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The earliest art in the Nile Valley

Rock art in the Sahara west of Egypt and Nubia has frequently been dated by its association with archaeological material, with varying degrees of success (*e.g.*, Sandford, 1933: 220). For much Saharan rock art, these associations are not stratigraphical; implements were found near rock-pictures but not in deposits covering pictures (*e.g.*, Reygasse, 1931; Vaufrey, 1936; 1938; 1939). The reliability of non-stratigraphical association is called into question, for instance, by a number of Lhote's discoveries (1965: 90). It seems best to accept only stratigraphically associated archaeological finds as evidence for dating very early rock art. For areas outside Egypt and Nubia it is possible to make such associations if – and here, of course, we confront the most fundamental problem – suitable sites can be located (see, for some examples, P. E. L. Smith, 1968: 8 - 9, 34 - 35; Mori, 1965: 234; Camps *et al.*, 1968: 28; cf. Leakey, 1936: 138 - 40).

To my knowledge, in Upper Egypt and Nubia only two sites afford possibilities of a stratigraphical association between rock art and archaeological material[1]. Other researchers have found rock-drawing sites with nearby lithic, ceramic, or funerary assemblages. The variety of these discoveries only magnifies problems of interpre-

[1] The work of the Nubian Survey of the Egypt Exploration Society revealed a possible association between A-Group artifacts and the rock-paintings in the shelter at Korosko (Dunbar, 1941: 53). A worn, blackened „boat-shaped" grindstone from the lowermost level (Level C) of the floor of the painted shelter retained „considerable traces of red ochre embedded in it, so that it may well have been used for grinding the paint for the decoration of the shelter" (H. S. Smith, 1962: 89). With the exception of one definitely C-Group sherd, all material from Level C may be definitely assigned to the Nubian A-Group, and a parallel between the grindstone from Korosko and several from the A-Group occupation site at Afyeh has been noted (H. S. Smith, 1962: 59 - 61). However, the survey team did note parallels between the shelter art and representations on C-Group pottery. The paintings from Korosko reproduced by Dunbar (1941: pl. 24, and cf. Zaba, 1967, who questions this copy) are definitely C-Group; only a fraction of the shelter art, then, can be A-Group. The other stratigraphical association will be discussed below.

tation. For instance, at Gebel Furer in the Sudan, Arkell discovered a series of rock--drawings of boats, cattle, and a giraffe, and found close at hand fine potsherds decorated with herring-bone and with incised dots and combing (1950: 32). P. E. L. Smith hopes that Palaeolithic industries found below the cliffs north of Kom Ombo can be associated with the naturalistic drawings of cattle found on the cliffs themselves (1964: 210). The Nubian Survey of the Egypt Exploration Society discovered a rock-drawing of a horned animal beside Grave 3 at Cemetery 244 on the east bank of the Nile near Abu Simbel, dating the plundered tumulus to the era of the Nubian C-Group (H. S. Smith, 1962: 15). The Scandinavian Joint Expedition discovered many Neolithic, A-Group and other sites near rock-drawing sites (Neolithic site 89 near rock-drawing stations 89c - g; 371 near 387a; 424 near 382c; 414 near 378d; 365 near 374a: see Hellström, 1970; Nordström, 1972).

As I have argued in detail elsewhere, because the archaeological record is so limited, a chronology for rock art must be based upon examination of stylistic and other trends within the corpus of rock-pictures (Davis, 1978; 1979). Preliminary examination of these patterns has led to results which are essentially in accord with results obtained by the method of comparing drawings with pottery designs, with art mobilier, and with contemporary technologies (advocated by Červiček, 1978). This latter method will not provide us with much useful information about the earliest rock art in the Nile valley, however, for the simple reason that the earliest rock art happens also to be the earliest art of any kind in this area.

Based upon the magnificent recording by the Scandinavian Joint Expedition and upon my own analysis of this record, I judge two rock-drawing stations, SJE 382c and 382d, to be the oldest to be identified so far in the Nile Valley. These drawings are mainly non-representational and/or geometric designs, consisting, for instance, of concentric circles, dotted circles, parallel lines, interwoven lines, and polymorphic figures. Generally they are found on horizontal rock-surfaces (descriptions in Hellström, 1970: 187 - 91, pls. 108 - 15). I am unable to determine whether Winkler observed a similar phenomenon in the siting of his early drawings, although he does say that the drawings of "hunters" "are as a rule found in sunny places, often on the tops of hills or boulders" (1938: 32). The rock on which these early SJE drawings are found is generally classified as "very smooth", although some smooth surfaces and a single rough surface were noted. Both stations are located on the flat summits of gentle hillocks; the height of both stations, in meters above sea level, is 150 m. It is likely that both stations are of the same age, possibly as early as the eighth millennium B. C. The SJE team noted that the patination of the drawings, complete or *a*-patina, could have formed only through submersion; at one point, then, both stations were under water. Since many incompletely patinated drawings in the vicinity were found at 150 m. and below, the SJE team concluded that the geometric drawings were the most ancient discovered in the area. An available absolute date is Myers' C14 fix of associated material to 7,450 - 7,250 B. C. (for details, see Myers, 1960: 178; Hellström, 1970: I, 29). Non-representational drawings found elsewhere which

closely compare with those from 382c and 382d are probably as old as the drawings from these two stations. (Some unidentified figurations in the *corpus* should be approached cautiously, for it may be that if they could be more clearly made out they would exhibit some representational theme).

Table 1

Chronology of a-patina rock-drawings from the SJE concession

SJE Station	Rock-drawing theme	Station elevation
382c, 382d	geometric	150 (Stage I)
378q	clubs	
152b	e-antelopes	
	h-antelopes (152b40)	150 (Stage II)
154a, 378d	crocodiles	
	human figures	
376c	k-giraffes	
382b	k-, l-, m-antelopes	140 - 50 (Stage III)
390f	oxen	140 - 50
376a		140
151a	h-giraffes	130 - 40 (Stage IV)
206b		

Stage I possesses the oldest known rock-drawings, dating from circa 7,000 B. C. An available C-14 date is 7,450 B. C. (Hellström, 1970: I, 29).

Stage II possesses rock-drawings stemming from the transitional phase formed by the introduction of the Neolithic and gradual disappearance of the Palaeolithic traditions (6,000 B. C.?).

Stage III is a sub-prehistoric period possibly not far removed from the Egyptian predynastic. An available C-14 date is 4,650 B. C. (Hellström, 1970: I, 29). In other patinas, boats and other indicators of developed culture appear at this elevation.

Stage IV includes the youngest a-patina rock-drawings, probably dating from periods after the domestication of cattle in Upper Egypt and Nubia (Nubian C-Group?).

Taking the most ancient date of these stations as given, it is possible to construct a relative chronology for all *a*-patina SJE rock-drawings according to methods earlier outlined (Davis, 1978) (Table 1). It will be noted that oxen do not appear until the lower station elevations; an examination of the distribution tables of drawings (Hellström, 1970: I, 31 - 51) shows that for all patinas (*a* through *d*), oxen never appear above the 140 - 50 m. elevation and a significant number appear at 140 m. or below. Crocodiles appear in the relative chronology as characteristic of the 140 - 50 m. elevation, and the distribution tables reveal that for all patinas, slightly more than half of the crocodiles are to be found at this elevation. A substantial number, however, are found at 150 m. or higher, but only in incompletely patinated form. Most human figures are to be found at the 140 - 50 m. elevation or the 140 m. elevation; very infrequently is the elevation any higher, and human figures at a 150 (+) m. elevation are always incompletely patinated. These incompletely patinated figures at the high elevations are probably contemporary with, or younger than, completely patinated figures at the lower levels.

Some at least of these drawings must be attributed to an era preceding the de-

velopment of settled agriculturalist production. Unfortunately, however, it is impossible to tell whether cattle as shown in the rock-drawings are domesticated. The criteria for judging domestication are themselves not at all well-specified: in Egypt, animals buried in archaic burial sites with human remains (Brunton and Caton-Thompson, 1928: 94; Brunton and Morant, 1937: 57) may not have been domesticated (Mustafa, 1953). Collars and head-ornaments depicted on cattle may imply domestication (Huard and Massip, 1964), but with good reason Lhote questions the traditional dating of rock-pictures showing rams bearing discs between the horns to the Egyptian New Kingdom (1964: 196). Collars and other paraphernalia may be signs of "incipient domestication": a special concern for the animals is expressed in decoration with man-made objects (P. E. L. Smith, 1968: 10). Significantly, at riverside rock-drawing sites in the Nile Valley, few if any of the *b*-patina cattle bear ornamentation, and none possesses an udder. This may be contrasted with the desert drawings: in the western desert, for instance, there is a fine panel showing a cow with well-developed udder, patinated completely black (Winkler, 1937: fig. 46). (The contrast may have no significance, for similarity in patination does not imply contemporaneity). Many Nile Valley drawings show men in association with cattle, hunting them (Dunbar, 1941: fig. 27; Winkler, 1938: 20, 24, and pl. 15.1) and "tending" or "herding" them, and Huard has even published a drawing from Myers' survey near Wadi Halfa showing a human figure (?) astride a cow or bull (1968: fig. 3, no. 9). It is, therefore, extremely difficult to judge whether rock-drawings show domesticated cattle; darker-patinated cattle found at relatively high elevations in the SJE concession (140 - 50 m. and above) are possibly undomesticated and would consequently date to some prehistoric era prior to about 4,000 B.C.

The first developed food-producing settlement in the SJE region is that at Khor Bahan, described by Reisner, which has many Upper Egyptian features of the Naqada I and II periods and was evidently contemporary with the late Naqada I or early Naqada II in Egypt (Reisner, 1910: 113 - 40), and possibly with the Abkan culture investigated by the Combined Prehistoric Expedition and the SJE. In other terminology, we are speaking of a period contemporary with the Nagada Ic, IIa - b phases, and Trigger's Bahan phase and Early Nubian Ia subphase (Trigger, 1965: 68 - 72). Despite Nordström's remark that in the late Qadan period and in the beginning of the Early Nubian sequences there is no evidence of pastoralism (1972: I, 7), Trigger's exhaustive survey of the Nubian sequences suggests to him that pastoralism spread through the Sahara beginning in the fifth millennium (1965: 63), and available C14 dates for north African sequences suggest that the source of this pastoralist movement lay in the central/south Sahara (as opposed to the Nile Valley) in about 7,500 B. C., spreading to the northwest Sahara as early as 5,500 B. C. (Derricourt, 1971: 271)[2]. Evidence from Uan Muhuggiag and Adrar Bous indicates

[2] See also Willett, 1971, and compare Clark, 1962: 213 and Clark, 1964: 181. The problems are discussed in Lhote, 1969; 1970; McHugh, 1974a; 1974b.

that a shorthorn *Bos* was actually domesticated there by 5,500 - 4,000 B. C. (Clark, 1971: 53). Nordström's inclination to date cattle pastoralism to as late as the C-Group in the southern portion of lower Nubia, after 3,000 B. C., cannot be ignored (Nordström, 1972: I, 6; cf. Nordström, 1962: 40, 49; Hall, 1962; Nordström 1966; Huard 1964; Myers may have held a similar view: 1960: 176), but the evidence from other areas of the Nile Valley and the Sahara overwhelmingly points to an earlier date for cattle pastoralism and for domestication in northeastern Africa. The earliest drawings of cattle might be associated with this pastoralist movement.

Assuming that from 5,000 - 4,000 B. C. culture tended increasingly toward settlement, rock-drawings depicting horned animals, like antelopes, should probably be dated to an earlier age. Large fauna, like giraffe and elephant, perhaps appeared before the sub-pluvial, ca 6,500 B. C., rendering them easily available for hunting and for representation in that era [3]. Such fauna declined in numbers after 3,600 B. C., but in any case at this later time they probably would no longer have been interesting to man, for attention had shifted to the new settled pastoral/agricultural economy based upon domesticated cattle. Winkler's "early Nile dwellers" (Standarten-Leute), whose work may be dated fairly accurately to the predynastic and early dynastic period (Winkler, 1938: 24, pls. 13.1, 16; 1939: pl. 31.1) did know the elephant (1938: 30, pl. 14.1) and the giraffe (1938: pl. 14.1, 1939: pl. 13.1), but drawings of these large animals are rare among works produced by all but the earliest populations. In other words, it was Winkler's "earliest hunters" (Dirwa-Leute), which he dated before the Egyptian predynastic with a late expression contemporary with the Nagada I (1939: 33), who knew well the elephant (1938: pls. 27.2, 28.1; 1939: pls. 56.1, 57.2) and the giraffe (1938: pls. 38.1, 2, 29.1, 2, 30.1; 1939: pls. 51, 52.1, 53.1, 54. 58.1).

Dating these earliest drawings poses difficulties, but a useful chronological and archaeological control is provided by the work of O. H. Myers. At his site near Abka in the second cataract region of Nubia, Myers had the great good fortune to discover drawings, some of which had evidently fallen from large surfaces still exposed to view, covered by layers of material, and stone tools in definite stratigraphical association with drawings. His work, often neglected, was described in several of his own publications (1948; 1949; 1958; 1960) and his results incorporated in the SJE publication (Hellström, 1970: I, 27 - 28, and see also Hellström, 1966). Among Myers' more important sites, his Site V is equivalent to SJE 152b and Site 2006 of the Combined Prehistoric Expedition, his Site IX is equivalent to SJE 154a, and his Site XXXII is equivalent to SJE 382d. The tools he recovered were analyzed and published by Vaufrey (1958) and Palma di Cesnola (1960). Myers was able to obtain

[3] For the purposes of our inquiry, what is notable about the faunal population of the Late Pleistocene is the lack of giraffe and elephant, two species depicted frequently in Upper Egyptian and Nubian rock art (Churcher, 1972: 127 - 29). As Butzer points out (1975: 148), the absence of these species should be attributed to the ecology of the prevailing „glacial age" climate. A more abundant faunal period can be dated to about 5,000 B. C., the beginning of the so-called Neolithic wet phase, or subpluvial II phase in Butzer's terminology (1957: 27 - 28).

several C14 dates for the various levels at two of his important sites, and published these as follows (listed uncorrected according to modern radiocarbon standards, in Myers, 1960: 176 - 78; Crane and Griffin, 1960: 45 - 46):

1. Site XXXII, lower levels .....7,500±400 B.C. (M-795, shell)
2. Site XXXII, upper levels .....7,225±400 B.C. (M-794, shell)
3. Site IX, level 6 (lowest) .....6,310±400 B.C. (M-804, shell)
4. Site IX, level 5 .....4,010±400 B.C. (M-805, shell)
5. Site IX, level 4 .....2,550±350 B.C. (M-801, charcoal)
6. Site IX, level 4 .....2,520±300 B.C. (M-802, shell)
7. Site IX, level 3 .....1,280±200 B.P. (M-800, charcoal)
8. Site IX, level 3 .....1,300±200 B.P. (M-799, charcoal)
9. Site IX, level 2 .....1,355±200 B.P. (M-798, charcoal)

The last three dates (7, 8, 9) appear as published by the laboratory (Crane and Griffin, 1960); in Myers, they appear only as "about A. D. 675" (1960: 178). Although we could wish for more samples from each level, worries about the dating of shell are put to rest by M-793, shell from the second cataract area, which gave a correct modern result of 0+/−150.

In these levels, various lithic and ceramic artifacts were found, which may be summarized as follows:

1. Site IX, level 7: SJE Ceramic Ware Group K1 (Nordström, 1972: I, 9).
2. Site IX, levels 7, 6, 5: Khartoum Variant lithic and ceramic artifacts (Nordström, 1972: I, 12, 115), apparently with some interspersed Sebilian material (Palma di Cesnola, 1960: 209).
3. Site IX, levels 5, 4: SJE Ceramic Ware Groups M1, M2 (Nordström, 1972, I, 12) and Developed Abkan lithic artifacts (Wendorf, 1968: 625).
4. Site IX, levels 3, 2: "continuation of the microlithic tradition of preceding cultures, though instead of bifacial arrow heads transverse arrow heads are present" (Palma di Cesnola, 1960: 209).

The rock-drawings which Myers discovered covered by the various levels of Sites IX and XXXII, levels dated by radiocarbon analysis, can also be dated fairly precisely by association and are linked with lithic and ceramic cultures of the time, particularly the Abkan culture (Nordström, 1972: I, 12 - 17), and compare the site at Wadi Karagan (Carlson, 1966), dated to 4935±130 BP, and the site at Ambikol East (Nordström, 1972: I, 17), dated to 5330±80 BC. The reader should consult Myers' reports for a full discussion of the excavations. It is to be remembered that SJE 382d (=Myers' Site XXX II) is judged to be perhaps the most ancient station in the SJE sample.

By the stratigraphical associations, various geometric designs discovered at Site IX were dated to no later than 7,000 BC, probably 7,500 - 7,000 BC.[4] Other figu-

[4] Myers, 1960: 177 - 79; 1958: fig. 1, top left, pl. 34.1 = SJE 154a7 = Hellström, 1970: II, pl. 16, bottom.

res – a stylized human figure, four or five hands, a child's figure, a wheel-trap, a club (?), a jellyfish (?), possibly two crocodiles (Nordström, 1970: II, Corpus R13, R14), and a fishtrap (?) (Hellström, 1970: II, Corpus X29) – were dated by Myers to 6000 BC or earlier, and the "pythons" of Site IX, levels 4 and 5, to 5,000 - 4,000 BC.[5] Many geometric designs and a badly-drawn antelope (?), datable to about 7,000 BC, were discovered at Site XXXII.[6] These ancient drawings are all fully patinated (a-patina), and appear on "very smooth" surfaces according to the SJE classifications.

From all of this evidence, it appears that the sites placed earliest by pattern analysis (Davis, 1978) can be dated by archaeological association, and according to the horizons discussed earlier, to between 9,000 and 7,000 B.C. Only a single identifiable representation dates from this extremely ancient period – an antelope from Myers' Site XXXII (1958: pl. 38.1 = SJE 382d3 = Hellström, 1970: II, pl. 110.1) – but even it is very schematic and unclear. Markings at these sites consist mainly of concentric circles and half-circles,[7] (concentric) circles and net-patterns with dots,[8] parallel lines, and curved and meshing lines. Of the more complex designs, which may not be designs at all but surfaces bearing individual unassociated markings, very little can be said.[9] It would be tempting to suppose that the curvilinear forms in these series were incorporated in the developed representational art of the hunters of the Nile Valley. In this art, wavy interwined lines and spirallike designs sometimes appear in isolation.[10] It is most usual, however, for animals to be shown in association with wavy lines or simply curved lines, which sometimes attach to the animals' feet or necks and lead to men standing nearby. At one drawing from Abu Sir, for instance, an animal appears to be trapped in or surrounded by spiral-like wavy lines (Hintze, 1964: fig. 5). Here and elsewhere the lines evidently illustrate a hunting technique or symbolize capture.[11] I doubt that any of these examples represents a serpent, as is sometimes claimed; serpents have another look altogether.[12]

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[5] Myers, 1958: pl. 34.1 = SJE 154a7 = Hellström, 1970: II, pl. 16, middle; Myers, 1960: 177.

[6] Myers, 1960: 176; 1958: pls. 36.2, upper left, 36.3, left = SJE 382d41; Myers, 1958: pl. 37.1, center = SJE 382d32 = Hellström, 1970: II, pl. 112.6.

[7] Myers, 1958: pl. 38.1 = SJE 382d3 = Hellström, 1972: II, pl. 110.1; Myers, 1958: pls. 37.2, bottom left, 39.1, right = SJE 382d21 = Hellström, 1972: II, pl. 112.1; SJE 382d19 = Hellström, 1972: II, pl. 111.2.

[8] SJE 382d4 = Hellström 1972: II, pl. 108.3; SJE 382d1 = Hellström, 1970: II, pl. 109.2, 5; SJE 382d8.

[9] SJE 382d2 = Hellström, 1970: II, pl. 110.2 = Myers, 1958: pl. 38.2; 382d5 = pl. 109.3, 6 = Myers, pl. 39.3; 382d6 = pl. 109.4; 382d18 = pl. 110.5 = Myers, 1958: fig. 3, row 3, no. 1; 382d26 = pl. 113,1 = Myers, 1958: fig. 3, row 1, no. 1, row 2, nos. 1, 2, 4, pls. 37.2, top, 37.3, 39.1, top right.

[10] Winkler, 1939: pls. 59.2, 60.1, 61.1; Almagro Basch and Almagro Gorbea, 1968: figs. 76 - 79.

[11] Winkler, 1938: pl. 29; 1939: pls. 51, 53, 58 - 60, 61.1; Dunbar, 1941: figs. 7, 8.

[12] Admittedly, however, compare SJE 376c5 with Winkler, 1939: pls. 58.1, 59.2, 61.1; for the serpent, see Huard, 1966: 435 - 36, Montet, 1955.

Themes appearing in pattern analysis as slightly later than the very archaic non-representational drawings date to around 6,000 B.C. All of these drawings are also of geometric or polymorphic figurations and line-markings, of antelopes, and of regular forms probably depicting objects associated with hunting, fishing, or trapping. The wheel-trap appears elsewhere in Sudanese Nubia on "very smooth" surfaces and is always fully patinated (Winkler, 1938: 21; Hornell, 1937). In other areas of the Nile Valley, trapped animals sometimes appear; some are found in the western desert of Upper Egypt (see, for example, Winkler, 1938: pl. 19.2) and in the eastern desert (see, for example, Winkler, 1939: pls. 33.1, 38.2), and some of which are rather similar to drawings from lower Nubia (Dunbar, 1941: figs. 23, 164), where the Korosko rock-shelter may preserve a representation of the trap itself (Dunbar, 1941: fig. 166) (at a much later date, it would appear). Such traps are not at all uncommon in other areas of the Sahara (Huard and Leclant, 1973). What is meant by the other forms and lines on Myers' drawings is unclear. One of the forms (Hellström, 1970: II, Corpus X39) is similar to what are just possibly representations of plants, appearing elsewhere in b- and c-patinas (SJE 154a3, 154a34, 154c22); on the other hand, the form may be related to the common concentric circle pattern. The "lattice-shaped" forms find a distant parallel in a "lattice" at 382d18 (Myers, 1958: fig. 3, row 3, no. 1=Hellström, 1970: II, Corpus X79) and a somewhat closer parallel in a c-patina drawing from another site (152b3). What is intended by the lattice is unknown, as is the case for other markings, particularly SJE Corpus X43 and X44, which are completely without parallel. The human figures from Myers' sites which would possibly date to this extremely archaic period should also be mentioned (Hellström, 1970: II, Corpus A13 and A46); one (A13) is very unusual, and has no parallel that I know of in the Upper Egyptian and Nubian material, while the second has some doubtful associations, and is superimposed by a k-technique giraffe. The evidence here is very slight and I hesitate to say that these human figures are as old as the oldest drawings. The chronological position of the crocodiles is likewise difficult to determine. At Myers' sites they are fully patinated, and at another Sudanese Nubian site a similar, but lightly patinated, crocodile is superimposed by an ox (159 a1), but there are two few examples on which to base definitive conclusions.

At Myers' sites, as noted above, the cultures associated with the prehistoric drawings of the earlier phases are the Khartoum Variant and the Abkan. Both of these cultures are known from other sites; the Abkan is possibly the direct "descendant" of the Qadan (Shiner, 1968: 626; Wendorf and Schild, 1975: 161). The dates were obtained by association with the level of material covering the drawings. It must not be assumed that the date of the covering level is the same as the date of the drawing. In fact, the drawing probably had been exposed to view for years before it was covered. The main wall covered with drawings at Site IX, which possesses three bands of coloration, exemplifies this problem. The lowermost band bears the drawings of wheel-traps and the geometric designs. It seems that the Nile rarely

sank below this level, for the water-borne sand apparently scoured away patina as it formed, leaving the band a light grey in color (Myers, 1958: 133). The middle band is dark grey, and presumably was not submerged. There is little sign of sand-scouring; Myers claims that the debris which (later) covered the wall protected this band from the elements and preserved the dark patina (1960: 177). The curving line-markings ("pythons") with dark patina were found on this band, and would therefore have been made some time before the debris was deposited (1958: 132 - 33). The uppermost, light grey band is completely covered with markings and drawings, of all themes and types. Dating these bands assumes that the geometric drawings in the lowermost band date to the period 9,000 - 7,000 B.C. by virtue of the evidence enumerated above. The date of the fill covering the second band is probably 4,000 B.C., but the drawings, showing signs of Nile blackening, must have been made at an earlier time. The uppermost drawings could have been made any time after the river subsided; they must date from 4,000 B.C. to the recent period, primarily of Neolithic and historic date. It can be said with some degree of confidence that many of the drawings not already dated to an earlier phase probably date to the Neolithic wet phase commonly supposed to have been contemporary with one of the main spurts or phases of rock art in the Sahara. [13] Many others are of course C-Group and historical.

The earliest drawings in the Nile Valley, which mostly appear on small smooth surfaces, generally horizontal (although fortunately Myers' surfaces were vertical), are non-representational and therefore few inferences can be made about the culture(s) which produced them. The group of later drawings which precedes the cattle series seems to have been the product of a hunting culture – *e*-technique antelopes, clubs, traps, and such suggestive motifs appear – and they and the preceding geometric group are found, at the second cataract sites, at the relatively high average elevation of 150 m. The drawings showing large fauna, like giraffes, elephants, and k-, l-, and m-technique antelopes, should be dated to the period between the time ecological conditions first became suitable for such creatures and the passing of the hunting way of life. Some few may therefore be as early as 7,000 B.C. These drawings are found at an intermediate elevation, 140 - 50 m., exhibiting a tendency to use large, rough surfaces. The domestication of cattle and transition to settled life provides a date of about 5,000 B.C. for the cattle-drawings and associated motifs found at the relatively low elevations, on large rough surfaces, with light patinas.

It is conceivable that a Late Palaeolithic people was responsible for the earliest series of non-representational drawings and for drawings with hunting associations.

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[13] Petroglyphs in the Nile Valley have often been dated to the moist interval of the sub-pluvial II or to a dry, cool phase contemporary with cultures preceding the sub-pluvial: for example, Monod, 1963: 161. The reader should consult Raikes and Palmieri, 1973 for an account of climatic history which differs in some respects from the one accepted here, based on the work of Butzer, 1957; 1959; Hester and Hobler, 1969: 173 - 75, and Geyh and Jäkel, 1974.

Recent research has dated evolved Sebilian Upper Palaeolithic industries to around 9,000 B.C.[14] The long-lived Late Palaeolithic Qadan industry possesses a late microlithic expression at 4,480±200 B.C.[15], although there is reason to be suspicious of this recent date. Hunters and gatherers were most likely attracted to the Nile Valley in late Upper Palaeolithic times (Huard, 1965; Huard and Allard, 1970), probably following faunal movements; an early Late Palaeolithic date for the Abka area is 14,340±350 B.P. (WSU-290). The fact that they deposited a large number of industrial assemblages, both indigenous and intrusive (P.E.L. Smith, 1967: 150), may be analogous to the presence of indigenous Abkan and intrusive Khartoum Variant in the early levels of Myers' sites. A single area could have been occupied by several groups, and conflict between them was not unknown (Clark, 1971: 50); alternatively, the mixed assemblage at Abka may represent trade between the Abkan and Khartoum Variant groups (Shiner, 1968: 626). However, simply because some non-representational drawings might be as old as 9,000 B.C. does not imply that they are Palaeolithic. Non-ceramic "Neolithic" assemblages have been observed near Wadi Halfa dated to as early as 8,500 B.C., although ceramic Neolithic sequences do not appear for another two thousand years (Marks, 1970; and compare Aumassip, 1972 for northwest Africa). And from certain sites, there is evidence that rock-pictures were made on cliffs submerged in the river waters in the Palaeolithic era (Sandford and Arkell, 1933: 69 - 71).

The significance of the earliest art in the Nile Valley remains a matter for much future research. Since the earliest non-representational designs are limited in number, it seems that specific meanings are intended. There are extremely generalized similarities between non-representational rock-drawings of the earliest phase and very roughly contemporary incised or impressed pottery from Abka (Nordström, 1972: II, pls. 139, 141) and incised ostrich eggshells from Nubia (Carlson, 1966: 61, and cf. Firth, 1915: 60 - 61). These similarities should be explored in greater detail.

The transition to representational art can be observed, as I have noted, in the material surveyed here. Huard and Allard have proposed that Nilotic rock art gives evidence of a stylistic evolution "au schematism vers une seminaturalisme ou une stylisation" (1970: 323). V. Gordon Childe proposed that Egyptian predynastic wall-painting, like the enigmatic painting in Tomb 100 (the Decorated Tomb) at Hierakonpolis, has its origin in predynastic pottery representations, which were in turn descended from early rock art (1934: 83, 105). This is a highly debatable hypo-

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[14] To traditional interpretations of this industry (Vignard, 1923; 1928; with summary in Alimen, 1966: 122 - 26), recent discoveries should be added (Wendorf, 1965: XVII - XVIII, Butzer and Hansen, 1968: 167, Wendorf *et al.*, 1976: 287 - 89, Wendorf and Schild, 1975: 146 - 47).

[15] Butzer and Hansen, 1968: 167; Butzer, 1976: 6 n. 2. For the most recent date, see discussion in Wendorf and Schild, 1975: 146. The Qadan is best known from Wendorf, 1968: 564 - 611, 1050 - 51; see summary by Clark, 1971: 41 - 46. The Qadan culture is equivalent to the Wadi culture of Wheat and Irwin, 1965: 503.

thesis in some respects, but the underlying assumption of continuity in artistic development in the Nile Valley seems completely warranted. At the very least, the pottery art of the Nagada I period frequently thought to inaugurate the artistic tradition of Egypt should not take chronological priority.

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