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Fred Wendorf, Romuald Schild and Nieves Zedeno

A Late Neolithic megalith complex in the Eastern Sahara: a preliminary report

Introduction

This is a preliminary report on a Late Neolithic megalith complex found at Nabta Playa, about 100 km west of Abu Simbel (Fig. 1). Although megaliths are known elsewhere in Africa (see Lynch and Robbins 1978; Camps 1953), this is the first known in Egypt.

The Eastern Sahara was hyperarid during the later part of the Upper Pleistocene, but shortly before 11000 B.P. rains came again as a result of a northward shift of the southern (monsoon) rainfall belts (Wendorf et al. 1984). Even with this rainfall, the area was still semi-arid, with perhaps <100 mm of rain a year (Neumann 1989), but that was sufficient for temporary ponds or playas to form in the larger basins, for grasses to grow on the plateaus, and for grasses, shrubs, tamarisk and acacia trees to develop along ephemeral stream courses and the lower, sandy margins of the seasonally flooded basins. The limited rainfall and vegetation restricted the fauna to small gazelles and hares. The climate was also unstable; during the Early Holocene there were three brief, but significant, intervals of aridity that seriously impacted human settlement in the area (Wendorf et al. 1984: 9-40).

People moved into the desert around 9500 B.P. At first, they were only small groups who visited the larger basins, but use of the desert soon became more intense and involved larger groups. Although there were contacts between those groups living along the Nile and those living in the Sahara, the cultural developments in the Sahara were distinctly different. The causes of these differences are not well understood, but some can be traced to influences from Sahelian Africa, while others may relate to stresses inherent in an unstable and marginal environment and the social discipline required to adapt to those stresses.

The Early Holocene sites in the Western Desert contain stone artifacts similar to those in contemporary sites near Wadi Halfa. They also have rare sherds of well-made pottery, decorated with impressed and incised designs in a

style that is found across the southern Sahara from Khartoum to Mali between 9000 and 8000 B.P. The vessels are small, and their rarity was originally taken to indicate that they were made elsewhere, but analysis of the clays shows that they were locally made at least at Bir Kiseiba and Nabta (Zedeno, mss.).

In addition to the hare and gazelle, even the earliest desert sites also have rare bones of cattle, thought to be domestic. These early Saharan cattle seem to have been used primarily for milk and blood, and thus served as a reliable and renewable food resource that permitted life in the unstable desert environment (Close & Wendorf 1992).

The Saharan cattle herders were also intensive gatherers of plant foods. Recent excavations at a site dating 8000 B.P. have yielded rich assemblages of edible plant remains that include several kinds of legumes, fruits, tubers and grasses, including millets and sorghum. Today, these plants live in the Sahelian zone and their presence in southern Egypt indicates that the northern limit of the Sahel was at least 300 km farther north than it is today. The plants are all morphologically wild, but preliminary investigation by infrared spectroscopy of the lipids in the sorghum grains suggest the possibility of some cultivation (Wendorf et al. 1992; Wasylikowa et al. in press).

We have previously believed that the earliest cattle herders used the desert only after the summer rains, and that they returned to the Nile in late winter when the desert dried up. This was assumed because we had found no wells that were definitely associated with the earlier sites and without wells, the desert would be seasonably uninhabitable. However, the discovery that the pottery, which is unknown in the Valley, was locally made makes it likely that the people occupied the desert year-round.

We have classified the Holocene occupation in the Eastern Sahara into three stages: Early Neolithic (9500-7900 B.P.), Middle Neolithic (7700-6500 B.P.) and Late Neolithic (6500-5000 B.P.). By 8500 B.P., during the Early Neolithic, they were building oval huts, some of which were slab-lined, and digging bell-shaped pits about 1.0 m deep and 0.7 m in diameter. Around 8000 B.P., they dug large, deep wells and had long oval, brush-or mat-covered huts with shallow, saucer-shaped floors with several burned areas which probably resulted from reuse over several years. Sometimes the houses were arranged in straight lines. Most houses have adjacent storage pits.

Slightly later, the huts became round, smaller (3-4 m in diameter), and usually have one or more burned areas near the center. Some of these round houses were very shallow, with saucer-shaped floors, but others were 30-40 cm deep and occasionally were slab-lined. Burned clay impressions indicate that the upper parts of the walls were wattle-and-daub. Large bell-shaped storage pits occur in almost all sites.

Some of the later desert sites (7000-6000 B.P.) are very large and have deep trash accumulations, but it is difficult to tell how many houses were occupied at any one time. Around 7000 B.P., domestic sheep or goat, introduced

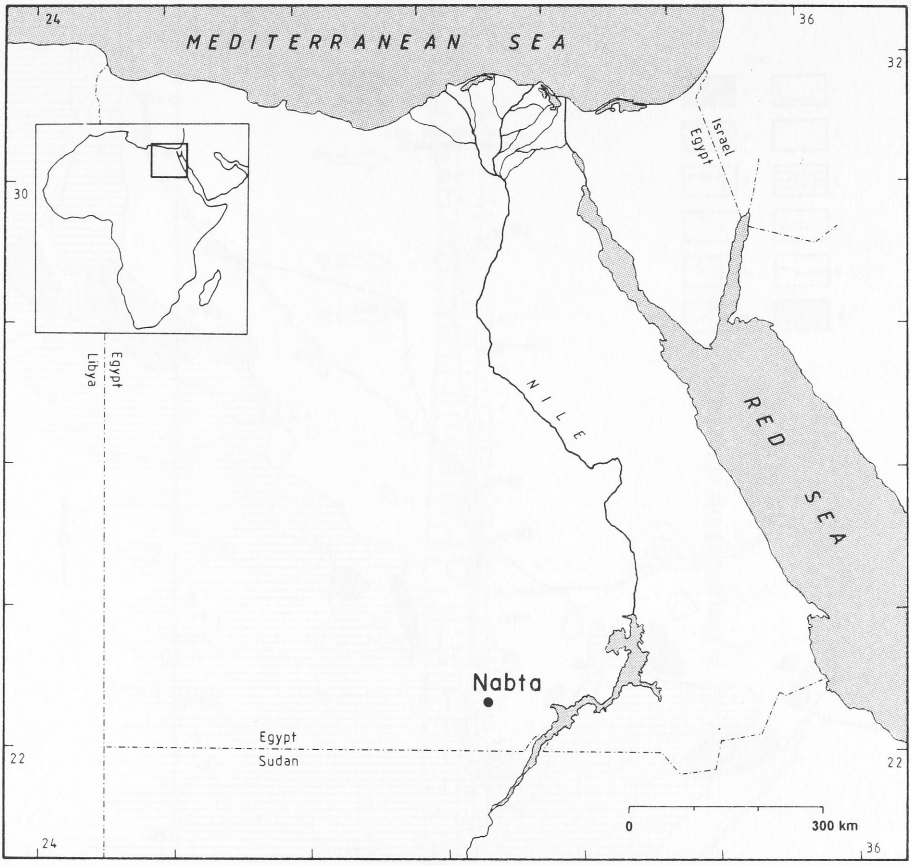

Fig. 1. Map of Egypt showing location of Nabta Playa.

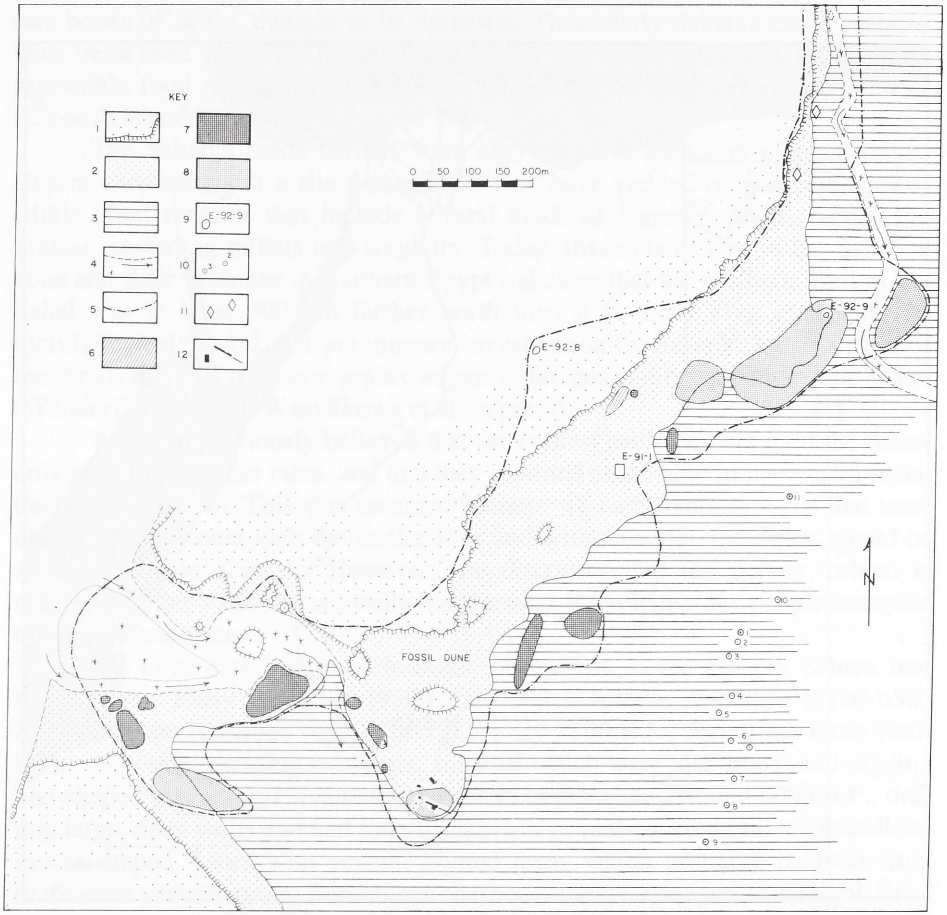

Fig. 2. Map of Site E-75-8. 1, Nubian sandstone; 2, sandsheet; 3, playa silts; 4, modern wadi; 5, limit of site; 6, Early Neolithic hearths; 7, Middle Neolithic hearths; 8, Late Neolithic hearths; 9, unexcavated site; 10, megalith; 11, slab-covered tumuli; 12, excavated areas. Slab-lined circle is designated E-92-9.

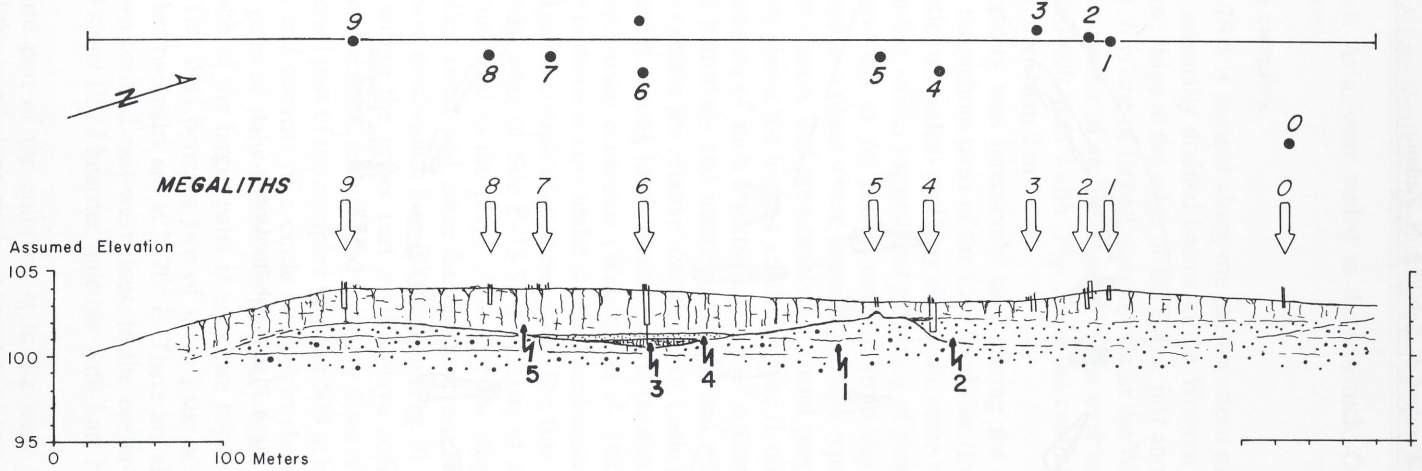

Fig. 3. Plan and profile of Megalithic alignment.

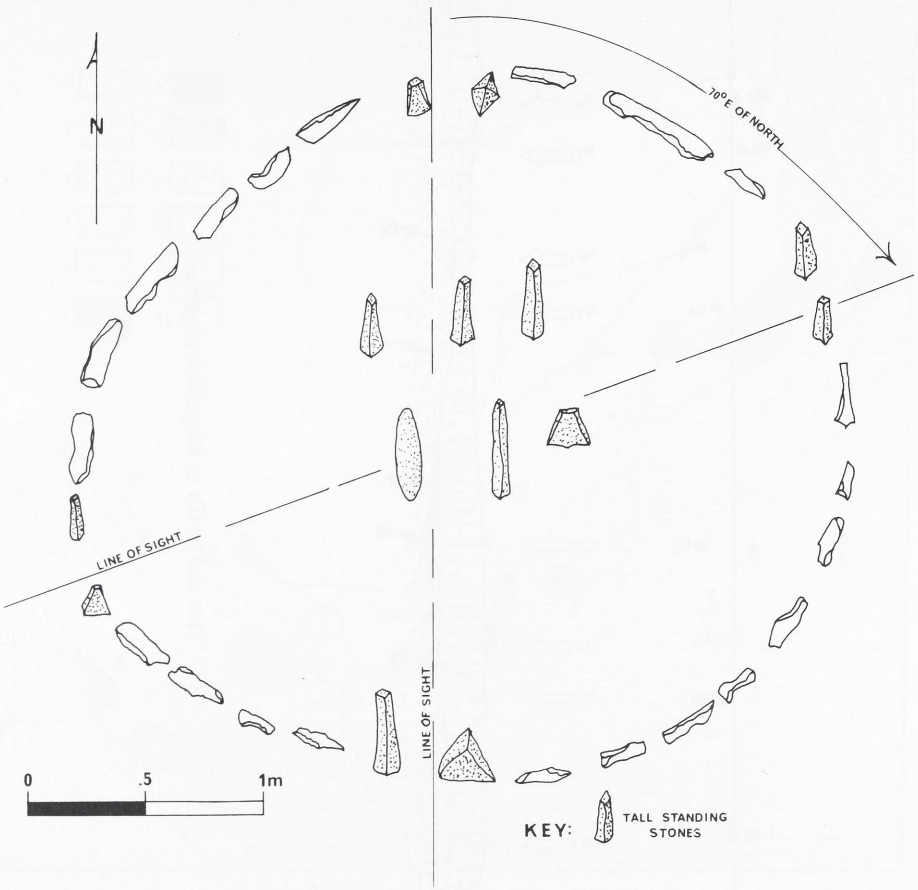

Fig. 4. Plan of slab-lined circle.

from southwest Asia, were added to the livestock. Ground and polished stone axes also appear.

The megalith complex

Site E-75-8 is located along the northwestern margin of Nabta Playa, one of the largest internally drained basins in the Western Desert of Egypt. The site occupies a dune ridge at the edge of the playa, just above the high-water level of the playa lake. It is one of largest sites known in the Western Desert, with a thick and continuous scatter of archaeological debris over an area of about 1500 m in length and up to 400 m in width (Fig. 2). In the central part of the site the debris has a depth of more than 2 m.

This locality was intensively used during the latter part of the Middle Neolithic and throughout most of the Late Neolithic (from ca 7000 to 5500 B.P.). They were cattle pastoralists and they also made some use of domestic sheep. The numerous grinding stones suggest that gathering of plants was also important, but food plants have not as yet been recovered from this locality. Site E-75-8 has been interpreted as a place where scattered groups repeatedly gathered, probably during the wet season, and presumably for social purposes. The size of the site and its location above the highest reaches of the flood supports this suggestion. The social purposes of such a gathering are, of course, unknown, but they may have included betrothals and marriages, trade and religious or ritual activities. This may also explain the relative abundance of cattle remains at this site, which recalls the practice among many modern cattle pastoralists of slaughtering cattle to celebrate significant occasions (Wendorf et al. 1985). Further testing of this aggregation hypothesis is now under study (Thanhouser, mss.).

The megalith complex has three parts. The first is located out in the playa along the eastern edge of Site E-75-8. It consists of a series of nine large (2 x 3 m) stones imbedded in the playa. A few of the stones were still upright, but others had fallen over, and some had broken into large blocks. These stones formed an almost north-south line, 500 m long (Fig. 3). The stratigraphic position of the stone within the upper part of the playa sediments suggests that it is probably a Late Neolithic feature, and probably dates around 6000 B.P.

The second part of the complex is about 500 m beyond the northern end of the alignment and consists of a circle of upright slabs, almost 4 m in diameter (Fig. 4). Four pairs of slabs around the periphery of the circle are larger than the others, and each of the larger pairs is set close together with a narrow slot between them. The slots between two of these pairs are aligned north-south; the slots in the other two pairs are at N 70° E. There are also six large upright slabs, arranged in two parallel east-west lines, in the center of the circle. Around the circle are >20 stone filled hearths, together with Late Neolithic pottery and lithic artifacts.

The third part of the complex is in the same N-S alignment and some 300 m beyond the small stone circle. It consists of two mounds or tumuli covered

with slabs. There are >30 stone-filled hearths around the tumuli. Pits have been excavated at each of the nine stones in the megalith alignment to confirm that they were imbedded in the playa sediments, and not bedrock as we had originally assumed. In some instances, these stones rested on >2 m of playa sediments. None of the other features have been excavated.

Conclusions

This megalith complex is significant because it may indicate the emerging combination of religious phenomena with leaders who could organize the construction of small-scale public architecture. If it has been correctly dated, the construction of this megalith complex may anticipate the arise of social complexity in Upper Egypt.

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