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NOTES ON THE ROCK PAINTINGS RECENTLY
EXPLORED IN CENTRAL SAHARA

Lately, two archaeological expeditions explored the Tassili-n-Ajjer region where the world's greatest gallery of prehistoric rock paintings now appears to be situated¹. Paintings and engravings, either in caves or upon open rock walls, are a common character of Upper Palaeolithic throughout large areas of Europe² where they have been studied in detail for years³. In Africa, the ancient art manifests itself in a similar way on vast areas all over the continent. In northern and southern parts of Africa, the rock paintings and engravings are of naturalistic or semi-naturalistic character, whereas the schematic drawings and engravings are the main characteristic of the tropical belt between Angola and Mozambique. Having penetrated to Southern Rhodesia and western Sudan, they merged in the realistic art. In Tanganyika, some drawings have been dated by L.S.B. Leakey as Upper Palaeolithic. Those from Victoria Lake have been assigned to the Stillbay culture representing mesolithic in Eastern Africa. A narrow corridor running from south to north joins the two desert and steppe regions of realistic art⁴ which, of course, do not represent the same racial substratum⁵. The South African frescoes were examined by H. Breuil who dates the most ancient of them as early as 10.000 years B. C.⁶. Van Riet-Lowe⁷ and Schofield⁸ think that all the paintings were made by the Bushmans several hundreds of years ago.

Before we proceed to concentrate on the main subject of this paper, we hold it for necessary to point out that an evolution of artistic styles exists solely in connection with the development of the whole social structure, which manifests itself in a number of features which can be held for common to the rock paintings and engravings all over the world. Firstly, it is quite certain that the aim of the primitive art differed greatly from that of the modern one. The only acceptable explanation of the primitive art is that art was necessary for the very existence of the primitive man, that in his belief art was needed not only for effective hunting but also for maintaining fecundity and generation of both herds to be hunted and his clan. T. V. Plechanov⁹ adduces many arguments that the aesthetical side of art was preceded by the practical one. In a primitive society, art is not a matter of the individual. It is collective and expresses what is considered to be useful, beneficial and important to the society. The production of art started with and as result of man's belief in supernatural powers and magic.¹⁰ The primitive hunter made animal drawings as part of the actions he performed in order to hunt them. The supporters of this theory do not deny any aesthetical feeling to the primitive man; they only say it is secondary. And we really have some evidence, though very scarce, for magical ceremonies performed in Upper Palaeolithic times¹¹, for the performance of which the paintings together with figurines of clay were used. The purpose of the magical rituals was to ensure the hunter success in hunting animals or to promote both herds' and his clan's fecundity¹². The Australian aborigines still practise a similar magical ritual

on the eve of every hunt. They draw a portrait of the animal they want to hunt on a rock or on the ground. Then they dance around the picture, piercing it with their spears and thus killing the symbol of the animal. They believe that no animal can be hunted without this ritual as they make no difference between the picture and the animal itself. In their opinion, the hunt on the following day is a mere formality, since the animal is thought to have been already killed by piercing its picture¹³. These ceremonies were therefore hold for still more important than hunting and primitive men wasted a lot of time by performing them. In this way, religion¹⁴ diverted man's activity from production and hindered the development of productive forces of the society since the most ancient times. On the other hand, it is sometimes argued that the mere act of drawing the animal must have given the primitive man the feeling of power over him: "hunting" the drawing must have boosted that feeling, given him an omen and held a promise for him.¹⁵ For such use, the drawings of the Palaeolithic hunter had to be very lifelike, otherwise they would not meet the basic requirement of replacing the living animal. The hunters would not intend to hunt a certain specimen of the herd at that time; therefore the general effect, the attitude and character of the animals as representatives of species were more important to convey than the details, which resulted in the so-called impressionism. With the discovery of agriculture and with settlement in the Neolithic age, art took one of the most important steps in its history¹⁶ by turning away from nature toward the abstract and symbolic—this change, however, cannot be traced in neolithic styles of Tassili because of the nomadic character of the Sahara Neolithic, during which the hunt still played a very important role.

It is true that the theory of magic does not explain all peculiarities of the primitive art of rock paintings. Some more recent pictures may have been decorative¹⁷, some are regarded as totem symbols¹⁸, others make the impression as if totemistic myths about the origin of the clan were their motif¹⁹. Even some genre-scenes have come down to us from the Neolithic times²⁰. It is misleading to regard some pictures as representations of gods²¹ as e. g. H. Lhote does. The number of opinions about the primitive art shows how many-sided the imagination of primitive artists was. The main trouble facing us on interpreting the paintings may be modern man's way of thinking which differs greatly from that of a primitive man. We are tempted to assign great importance to the only feature whereas the variety of forms of the primitive art reflexes the many-sided activities of primitive men.²²

The Tassili rock-paintings were discovered by Brenans in 1933.²³ Tassili-n-Ajjer is a sandstone plateau north-east of the mountain range Ahaggar adjacent to the western side of Fezzan. The primitive inhabitants took their shelter in abris there. The primitive artists of Tassili had a surprisingly rich palette at hand thanks to ochre slates protruding from beneath the ground in the region between Tamrit and Jabbaren. According to their position, the slates were exposed to various effects of sunshine, which caused their shading differing from a very dark brown to yellow. The ochres were pulverized and mixed with lactic acid, caseine and gum-arabic.²⁴

The paintings from the lowest levels are covered with a thick coat of paint which originally formed a real film on the wall. Lhote calls them the style of "Bullet Heads" and assigns them to a negroid people who presumably lived farther to north in humid postpluvial phases than they do today. Their art is explicitly that of a hunting people, neither domesticated animals nor cultivators occurring on the pictures. The hunters wear a simple bow; later on, big three times curved bows were pictured at Jabbarren. The early stage of the style is distinguished by monochromous

paint in purplish and later in yellow. On the pictures, moufflons and elephants are represented. The figures of hunters are noted for "bullet heads", rather big in proportion to the body, usually with 2 horns attached to them. On one picture²⁵ a hunter wears moufflon horns on his head and a spotted skin with a short tail, which was undoubtedly suited for deceiving animals when being hunted. Such masks serving for easy approaching the hunted animal are still a common practice among some primitive tribes of today.²⁶ We know them also from the South African rock-paintings of the bushmen,²⁷ from Oua Mellen north-west of Djanet,²⁸ and they occur on the rock-drawings in Wadi Hammamat as well.²⁹ The engraved elephant with unnaturally thick legs from Timenzuzin³⁰ may have its counterparts on the engravings of the Earliest Hunters in Wadi Hammamat.³¹ Lhote puts this picture to the so-called period of buffalo preceding presumably that of the Bullet Heads. An isolated example of a phantastical combined animal was found at Jabbaren-elephant with antelope's head.³² Such a picture might be conceived as an incidental intersection or superposition of two paintings, nevertheless, A. Laming,³³ who studied similar cases discovered in French caves,³⁴ came to the conclusion that representations of this type (imaginary animals) must be held for deliberate combinations of various species of animals, which probably have some magical meaning.³⁵ The bowmen from the middle period of the Bullet Heads sometimes wear the Libyan lock,³⁶ or the tipped apron of the "African" type,³⁷ or a skin attached to the waist from behind, leaving the tail hanging down.³⁸ The same part of dress is known from Egypt where it is worn by viziers, kings or gods on reliefs from oldest times until a very late period.³⁹

A strong influence from the Nile valley can be traced in Tassili at the end of the middle period of the Bullet Heads. The "White Lady" of Avarnhet⁴⁰ wears horns on her head. The horns "support a corn field with grain pouring out of it".⁴¹ Lhote's interpretation of the picture (connecting it with the Egyptian goddess Isis) does not seem probable not only because of the fact that the legend concerning introduction of agriculture into Egypt applies only to Osiris,⁴² but also for it is based on the supposition regarding the widespread existence of a prehistoric Mother Goddess, characteristically somehow associated with the deification of the Earth. This ignores an important point insisted upon by Frankfort (1958) that in historic Egypt the earth was always a male deity. In addition, the historic female deities of Egypt, though Mother Goddesses in the strict sense of the word, were not goddesses of fertility, nor "the fields", in the sense usually accepted e. g. for prehistoric female figurines, nor comparable to the Mother goddesses of historic Mesopotamia.⁴³ If any parallel to the Egyptian pantheon should be drawn, the goddess Hathor must be considered. In Ancient Egypt, her worship was universal and her shrines were even more numerous than those of Horus. She was, in fact, the Great Mother of the world, the mother of every god and goddess. As the Egyptian examples show, Hathor was depicted as a cow in her oldest form⁴⁴ but soon she appears also as a woman with horns on her head and the sun's disk between them, the latter shape resembling the White Lady of Avarnhet.

The decline style of the Bullet Heads is characterized by coarse paintings omitting details and representing gigantic figures. It has been shown that the "Great Martian God", 6 m high, which is the biggest prehistoric painting in the world, represents a man hunting ostriches in a mask made of big leaves.⁴⁵

The drawings of the Bullet Heads are superimposed by pictures in quite a different style painted with a thin paint which soaked deep into the rock walls. The new

“Bovidian” style is said to have been brought to Tassili by a pastoral people who came from the East. The horned cattle on the pictures belong to the two races bred in ancient Egypt, viz. *Bos africanus* and *Bos brachyceros*. The cattle is grouped

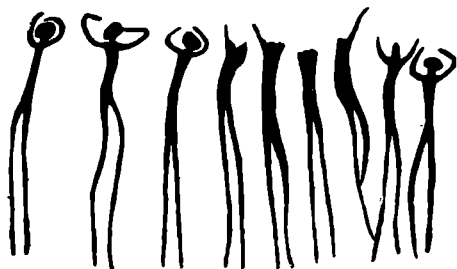


Fig. 1. Thread-like dancers from Jabbaren.
(After Lhote.)

into big droves driven by herdsmen. The red and yellow ochres predominate, while the white paint is used to denote the blazes of the mottled cattle or to draw a white line round human figures on the pictures. The Bovidian people practised hunting, too⁴⁶. The bowmen of Tamrit and Jabbaren⁴⁷ wear what looks like a little apron made of leopard's skin. A man wearing a similar skirt of leopard skin is a part of a famous wall painting in the Late Gerzean Hierakonpolis tomb.⁴⁸ The bowmen's way of bending their bows is that of the inhabitants of steppes, contrasting with

that of the forest dwellers which was common in the period of the Bullet Heads. The hunters are followed by a little species of dog with a short tail⁴⁹ which gave place to the hound in the period of chariots, and that of the riding horse. The Bovidian people recorded on their paintings the tropical fauna surviving in Sahara until their numerous herds accelerated the process of desiccation of the Sahara region by grazing its plant covering. In Avarnhet, a papyrus boat in the shape of the predynastic sickle boat with oars⁵⁰ was used in hunting hippopotami. To the left of the boat there is an object recalling reed-floats used in fishing and hunting the hippopotamus in Ancient Egypt.⁵¹ Agriculture is attested by a picture of women working in the field. People lived in shelters made of straw mats, sometimes with foundations of mud⁵². The bovidian culture seems to be neolithic in the full sense of the word, as the women depicted are carrying vessels in their hands. The figures with painted bodies of Timenzuzin⁵³ hold some adze-like instruments in their hands⁵⁴. A painting from Sefar⁵⁵ representing a genre-scene is of high importance for conceiving the mode of life in a bovidian settlement. On the picture, one sees a man lying in an oval hut. He is playing with a child, while another man is milking a cow outside,⁵⁶ which shows that Bovidians' herds must have consisted of completely domesticated animals. Another proof for this is the mottling of the cattle, which is idem a result of domestication. We must conclude that the bovidian painters had been cattle breeders for many generations.⁵⁷

The bovidian pottery from the hut of Sefar⁵⁸ consists of a cylindrical tumbler with broad rim, a semi-globular bowl with some kind of handles or slings attached to the brink, a flask with a narrow neck and everted rim (funnel-shaped), and a big jar with some sort of stopper stuck into its narrow neck. The corpus shows a great variability of forms corresponding to a later stage of Neolithic. The bovidian settlements were concentrated near the contemporary water sources in contradistinction of the paleolithic assemblages situated mostly on the hills in the desert. In the abris, cultural remains from that time are sometimes found, consisting mainly of kitchen rubbish which proves the bovidian culture to be neolithic. We come across saddle querns, potsherds, polished axes, flint arrow heads, scrapers and ornaments as beads and ear-rings made of perforated ostrich shells, and schist bracelets.⁵⁹

In the postbovidian period, the cultural influence from the Nile valley must have

reached its climax. Two typical "Egyptian" paintings (the so-called Bird-headed goddesses and the Sacrificial scene of Jabbaren) help us to date the period.⁶⁰ On both pictures, we evidently meet Egyptian gods or kings distinguished by the uraei and the stylized pointed beards. With one exception⁶¹, the Egyptian beard seems to be worn by all the figures depicted on the two pictures. In Ancient Egypt, the beard was a sign of dignity attributed to kings, or gods, or the deceased (identified with Osiris), sometimes even regardless of their sex.⁶² The pictures under discussion bear several traits of the Egyptian painting art, i. e. the legs and the body are viewed in profile while the shoulders are turned by 90 degrees to the right to be seen en face. The head, however, is pictured in profile again whilst the eye is viewed en face like that of birds.

The following period of chariots and that of the "bitriangular" people are the most recent styles in Tassili belonging to protohistoric times.

The Setting of the Sahara Rock-Paintings as Seen in the Light of Prehistoric Remains and the Earliest Written Records

The man developed in Africa from Lower Pleistocene onwards.⁶³ At the end of Upper Pleistocene⁶⁴, the Aterian culture spread over vast areas of Northern Africa including the northern half of Sahara, the southern part of which was occupied by the culture Tumba at the same time⁶⁵. In addition, in the Upper Pleistocene levels of Africa *Homo sapiens* appears, bearing akin traits to the Cromagnon people of European Upper Paleolithic. In Africa, the specialization of lithic industry in Upper Paleolithic was progressing on the basis of the levallois-moustier technique. In Sebillien,⁶⁶ a typical culture of "african" tradition, the specialization based on the levallois-moustier technique makes for microlithic industry. In Sebillian II and III, the flakes split from moustier disc nuclei are trimmed into trapezoid, crescent or triangular shapes.⁶⁷ A similar process leading from producing epilevallois flakes to microliths can be traced in the Kharga oasis.⁶⁸ Querns and microliths used as sickle teeth signify that the process of transgression from food-gathering to food-producing had already started at that time though we are not sure whether the sickles and querns were used for mowing and crushing cultivated plants or wild cereals. Pieces of baked clay probably come from the mud walls built around fire-places. Heaps of shells and bones of big herbivora at Sebil are comparable to the kjoekkenmoeddings of Northern Europe.

The encampments of that time are grouped in the vicinity of today's water sources like the oldest rock paintings in Sahara.⁶⁹ Two varieties of moufflon and the short-tailed sheep⁷⁰ pictured at Wadi Amazzar show that some natural prerequisites of "neolithic revolution" were present in the Central Highlands of Sahara. The African cultures both in Egypt and Central Sahara reached the stage of pro-

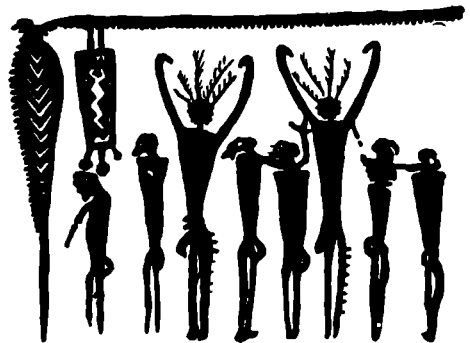


Fig. 2. Dancing men and women drawn on a pot from Nagada I. (Brussels Museum.)

ducing microliths which provided for the most primitive agricultural tools (sickles). In 1953, prof. Braidwood proved on the evidence of Jarmo that incipient agriculture and animal domestication centred on what he suggests is the natural habitat area of the potentially domesticable plants and animals in the central grassy hill-country of northern Syria and Iraq, not including the inundated banks of big rivers as thought before.⁷¹ Recently, some evidence was found showing that cultivation of plants did not necessarily precede cattle husbandry.⁷² As the desiccation of Sahara progressed, the fauna moved with the flora, followed by the hunters. The arid areas gradually separated larger groups of the inhabitants from one another, causing differences in language.⁷³ The enforced juxtaposition of people and animals in oases brought about that form of symbiosis between them which is called domestication.⁷⁴



Fig. 3. Man and woman on a white cross-lined vase from Nagada I, S. D. 32. (After Petrie.)

age. The Neolithic of Eastern Sahara, where the greatest galleries of rock-drawings are situated, shares many traits with that of Egypt. The inhabitants of Sahara, however, still depended greatly upon hunting.⁷⁶ It is shown by the variety of quartz arrow-heads, while polished axes are rare; they are made of sandstone into trapezoid or rectangular shape. One edge of the axe is polished, whereas the surface was left rough.⁷⁷ Those of minerals are polished all over the surface.⁷⁸ Tanged arrow-heads with hollowed base occur mostly in the later stage.⁷⁹ Pottery was made by hand. It contains vegetable admixture. Unfortunately, only potsherds have come down to us, some of them with scratched ornaments, the most interesting motif being the horizontal "herring-bone pattern" like at Merimde.⁸⁰ Some kind of rudimentary trade must have been established between Sahara and the Nile valley, as amazonite perles from Tibesti have been reported both from the Fayûm settlements⁸¹ and from neolithic "Gouge culture" of Khartûm.⁸²

In the intermediary region in the Libyan desert (between the oases Kharga and Gebel Awenat) two neolithic cultures have been discovered, the older one being preceramic, the latter one influenced by the "Neolithic of Capsian tradition"⁸³. Myers found out that the pottery from the upper level coincides with that of the Armant cemetery as well as with that from the graves of the VIth dynasty in Nubia. This proves that the neolithic still lasted in the desert whilst an urban civilization had already been born in the Nile valley.

Hieroglyphic inscriptions are the first to cast dim light upon the regions adjacent to Ancient Egypt. West of the Nile, there was a land of steppe afterwards rich in fleeces and of stone, later useful quarrying, which the Egyptians knew as Temehu and the later Greeks as Libya. Libya had early traditional connecting with Greece and Egypt.⁸⁴ The first recorded Libyan invasion into Egypt is that on the Narmer's palette (about 3300 B. C.). The Egyptian—Libyan "Kingdom of the West" may have existed at that time because the Pharaoh had to take the Great White Crown from the hands of "the noble foreigners who were at the head of the Libyans".⁸⁵ In the

fourth and the fifth nomes, the goddess Neith, "the Lady of the West", was called Libyan, and it is tolerably certain that her worship was widespread even in predynastic times.⁸⁶ The kings of the Vth dynasty imported aromatic ointments from Libya.⁸⁷ A great war against the Libyans was recorded on the walls of the funerary temple of Sahure who brought many captives, bulls, goats, rams and asses from Libya. The Egyptians under the VIth dynasty do not speak of the Libyan people as if they were absolute barbarians; in Akhenaten's days, Libya was what it had been for centuries, a mere raiding field for Egyptian slave-razzias. In Menreptah's days (XIXth dyn., 1251—1231 B. C.), the Libyans under their chieftain, Themer, have made common cause with the so-called "sea-peoples" but were beaten by the pharaoh. Another disastrous defeat of the year 5 of Ramesse III's reign (1200 B. C.) had doubtless too seriously weakened the Libyans for them again to attempt an invasion of Egypt during the reign of Ramesse III. But in the year 11 (1190 B. C.) they were themselves invaded by the Meshwesh (see fig. 4), a related tribe living on their west,⁸⁸ and the Meshwesh chieftains, Keper and Meshesher, father and son, laid waste the



Fig. 4. The captured chieftain of the Meshwesh on a relief in Ramesse III's Temple at Medinet Habu. (After Brugsch.)

Libyan country. The Libyans were then forced to join the Meshwesh in an invasion to Egypt. Ramesse III. defeated them, slew 2,175 men, took 2,052 prisoners, of whom 558 were women and girls.⁸⁹ Nearly a thousand of the Meshwesh were made herdsmen in charge of a herd of Amon, named after this victory.⁹⁰ The defeated Meshwesh and Libyans are pictured on the relief scenes in the second court of Ramesse's temple at Medinet Habu.⁹¹ In the list of their possessions 93 chariots⁹² and 183 horses and asses are mentioned among others proving the Libyan tribes to have used chariots drawn by horses at that time⁹³, these being used by the Pharaonic army on a large scale, too⁹⁴. Another report of high interest describes Merenptah's fame in Libya after the First Libyan War⁹⁵. It goes like this: "He (Merenptah) has become a proverb in Libya; the youth say to youth, concerning his victories: 'It has not been done to us since the time of Re', say they"⁹⁶.

From the oldest report on Northern Africa which has come down from antique times we learn that "the first inhabitants of Africa were the Gaetules⁹⁷ and the Libyans, rude and barbarian peoples who fed on flesh of wild animals and grass like herds do"⁹⁸. These Libyans and Gaetules were prehistoric peoples, the forerunners of the Berber people⁹⁹. Two races inhabited Maghreb since the oldest times till the end of the neolithic period, viz. the man of Mekhta el-Arbi on the Mediterranean shore, and the proto-mediterranean race who haunted the Southern regions, later on occupied by the Gaetules. Pliny the Elder¹⁰⁰ mentions a mighty confederation of Gaetulan tribes headed by the Autololes who controlled the area as far south as the Atlas. Farther to the south over the Draa, the Gaetules named Dariens roamed. The Gaetulan tribes were always written about as being nomadic. On

the other hand, two groups of Libyans were distinguished, one of them settled and carrying on agriculture near Lake Tritonis.¹⁰¹ These were called Maxyes.¹⁰² Camps¹⁰³ writes on the evidence of extension of protohistoric chapels of the "Sahara type"¹⁰⁴ that Sahara was inhabited by the Nasamons, "dates and locusts eaters",¹⁰⁵ The Garamants, who are considered to be the authors of the two latest styles of the Tassili paintings,¹⁰⁶ "chased the troglodytic Ethiopians on chariots drawn by four horses".¹⁰⁷

Notes on the Dating of the Tassili Paintings

This attempt to establish the chronology of several strata of the Tassili paintings is based on the idea that the age of a certain stage of prehistoric development of any region can be determined by means of imports or cultural influences from an adjacent region already lit by written documents.

In Sahara, we are faced with the problem that archaeological sites are distant from the painted rocks owing to the fact that the function of the paintings was not decorative.¹⁰⁸ As a rule, several films of paint from successive periods can be distinguished on the pictures. The depicted fauna can be compared with palaeontological facts; the garment, hair-does, weapons and tools of the pictured people are also to be examined thoroughly. If a region is rich both in rock-drawings belonging to one style and in prehistoric remains of one culture, it is possible to assign the paintings to the culture.¹⁰⁹ Our situation is much easier if the abri is filled with the remains up to the height of the painting. This is, however, an extremely rare case in Sahara. Nevertheless, at least relative chronology is a *conditio sine qua non* for any interpretation of any kind of archaeological remains. Consequently, the aim of this paper is to apply some Egyptian chronological data to the sequence of the Tassili styles suggested by Lhote.

M. Reygasse¹¹⁰ was the first to establish chronology of the Tassili rock paintings as a whole. He assigned the oldest paintings to the Neolithic on the evidence of the neolithic polished axes found nearby. The latest styles including that of chariots were put by him into the first millenium B. C. In addition, he mentioned some affinities of the Tassili paintings with those of Fezzan, Cyrenaica, and Eastern Spain (Cogul). Accordingly, H. Lhote holds the oldest style of the Bullet Heads for neolithic and suggests the 8th millennium B. C. to be its age. If we conceive, however, the Bullet Heads to be neolithic, then they must be more recent than the 8th millennium,¹¹¹ but since they seem to belong to a hunting people exclusively, it would be preferable to regard them as coming down from the first humid postpluvial phase, which would still imply a minor date than that suggested by Lhote.

The "thread-like dancers" (cf. fig. 1) may be analogous to the figures painted on the pots from Naqada I¹¹² (cf. figs. 2 and 3). Both have arms upraised in a characteristic way.¹¹³

In the bovidian period, Egyptian barques are painted in Tamrit¹¹⁴ and Avarnhet.¹¹⁵ They are similar to the incurved square boats, the intermixture of the Egyptian sickle boats and foreign square boats,¹¹⁶ which are typical for the period of the Eastern Invaders in Southern Upper Egypt.¹¹⁷ Winkler¹¹⁸ argues that the Eastern Invaders came from an unknown homeland to Mesopotamia as well as to Egypt. Their invasion from the East into Egypt¹¹⁹ coincides with the penetrating of the bovidian folk who gradually pushed their way from the Nile valley westwards across Wadi Uwenat, Tibesti and Fezzan to Tassili.¹²⁰ In addition to the barques,

a number of arguments are available to prove the bovidian invasion.¹²¹ The pear-shaped mace introduced to Egypt in S. D. 42 from Asia¹²² is represented in the neolithic assemblages of Sahara¹²³ as well as the arrow-heads with hollowed base known from the Fayûm settlements in Lower Egypt and from Naqada II.¹²⁴ The brilliant technique of surface trimming which reached its climax in the "scimitar-shaped" knives of Naqada II is also well attested in the Sahara neolithic,¹²⁵ even though it might not have been of such a great virtuosity here. The bovidian pottery¹²⁶ can be compared with some predynastic forms.¹²⁷ From the anthropological point of view, the Bovidians are akin to the Ethiopian race.¹²⁸ Besides, linguistic affinities to the inhabitants of Ethiopia still exist among the tribes of Tibesti.¹²⁹ The plant, which often appears on Decorated pots of Naqada II along with the boats, and was previously thought to be aloe, has been proved to be *Musa ensete*, a giant banana known in 17th century Abyssinia¹³⁰ as the "tree against hunger" from its many uses for food and shelter. It would seem therefore to be represented on these pots also for a magic reason (to provide the dead with food and perhaps also with means of shelter). The boat may be the boat of life, and that may explain why, on the earliest Decorated pots, it carries clearly recognizable vegetation sprouting from its prow, not intended either as a sail or as a shelter for the steersman, as has been sometimes suggested.¹³¹ This explanation can be plausibly applied to the Egyptian barques in Tassili, too; for otherwise the presence of ships in a very arid region without streams or lakes would be extremely curious. The *Musa ensete* seems to appear along with the boat of Avarnhet.¹³² As Naqada II is contemporary with the culture Maadi, for which a radio-carbon date has been established 3.305 ± 230 B. C., we can conclude that the bovidian period began about the half of the 4th millennium B. C.

The dating of the postbovidian period is aided by the scenes of sacrificing deities which are frequent in temples of Ramesse II¹³³ (1292—1225 B. C.). The deities bringing offerings are lined horizontally on the reliefs. Being various personifications of the Nile-god Hapy, they sacrifice to the king as the living embodiment of the state-god Amon. Their skin is coloured in blue like the Nile water even on the Tassili representation, which is an extraordinary rare case on prehistoric paintings showing that the painter must have known special compounds. Their skin is in the green colour of the papyrus the stalks of which they hold vertically in their hands. The stalks seem to appear on the Sacrificial scene of Jabbaren,¹³⁴ too; the horizontal lining has been preserved as well. The long white close skirts worn by a few figures on the picture were the fashion in Egypt during the New Kingdom.

The prototype of the "Swimming Women" of Avarnhet¹³⁵ may have been the figurines of swimming girls, which were in vogue in Egypt during the XVIIIth dynasty (the period of the Theban sculpture, 16.—15. cent. B. C.).¹³⁶ Their use and meaning was not religious as Lhote assumes.¹³⁷

The gap between the bovidian style and that of chariots was probably caused by the arid period following the Makali humid phase (2nd millennium B. C.).¹³⁸ The chariot drawn by horses¹³⁹ was introduced into Egypt by the Hyksos invaders in the half of the 18th century B. C. The date post quem for the period of galloping chariots appears to be the time of the Libyan wars under Ramesse III. (about 1200 B. C.) when the defeated "sea-peoples" dispersed over the isles and shores of the Mediterranean. On the Sahara paintings, the Egyptian gallop is hardly discernible from the Minoan one.¹⁴⁰ The late period of chariots and that of the riding horse are thought to belong to the Garamants. Drawing a parallel between

archaeological data and Herodotus' text,¹⁴¹ G. Camps showed, however, that Sahara was inhabited by the Nasamons in the second half of the 1st millennium B. C.¹⁴² At the dawn of history, the unique art of the Sahara rock-paintings vanished.

NOTES

¹ *Lhote H.*, A la découverte des fresques du Tassili, Paris 1958, Engl. ed. London 1959. *Tschudi Y.*, Les peintures rupestres du Tassili-n-Ajjer, Neuchâtel 1956.

² Cf. e. g. *Filip J.*, Evropský pravěk, Prague 1962, pp. 24–26.

³ *Hommage à l'Abbé Breuil* (Paris 1957) contains a complete bibliography of his papers and books on prehistoric art.

⁴ See *Alimen H.*, Préhistoire de l'Afrique, Paris 1955, fig. 144.

⁵ *Clark J. D.*, Milieu and interrelations of the prehistoric civilizations..., Actes d. Congr. panafr. d. Préh., IIe session, Alger 1952, p. 303.

NAGADA		DYN.	OLD	MIDDLE	XV	DYN.	NEW KINGDOM	LATE	EGYPT
I	II	III	I & II	KINGDOM	KINGDOM	XVI	XVIII	XIX	
—————→									"nome" marks
—————									Libyan sheath
—————									Libyan rock
—————→									Horned goddess
—————									Figures with upraised arms
			—————→						Uraeus
	—————								"Foreign" boat
								—————	Sacrificial scenes of gods
							—————		Swimming women
							—————→		Galloping chariots
							—————→		Horses
← BULLET HEADS	THREAD-LIKE DANCERS		BOVIDIAN PERIOD				POSTBOVID. PERIOD	PERIOD OF CHARIOTS	TASSILI

Fig. 5. Some coincident elements of Egyptian art and Sahara paintings.

⁶ *Breuil H.*, Les roches peintes de l'Afrique australe et leur âge, L'Anthr, 53, 1949, pp. 377–406.

⁷ *Riet Lowe C. van*, L'âge et l'origine des peintures d'Afrique, L'Anthr, 54 (1950), pp. 421–431.

⁸ *Schofield J. E.*, L'âge des peintures rupestres de l'Afrique du Sud, L'Anthr 1949, pp. 20–32.

⁹ In *Sovietskaya etnografiya*, 1957, 1, p. 17. Sim. *Fischer E.*, Von der Notwendigkeit der Kunst, Dresden 1959, pp. 29–32.

- ¹⁰ For the first time stated by *Reinach S.*, *L'art et la Magie*, *L'Anthr*, 1903, pp. 125–136, on a parallel to the Australian aborigines.
- ¹¹ Cf. *Bégouen—Breuil H.*, *Les cavernes du Volp*, Paris 1958.
- ¹² The rock-drawings in Eastern Spain and Africa show that people did not abandon these rituals after they started growing cereals and breeding cattle, cf. *Childe*, *New light on the most ancient East*, p. 23.
- ¹³ *Lips J.*, *Vom Ursprung der Dinge*, Leipzig 1954, p. 59.
- ¹⁴ In *O. Peterson's* opinion (*Magic-religion; some marginal notes to an old problem*, *Ethnos* 22, 1957, pp. 3–4), the word "magic" should disappear as it has been brought in use by the conception of an ideal Christian religious system.
- ¹⁵ *Kamil F.*, *Egyptian Art through the Ages*, Cairo 1960, p. 3.
- ¹⁶ Cf. *Hauser A.*, *Sozialgeschichte der Kunst u. Literatur*, I, pp. 9–10; *Gilardoni*, *Naissance de l'art*, p. 19 ff., and *Bandinelli B.*, *Organicità e astrazione*, p. 12.
- ¹⁷ *Laming A.*, *Paintings and Engravings*, Germ. ed., Dresden 1962, p. 131.
- ¹⁸ In such a case only one species occurs in a cave (*Lascaux*, F. d. Gaume, *Les Combarelles*).
- ¹⁹ *Hauser*, op. cit., pp. 9–24.
- ²⁰ E. g. *Lhote*, op. cit., pl. 56.
- ²¹ This would plead for the wrong idea presuming God to be a prerequisite of human existence (*Mainage*, *Les Religions de la Préhistoire*, p. 738). The idea of supreme deity did not appear before the state, being a reflection of an absolute ruler. See also *Neustupný E. & J.*, *Czechoslovakia before the Slavs*, London 1961, p. 49: "There is no evidence that the neolithic farmers worshipped individual dieties, since in the society of that time the single individual did not play any important role."
- ²² *Alpatov M. V.*, *Vseobščaja istorija iskusstv*, I, p. 47. Sim. *Laming*, op. cit., p. 135.
- ²³ *L'Anthr* 59, pp. 573–6; *ibid.*, 60, p. 299 ff.
- ²⁴ *H. Lhote*, op. cit., p. 159, after an analysis of ochres from Gebel Uwenat.
- ²⁵ *ibid.*, pls 77-88
- ²⁶ *Laming*, op. cit., p. 161.
- ²⁷ *Alimen*, op. cit., pl. XXIX; cf. also *Man*, LXII, 1962, fig. 1.
- ²⁸ *Tschudi*, op. cit., reviewed by *R. Vautrey* in *L'Anthr* 63 (1959), p. 108.
- ²⁹ Cf. *Winkler H.*, *Rock-Drawings of Southern Upper Egypt*, II, pl. LV, 1. *Mc Burney C. B. M.*, *Stone age of Northern Africa*, pls. 19, 20 (In *Habeter* II, III).
- ³⁰ *Lhote*, op. cit., pl. 19.
- ³¹ *Winkler*, op. cit., pls. LVI and VLII. For sim. engravings near Es-Sebua (Nubia) and Ain Safsaf (Algeria) see *Hamann R.*, *Gesch. d. Kunst*, Munich 1962, I, figs. 16, 21.
- ³² *Lhote*, op. cit., pl. 20.
- ³³ In *La signification de l'art rupestre paléolithique*, Paris 1961.
- ³⁴ *Laming*, *Paintings...*, pl. 31, 39.
- ³⁵ Connected with sympathetic magic, *ibid.*, p. 161.
- ³⁶ *Lhote*, op. cit., pl. 22. Cf. also *Winkler*, op. cit., pl. XII, 1 and *Childe*, op. cit.; quoting *E. S. Thomas*, *JRAI*, LVI, 385 ff.
- ³⁷ *Lhote*, op. cit., pl. 23.
- ³⁸ *ibid.*, pls. 22 and 24. The latter cf. *L. Frobenius*, *Ekade Ektab*, pl. LXXXVib.
- ³⁹ Cf. the prehistoric stone plate from the *Brit. Mus.*, depicting a hunting scene (*Naqada III*), or the palettes of King Scorpion and Narmer (*Dyn. I*). The pendant tails are also known from representations of conquered Libyan chieftains under the Vth *Dyn.*, see *L. Borchardt*, *Das Grabdenkmal des Königs Sahure*, II, Leipzig 1913, pls. 1, 5.
- ⁴⁰ *Lhote*, op. cit., pl. 35.
- ⁴¹ *ibid.*, p. 64.
- ⁴² It was Osiris who taught the Egyptians husbandry; see *Budge*, *The Gods of the Egyptians* II, p. 124.
- ⁴³ *P. J. Ucko* in *JRAI* 92, 1 (1962), p. 43.
- ⁴⁴ *Budge*, op. cit., I, p. 428 ff.
- ⁴⁵ *Lhote*, op. cit., pl. 21 (*Jabbaren*).
- ⁴⁶ Moufflons are still hunted by the Tuareg in today's Sahara.
- ⁴⁷ *Lhote*, op. cit., pls. 12 and 31.
- ⁴⁸ See *Quibell & Green*, *Hierakonpolis*, London 1902, pls 75-9.
- ⁴⁹ *Lhote*, op. cit., pl. 57. The curly tail is a domestication feature fancied by Anc. Egyptians; *Zevner F. E.*, *A History of Domesticated Animals*, London 1963, fig. 4 : 13.
- ⁵⁰ *ibid.*, pl. 40. Cf. also *Winkler*, op. cit., I, pl. XXXIV.

- ⁵¹ *M. G. Davies*, The Mastaba of Ptahhetep & Akhethetep at Saqqareh, p. 37; for the reed-float as hieroglyphic sign see *Gardiner*, Egyptian Grammar, p. 500.
- ⁵² Shelters of the same type were in use at Merimde in Lower Egypt, cf. *Junker*, Vorläufige Berichte über die Gräbung der Ak. der Wiss. in Wien auf der neolithischen Siedlung von Merimde Benisalame, in Anzeiger d. Ak. d. Wiss. in Wien, phil.-hist. Kl., 1929, pp. 156–248. In Sudan they survive till the present day.
- ⁵³ *Lhote*, op. cit., pl. 18.
- ⁵⁴ Adzes of arch-shaped oblong profile were left by the neolithic settlers at Tennere; cf. *Alimen*, op. cit., fig. 61.
- ⁵⁵ *Lhote*, op. cit., pl. 56.
- ⁵⁶ Cf. also *Winkler*, op. cit., II, p. 22.
- ⁵⁷ Cf. *ibid.*, l. c.
- ⁵⁸ Cf. note ⁵⁵ above.
- ⁵⁹ *Ibid.*, p. 63.
- ⁶⁰ *Ibid.*, pls. I & 26.
- ⁶¹ The head of the white deity on pl. I above resembles that of the ibis-headed god Thovt, but curiously enough the deity is female.
- ⁶² Beard was worn e. g. by the queen Hatshepsvet, cf. *Steindorff*, Die Blütezeit des Pharaonenreichs, fig. 18.
- ⁶³ Cf. *Antiquity*, 33 (1959), p. 287.
- ⁶⁴ For pluvials see *ibid.*, p. 288; *Dr Bernhard's* opening paper of the 4th Panafr. Congr. on Prehist., Léopoldville 1959.
- ⁶⁵ Tumba is another name for the culture Sangoan which expanded from Kenya northwards during the last isopluvial. In the north it gave birth to Aterian (*L. S. B. Leakey*). Aterian is lacking in the Ahaggar & Tassili.
- ⁶⁶ *Vignard E.*, Une nouvelle industrie lithique, le Sébillien, BIFAO 22, p. 76 ff. & *id.*, in BSPF 1928, pp. 200–220.
- ⁶⁷ *Id.*, Congres préh. de France, 10 (1934), p. 68 ff.
- ⁶⁸ *Huzayyin S. A.*, The Place of Egypt in Prehistory, Mém. Inst. d'Égypte, 1941. *Id.*, New Light on the Upper Palaeolithic of Egypt, Proc. of the 1st Congr. Panafr. on Prehist., 1947, pp. 202–204.
- ⁶⁹ Cf. *supra*, p. 76.
- ⁷⁰ *Lhote*, op. cit., p. 171.
- ⁷¹ See *K. M. Kenyon*, Some Observations on the Beginnings of Settlement in the Near East, JRAI 89, p. 35 ff.
- ⁷² *K. Narr*, Viehzuchtprobleme und archäologisch-osteologische Quellen, Ethnos 22, 3–4; *J. Bouchud*, Les Paléolithiques ont-ils domestiqué le Renne? L'Anthr 63, p. 93 ff.
- ⁷³ *Z. Žába*, Ancient Nubia Calls for Help, New Orient bimonthly, I, 3, p. 7.
- ⁷⁴ *Childe*, op. cit., p. 25.
- ⁷⁵ Cf. *infra*, p. 80.
- ⁷⁶ Like the nomads of Sahara at the present day; cf. also note 46 above.
- ⁷⁷ *Alimen*, op. cit., p. 191.
- ⁷⁸ *Ibid.*, pl. IX.
- ⁷⁹ *Ibid.*, l. c.
- ⁸⁰ *Ibid.*, *Junker*, op. cit., 1929, 156 ff.
- ⁸¹ *Childe*, op. cit., p. 36.
- ⁸² *Arkell A. J.*, Early Khartoum, 1949, pp. 40–84; *id.* in PPS, XV, pp. 42–9 & in Sudan Notes & Records XXX, 214–222. *Id.*, Shaheinab. Oxford, 1953.
- ⁸³ Cf. *Bagnold R. A. & others*, in The Geographical Journal XCIII, pp. 281–312.
- ⁸⁴ *Hall H. R.*, Egypt & the External World in the Time of Akhenaten, JEA VII, 52.
- ⁸⁵ *Julien Ch. A.*, Histoire de l'Afrique du Nord, Paris 1951, p. 73.
- ⁸⁶ Cf. *Budge*, op. cit., I, p. 450 ff.
- ⁸⁷ *Avdijev V. I.*, Istorija drev. vostoka, p. 174.
- ⁸⁸ *Petrie* has attempted to find the names of the Libyan tribes among the placenames still surviving in North Africa (in PSBA, XXVI, pp. 40–41). All the tribes were located to Algeria by him, the Baqana even farther to the west near Fez in Morocco. This shows that the centre of Temehu must have been situated farther westwards than that of today's Libya. The Meshesh region was located on almost the same longitude with Tassili-n-Ajjer (9°–10° E.).
- ⁸⁹ *Breasted J. H.*, Ancient Records of Egypt, IV, pp. 49–50.

⁹⁰ Papyrus Harris, 10, 8. This means that the Meshwesh were a famous pastoral people.

⁹¹ See *J. Vandier*, Manuel d'arch. égyptienne, II, p. 760; *Nelson H. J.*, The Epigraphic Survey of the Great Temple of Med. Habu, Or. Inst. Comm. 5, Chicago 1929.

⁹² The units are uncertain, and may be increased, but 93 is a minimum, and 99 is a maximum (*Breasted*, op. cit., p. 66). *O. Bates* (The Eastern Libyans, p. 159) gives an incorrect number (more than 100).

⁹³ *Ibid.*, III, 583 is another proof for this; Agathocles made use of the Libyan chariots even in the 4th cent. B. C. during the war against Carthage (*Diodorus*, XX, 38, 2).

⁹⁴ *Hoelscher* (Mortuary Temple, I, pp. 3–8) discerns stables and special departments for king's chariots at Medinet Habu.

⁹⁵ *Breasted*, op. cit., III, 611.

⁹⁶ It is the Libyan youth who speak, in spite of their reference to Re, which shows that the knowledge of Egyptian gods was widespread in foreign countries. The situation was almost the same after the Second Libyan War under Ramesse III (*ibid.*, IV, p. 40.).

⁹⁷ In the usage of Roman writers they comprised the wandering tribes of the southern slopes of Mount Aures and the Atlas, as far as the Atlantic, and the oases in the northern part of Sahara. The Gaetules were distinguished from the Negro people to the south, and belonged to the Berber race. They were noted for the rearing of horses, were clad in skins, lived on flesh and milk, and the only manufacture connected with their name is that of purple dye.

⁹⁸ *Sallustius*, Bellum Jugurthinum, XVII (transl. *Emont*, Paris 1947, p. 151).

⁹⁹ Cf. *Balout G.*, Préhistoire de l'Afrique du Nord, Paris 1955. *Id.*, Les hommes préhistoriques du Maghreb et du Sahara, Alger 1955.

¹⁰⁰ Quoted by *Camps G.* in *Libyca VII*, I, p. 17.

¹⁰¹ For the location of the lake see *St. Gsell*, Hérodote, pp. 77–84.

¹⁰² *Herodotus*, IV, 181, 186, 191.

¹⁰³ *L. c.*, p. 20.

¹⁰⁴ Cf. *Id.*, Sur 3 types peu connus..., BSPF LVI, pp. 101–108; for the ritus connected with them see *M. Reygasse*, Monuments funéraires préislamiques de l'Afrique du Nord, Paris 1951, p. 33.

¹⁰⁵ *Herodotus*, IV, 172.

¹⁰⁶ The style of chariots and that of "bitriangular" people, cf. *K. Petráček* in the Czech ed. of *Lhote's* book, Prague 1962, p. 205.

¹⁰⁷ *Herodotus*, IV, 183. For the problem of the chariots see *Camps*, l. c., note 1.

¹⁰⁸ Cf. *supra*, pp. 73–.

¹⁰⁹ Applied by *R. Vauflrey* to the rock engravings of Maghreb, cf. *L'art rupestre nord-africain*, Paris 1939.

¹¹⁰ Gravures et peintures du Tassili des Ajjers, *L'Anthr XLV*, p. 533 ff.

¹¹¹ *K. Petráček* places the Bullet Heads between the 10th and 8th millenia B. C. (in op. cit., p. 204).

¹¹² For the classification of the Naqada culture see *H. Kantor*, "Gerzean or Semainian", JNES 1944, pp. 110–136; for the chronology See *R. — P. Charles*, in JNES XVI, p. 240ff.; *W. Kaiser*, Zur inneren Chronologie der Naqadakultur, *Archaeologia Geographica* 1957, 6, pp. 69–77.

¹¹³ For the gesture of the Naqada I idols see *Childe*, op. cit., Pl. IVb; *Z. Žába*, The development of primitive and class societies in Anc. Eg., New Orient bimonthly, III, 2, p. 35. Cf. also *Winkler*, op. cit., I, p. 40; *ibid.*, pls. XXV & XII; and sim. gesture of the Tamrit "Venus", *Lhote*, op. cit., pl. 14.

¹¹⁴ *Lhote*, op. cit., pl. 13. The barque resembles the incurved square boat, cf. *Winkler*, op. cit., I, pls. XXXV–VI.

¹¹⁵ *Lhote*, op. cit., pl. 40. Cf. incurved sickle boats with oars, *Winkler*, op. cit., I, pl. XXXIV.

¹¹⁶ See *Winkler*, op. cit., p. 41; for the first time painted on a decorated vase from S. D. 46–63 (Brit. Mus. 36. 326), cf. *R. L. Bowen*, *Antiquity XXXIV*, p. 117, correcting *H. Kantor*, JNES III, p. 116.

¹¹⁷ *Winkler*, l. c., & *ibid.*, pl. CVII; op. cit. II, pls. XXII–XXV.

¹¹⁸ *Op. cit.* I, pp. 38–39.

¹¹⁹ Cf. *Petrie*, The Making of Egypt, p. 31. Also pleaded for by *Childe*, op. cit., p. 67.

¹²⁰ See *Galassi*, Tehenu, pl. VI.

¹²¹ Suggested by *Lhote*, op. cit., p. 63. *Winkler* (op. cit. I, 26 ff.; II, p. 18) argues that the Eastern Invaders did not go farther west into the desert than to Hos, i. e. still in the valley. Nevertheless, they might have set in motion the Autochthonous Mountain Dwellers.

¹²² *Childe*, op. cit., l. c.

¹²³ *Alimen*, op. cit., p. 189.

- ¹²⁴ In Sahara, we meet both U-shaped & V-shaped hollowing, the latter emerging in Egypt in S. D. 38.
- ¹²⁵ *Alimen*, op. cit., p. 188 & *ibid.*, fig. 60.
- ¹²⁶ *Lhote*, op. cit., pl. 55; cf. also *supra*.
- ¹²⁷ Cf. *Petrie*, *Preh. Egypt Corpus*, pls. VIII, 37; XII, 31; XIV, 50, 87b; XIX, 72b; XLIV, 93b. (Forms from S. D. 34–63).
- ¹²⁸ *Lhote*, op. cit., p. 50.
- ¹²⁹ *K. Petráček* in op. cit., p. 205, quoting *E. Cerulli*.
- ¹³⁰ *V. L. Täckholm's* view, supported by *H. Larsen* in *Ann. Serv.*, LIV, pp. 239–40.
- ¹³¹ *A. J. Arkell*, *Early Shipping in Egypt*, *Antiquity* 1959, p. 52.
- ¹³² *Lhote*, op. cit., pl. 40.
- ¹³³ E. g. at Abydos; see *N. M. Davies*, *Ancient Eg. Paintings*, II, Pl. XC; *Champdor*, *Alt-ägyptische Malerei*, Leipzig 1957, p. 190.
- ¹³⁴ *Lhote*, op. cit., pl. 26.
- ¹³⁵ *Ibid.*, pl. 36; note the figure of an Egyptian.
- ¹³⁶ State Mus. of Arts in Moscow, No. 3. 627 (cf. *Mat'e*, *Iskusstvo drevnego Egipta*, fig. 129) or the Akhenaten's figure from Louvre (*Steindorff*, op. cit., fig. 119).
- ¹³⁷ The figurines were symbols of love, cf. *Mat'e*, op. cit., p. 266.
- ¹³⁸ Cf. *Alimen*, op. cit., p. 159 and *Clark J. G. D.*, *World Prehistory*, Cambridge 1961, table C on p. 15.
- ¹³⁹ Their names were of Semitic origin, cf. *Erman-Grapow*, *Wörterbuch der äg. Sprache* I, p. 236. Those used by the Libyans were called "mrkbt", *ibid.*, II, p. 113.
- ¹⁴⁰ *R. Vaufray*, op. cit.
- ¹⁴¹ *Herodotus*, IV, 172.
- ¹⁴² op. cit., p. 20.

K NOVÝM OBJEVŮM SKALNÍCH MALEB NA SAHAŘE

Autor se zabývá skalními malbami, které prozkoumala a okopírovala v letech 1956–1957 francouzská archeologická expedice pod vedením H. Lhota na náhorní plošině Tasili-n-Ažžer severovýchodně od Ahaggaru. Tasílské skalní malby představují největší galerii pravěkých maleb na světě a mají velký význam pro poznání nejstaršího umění. Autor se snaží podat alespoň částečný obraz historického prostředí, z něhož toto nástěnné umění vyrůstalo, jak se jeví ve světle archeologických a nejstarších písemných pramenů.

Opíraje se o egyptské vlivy, které se výrazně projevují na některých obrazech v Tasili, autor nalézá několik opěrných bodů v chronologii starého Egypta, které, aplikovány na systém posloupnosti tasílských slohů vypracovaný předběžně H. Lhotem, dávají asi toto rámcové datování tasílských maleb: Rané stadium „Kulatých hlav“ patří do první postpluviální vlhké fáze (asi 6. až 4. tisíciletí př. n. l.). Pokročilé období tohoto stylu je ještě současné s předdynastickou kulturou Nagáda I; mezi něj a následující bovidiánské období klademe tzv. nitkovité tanečnický. Bovidíánský styl souvisí patrně s expanzí z východu, která je doložena ve II. stupni nagádské kultury v Horním Egyptě. Nagáda II je současná s kulturou Maadi, pro kterou bylo zjištěno radiokarbonovou metodou datum 3305 ± 230 př. n. l. Počátek bovidíánského období můžeme proto klást do poloviny čtvrtého tisíciletí př. n. l. Postbovidíánské období je současné zhruba s egyptskou XVIII. a XIX. dynastií (16.–13. stol. př. n. l.). Období „vozů“ nastupuje po tzv. druhé válce libyjské za vlády Ramesse III. v první polovině 12. stol. př. n. l.

O НОВЫХ РИСУНКАХ НА СКАЛАХ, ОТКРЫТЫХ В СРЕДНЕЙ САХАРЕ

Автор делает разбор рисунков на скалах, которые открыла и скопировала французская археологическая экспедиция под руководством Генри Лота на плоскогорье Тасили-н-Ажжер северовосточнее Ахаггара. Рисунки на скалах в Тасили представляют собой самую большую картинную галерею доисторического искусства на свете и имеют огромное значение для изучения самого старого искусства — живописи. Автор старается

помочь нам представить себе, хотя бы частично, среду и отношения, при которых возникла эта скальная живопись, среду, о которой мы можем судить посредством археологических находок.

Ссылаясь на египетское влияние, которое выразительно проявляется на некоторых тассильских рисунках, автор находит несколько опорных точек в хронологии древнего Египта, которые ему помогают датировать эти рисунки Тассили. Древнейшая стадия рисунков сахарских охотников ("круглоголовая" стадия) принадлежит к первой постплувиальной влажной фазе (приблизительно VI—IV тысячелетие до н. э.); высшая форма этого стиля совпадает с прединастической культурой нагада I (Амра); промежуточную стадию этого стиля и следующего (бовидианского) сахарских пастухов мы называем „танцорами с нитевидными конечностями“. Бовидианский стиль, несомненно, имеет связь с вторжением с востока, которое документально может быть доказано в нагадской культуре Верхнего Египта (герза). Нагада II совпадает по времени с нижнеегипетской культурой Маади, дата которой установлена при помощи радиоактивного углерода (C-14) — $3\,305 \pm 230$ до н. э. Постбовидианская эпоха приблизительно совпадает с египетской XVIII—XIX династией (16—13 в. до н. э.). Эпоха колесниц наступает после так называемой 2-ой Ливийской войны при Рамзесе III (20-я династия, первая половина XII в. до н. э.).

