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New Prehistoric Investigations at Kom Ombo (Upper Egypt)

It has been stated that "the year 1923 when Vignard published his work on the Sebilian in Southern Upper Egypt marks the foundation of modern palaeolithic field-research in Egypt"¹. This opinion can hardly be contested when it is considered against the background of erratic investigations into the earlier periods of Egyptian prehistory during the 19th and early 20th centuries. Vignard's findings and conclusions have often been criticized in the past forty years, sometimes severely but more usually with courteous reservations about certain of his interpretations of the data. Nevertheless his 1923 memoir on the Sebilian at Kom Ombo, and the long series of articles which he published in France after his premature departure from Egypt in 1924, still stand as important landmarks in the prehistory of a country where local interest in the Palaeolithic and Neolithic remains has always been limited and where foreign research has generally been sporadic and discontinuous.

The purpose of the present paper, therefore, is to offer a few preliminary statements and opinions concerning the late Palaeolithic at Kom Ombo and some of Vignard's interpretations. These statements are based in part on the results of new field research at Kom Ombo by the writer and others in 1962-1963, which is still largely unpublished, and in part on reexamination of Vignard's collections and site localities.

The Plain of Kom Ombo

The modern town of Kom Ombo is situated near the centre of an unusually

¹ G. CATON-THOMPSON: *The Levalloisian Industries of Egypt*, "P. P. S.", XII, 1946, 57-120.

large silt plain (more than 500 km.²) on the east bank of the Nile in Upper Egypt, beginning about 40 km. north of Aswan and extending northward about 30 km. to Gebel Silsileh (Fig. 1). The Plain is essentially a basin formed by tectonic action

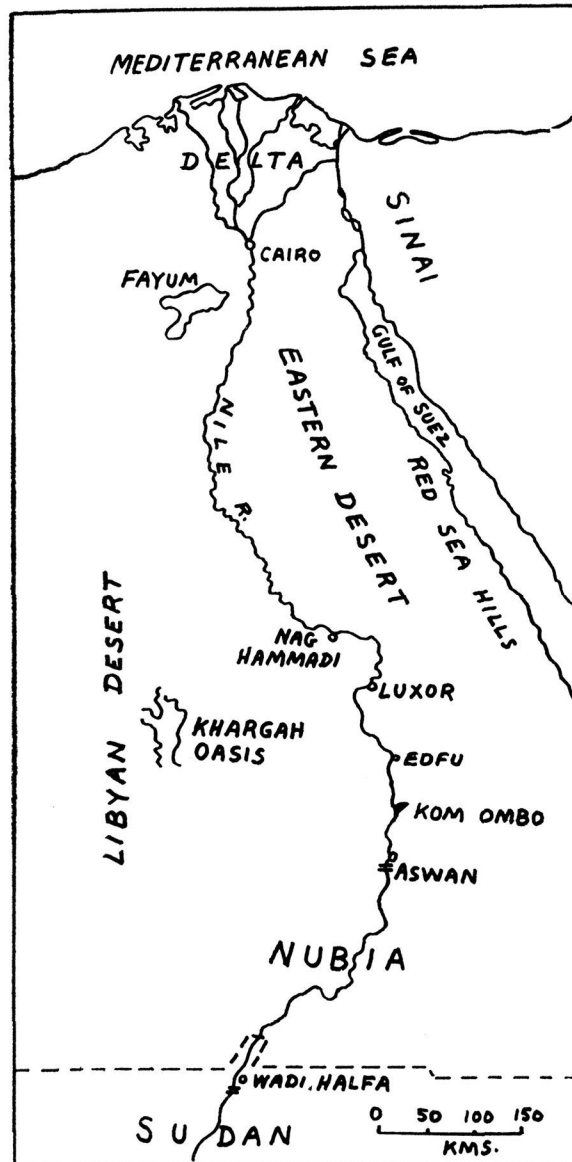


FIG. 1

in the Nubian sandstone during the Miocene and filled in during the Pleistocene with a complex series of gravels, sands and other deposits from (a) the much larger Pleistocene Nile, and (b) the now dry wadis Kharit and Shait leading from the Red Sea Hills. While archaeological remains which, typologically, can be described as Lower and Middle Palaeolithic are to be found on the edges of the Plain and in the Nile and wadi terraces, the Plain is most significant for its

late Palaeolithic materials located in and on the silts deposited by the Pleistocene Nile. Very often the archaeological evidence take the form of occupation or fabrication sites with stone tools, animal remains and shells buried in the upper levels of the silts or, in places where severe deflation has occurred, eroding out of the soil. Some sites, however, had apparently never been covered by the silt. Vignard reported seeing a great many such sites scattered over the Plain, as well as large quantities of faunal remains.

In 1919 Vignard noted, between the town of Kom Ombo and the Nile near the village of Sebil, flint tools of a type not hitherto reported from Egypt. His patient investigations over the next few years at Sebil and at Burg el-Makkasin in the eastern sector of the Plain convinced him that they represented a new Palaeolithic industry which he named the Sebilian. Furthermore, he believed he could subdivide this industry into a three stage sequence (Sebilian I, II, III) on the basis of certain local geological features. For the first time, then, it seemed possible to define a reasonably satisfactory counterpart for the Upper Palaeolithic as it was then known in Europe and other regions².

Vignard's work on the Sebilian, as outlined in his memoir of 1923, was undoubtedly his most valuable contribution at Kom Ombo. But before going on to discuss this in the light of more recent research, it may be well to point out that Vignard's opinions have not remained as static over the years as some of his critics, reading only the 1923 memoir and the 1928 summary, may have thought. In his forays over the Kom Ombo Plain Vignard glimpsed other industries which he did not describe in print until some thirty years later, but which persuaded him the prehistory of this region in late Palaeolithic times had been more complicated than he had originally assumed. I shall come back to this point later on in this article. Unfortunately no serious archaeological work was done at Kom Ombo after Vignard's departure in 1924, in spite of his frequent appeals. Various writers in the meantime have discussed Vignard's findings, and Vignard himself added some new data and modifications to his original reconstruction, but in general there seemed to be an accepted feeling that little or nothing of interest remained in the area for further investigation. There the matter rested until 1962, when the destruction or inundation of sites in Upper Egypt and Nubia resulting from the construction of the High Dam near Aswan provided the last opportunity to investigate the late Pleistocene deposits of the Kom Ombo Plain³ 25.

² ED. VIGNARD: *Une nouvelle industrie lithique, le Sébilien*, Bull. Inst. fr. d'Arch. or. XXII, 1923, 1-76; *Bull. Soc. préh. fr.*, XXV, 1928, 200-20; '*Les stations et industries sébiliennes du Burg el-Makkasin, région de Kon-Ombo (Haute-Egypte)*', *Bull. Soc. préh. fr.*, LII, 1955, 437-52, 691-702.

³ The majority (about 50,000) of the inhabitants of the U. A. R. zone of Nubia were transferred to new agricultural lands reclaimed from the desert around the Kom-Ombo Plain in 1964. During a brief visit I made to the area early in 1962, when reclamation work had already begun, it was clear that a considerable amount of archaeological research could still be done here. The U.A.R. authorities and the Advisory Committee of U.N.E.S.C.O. agreed to allow us to carry out this salvage work under the aegis of the International Campaign to Save the Monuments of Nubia. The writer headed a group financed by the Canadian Government, through the National Museum of Canada, and continuous field work was carried out from October, 1962 to April, 1963. By the latter date virtually all the archaeologically

The Sebilian

Many writers have felt that Vignard's description of the Sebilian left as many questions hanging in mid-air as were answered. The three-stage sequence he set up is logical on the face of it, showing a unilinear evolution from archaic forms of artifacts to more developed ones. Yet there has been a general feeling of uneasiness. It must be recalled that Vignard found no internally stratified sites either in the Sebil district where he made his first discoveries, or in the Burg el-Makasin area on the eastern edge of the plain where Sebilian sites also occurred; indeed, no stratified site containing more than one Sebilian stage has ever been found at Kom Ombo or, to the writer's knowledge, elsewhere in Egypt or the Sudan. It should also be emphasized that Vignard did not, in the strict sense, excavate his sites; he collected from surface sites (those exposed by erosion or never buried) and at only one Sebilian site did he collect intensively and screen some of the deposits.

He grouped his finds in three phases or "levels" based on his understanding of the late Pleistocene geological history of the plain. He considered that a shallow lake covered much of the plain after the Middle Palaeolithic and that in the Sebil area a stream from the Wadi Kharit formed a kind of delta. The oldest Sebilian sites were to be found at the highest altimetric levels, on the banks and levees emerging from the swamps, while later settlements (his Sebilian II and III) progressively occupied the lower levels as the water retreated under conditions of increasing dessication. In their examinations of the Sebil area in the late 1920's Sandford and Arkell found Vignard's geological and archaeological sequence satisfactory although they disagreed with his belief in a Pleistocene lake dammed behind a rock barrier at Gebel Silsileh and his exaggeration of certain local geological features, pointing out that the events he described were much more widespread in the Nile Valley than he had thought⁴.

In essence, Vignard has always believed in an indigeneous development of the Sebilian from a local Egyptian Mousterian (or "Levalloisian") about the time the Upper Palaeolithic was beginning in Europe. He suggested that groups of people originating in the desert or mountains further east began to frequent the higher points of the plain, especially around Sebil, while the lower levels of the plain were still under water or too marshy for habitation. When they reached Kom Ombo they had already begun the development in the peculiarly Sebilian direction. The artifacts of the earliest phase were made almost entirely in such rocks as quartz, ferruginous sandstone and especially diorite, though some flint

significant silt zones had been razed by the bulldozers and levelling machines. A group from Yale University simultaneously investigated the geology and several archaeological sites in the area (see (9) below). I am grateful to Dr. Robert Fulton of the Geological Survey of Canada and to Mr. Morgan Tamplin for their assistance in the field. I wish particularly to thank M. Edmond Vignard for much information in correspondence and during my visits to Athis-Mons (Seine-et-Oise) and for permitting me to study in detail on several occasions his collections from Egypt.

⁴ K. S. SANDFORD AND W. J. ARKELL: *Palaeolithic Man and the Nile Valley in Nubia and Upper Egypt*. Or. Inst. Pub. XVIII, 1933, 43.

was also employed. The typology of the stone artifacts is reminiscent of Middle Palaeolithic antecedents. The nuclei are rather flat, both prepared and discoidal, and from them short broad flakes were removed including some of Levallois type. The patterns of retouch on the tools were rather simple, but already there was the rough beginning of the simple and retouched flake-points (*éclats-pointes simples et retouchés*) which are smaller and thinner than Mousterian ones and which proliferated in succeeding Sebilian phases. The tradition of truncating the base by a peculiar type of bevelled retouch had appeared as well. There were also some rare end-scrapers, side-scrapers and blades.

In his Sebilian II (which he considered to be the longest phase and where he placed the majority of his sites) the broad simple and retouched flake-points persisted but there were now backed blades, large trapezoidal pieces and others approaching triangular and crescentic forms. More care was lavished on the technique of suppressing the bulbs by basal truncation. The prototype of the microburin technique also appeared, originally as a method for snapping off the thick butts⁵. The Levallois technique persisted, as did discoidal nuclei, but other core forms developed especially those with double striking platforms intended to produce blades and bladelets as well as flakes. Levallois flakes dropped to about 5 % of the total. By now the water level around Sebil had fallen and sites of the Sebilian II phase were found at lower altimetric positions as well as on the highest ground; consequently the artifacts were often mixed with those of the Sebilian I. Flint was now more commonly used for raw material as the sources of flint emerged from the waters, and some chalcedony was used as well. Grinding stones appeared.

Finally, in the Sebilian III, the sites were fewer and were placed by Vignard near the beginning of Holocene times during a period of more intense aridity when the Nile had dropped to more or less its present level and occupations were clustered around the small *cuvettes* where water was still available. The trend towards microlithicism became very pronounced. The nuclei were small and mainly had double striking platforms, especially those designed for bladelet removal, but discoidal and Levallois nuclei still abounded. There was a profusion of little geometric microliths (crescents, triangles, trapezes, backed blades) which Vignard considered to be connected with the discovery of the bow and arrow and the hunting of smaller game than before. There were also well made end-of-blade scrapers, flake scrapers, stemmed points and perforators. The microburin technique was now well developed and used to shape artifacts as well as to truncate butts. Flint and chalcedony were the only hard stones used; Vignard claimed that some simple bone tools (awls, perforators, points) were also present.

The net result of Vignard's work was to present the Sebilian as an indigenously unfolding tradition existing in Egypt in several phases corresponding to the Upper Palaeolithic of other regions and undergoing a considerable evolution from a Mousterian-like phase to a very microlithic one in the early Holocene.

⁵ ED. VIGNARD: *Les microburins tardenoisien du Sébilien. Fabrication. Emplois. Origine du microburin.* Cong. préh. de France, X, 1934, 65-106.

In spite of the typological changes involved, however, Vignard maintained that it was unified throughout by such features as flakes and blades with their bases truncated in a particular way, by a persistence of the Levallois technique, by a tendency to produce geometric forms and by the complete absence of burins. Later research following Vignard's departure has revealed that the Sebilian was not the only representative in Egypt during the equivalent of the Upper Palaeolithic. At Kharga Oasis, in the Fayum, in Lower Egypt and in Nubia a number of lithic assemblages have since been reported which show continuation of industries using the Levallois technique. For these Huzayyin coined the expression "Diminutive Levalloisian"⁶, though Caton-Thompson has preferred to describe them as "epi-Levalloisian", pointing out that not all of them are diminutive⁷. As she has emphasized, these more recent discoveries place the Sebilian in somewhat better perspective as a regional phenomenon, one of a number of differentiated "epi-Levalloisian" groupings. The field work since 1962 suggests strongly that the Sebilian is restricted to the Nile Valley in Upper Egypt (south of Luxor) and Nubia.

As far as the Sebilian is concerned, perhaps the most important question is: do the differences in raw materials and in artifact styles and proportions described by Vignard reflect changes through time, or are they to some degree site specializations within a comparatively short period? Vignard adopted the former interpretation although he was careful to point out that in some sites of his third (microlithic) phase he found a kind of specialization in certain types: triangles were predominant in one, crescents in another, end-scrapers and nuclei in others⁸. While his developmental scheme is by no means illogical, only a datable series of Sebilian sites, preferably in stratified positions, can provide a sure confirmation. Up to the present time this requirement has not been satisfied. It is particularly difficult to be certain about the exact status of his Sebilian I phase, for he found only two "pure" sites (at Sebil and at Burg el-Makkasin), while a Sebilian I assemblage we collected near Gebel Silsileh seems to have been disturbed by water action.

Vignard's original sites around Sebil where he had worked out his sequence based on a hypothetical falling lake level were destroyed long ago and cannot be checked. But some sites, apparently not investigated earlier, were still intact in this zone in 1963 and we found a number of other Sebilian sites in several new localities on the Kom Ombo Plain. All were exposed on the surface or were eroding from the upper zone of the silts, and apparently represent small encampments, chipping floors and, possibly, butchering sites. Most of them correspond to Vignard's second and third phases (Fig. 2 nos. 5-11). However, one site was situated very near Vignard's original Sebilian I site at Sebil, at about the same elevation, and contained artifacts, bones and shells imbedded in the silt. Typolo-

⁶ S. HUZAYYIN: *The Place of Egypt in Prehistory. A Correlated Study of Climate and Cultures in the Old World*. Mém. de l'Inst. d'Égypte, XLIII, 1941.

⁷ CATON-THOMPSON (1), 104.

⁸ VIGNARD (2, 1923), 63.

gically the artifacts from this new site (Sebil Locality VII) fit best somewhere between Vignard's first and second phases and, as in his Sebilian I assemblages and in ours from Gebel Silsileh mentioned above, the raw materials are mainly diorite, sandstone and quartzite with some flint (Fig. 2 nos. 1-4). We were thus

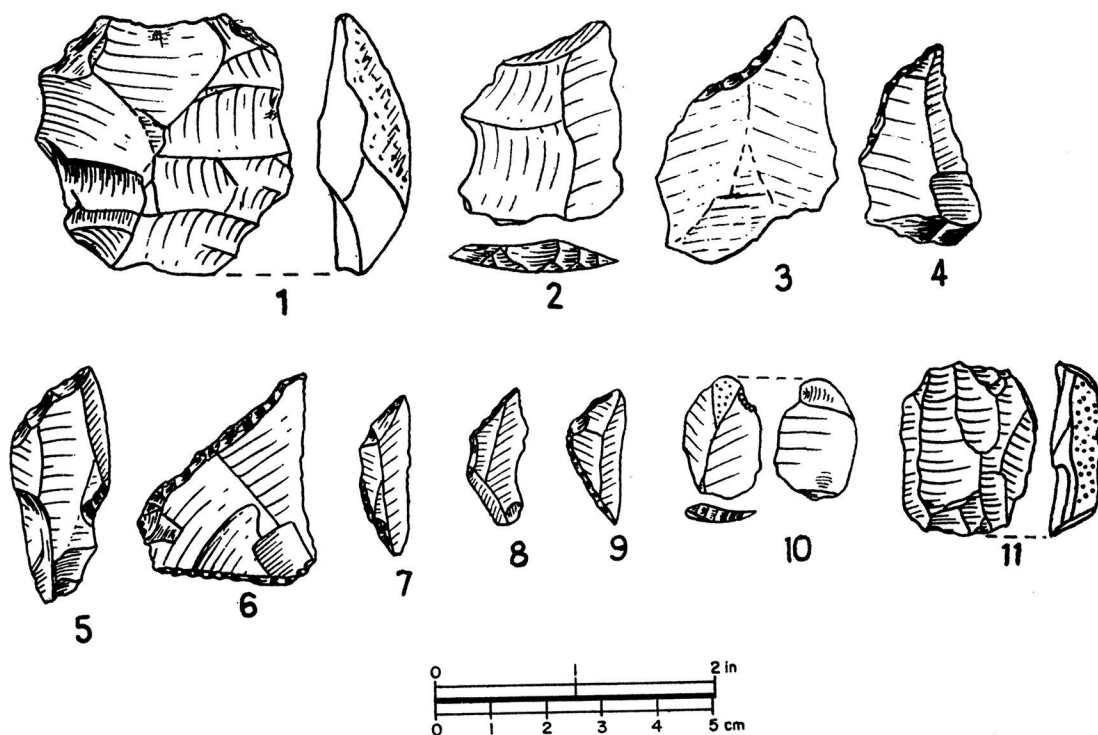


FIG. 2. *Sebilian artifacts from recent investigations at Kom Ombo: Nos. 1-4, intermediate between Sebilian I and II (core, flake-points); Nos. 5-6, Sebilian II (truncated blade, trapezoid); Nos. 7-11, Sebilian III (microliths, microburin, bladelet core).*

able to confirm Vignard's observation that the more intractable stones became less popular in the assemblages representing his second and third phases when finer-grained stones (flint, chalcedony, etc.) were extensively used. It is unlikely that the typological and technological advances revealed in the several phases are simply the results of using better raw materials, although the materials may have exerted some influence on the results.

The recent research therefore suggests strongly, even if it does not completely demonstrate, that Vignard's Sebilian I stage is a reality and that the progression he outlined is, broadly speaking, correct. This is not to say that modifications in Vignard's conception of the Sebilian are unnecessary; some additions and subtractions seem required in the stone tool inventory Vignard gave now that other sites are known, and there are even suggestions of a terminal facies which he did not encounter. In general, Vignard's scheme probably suffers from a failure to allow sufficiently for differences arising from specialized activities at the various

sites. A closer examination, now under way, of the assemblages from the sites investigated in 1962-63 will, we hope, help resolve this problem. For the moment we must let the matter rest there.

But one important modification seems necessary, and this involves the time-span covered by the Sebilian. It now seems highly unlikely that the Sebilian substitutes for the whole of the Upper or "Advanced" Palaeolithic as known in the lands further north, outside Egypt. In fact, it now appears to be a rather short-lived tradition appearing near the end of the Pleistocene, perhaps ca. 14,000 B. C., and lasting until ca. 9,000 B. C.; that is, the contemporary of the late Advanced Palaeolithic of Eurasia and of the late Middle Stone Age and First Intermediate of sub-Saharan Africa. A half-dozen or so Sebilian radiocarbon dates are now known from the Kom Ombo Plain and the Wadi Halfa region of Sudanese Nubia, from sites described as the equivalents of Vignard's second and third phases⁹. None is earlier than the 12th millenium B. C. While caution is advisable until a satisfactory Sebilian I site has been identified and dated by this method, nevertheless it suggests that a period of four or five millenia might be a generous estimate for the duration of the entire Sebilian. Clearly this requires a new viewpoint as far as the tempo of Sebilian cultural change is concerned.

That the Sebilian is ultimately a descendant of the Egyptian "Mousterian", as it seems represented at Abbasiyah near Cairo, at Nag Hamadi and at Kharga Oasis, is quite likely. But as yet we know very little about the nature of this Mousterian in Egypt, particularly how late it lasted, and we can no longer be certain that the Sebilian developed spontaneously, as Vignard and Caton-Thompson believed, with no stimulation from other sources¹⁰. It is not impossible that the change from Mousterian to Sebilian took place in the mountains east of Kom Ombo as Vignard suggested, but unfortunately there is a nearly complete lack of archaeological information from that region.

Other Industries

As already mentioned, Vignard in 1922-3 had examined briefly other areas of the plain to the east and had recognized various non-Sebilian sites. While a great part of this zone has since been destroyed, and much of the surviving area is archaeologically sterile, our investigations showed that the lower part of the Wadi Shait (or what was left of it) was as rich as the Sebil area but with an important difference: several other industries, apparently absent at Sebil, were present in and on the late Pleistocene silts, as well as a considerable number of Sebilian sites corresponding to Vignard's second and third stages. At least three of these industries date to the late Palaeolithic and were not hitherto known in Egypt.

⁹ C. A. REED: *A Human Frontal Bone from the Late Pleistocene of the Kom Ombo Plain, Upper Egypt*, *Man*, 65, 1965, 101-04; F. WENDORF, ed., *Contributions to the Prehistory of Nubia*, Southern Methodist Univ., 1965, xiii-xxv; and several unpublished dates recently obtained by the author.

¹⁰ VIGNARD (2); CATON-THOMPSON (1), 59, 118.

At a locality called Khor el-Sil, two small occupation sites yielded nearly identical assemblages of artifacts characterized by small Levallois cores and artifacts made from the resulting flakes and blades. But the artifacts are, typologically, very unlike the Sebilian ones (Fig. 3). There are burins, end-scrapers, wedge-

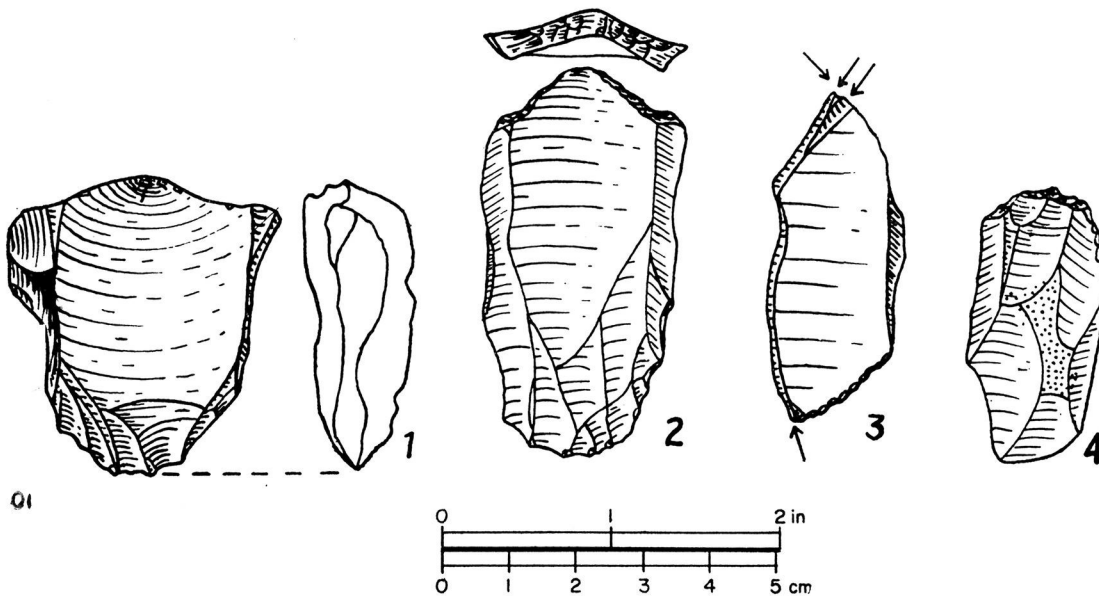


FIG. 3. Artifacts from the Khor el-Sil sites (Levallois core, Levallois flake, burin, end-scraper).

shaped *pièces esquillées* and large numbers of Levallois flakes and blades which are often retouched and have prominently faceted butts. There is a complete absence of geometrics or microburins. The nuclei are of a special type with, usually, additional flaking at the end opposite the striking platform to remove a series of small parallel-sided squills. Some grinding stones are present and also fragments of what seem to be bone needles or awls. This assemblage may be a derivative, like the Sebilian and the Aterian, of the preceding Middle Palaeolithic of Levallois facies in Egypt and North Africa, but little more can be said about its origins, development and final disposition until more sites are known in Egypt. However, several phases of an industry utilizing the same kind of nucleus have been found by the Colorado and New Mexico expeditions working near Wadi Halfa in the northern Sudan and there called the *Halfan*¹¹. A single radiocarbon date from Khor el-Sil suggests an age in the 16th millennium B. C., and this is consistent with dates now obtained in the 17th and 15th millennia for some of the sites near Wadi Halfa¹². Until the latter industries are published in more detail, however, it may be premature to use the term *Halfan* to describe the Khor el-Sil sites.

¹¹ WENDORF (9), xxviii.

¹² *Idem.*, xxx; and various unpublished dates.

Two industries in a quite different tradition were found in a buried and stratified occupation site known as Gebel Silsileh Locality III, in the mouth of the Wadi Shait. The site was covered with up to 1.5 meters of late Pleistocene silt although the present Nile is about four kilometers distant. Together with large quantities of faunal remains (hippopotamus, gazelle, bovids, fish but virtually no molluscs) there were two distinct industries dating to late Pleistocene times. The earlier we now call the *Silsilian* (after the nearby mountain) and it is a non-Levallois microlithic industry made largely from flint and various small multi-coloured exotic pebbles such as chalcedony (Fig. 4). There are only a few forms

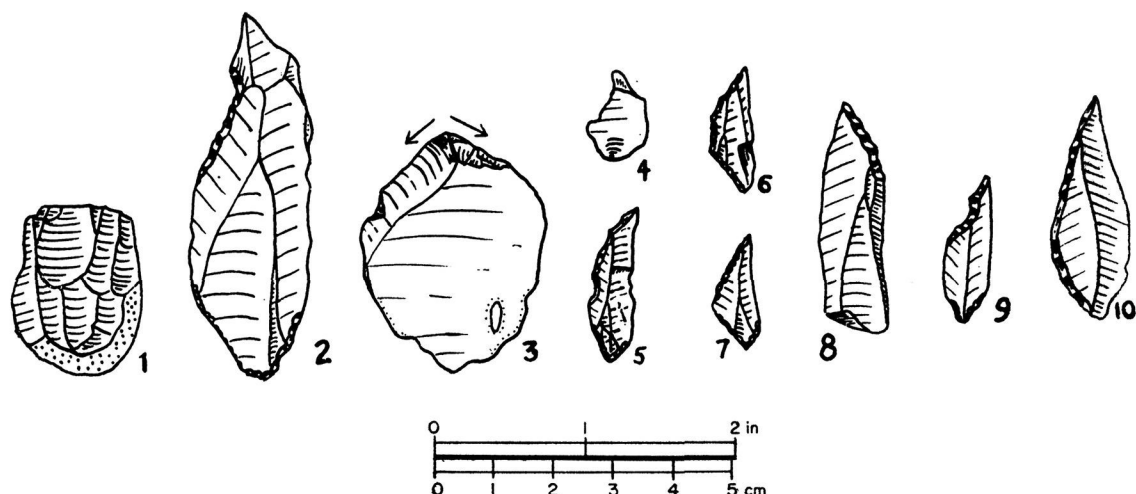


FIG. 4. *Silsilian* artifacts (core; burin; blade and bladelets with partial backing and piquant-trièdre technique; microburin; triangular and trapezoidal forms).

approaching geometrics (small triangles and trapezes) but a number of burins and microburins and in particular a huge proportion of backed and pointed implements made by retouching bladelets or short blades. The tips are usually produced by the microburin technique as in certain industries of North Africa (cf. the *pointe de la Mouillah* in the Maghreb), but at Kom Ombo there is usually further retouch around the point and sometimes a slight gibbosity. The technique is similar to that on the *lamelle à bord abattu et piquant-trièdre* found on the Mediterranean littoral of North Africa (Iberomaurusian, Sirtican). The base can be rounded, slightly pointed or left plain. We recovered insufficient material for C-14 dating in this level but a date recently announced for a similar industry nearby, in the 14th millenium B. C., seems reasonable and is consistent with the dates obtained for the post-Silsilian industry at Locality III¹³. It should be mentioned that the Silsilian is probably the industry which Vignard glimpsed briefly in a "kitchen-midden" in the Wadi Shait in 1923 and from which he collected a handful of

¹³ REED (9), 102.

artifacts which puzzled him; the burins he found isolated around the plain may belong to the same industry¹⁴. We also discovered a very rich Silsilian surface site a short distance from Locality III yielding many thousands of finished pieces and cores.

Stratified over the Silsilian at Locality III is another and quite different new industry, the *Sebekian*. Here the emphasis was on obtaining long parallel-sided blades and bladelets from prismatic, flat or cylindrical nuclei with very oblique striking platforms (Fig. 5). Some burins, sidescrapers, end-scrapers and perforators

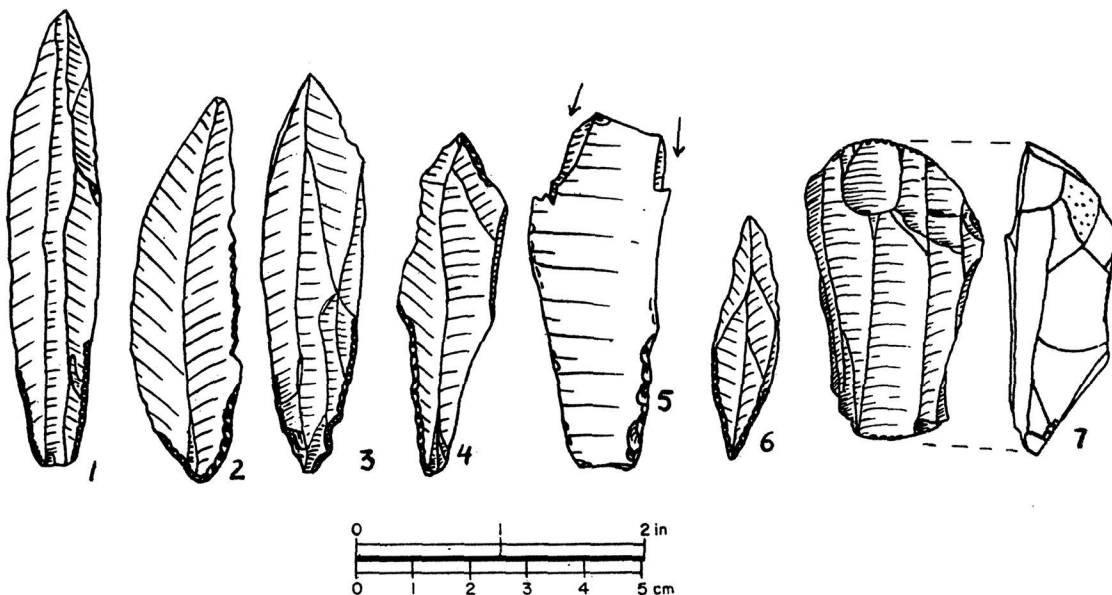


FIG. 5. *Sebekian* artifacts (retouched blades and bladelet; burin; double-ended core).

occur but the characteristic implement is the blade or bladelet with some retouch (abrupt or nibbled) on one or both edges near the basal end; though sometimes the tip was retouched as well. Geometrics and microburins are completely absent, as is the Levallois technique. The nuclei are generally larger than in the Silsilian and made almost exclusively on nodules of gray or brown flint rather than exotic stones. There are no recognizable bone tools although animal bones are well preserved. Five radiocarbon dates from associated charcoal suggest that the *Sebekian* at this site probably dates to between ca. 13,000 - 12,000 B. C.¹⁵. The closest external affinities of the *Sebekian* are difficult to establish at present although some parallels in technique and typology (e. g., the tradition of retouching blades and bladelets at the proximal rather than the distal ends) can be seen with certain

¹⁴ ED. VIGNARD: *Un kjoekkenmödding sur la rive droite du Wadi-Shait dans le nord äe La Plaine de Kom-Ombo (Haute-Egypte)*, Bull. Soc. préh. fr., LII, 1955, 703-08.

¹⁵ P. E. L. SMITH: *Radiocarbon Dating of a Late Palaeolithic Culture from Egypt*, Science, 145, 1964, 811; also several unpublished dates.

Iberomaurusian variants of North Africa including, perhaps, the enigmatic Horizon Collignon of Tunisia¹⁶.

Vignard reported, in some detail, one other industry near Kom Ombo which he collected in 1923 from a group of small mounds in the northeast sector of the plain near the modern village of Menchia or Manshiya¹⁷. Apparently the thirty or so mounds, which he visited only a few times and examined very rapidly, were situated near a small extinct stream bed, and represented accumulations of animal bones (none of which he collected), flints and other stones mixed with silt. The greater part of the industry is composed of scrapers on heavy blades and flakes, with a few atypical carinate scrapers, some perforators and a few rough burins. Microburins, geometrics and the Levallois technique are absent. Vignard has referred to this assemblage as "Aurignacian" because of certain typological resemblances with the European industry, particularly in the scraper forms and long retouched blades. He also believed it was contemporaneous with the Sebilian II because several pieces typical of the latter were found in the mounds. Unfortuna-

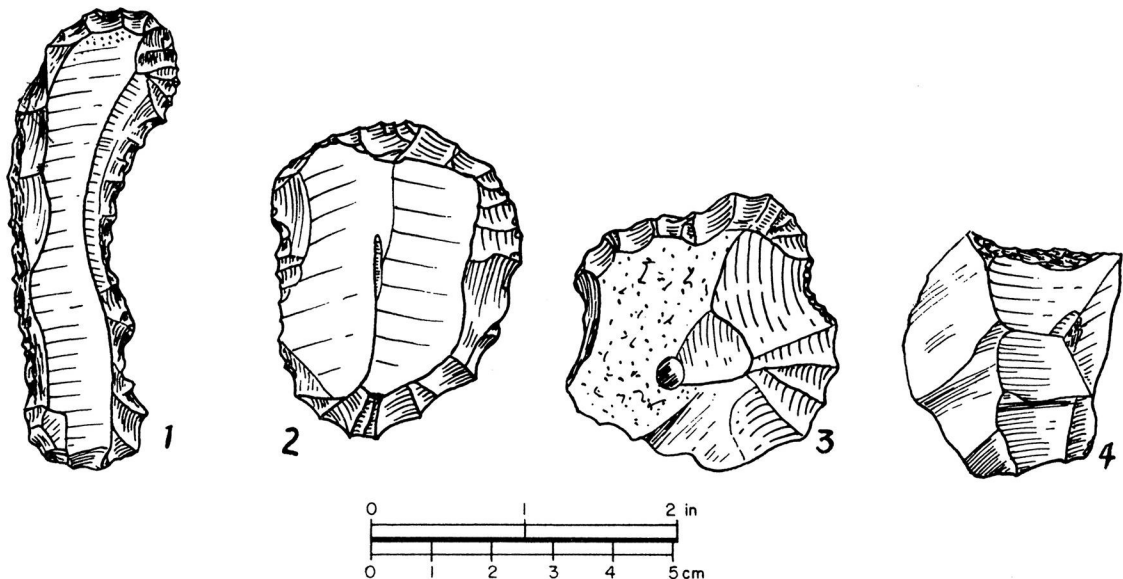


FIG. 6. *Menchian artifacts from recent investigations (end-scrapers on retouched blades; flake scrapers; concave scraper).*

tely Vignard's original sites at Menchia have been destroyed long ago, but we found several localities near the mouth of the Wadi Shait at Gebel Silsileh containing the same types of artifacts in association with a few Sebilian pieces (Fig. 6). They were all surface sites, however, or very loosely buried, so the possibility of

¹⁶ E. G. GOBERT: *La préhistoire dans la zone littorale de la Tunisie*, *Quaternaria*, VI, 1962, 271-307.

¹⁷ ED. VIGNARD: *Menchia, une station aurignacienne dans le nord de la Plaine de Kom-Ombo (Haute-Egypte)*. *Cong. préh. de France*, XIV, 1955, 634-53.

accidental mixture must be considered. There can be no question that the industry does exist; however, its precise age, its chronological relationship with the other industries of the Kom Ombo Plain and its affinities with other assemblages in North Africa and Southwest Asia cannot be securely fixed at the moment. In spite of certain typological parallels with the Aurignacian, I am reluctant to employ this term and prefer, with M. Vignard's consent, to call it the *Menchian* after the type site. I am inclined, on geological and other grounds, to consider it as dating to the close of the Pleistocene or even to the early Holocene, more or less contemporaneous with the later Sebilian; but only the discovery of sites elsewhere in Egypt will decide this question.

Conclusions

The recent work at Kom Ombo, while supporting some of Vignard's interpretations, shows clearly that the late Pleistocene cultural situation was far more complex than he had supposed in 1923 or even in the 1950's. Unfortunately the full complexity will probably never be known since many of the zones of the plain which might have clarified the situation have been destroyed between 1924 and 1962.

What Kom Ombo reveals in late Pleistocene and early Holocene times is an unusual environmental zone which was frequented by a number of groups with quite different stoneworking traditions. In this vast embayment the summer floods of the Nile could deposit silt far inland while the levees and channel banks of the river permitted habitation as the water level dropped following the Middle Palaeolithic. In addition the two important wadis Kharit and Shait, whose junction is at the Kom Ombo Plain, provided access to and from the Red Sea Hills. A tentative reconstruction from the contents of the sites investigated can be offered. It shows a number of groups, apparently of divergent cultural traditions, exploiting the various food and other resources offered by this zone which fronted on the shrinking but still impressive Pleistocene Nile and ran far inland, with no important obstacles, to the valleys and hills of the hinterland. From the Nile channels and the adjacent terrain came such riverine and forest fauna as hippopotamus, buffalo and molluscs, and probably fishing was an activity though no identifiable fishhooks or harpoons have been found. The more open country on the edges of the swampy plain and along the side valleys or on the edge of the desert grassland zone provided antelope, gazelle, asses and cattle. As the Nile retreated these herbivores were found also nearer the river banks with the later industries. The extent to which the plant foods of the region may have been used is not known though some of the many grinding stones in the Sebilian, Menchian and Khor el-Sil sites may have served this purpose. No sites seem to have been occupied for very long periods and there are no traces of solid shelters or buildings. In some of the occupation sites there are "middens" of ash, bones and stones reminiscent of those in other parts of North Africa. We can suppose groups of food-collectors occupying different parts of the plain seasonally, with some groups, e. g., the Sebilian, frequenting the area over a long period of several millennia

and passing through several developmental phases, while others (especially the Sebekian and Silsilian) may only represent brief incursions into the plain by isolated groups whose more permanent habitats may have been further east, perhaps in the Red Sea Hills whose archaeology is still unknown. To what extent at any one period the Kom Ombo Plain was a "mosaic" of cultures with opportunity for interaction and exchange of traits, it is not possible to say with certainty; but clearly the opportunity was there during the period of six or seven millennia involved, and any consideration of Sebilian development must take this into account.

The study of this Nilotic niche reveals one more facet of the gradually developing picture of the human groups on the African continent and their economic bases rooted in different proportions of hunting, fishing and collecting as the severe conditions of the final Pleistocene and early Holocene restricted their movements and, perhaps, helped develop specializations in their material culture. The recent research at Kom Ombo and further south in Nubia shows at this time an increasing tendency towards clustering of settlement near the river, and undoubtedly the same situation prevailed throughout the Nile Valley further north in Egypt in areas which have, unlike the Kom Ombo Plain, been covered by the Holocene alluvium or destroyed by cultivation.

Some broader implications of the recent work might be mentioned as well. Egypt, and indeed all of North Africa, has until recently been regarded as a conservative area in late Palaeolithic times, to a large degree isolated from the cultural events of the "Advanced Palaeolithic" of Europe and Southwestern Asia. This hypothesis has been considerably weakened in the last decade by the discovery by McBurney of the long Dabban Sequence in Cyrenaican Libya, going back possibly to 38,000 B. C.¹⁸, and by the possibility that the Horizon Collignon in Tunisia may represent an early form of the Iberomaurusian¹⁹. Various radiocarbon datings of the Iberomaurusian in Morocco and elsewhere show that at least part of it is late Pleistocene, ca. 12,000 B. C. Egypt has up to recently not offered materials that could modify the older idea. Caton-Thompson has argued in favour of Egypt's precocity in late Palaeolithic times, as indicated by such industries as the Sebilian, though emphasizing the essential self-sufficiency of the area²⁰. Most other writers have underlined the retardation and even "stagnation" of Egypt at this time²¹. We still cannot say, from our Kom Ombo research, that this picture is totally wrong; the industries based on the Levallois technique, presumably with roots in an indigeneous Mousterian-like tradition, do seem to last very late and (unless Vignard's enigmatic industry from Champ de Bagasse near Nag Hamadi qualifies as a Dabban outlier)²² there is nothing of the Advanced Palaeolithic

¹⁸ *Radiocarbon*, V, 1963, 172; C. B. M. McBurney: *The Stone Age of Northern Africa* (1960), 196.

¹⁹ L. BALOUT: *Préhistoire de l'Afrique du Nord* (1955), 382.

²⁰ CATON-THOMPSON (1).

²¹ For example, D. A. E. GARROD: *Primitive Man in Egypt, Western Asia and Europe in Palaeolithic Times*, Cambridge Ancient History, 1965, Vol. I, Chap. II, 3-22.

²² ED. VIGNARD: *Une station aurignacienne à Nag-Hamadi (Haute-Egypte)*, station du

tradition observable until ca. 13,000 B. C. when the Silsilian and Sebekian appear. In the Sudanese part of Nubia an industry, the Kormusan, called "Upper Palaeolithic" by its discoverers, appears by ca. 20,000 B. C., but it is essentially a simple assemblage of large flake tools (burins and denticulates) produced by the Levallois technique. This seems to be followed in the same region by the Halfan, which may be related to the industry found in the Khor el-Sil sites at Kom Ombo²³. The Silsilian and Sebekian (not yet found south of Kom Ombo, to the writer's knowledge) are very different and they probably reflect penetrations from the north — whether via the Red Sea Hills or the Nile Valley is not yet certain. Their closest affinities seem to be with the broad group of industries lumped together under the rubric Iberomaurusian or Oranian. The time-depth in Egypt of these two blade-and-bladelet industries might suggest a westward diffusion along the Mediterranean littoral rather than the reverse. To this extent, at least, the later Palaeolithic history of Egypt and of North Africa must now be modified.

In addition, the recent research at Kom Ombo in Upper Egypt and in Nubia down to the Second and Third Cataracts has helped to document the gradually unfolding view of the Nile Valley in the late Pleistocene as a kind of transition zone between the cultures of Africa north and south of the Sahara. A long-lasting "Middle Palaeolithic" tradition extensively utilizing the Levallois technique seems to have produced in this area a series of late Palaeolithic variants such as the Sebilian, Khargan, Halfan, Kormusan and others in the "epi-Levalloisian" tradition. But before the end of Pleistocene times several groups ultimately derived from the Mediterranean region (the Silsilian and Sebekian — and possibly the Menchian?) had penetrated at least as far south as Kom Ombo and may even have extended some influence into East Africa somewhat later judging by the existence of such industries as the Hargeisan and Kenya Capsian. It has recently been suggested that in the northern Sudan around Wadi Halfa there are traces of Stillbayan and Magosian²⁴. If this is so, then the view of the Nubian reaches of the Nile Valley as a transition zone is strengthened²⁵. By early Holocene times, however, this whole area seems to have been blanketed by a number of microlithic variants utilizing different proportions of geometrics. It is against this background, apparently, that the new traditions of food-production, pottery and polished stone were introduced at a date which is still poorly fixed but may be no earlier than the fifth millenium B. C. in Upper Egypt and Nubia.

Champ de Bagasse. Bull. Inst. fr. d'Arch. or. XVIII, 1921, 1-20; "Points de vue nouveaux sur l'industrie du Champ de Bagasse près de Nag-Hamadi (Haute-Egypte)", Bull. Soc. préh. fr., LIV, 1957, 201-10.

²³ WENDORF: ed. (9), xxii-xxxii.

²⁴ J. WAECHTER, in WENDORF, ed. (9), 117-45.

²⁵ P. E. L. SMITH: *The Late Paleolithic of Northeast Africa in the Light of recent Research*, American Anthropologist, 68, 1966, no. 2, part 2. 326-55.