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Early ceramic-bearing occupations in the Egyptian Western Desert

Recent investigations by the Combined Prehistoric Expedition have provided new information on the appearance and spread of ceramic-bearing occupations in the Egyptian Western Desert during the Holocene Wet Phase (Wendorf and Schild, 1980). Excavations at Nabta Playa, Bir Kiseiba and Wadi Bahkt have shown that there were at least three different ceramic traditions present between about 10,000 B. P. and 5,000 B. P. One of the traditions encompassed three temporal units. The same stratigraphic and cultural sequences were identified at both Nabta Playa and Bir Kiseiba while the Wadi Bahkt material represents a distinct cultural unit and one that apparently had little or no interaction with the other areas.

The ceramic collections are small; the largest collection from a single site only includes 239 sherds. Sherds are generally small and many are weathered. Rimsherds account for less than 10% of the collections while decorated sherds only account for about 50%. However, several sites lacked decorated sherds altogether. No whole or reconstructable vessels were recovered. These factors complicated attempts at determining vessel size and shape and the identification of motifs as well as spatial and temporal comparisons.

1. Nabta Playa and Bir Kiseiba

Nabta Playa is a large, internally draining basin about 120 km. west of Abu Simbel. Although one large playa dominated the area, the smaller adjacent basins also contain playa sediments. These playas were the focal points for human occupation. Bir Kiseiba is a modern well another 100 km. further west of Nabta Playa. The *bir* is at the foot of Kiseiba Scarp, the dominant physiographic feature in this part of Egypt. During the Holocene Wet Phase the Kiseiba area was characterized by a number of small playas and marshy areas both above and below the scarp. These areas were also focal points for human settlements. A total of 9 sites have

been excavated at Nabta Playa and 13 at Bir Kiseiba. Of these, 15 contained ceramics.

The Holocene Wet Phase in both areas consisted of at least 3 successive intervals of playa expansion — Playa I, II and III — that were separated by periods of recession (Wendorf and Schild, 1980). Each period of buildup was associated with a distinct cultural unit: Playa I with a Terminal Palaeolithic occupation, Playa II with the Early Neolithic and Playa III with the Middle and Late Neolithic (Wendorf and Schild, 1980).

1.1. Terminal Palaeolithic

The Terminal Palaeolithic occupation has been dated between 9,700 and 8,300 B. P. Sites are generally small and apparently represent short-term occupations. The subsistence mode involved gathering and gazelle and rabbit hunting. Cattle bones were also found at 5 sites and, based on morphological and ecological arguments, appear to have been domesticated (Gautier, 1980).

The tool kits were predominantly microlithic and usually dominated by backed elements, notches and denticulates. Geometrics were often present, occasionally dominated the assemblages. The microburin technique was also often present. Based on variations in the frequencies of these different elements, three taxonomic units that have temporal significance have been identified (Wendorf and Schild, 1980).

Terminal Palaeolithic occupations were first identified during the excavations at Nabta Playa. None of the sites contained ceramics. However, pottery was recovered from two Terminal Palaeolithic occupations during subsequent investigations at Bir Kiseiba.

Two rimsherds from the same vessel were recovered from the Lower Occupation Horizon at E-79-4 (Kobusiewicz, this volume), a Terminal Palaeolithic occupation dated to 8,250 B. P. \pm 140 (SMU 750). The sherds are reddish colored, unburnished and sand tempered and with a diameter of approximately 30 cm. The outer edges have short, vertical incisions extending down from the rimtop. This motif is almost identical to a rim motif found in both the Early and Middle Neolithic, especially the latter.

Four sherds from the same vessel were found at E-79-8. They came from a buried occupation lens, next to a hearth that has been radiocarbon dated to 9,440 B. P. \pm 230 years (SMU 758).

Site E-79-8 is one of the oldest sites dating to the Holocene so far reported in the Western Desert and has yielded the largest *in situ* collection of Terminal Palaeolithic material. In addition, cattle bones were identified among the faunal remains which indicates that this ceramic-bearing population already possessed domesticated animals or were familiar with animals that eventually would become domesticated.

The E-79-8 ceramic collection consisted of 3 body sherds and one rimsherd



FIG. 1. Bir Kiseiba. Terminal Palaeolithic ceramics from site E-79-8

(Fig. 1). All are reddish-brown to grayish-brown in color, unburnished, sand-tempered and constructed by coiling. The rimsherd had a diameter of about 45 cm.; sherd thickness ranged from 7 to 10 mm.

The exterior surfaces were decorated with bands of upwardcurving, dashed lines that probably were executed by impressing a thin, serrated edge of a shell or curved spatula. The bands encircle the vessel, parallel to the rim, and are about 1 cm. wide. Each band is distinct from the next. Although impressed designs are the hallmark of Holocene ceramic occupations in the southern Western Desert, this particular motif is unique as it is not repeated in any of the subsequent collections nor has it been reported from elsewhere in the Sahara.

The E-79-4 and E-79-8 occupations are separated by a thousand year hiatus that was filled by apparently aceramic Terminal Palaeolithic populations. However, the lack of ceramics in these occupations may be more apparent than real. Holocene settlement patterns, whether involving hunters and gatherers or nomadic pastoralists, appear to have involved a fair degree of mobility (Clark, 1980; Smith, 1980; Wendorf and Schild, 1980). It is possible that these mobile groups treated ceramics differently than more sedentary, agricultural-based groups. Ceramic collections from Saharan sites tend to be smaller than collections from later, more sedentary agricultural-based villages along the Nile.

1.2. Early Neolithic

The Early Neolithic has been identified at 7 sites: 1 at Nabta Playa and 6 at Bir Kiseiba. These occupations all date to around 8,100 - 8,000 B.P. which suggests that this occupation was apparently short-lived.

Economic pursuits consisted of hunting and gathering along with the use of cattle (Gautier, 1980; Wendorf and Schild, 1980). Macrofloral remains also indicate the presence of domesticated barley at E-75-6 (Hadidi, 1980).

The Early Neolithic occupation is important because it marks the appearance of organized "villages" that consisted of alignments of walk-in wells and house structures, each of which was accompanied by at least one storage pit. Two such sites have been identified: E-75-6 at Nabta Playa (Wendorf and Schild, 1980) and E-79-4 at Bir Kiseiba (Kobusiewicz, this volume). These sites indicate some degree of sedentism but the presence of smaller reoccupation sites, such as E-79-5 at Bir Kiseiba, attests that this sedentism was not permanent.

The tool kits are dominated by perforators, burins and retouched pieces. Backed

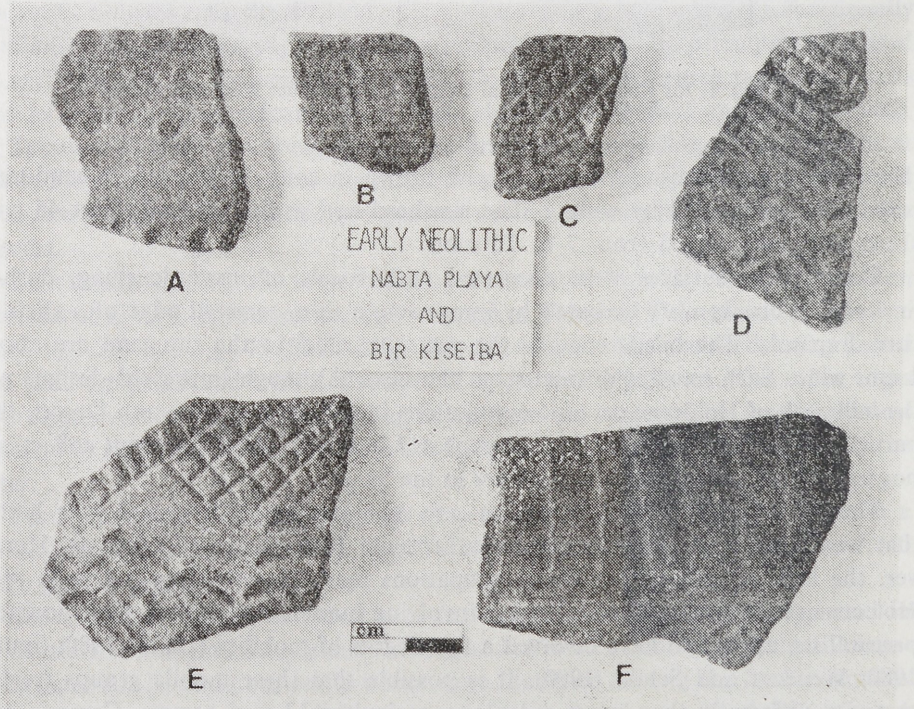


FIG. 2. Bir Kiseiba and Nabta Playa. Early Neolithic rimsherds. Note composite decorations on C-E. Rims B and C are outward flaring

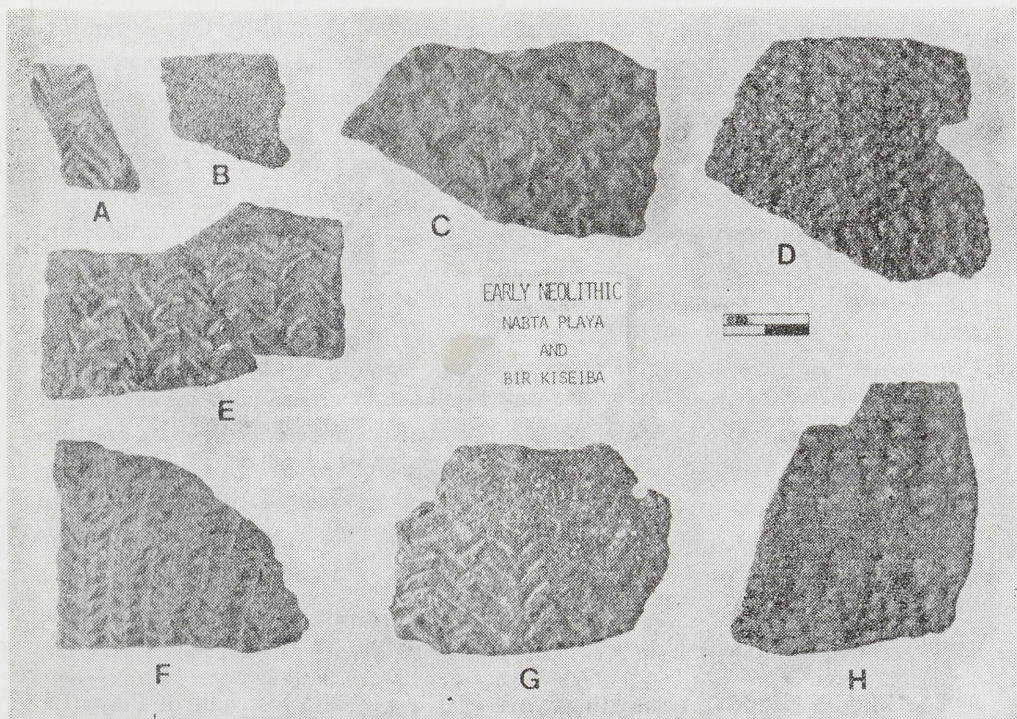


FIG. 3. Bir Kiseiba and Nabta Playa, Early Neolithic body sherds. Fingernail impression: sherds C, E, F, G. Rocker stamped: sherd H

elements, notches, denticulates and, occasionally, geometrics are also present. End-scrapers and microburins are occasionally present.

The size of the ceramic collections varied between sites. They are comparatively rare at the "village" sites; seven sherds were recovered from E-75-5 and five from E-79-4. On the other hand, 35 sherds were recovered from the small reoccupation site of E-79-5.

All sherds are unburnished, sand-tempered and constructed by coiling. The pottery was well-fired and colors range from dark grayish-brown to dark yellowish-brown to reddish-brown. Vessel and rim diameters are consistent with one another and range from 28 to 38 cm. Sherd thickness varies from 4 to 16 mm. Except in two instances, rims are indistinct from the vessel body. The exceptions consist of out-flaring lips (Fig. 2: B-C). Rims, *sensu stricto*, generally are decorated with short vertical incisions along the outer edge (Fig. 2: A), a pattern reminiscent of the Terminal Palaeolithic sherd.

All decorations were well-executed and quite distinct (Fig. 2 and 3). Two identifying characteristics of Early Neolithic ceramics are the low frequency of unde-

corated sherds and the use of composite decorations (Fig. 2: C-F). One design was used on the upper portion of the vessel, just below the rim, while a second motif was used on the vessel body. The small number of undecorated sherds suggests that the entire vessel was decorated in most instances.

Four decorative techniques were employed: fingernail impression, comb impression, incision, and punctation, the first being the most common. In several instances a motif combined two different techniques (Fig. 3: F). Nine different motifs were identified but the most common was the "Fingernail Impression" (Fig. 2; B-C, Fig. 3: C, E-F). A fingernail or curved spatula is deeply impressed at a slight angle which raises a ridge around the impression and brings the background forward. This process was repeated across the vessel face, creating a series of broken undulating lines or dashes (this is different from the classic "Dotted Wavy-line" as defined by Arkell: cf. Fig. 2: G). In a variant of this motif, the fingernail or spatula is subsequently dragged down the vessel face between the impressions. This further accentuates the ridges and gives the motif a 3-dimensional appearance (this is the "Ripple motif" as described by Banks (1980; cf. Fig. 3: F).

1.3. Middle Neolithic

The Middle Neolithic occupation is associated with the first half of Playa III and has been dated between 7,800 and 6,600 B. P. This was probably the most populous period during the Holocene Wet Phase as Middle Neolithic sites are scattered throughout the southern Western Desert and two of the largest and densest sites recorded so far, E-75-8 at Nabta Playa and E-79-2 at Bir Kiseiba, are ascribed to this period. However, the majority of sites, such as E-77-5 near Nabta Playa, appear to represent short-term reoccupations and no evidence of organized villages comparable to those of the Early Neolithic has yet been found.

Hunting and gathering continued as part of the subsistence mode but domesticates were becoming increasingly important (Gautier, 1980). Along with cattle, sheep/goat were recorded at one of the largest sites. Macrofloral remains included domesticated wheat and barley as well as date palm (Hadidi, 1980).

The tool kit was dominated by retouched pieces, notches, denticulates and scaled pieces. Truncations and perforators were present along with several varieties of unifacial and bifacial projectile points. Burins, endscrapers and geometrics were also present in varying frequencies.

The ceramics were still unburnished, sand-tempered and constructed by coiling. However, there were several differences with the Early Neolithic. The ceramics are not well-fired and the sherds are more friable. Composite decorations are absent, undecorated sherds are more frequent and there is greater emphasis on rim decorations (Fig. 4). Vessels are larger, up to 60 cm, and the larger vessels often have

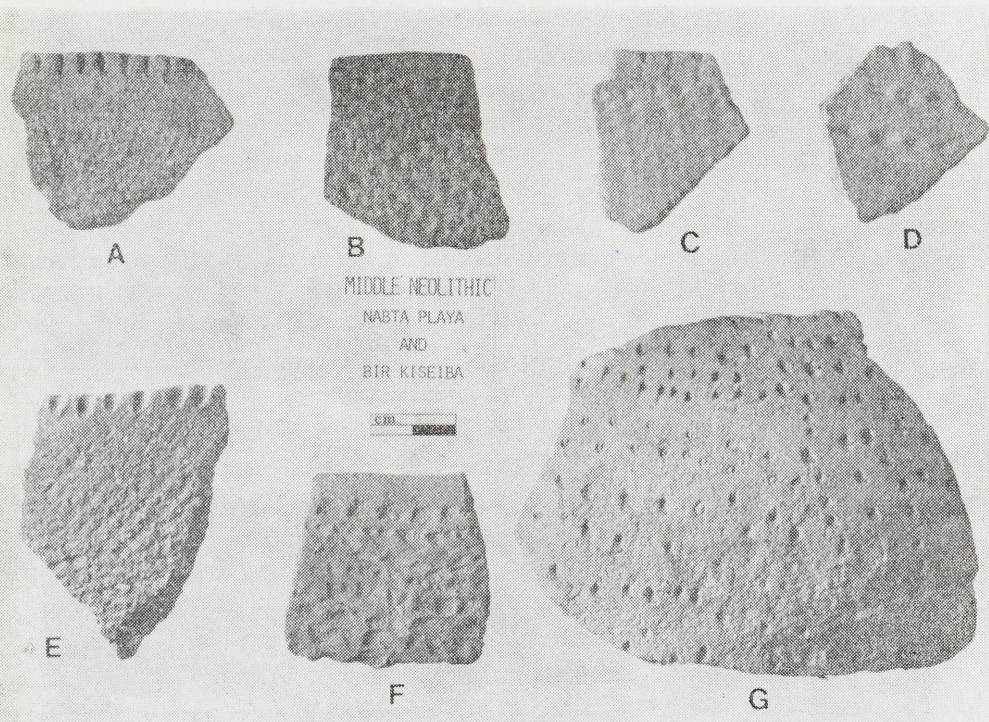


FIG. 4. Bir Kiseiba and Nabta Playa. Middle Neolithic rimsherds. Sherds A, C, D, E are incised along outer edge. Sherd G is incised across rim top. Sherds B and F have undecorated rims. Sherds A-C and E-F have Woven Mat body decorations

lugs on the base for added stability. Further, sherds are thicker and vary from 4 to 9 mm. and may be up to 18 mm. thick at the base.

Colors vary from reds to yellowish-reds to reddish-grays to browns. Rims are undifferentiated from the body but are often decorated with punctations across the top (Fig. 4: G) or vertical incisions along the outer edge (Fig. 4: A, C-E).

Decorative techniques used on the vessel body included impression, incision, punctuation and, occasionally, rocker or roulette stamping (Fig. 4 and 5). Implements included shell edges, cord-wrapped roulettes, square-toothed combs and pointed wands; there was only a minimal use of fingernail impressions. Ten different motifs have been identified, including several that are reminiscent of the "Dotted Wavy-line" and the "Wavy-line" (Fig. 5: D, G). There was little repetition of the Early Neolithic motifs and by far the most common motif was the "Woven Mat" (Banks, 1980; Fig. 4: A-C, D-E and 5: A, E). This is a monotonous, comb-impressed motif that was most often executed with a square-toothed comb. In most instances the elements are sharp and distinct but occasionally the tool was slightly dragged

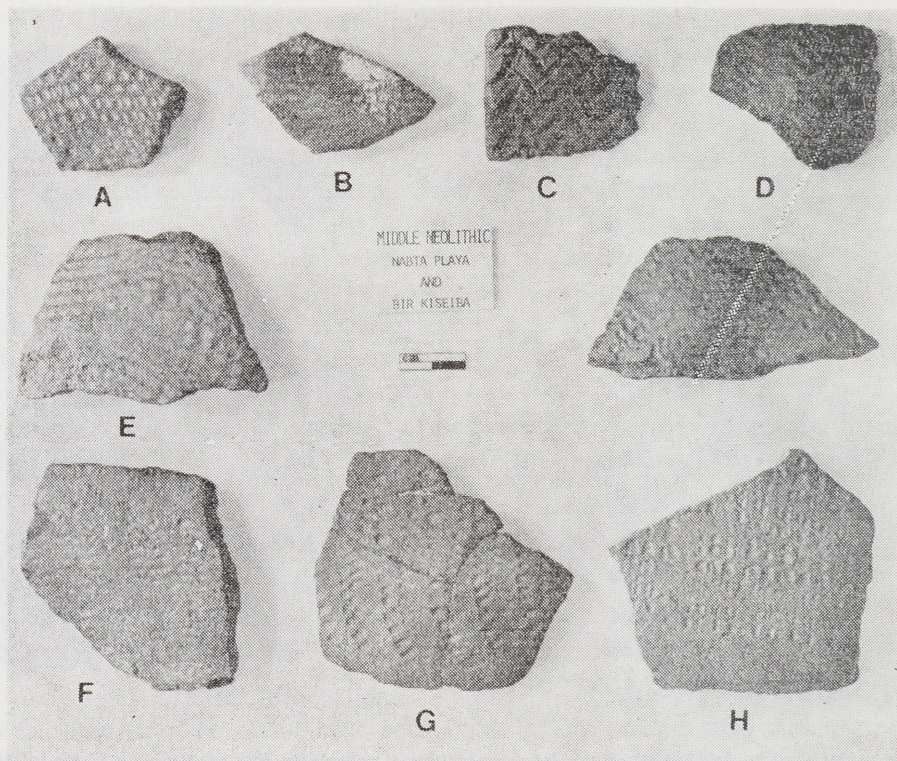


Fig. 5. Bir Kiseiba and Nabta Playa. Middle Neolithic body sherds. Sherds A and E have Woven Mat motif. Sherds G and H are rocker stamped. Sherds D and E have variants of Dotted Wavy Line

which blurred the design. On some vessels the exterior surfaces were systematically covered by the motif while on others the motif was more randomly applied with one series of impressions at an angle to the next (Banks, 1980; Fig. 5: E).

1.4. Late Neolithic

The Late Neolithic was the last extensive period of occupation in the southern Western Desert and is associated with the latter half of Playa III. It is only known from 3 sites: the upper horizon at E-75-8 at Nabta Playa, the surface material from E-79-4 (Kobusiewicz, this volume) and another as yet unexplored site above Bir Kiseiba. The occupation at E-75-8 has been dated from about 6,500 to after 6,300 B.P. The Late Neolithic represents a much less intensive occupation than the preceding periods and probably reflects the increasing dessication that was setting in.

Gazelle and rabbit were still exploited but now the majority of faunal remains

consisted of cattle and sheep/goat. In addition a number of rootlets from plants usually found in cultivated fields were recovered from E-75-8 (Hadidi, 1980).

The tool kit is reminiscent of the Middle Neolithic as retouched pieces, denticulates and notches are the most common tool type and geometrics and backed elements are fairly rare. The assemblage is completed by bifacial arrowheads, sidescrapers, flaked and/or ground and polished celts and the occasional transverse arrowhead. Side-blow flakes are also present (Wendorf and Schild, 1980).

The ceramics are different from the preceding material as the design techniques and motifs are no longer present. Vessels are still sand-tempered and coil-made but they are now often finished by paddle-and-anvil. Burnishing and smudging also appear for the first time and colors now range from black to brown to buff and red.

The only identified decorative technique was incisions of parallel, straight lines that apparently encircled the vessel (Fig. 6). Most burnished sherds lacked these incisions. Diameters varied from 40 to 46 cm. and thicknesses ranged from 5 to 8 mm. Some rims had two parallel rows of punctations along the outer edge or shallow incised lines that cut across the rim top.

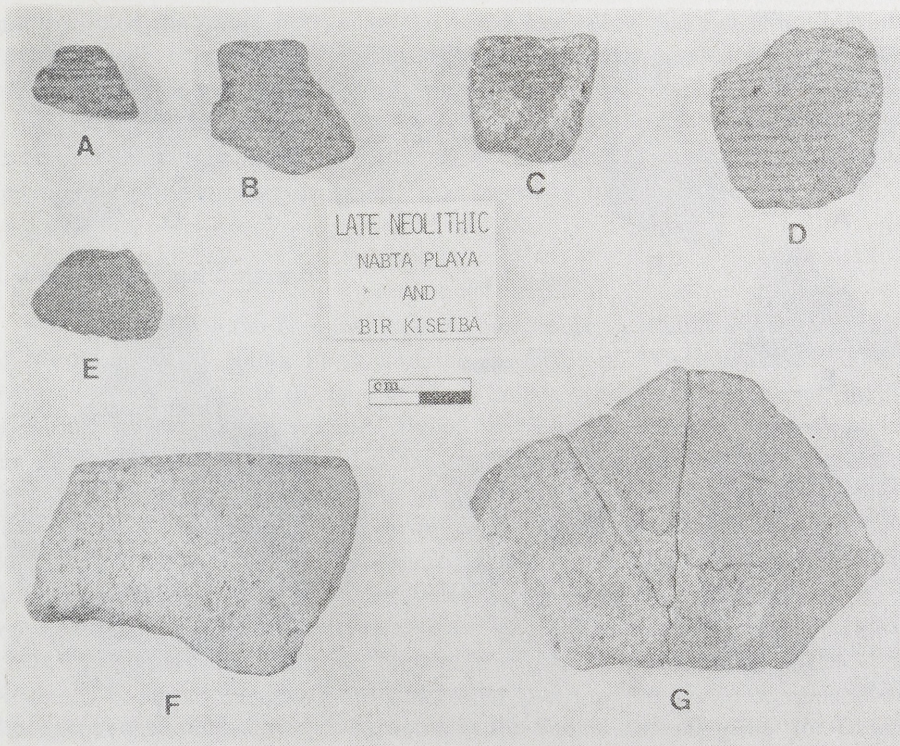


FIG. 6. Bir Kiseiba and Nabta Playa. Late Neolithic sherds. Sherds A-D are incised. Sherd E is burnished. Sherds F-G are undecorated

2. Wadi Bahkt

The Wadi Bahkt collection is the only other ceramic tradition identified so far in southern Egypt that dates to the Holocene Wet Phase. Sites in the Gilf Kebir were first described by Myers (Bagnold *et al.*, 1939) and subsequently studied by McHugh (1975). In 1976 the Combined Prehistoric Expedition visited the area during which a new ceramic collection was made and ostrich eggshell was obtained which later yielded a date of 6,930 B.P. \pm 180 (SMU 273) (Wendorf and Schild, 1980). Other ceramic-bearing sediments in Wadi Wasa, also in the Gilf, have been dated between 8,695 and 8,460 B.P. (Pachur and Braun, 1980).

Short-term reoccupation sites were situated around a pond that had formed behind a dune that blocked the wadi (Wendorf and Schild, 1980). Cattle and sheep/goat were identified among the faunal remains (Gautier, 1980) and grinding implements attest to the use of plant food.

The tool kit collected by the Combined Prehistoric Expedition was dominated by denticulates, especially denticulated blades. Endscrapers, retouched pieces and sidescrapers were also present while geometrics, backed elements, bifacial pieces

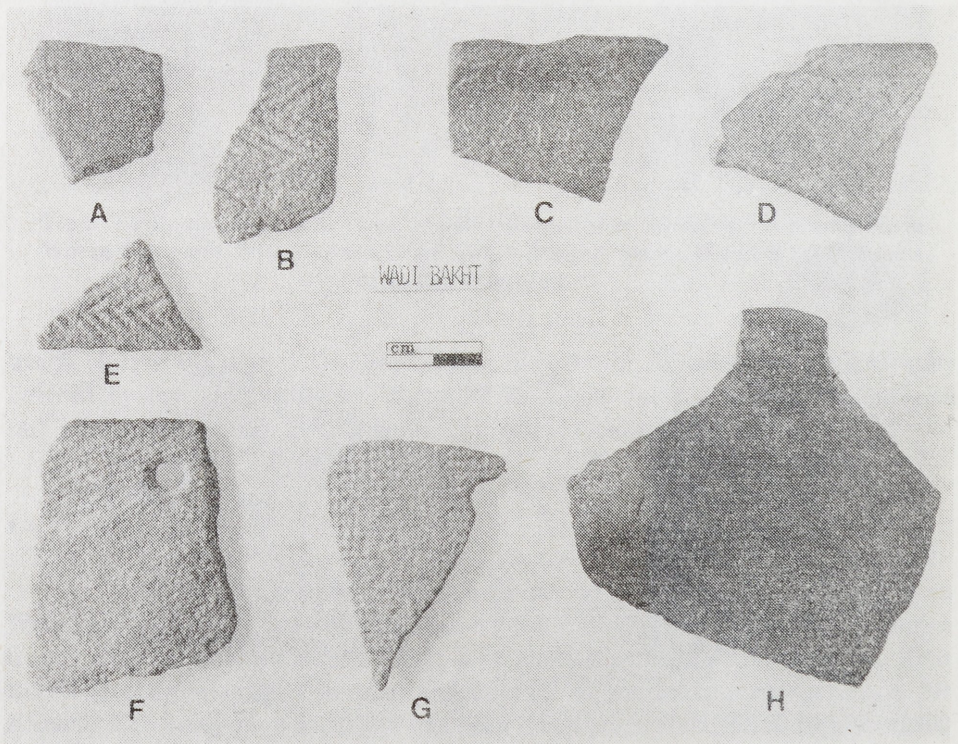


FIG. 7. Wadi Bahkt. Sherds B-D are rimsherds. Note plant impressions on sherd C. Sherds B, D and E have Dotted Chevron motif. Sherd H is smudged and burnished

and polished celts were absent. McHugh (1975), however, reported that the collection of Myers contained some geometrics and backed elements.

The ceramics do not resemble those from Nabta Playa and Bir Kiseiba (Banks, 1980). Vessels were constructed by molding and were well-fired in either oxidizing or reducing atmospheres. Vessel necks were occasionally constructed with outward flaring rims which were generally undecorated (Fig. 7). Rim diameters varied from 15 to 25 cm. and vessel diameters from 24 to 41 cm. Sherd thicknesses ranged from 4 to 6 mm. although basal sherds were occasionally up to 11 mm. thick.

Most sherds were sand-tempered but some also had organic matter present. Sherds with organic temper has plant impression on their surfaces (Fig. 7: C). Colors ranged from reddish-yellow to reddish-brown to brown.

Impression or impression/incision with finely pointed wands or fine toothed combs were the only decorative techniques employed. However, about 50% of the sherds were simply burnished or smudged and burnished. These sherds represent the earliest recorded occurrence of smudging and burnishing in the Western Desert, at least 500 years earlier than the Late Neolithic.

Three different motifs were identified (Banks, 1980), the most distinctive being the "Dotted Chevron". This motif consisted of single bands of horizontal chevrons that encircled the upper portion of the vessel just below the rim (Fig. 7, b, d-e). Each chevron is composed of a series of dashed that were impressed with a fine-edged comb, possibly a serrated shell edge.

A second motif was reminiscent of the Middle Neolithic "Woven Mat" (Fig. 7: G). However, this motif was executed by dragging the comb in one direction and then 90° in the other direction. This served to obliterate the design.

3. Comparisons and Contrasts

These five units — the Terminal Palaeolithic, the Early, Middle and Late Neolithic of Bir Kiseiba and Nabta Playa and the Neolithic of Wadi Bahkt—all represent separate temporal, and in the case of Wadi Bahkt, spatial units. However, the Terminal Palaeolithic, and Early and Middle Neolithic can be viewed as being within the same tradition as the ceramics are all unburnished, sand-tempered and decorated with impressions, incisions or punctations. The tools employed were either combs, fingernails, spatulas, wands or cord-wrapped roulettes. Rims were often decorated with either punctations or incisions and vessels were constructed by coiling. Although the collections differed in specifics — such as the particular designs employed — these general traits are reminiscent of the Khartoum Horizon Style (Hays, 1971). As Hays pointed out, the "Woven Mat" motif, so diagnostic of the Middle Neolithic, is one of the most prevalent motifs found among Khartoum-related sites throughout the south-central Sahara and in the Sudan. Assuming that the ceramics from these three units are within the Khartoum Horizon Style, two observations can be made. The first is that within the Khartoum Horizon Style there appears

to have been some temporal changes within this region. These changes are not only apparent in the ceramics but also in the lithics. The second is that the radiocarbon dates further underscores Hays' postulate that this horizon style had a Saharan origin (Hays, 1971). The Nabta Playa and Bir Kiseiba collections represent one of the few instances in which a number of sites within a restricted area have been investigated. Whereas much of our previous knowledge have come from the excavations of individual sites such as Amekni or Meniet, the investigations in the Western Desert have focused on examining a number of sites that date to the Holocene Wet Phase.

The Late Neolithic and Wadi Bahkt collections represent departures from the other collections; neither appears to have encompassed the time span nor the geographical extent of the other material. Part of the problem is that these occupations are known from a very limited number of sites. However, the Late Neolithic does appear to represent somewhat of a departure from the earlier material. The ceramics are characterized by the appearance of new traits such as smudging and bur-nishing, new methods of construction, and a de-emphasizing of impressed or incised designs. These ceramics appear to share a lot of traits with the Abkan and Khar-toum Variant traditions along the Nile (Banks, 1980; Nordström, pers. comm.). If such is the case, then the associated radiocarbon dates and the similarities in the lithics with the preceding Middle Neolithic suggests a Saharan origin for the Nilotic traditions.

The Wadi Bahkt material appears to represent a totally isolated tradition. No other collections so far reported are similar; the most closely related material is possibly from several sites in southern Libya briefly reported by Vita-Finzi and Kennedy (1965). More research is needed to determine the relationship of this material to the Khartoum-related material so prevalent elsewhere in the southern Sahara.

A comparison of the Nabta Playa and Bir Kiseiba sequences with those from elsewhere in the Sahara reveals two interesting differences. The first is that ceramics were already a part of the earliest Holocene occupants in the Western Desert whereas the earliest occupants elsewhere appear to have been aceramic (Smith, 1980; Clark, 1980). The second is that domesticated animals, or potentially domesticated animals, were present throughout the Nabta Playa and Bir Kiseiba sequence. In the central and southern Sahara domesticated animals appear fairly late in the sequence (Smith, 1890; Clark, 1980). If these observations are confirmed by future research, they will have implications for the origins and spread of both ceramics and domesticates in the southern Sahara.

References

- Bagnold, R. A., O. H. Myers, R. F. Peel and H. A. Winkler. 1939. An expedition to the Gif Kebir and Uweinat, 1938. *Geographical Journal* 93 (4): 281 - 313.
- Banks, K. M. 1980. Ceramics of the Western Desert. In: F. Wendorf and R. Schild (eds.), *Pre-history of the Eastern Sahara*: 299 - 315. New York.

- Clark, J. D. 1980. Human populations and cultural adaptations in the Sahara and Nile during prehistoric times. In: M. A. J. Williams and H. Faure (eds.), *The Sahara and the Nile*: 527 - 582. Rotterdam.
- Gautier, A. 1980. Contributions to the archaeozoology of Egypt. In: F. Wendorf and R. Schild (eds.), *Prehistory of the Eastern Sahara*: 317 - 344. New York.
- Hadidi, M. N. el. 1980. Vegetation of the Nubian Desert (Nabta Region) In: F. Wendorf and R. Schild (eds.), *Prehistory of the Eastern Sahara*: 345 - 351. New York.
- Hays, T. R. 1971. *The Sudanese Neolithic: a critical analysis*. Ph. D. dissertation, Southern Methodist University.
- McHugh, W. P. 1975. Some archaeological results from the Bagnold-Mond expedition to the Gilf Kebir and Gebel Uweinat, southern Libyan Desert. *Journal of Near Eastern Studies* 34 (1) : 31 - 62.
- Pachur, H. -J. and G. Braun, 1980. The palaeoclimate of the Central Sahara, Libya, and the Libyan Desert. In: E. M. van Zinderen Bakker Sr. and J. A. Coetzee (eds.), *Palaeoecology of Africa* 12 : 351 - 364. Rotterdam.
- Smith, A. B. 1980. The Neolithic tradition in the Sahara. In: M. A. J. Williams and H. Faure (eds.), *The Sahara and the Nile*: 451 - 466. Rotterdam.
- Vita-Finzi, C. and R. A. Kennedy. 1965. Seven Saharan sites. *Journal of the Royal Anthropological Institute* 95 (2) : 195 - 213.
- Wendorf, F. and R. Schild. 1980. *Prehistory of the Eastern Sahara*. New York.