Pierre M. Vermeersch

Subsistence activities on the Late Palaeolithic sites of Elkab (Upper Egypt)

Elkab, an old dynastic site, is situated on the east bank of the Nile, 120 km to the north of Aswan. The dynastic site with its huge ramparts fills the whole alluvial plain from the Nile to the lower desert. Inside the rampart walls several small concentrations of Final Palaeolithic artifacts were excavated in 1968 - 1975 (Vermeersch, 1978).

The problem of the subsistence activities at these Palaeolithic sites, with a series of 14-C dates clustering around 8,000 B. P., can be approached on the basis of different elements.

The eight concentrations, which are located within a sequence of wadi and Nile deposits, are all of small size; the largest, E-1-upper layer, is not larger than 5 m in diameter. This suggests very small human groups.

The study of the geomorphological situation of these sites concludes that the location of the sites is correlated with a dying Nile branch in a wadi mouth area. The modern alluvial plain on the east bank of the Nile is already very narrow. Previously it was even narrower as the sites are located very near the eastward border of the Elkab lithozone. Therefore, the alluvial plain in the direct surroundings give very few opportunities for subsistence activities oriented toward food production. As the climate was certainly wetter than it is today, as is indicated by a gentle wadi activity, the possibility of exploitation of the lower desert can be questioned. If we accept the possibilities of food production farther west in the Sahara (Kuper, 1978), we must also accept the possibility for at least seasonal agriculture in the Elkabian lower desert. In that case, agriculture should have been practised during late winter and spring. However, the sedimentology and the analysis of the fauna suggest that the occupation of the Elkab sites took place in the late summer and the autumn. Considering that even the most rudimentary form of irrigation can be excluded for this period, it seems that agriculture could not have been practised by the Elkabian groups.

Moreover, analysis of the faunal remains (Gautier in Vermeersch, 1978) gave

the following frequencies: aurochs – 38%, dorcas gazelle – 25%, a small bovid, may be barbary sheep – 13%, tortoise – 12%, hippo – 9%, hartebeest – 1% and jakal – 1%. Fish remains all belong to genera which occur in the present-day Nile. There is no indication of food producing activity as all of the species are correlated with hunting activities. The flint industry of the Elkabian sites has a microlithic character. Implements associated with agriculture, *e.g.*, sickle blades, are absent. However, the function of the tool kit remains unclear not only in the case of the Elkabian but also for most of the North African microlithic industries. An approach to the function of the tools by microwear analysis as introduced by L. Keeley (1979) was unsuccesful, probably because of the special properties of the Egyptian Eocene flint (Gijsels, 1980). So, at this moment the analysis of the tool kit of the Elkabian gives no evidence at all with regard to food-producing activities.

Several types of grinding stones are present. The first type is made on fine grained (100 - 200 μm) laminated sand stone slabs, shaped by a bifacial retouch. These grinding stones are always rather small and thin (6 to 9 mm) plates. Their surface is flat and shows intense abrasion with pecking either anterior or posterior to the abrasion. On some of the grinding stones very vague shallow parallel rills are visible. A second and larger (10 × 8 cm) type is made of medium grained sandstone. The grinding surface is nearly flat and stained with red pigment. Abrasion is not very intense but the outer perimeter of the grinding surface shows a pecked surface. The last type is made of a coarse grained (up to 3 mm) arkose. Excavations provided only fragments but it seems that this type of grinding stone was larger (25 × 15 cm). Both grinding surfaces are flat to concave. One of them is intensely abraded and pecked. The other surface is poorly defined. Both surfaces are stained with red pigment. The staining with red pigment which could be observed on the larger grinding stones, suggests the use of grinders for red pigment. The use of the first small type of grinding stones remains unclear. However, as they are small and thin they could hardly have been used as milling stones for cereals. So the presence of different types of grinding stones can not be interpreted as an indication that grain was ground on the Elkabian sites.

In conclusion, I do not see any indication of subsistence activity on the Elkabian sites, related either to collecting wild cereals or to incipient agriculture or herding. The Elkabian human groups had a purely Palaeolithic type of subsistence at the time when other prehistoric groups in north-east Africa and the Levant had already achieved some degree of food production.

Now one faces the question whether or not the Elkabian can be traced in other parts of north-east Africa. F. Wendorf and F. A. Hassan (1980) have stressed that the Terminal Palaeolithic assemblages of the Libyan desert in Egypt are distinctly different from the Nilotic assemblages of the same period. However, in my opinion, the Elkabian industry shows greater ressemblance to some industries of the Western Desert than with other contemporaneous industries in the Nile Valley itself. A study

of the material of DIW 51 [1], type locality for the Shamarkian, convinced me that, because of striking differences in technology and typology, the Elkabian does not fit in the Shamarkian.

If one looks for an industry similar to that of the Elkabian sites, the Saharan site E-72-5 in the Dyke area (Schild and Wendorf, 1977) can be considered. It displays the following characteristics. There are numerous single platform blade cores (Fig. 1: *1 - 2*); microlithic elements are dominated by elongated triangles with short, often concave sides, and a number of pieces have their retouched sides right or semi-right angled (Fig. 1: *6 - 12*). Backed bladelets include straight backed bladelets, sometimes with a slightly concave back (Fig. 1: *3 - 5*), and shouldered backed bladelets (Fig. 1: *14 - 15*). The shouldered pieces are the most common. Notched and denticulated pieces (Fig. 1: *18 - 21*) are very common. Endscrapers and burins are rare. All these characteristic elements can be found in the Elkabian industry. Indeed, in Elkab 80% of the cores are single platform cores for blades and bladelets (Fig. 2: *1 - 2*). The backed bladelets are mostly of the straight backed type (Fig. 2: *3 - 5*). Those with slightly concave back occur, e.g., in E2-inf. Shouldered bladelets (Fig. 2: *11 - 16*) are a very distinctive element in the Elkabian tool kit, especially in E2-inf. where they account for 15%. The group of notched and denticulated blades (Fig. 2: *23 - 27*) represents up to 20% in E2-inf. As in E-72-5 the notches are generally retouched, shallow to deep, usually wide, but occasionally narrow. Right or semi-right angled triangles (Fig. 2: *6 - 10, 17 - 19*) are present at E3. Microburins, well represented at E-72-5, are even more numerous at the Elkabian sites (Fig. 2: *21 - 22, 29*).

It seems, therefore, that there are clear technological and typological connections between Elkab in the Nile Valley and E-72-5 in the Dyke area. This connection seems to pass over the Eocene region half-way between E-72-5 and the Nile Valley as is indicated by a triangle collected on E-72-5 made of Eocene chert, the so-called Egyptian flint. Similar assemblages to that of E-72-5 were disclosed at E-76-6, Kharga oasis and at E-77-6, El Beid, 20 km north of Nabta (Wendorf and Hassan, 1980). This indicates that Elkabian-like industries can be found over a large area in the western desert from the Kharga oasis to the Sudanese border.

J. D. Clark (1976) has pointed out that the Epipalaeolithic technology with Ounan points became generally, but sparsely, diffused within the desert as far east as the Nile. Indeed, Ounan points were traced not only in Kharga but also in the Nabta playa sites. Two sites at Elkab (Fig. 2:*28 - 30*) yielded a few Ounan points.

Ostrich eggshell beads are present in the Western Desert but also along the Nile Valley, in Elkab and in the Shamarkian sites (Wendorf, 1968).

It is not clear if the small fragment of v-incised ceramic that was found at E2-inf.

---

[1] I would like to thank Professor R. Schild for the opportunity he gave me to study the material of DIW 51 and E-72-5 at the Institute of the History of Material Culture, Polish Academy of Sciences, Warsaw.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

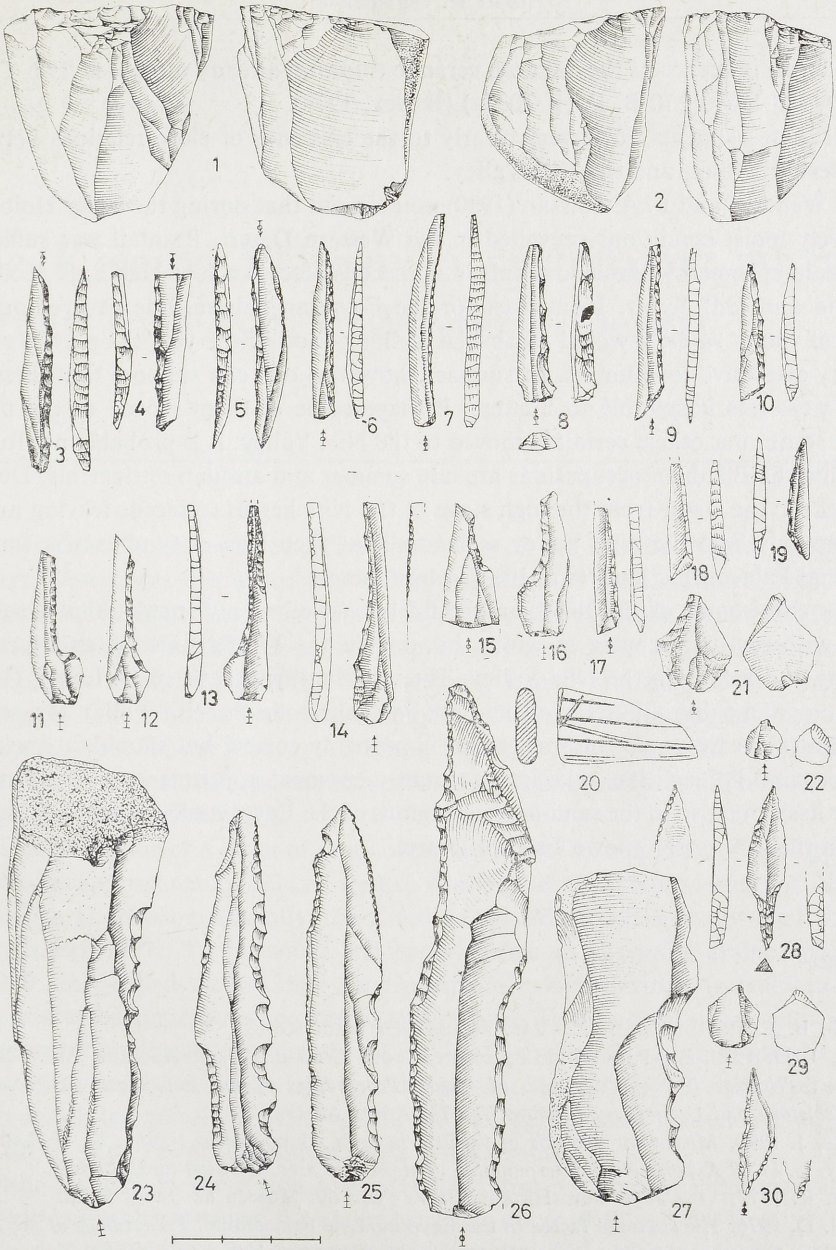

FIG. 2. Elkab

1 - 2: Cores; *3 - 5*: Backed bladelets; *6 - 10, 17 - 19*: Triangles; *11 - 16*: Shouldered bladelets; *20*: Ceramic; *21 - 22, 29*: Microburins; *23 - 27*: Denticulated blades; *28, 30*: Ounan points

1 - 5, 30: Elkab 1 — inf.; *17 - 18*: Elkab 2 — middle; *5, 9 - 16, 20 - 29*: Elkab 2 — inf.; *6 - 7*: Elkab 3; *8, 19*: Elkab 4

Fig. 1. Dyke, site E-72-5 (after R. Shild and F. Wendorf, 1977)

1 - 2: Cores; *3 - 5*: Backed bladelets; *6 - 12*: Triangles; *13*: Trapeze; *14 - 15*: Shouldered bladelets; *16 - 17*: Microburins; *18 - 21*: Notched and denticulated blades

could be an influence of the Saharan ceramic tradition already present at Ti-n-Torha in Libya at 8,640±70 B. P. (R 1035a) (Barich, 1978).

All these elements point very clearly to the existence of close relations between the Western Desert and the Nile Valley.

F. Wendorf and F. A. Hassan (1980) pointed out that during the Early Holocene relatively moist conditions prevailed in the Western Desert. Rainfall was sufficient to sustain ephemeral lakes and ponds in numerous places such as Nabta, El Kortein, El Beid and Gilf Kebir. If, at least for the Egyptian Sahara, one can reasonably think of winter rains, it would mean that at this period of the year the playa's could be very attractive for hunters. In summer, however, one can suppose that these regions were less hospitable to hunters. Perhaps some of them moved to the north or the south, but others certainly moved to the Nile Valley. It is probably not fortuitous that the Elkabian occupations are late summer and autumn settlements. During that season the water from the high stage of the Nile begins to recede leaving numerous pounds, and the Nile Valley seems to have then been very attractive for the Terminal Palaeolithic hunters of the Western Desert.

The subsistence of the Elkabian should be viewed as a nomadic-hunter subsistence with east-west routes of winter hunting in the Western Desert and summer hunting and fishing in the Nile Valley. The working hypothesis of D. Lubell (1976) explaining the cultural pattern of the Late Palaeolithic in the Nile Valley as a seasonal adjustment by single cultural groups is probably correct but should, at least for the Terminal Palaeolithic, take into account a seasonal adjustment not only in the Valley itself but also in the semi-desertic regions of the Egyptian Sahara and, perhaps, even in the yet poorly known Eastern Desert.

References

Barich, B. E. 1978. *Sahara*: 222 - 245. Museen der Stadt Köln.

Clark, J. D. 1976. Epi-Palaeolithic aggregates from Greboun Wadi, Air, and Adrar Bous, North-Western Tenéré, Republic of Niger. *Proceedings of the Panafrican Congress of Prehistory and Quaternary Studies*: 67 - 78. Addis Abeba.

Gijsels, J. 1980. *Microwear analysis of prehistoric tools*. Unpublished report, K. U. Leuven.

Keeley, L. 1979. *Experimental determination of stone tool uses*. Chicago and London.

Kuper, R. 1978. Vom Jäger zum Hirten. *Sahara* : 60 - 69. Museen der Stadt Köln.

Lubell, D. 1976. The seasonal factor in the Egyptian Late Palaeolithic. *Proceedings of the Panafrican Congress of Prehistory and Quaternary Studies*: 111 - 126. Addis Abeba.

Schild, R. and F. Wendorf. 1977. *The prehistory of Dakhla Oasis and adjacent desert*. Wrocław.

Vermeersch, P. M. 1978. *L'Elkabien*. Leuven: University Press.

Wendorf, F. (ed.). 1968. *The Prehistory of Nubia*. Dallas.

Wendorf, F. and F. Hassan. 1980. Holocene ecology and prehistory in the Egyptian Sahara and the Nile. In: M. A. J. Williams and H. Faure (eds.), *The Sahara and the Nile* : 407 - 419. Rotterdam.