier figures engraved or pecked in the different times of the Neolithic period are usually of the same colour and show the same degree of weathering as the rock face. This holds for the decorative (bubalus) style, round





FIG. 3. Mathrindush. A bubalus figure of atypical shape, long tail and with additional back line and horns. Bovidian style



FIG. 4. In Galgien. A decorative elephant figure (bubalus style) with a small human figure (horse period) over its trunk and with two other human figures (camel period) below the trunk and below the tail



head style and bovidian engravings as well. Prehistoric artists preferably selected rocks facing north. Shaded and protected against the sunshine, the artist could work comfortably. Weathering on north-oriented rock faces is definitely slighter than in the open space and its degree can be compared only between the figures on the respective rock face. In such situations there is a well definable difference between the more weathered decorative (bubalus) and round head styles on the one hand, and between the less weathered, later, bovidian style. This fact signals chronological differences among the Neolithic styles. If we compare the bubalus and big wild animal figures with the round head style figures, we do not find any fundamental difference in weathering. We can find differences in weathering when comparing in the same places the decorative bubalus style with some bovidian figures. In other words, the bovidian figures compared with archaic decorative (bubalus) style figures of the same rock face, are sometimes of the same, and sometimes of a lighter weathering degree. This fact can be interpreted as indicating the survival of the bovidian style over a long period. Its earlier figures were contemporary with the decorative (bubalus) style figures. Only further discoveries and comparative studies can definitely solve this problem.

Other important weathering factor is the wind, especially wind carrying sand, *i.e.*, sandstorms. Weathering caused by wind and sandstorms is always heavier in figures situated low, near the riverbed of the wadi, and is lighter in figures situated high up the rocks. There are no rock paintings in Mathrndush or at In Galgien. In fact a light reddish hue covering the engraved figure can be noticed at times, but so far it is impossible to say whether it is a natural rock colour or whether we have to do with remains of prehistoric colour decorating the engraved figure. The post-Neolithic figures, *i.e.*, the horse and camel styles differ from the prehistoric ones not only in their styles but also as regards the degree of their weathering. As compared with the Neolithic figures in the same conditions, their weathering is always slighter.

### **The coexistence of paintings and engravings in certain periods and ideological continuity**

As has been already mentioned above, not a single painting is known in the decorative archaic (bubalus) style. The earliest known paintings belong to the round head style and come from Tassili and Accacus. Mori was the first scholar to try correlating some engraved Accacus figures (Mori 1978, Tin Ascigh gallery) with round head style paintings. This was criticized by Muzzolini (1983). We would like to add some of our observations concerning the round head style paintings and engravings.

Mori excavated in South Accacus at the Fozzigiaren site, a round head period Neolithic layer with Epipalaeolithic pattern of living and with the knowledge of pottery-making (he dated the layer with C-14). The character of both the locality and the finds suggests that these people were settled and lived at about 6,000 B.P.





FIG. 5. Mathrmdush. Unnatural figures. They have parallels in the round head style paintings in Tassili. The technology of the engraved lines and the size of figures is the same as in early pastoral figures in the same gallery. Only the subject is different

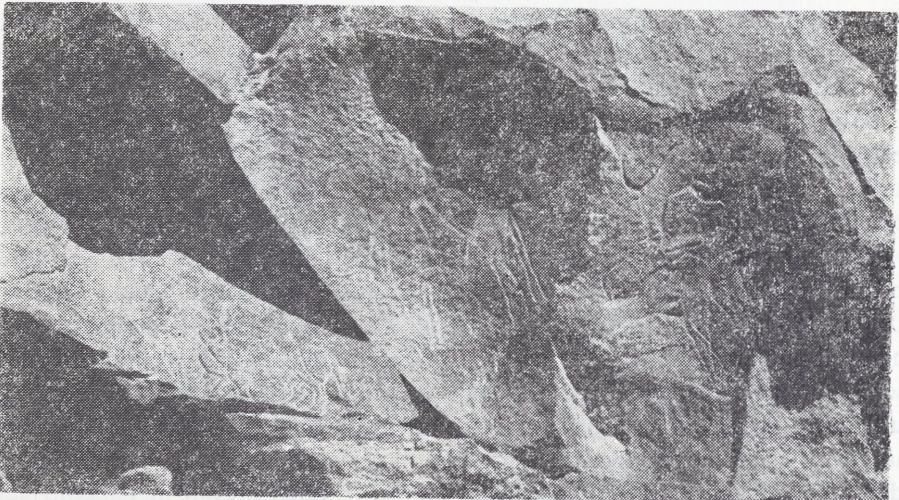


FIG. 6. Expressive, non-realistic figures, fully ground. Round head style. Note the similar shape of a rhino compared with Fig. 7



On the rock face of this locality I found a heavily weathered frieze of animals and a small squatting human figure. The extremely high degree of weathering makes it most probable that the figure come from the Early Neolithic, and can be contemporary with the settlement. I came across similarly heavily weathered round head style paintings also in Wadi Affarh, South Accacus (Jelínek 1982a) alongside with some engraved figures. There are simple human figures, some of them with bull horns and "fish" figures, described by Mori in Wadi Imha, Accacus (Mori 1974) as earliest engravings. All these engraved figures should be regarded as representing "round-head" style. They seem to have a very early dating and the fact that they are without analogy support the suggestion that they belong to the Early Neolithic dated by Mori at  $6,122 \pm 100$  B.P. Future research will show whether this early dating (and hence the early dating of the rock art of round head style) is a regional affair appearing in south Accacus only, or whether it is a more general situation. So far, the first possibility seems to be more probable. The Affarh example brings together the bull ceremonies of the round head style paintings with engravings of human figures with bull horns. It must be added here that a good example of human figures with bull horns is the well known round head style painting from Tassili (Lhote 1958) where there also occurs a bubalus painting in round head style. All this brings us again to the problem of age of various styles in different regions and the possible survival of some animals (bubalus) in certain areas, while in other areas these animals could be already extinct by that time.

The round head style paintings in Tassili have a markedly mythological and/or religious ceremonial meaning. The figures represented are often unnatural beings or beasts; they are expressive yet not realistic representations.

We find some similar unrealistic representations in some Mathrndush rock carvings. Their size, technique and their degree of weathering in Mathrndush are the same as those of other Neolithic (decorative style bubalus and some bovidian figures) rock carvings (Fig. 5).

Some other examples of unrealistic expressive figures, probably another round head style group, are represented in the form of pecked and ground figures (Mathrndush, Fig. 6: lions, monkeys and giraffes; compare with Wadi Zreida, the rhino at the bottom of Fig. 7, Jelínek 1982c). There is an example of a religious or mythological bull ceremony in the round head style (Affarh, Accacus, Jelínek 1982a) and in Tassili we found a decorated bull figure also painted in round head style (Lajoux 1962). Also at both the Affarh and Tassili sites can be found painted or engraved human figures with horns. In East Tassili (Tin Hanakaten, Aumassip 1978) there is another example of painted bull ceremony (with figures jumping over the bull); in this case they are early bovidian style paintings. It seems worth remembering that in the Neolithic carvings we see mostly bull figures only, and cow figures with udders appear quite exceptionally (Jacquet 1978). Bulls prevail in Fezzan, North Niger, North Chad, Oued Djerat in Tassili, in the North Algerian sites, as well as in some Tripolitanian sites and in North Libya (Tarhuna, see Jelínek 1982b).





FIG. 7. Wadi Zreida. Complex religious scene with an elephant. Note the characteristic round head style figure of a rhino lower on the rock face. Compare with the rhino in Fig. 6

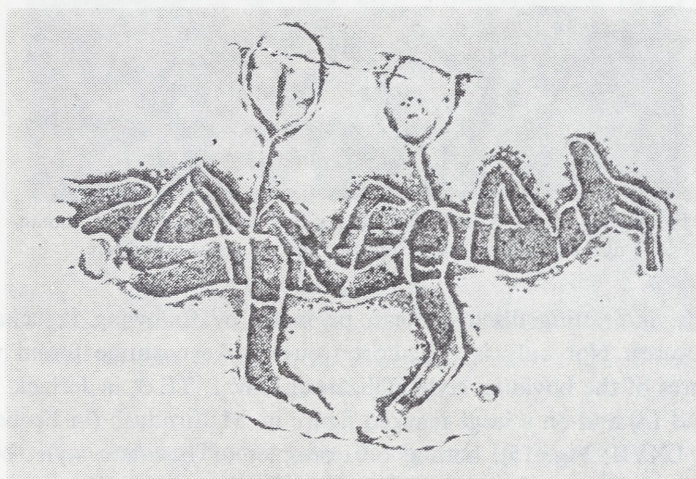


FIG. 8. Tilizahren West Gallery. Two bovidian masked figures in acrobatic position. Note the oval sign and trousers-like costume

All these facts point to a strong continuity of the mythological, ceremonial and religious ideas over a long period, spreading over various rock art styles (round head, early bovidian, and late bovidian).



The masked men compared from diverse Fezzanese localities are different in size; (compare Mathrndush, Frobenius 1937: Tab. LXVII, with our Figs. 8, 9, and 10; Jelínek 1985). The jackal-men are numerous in Wadi Zreida bovidian paintings (Fig. 11, Jelínek 1982c). They are engraved in Tilizahren TE 1, TW 2 (Fig. 12, Jelínek 1985), in Mathrndush (Jelínek 1984a: Figs. 33, 59, Tab. VIII; Frobenius 1937: Tab. LIV) and in El Uareí (Frobenius 1937: Tab. LVI). This demonstrates that both the masked men and the jackal-men are found in the decorative style (the so-called bubalus period) as well as in bovidian scenes.



FIG. 9. Tilizahren West Gallery 1. An ostrich and a masked human figure (bovidian) superimposed on an earlier bull figure

A similar, interesting discovery can be made by following the characteristic costume features. Not only is the short trousers-like costume found with small masked figures of the bovidian style (Tilizahren TW 1, TE 3, in Jelínek 1985: Figs. 8, 10, 13, and 14) and on a large masked figure in Mathrndush (in Frobenius 1937: Tab. LVII, LXVII; Fig. 15), both good examples of bovidian style, but also on several jackal-men figures considered usually as "bubalus period" figures (Frobenius 1937: Tab. LIV, LVI). We can also compare the characteristic sleeves. These can be found on the mentioned jackal-men figures as well as on human figures in Mathrndush (Jelínek 1984a: Fig. 34).

The mode of the animal eye and mouth representation is similar in TW 1/27 (Jelínek 1985, *cf.* Fig. 13) and in El Uarer (Frobenius 1937: Tab. LVI).



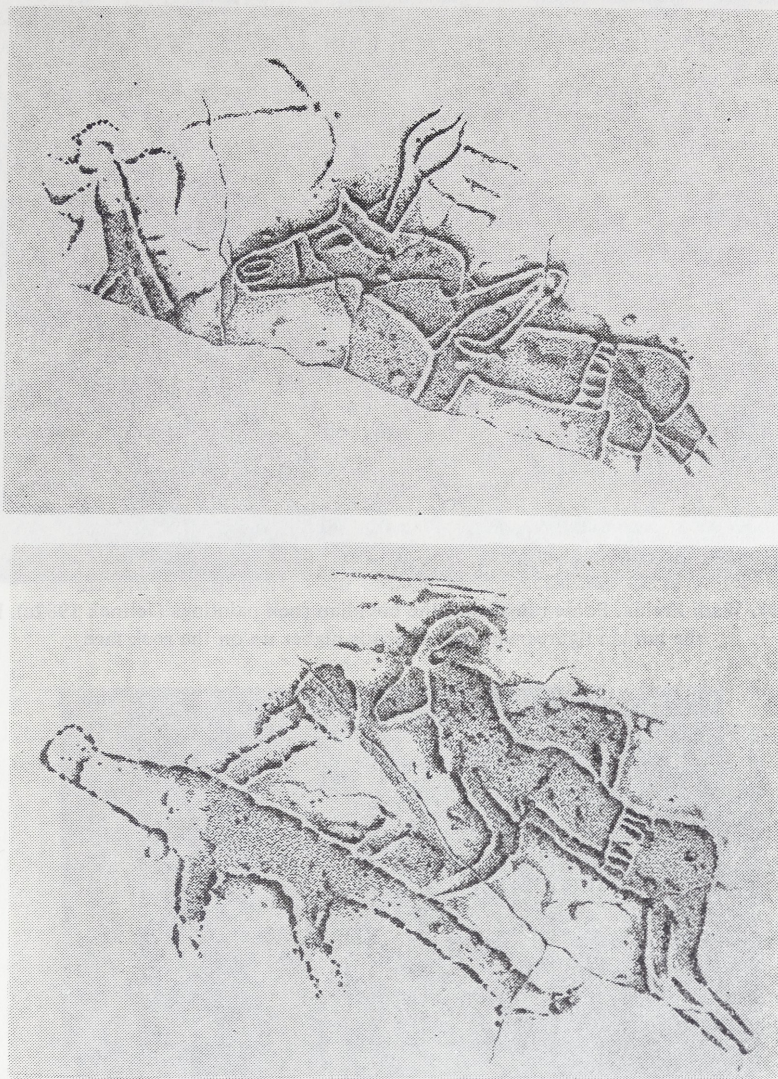


FIG. 10. Tilizahren East Gallery 3. Bovidian human masked figures with characteristic costume

Several bovidian human figures have the apron. In Mathrmdush they were considered (Frobenius 1937: Tabs. XLVII, XLVIII) as of the bubalus period age and in Tilizahren (TW 1/27, Jelínek 1985) as bovidian (compare Lajoux 1962: Figs. 162, 163).

All this demonstrate a long continuity of the ideological background in rock art representations and cultural relationship between the so-called bubalus period hunters and the bovidian pastoralists.



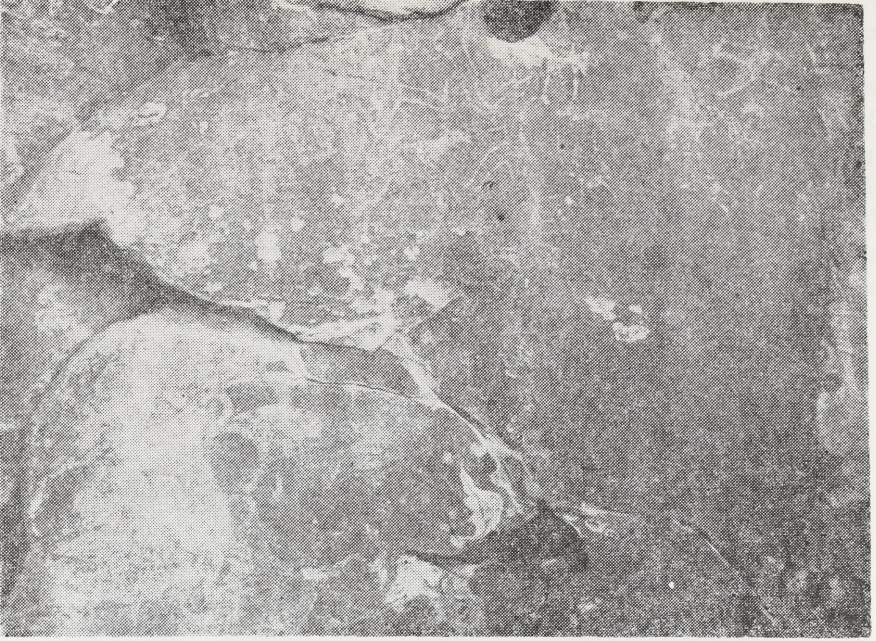


FIG. 11. Wadi Zreida. Some remains of the bovidian rock paintings (Jelínek 1982c). Note the human figures with jackal heads higher up on the rock face



FIG. 12. Tilizahren West Gallery 2. The jackal-man with characteristic costume



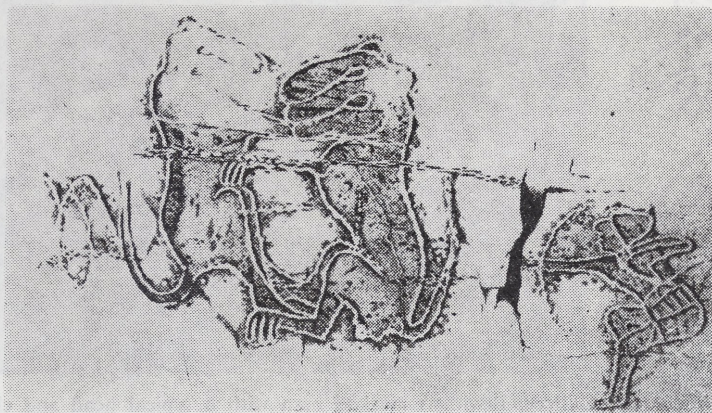


FIG. 13. Two lions with a hunter. Note the trousers-like costume which we find in bovidian figures. Compare the characteristic type of the eye in lion figures with the eye of the jackal-man in El Uarer (Frobenius 1937: Table LVI)



FIG. 14. Tilizahren West Gallery. Two bovidian human figures with head-dresses and with oval signs. Note the trousers-like costume





FIG. 15. Mathrndush Gallery. Bovidian masked man with a typical head and characteristic short trousers. Note the deformed type of horn of the bull (after Frobenius)

### Relation between bovidian paintings and engravings

In two localities we found bovidian paintings easily comparable with the Tassili paintings. This was in Wadi Zreida near Brak Oasis and in Tilizahren (West Gallery II). In Wadi Zreida it is a large painting of many human and animal figures situated on a large vertical rock face. The human figures are pictured with jackal heads. The animal figures represent mostly cattle and sheep. All these figures are small, of size similar to that of the majority of bovidian paintings in Tassili. The artists often used white and brown colour. One important fact is that in the same wadi, just on the opposite bank, we can see similar engraved and pecked human and cattle figures. No doubt they are of the same style and come from the same period, as documented by their superposition over other engraved and pecked figures.

We found another example of bovidian paintings in a small cave in Wadi Tilizahren, on the cave ceiling. There are three giraffe figures and some other cattle paintings and in terms of their style, size, colour and subject they are all much similar to the bovidian Tassili paintings. Some of them were known already to Frobenius (1937). The above two examples are the easternmost bovidian paintings so far known.

Having found comparable engraved and pecked figures in Wadi Zreida, we also looked for further contemporary engravings in other galleries. We found small human figures, sometimes with animal heads or animal masks in Wadi Tilizahren (West 1, East 3) together with cattle outlines in similar composition as known in the Tassili painted cattle figures and herds, but larger in size (Figs. 16, 17, and 18). Some animal figures are complete, others are represented by heads, and still others by their backlines. We also found this characteristic type of bovidian representation



in Mathrindush and among the In Galgien rock carvings of cattle figures, which are bigger in size than the painted figures in Tassili. The size is different, the method (rock carving) is different, but the subject and composition (cattle herds) are the same.



FIG. 16. Tilizahren West Gallery 1. A group of human figures with typical bovidian cattle figures

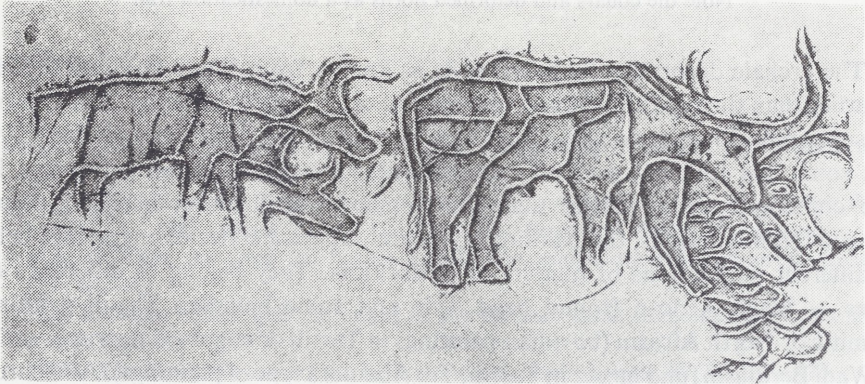


FIG. 17. Tilizahren West Gallery 2. Bovidian herd of cattle with diverse types of horns

The masked figures wearing various animal effigies on their heads (jackal, cattle, elephant) were sometimes small, roughly of the size of the painted bovidian figures in Tassili (compare Tilizahren West 1); sometimes there occur bigger examples (Mathrindush). There are no Negroid features in these figures. The masked figures are evidently humans with masks and the figures with animal heads are most probably mythological figures, not human beings.



If we start our analysis with the economic background of the people responsible for the Saharan Neolithic rock carvings and rock paintings, we can state that the cattle domestication is much earlier than the bovidian paintings from Tassili. Especially in South Accacus (Affarh, Fozziaren) domestication co-occurs with the round head style and several other examples show that it is older than the archaic decorative art (bubalus). Already in 1967 Pesce published an example from Wadi Tilizahren (Fezzan) where domesticated cattle figure was covered by decorative archaic (bubalus) style giraffe and elephant.



FIG. 18. Tilizahren West Gallery 1. Bovidian herd of cattle with diverse types of horns. Note the collars and deformed horns as a domestication trait

The archaic decorative (bubalus) style as known from Wadi Berdjush localities is earlier than the typical bovidian paintings of cattle figures or herds. This is proved by superimposition, style and sometimes by weathering differences (Jelínek 1985). But some less frequent examples demonstrate that domesticated cattle was here also contemporary or earlier than the wonderful elephant or crocodile figures. Artistic representations, the painting styles and different styles of engravings belong to different populations of hunters or pastoralists. They belong to different racial types — black African (round head style and some bovidian Tassili paintings), Hamitic or North African (bovidian paintings in Tassili or engraved figures or archers in Wadi Berdjush, fund mixed in Tassili, Tin Abaniora type of paintings). Also chronologically there is a marked difference between the post-Neolithic (horse and camel periods) and Neolithic engravings (archaic decorative style, round head style and bovidian engravings) and paintings (round head style, bovidian diverse styles). It seems that the styles are of different age in different areas. Thus, the round head engravings and paintings in Accacus and especially in south Accacus seem to be earlier than the round head style engravings in Wadi Berdjush. It is unlikely that the big wild animals engraved in North Algeria and in Wadi Berdjush or Oued Djerat were contemporaneous. Even if the Neolithic climatic conditions in this part of the



Sahara had been generally better than today, the mountainous Saharan regions were fairly isolated and their cultural development would have been similar but not simultaneous. All this seems to indicate a complex situation.

## Summary

All the above observations demonstrate the following:

1. Long time period (Neolithic) of the pastoralists with a very early, well developed cattle breeding.
2. Very early round head style paintings and engravings (probably the earliest, at least in some rock art centers like Accacus).
3. The decorative style (the so-called bubalus period) is contemporary with early pastoralists (at least in Messak).
4. There is an ideological similarity between the pastoralists and decorative style and between late pastoralists and horse period designs.
5. There is an evident difference between the religious ideology of round head style and the pastoralists.
6. The bovidian rock art is represented in Fezzan by numerous rock carvings which differ in size (they are larger) and in technology (they are rock carvings) but their subject and composition is the same as in bovidian paintings.

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