The Megaliths of Nabta Playa



Deep in the desert

Professors Schild

have found and

(right) and Wendorf

explored hundreds

of prehistoric sites

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The megaliths of Nabta Playa are an expression of an elaborate Late and Final Neolithic ceremonialism unprecedented in Africa. The ceremonial center of Nabta Playa supplies evidence that at least some of the roots of Ancient Egyptian beliefs, magic and religion lie buried in the sands of the South Western Desert

Egypt's South Western Desert, one of the driest areas on Earth, encompasses a big portion of the Eastern Sahara. In spite of its inhospitable climate and terrain, this area has captured human's imagination since times immemorial. Ancient Egyptian priests, pharaohs, soldiers and merchants have all demonstrated interest in this vast emptiness, which presented enormous challenges to travelers even after the introduction of the camel in the time of the New Kingdom. This is an area where armies were lost, slave merchants trafficked their goods northward, clever spies found a safe haven, and archaeologists were a rare sight indeed. It was only in 1972 that the Combined Prehistoric Expedition began systematic excavations of human settlements at remote corners of this barrenness, a place where lost worlds of human history lie submerged in hot desert soils.

Yet the barren badlands of the South Western Desert were not always so inhospitable. During times of global warming, when the ice sheets of the continental glaciers melted, the monsoon rains would move hundreds of kilometers north to form savannas, rivers and perennial lakes with crocodiles, fish and water fowl. But such was the landscape that would have greeted travelers some 330, 230 or 130 thousand years ago.

Countless years later, when the glaciers had receded from continental Europe, the monsoon rains moved north again and reached



the South Western Desert some 11 thousand years ago. This time, however, things were not so pleasant: there was no more savanna. just a little grass after the rains in the summer, and temporary water in closed basins that had been carved in the rocks by desert winds. Game was meager, essentially a small type of gazelle and hare, and competition for water and grass fierce. Yet this was enough for people to come. And come they did, together with their barely domesticated cattle, a kind of walking tin can packed full of blood, milk and meat. It was cattle that made peopling the Eastern Sahara possible. From that point onwards, cattle would always control the lives and beliefs of the desert dwellers - that is, until the collapse of their world about 5,350 years ago, when the desert descended upon the Eastern Sahara again, this time to stay.

The Eastern Sahara saw many ups and downs between 11,000 and 5,400 years ago. The climate was not stable. Time and time again, numerous hyperarid short spells chased people and animals to the south and/or east, to the Nile Valley. A kind of miserable paradise sprang to life between 9,000 and 8,000 years ago, when mediocre grasslands covered the area and waterfowl reappeared to enjoy summer frolics in huge seasonal lakes. Almost every wet period in the South Western Desert was different. People had to adapt their lifestyles, subsistence and social organization to the changing resources.

Only the history of the two last wet periods in the South Western Desert is important for our narrative here. The first began around 7,400 years ago. This was the time of the Late Neolithic Cattle Herders, or Ru'at El Baqar people. The second commenced about 6,600 years ago and ended nearly 5,400 years ago. This was the age of the Final Neolithic Megalith Builders, or Ru'at El Ansam people.

Valley of the sacrifices

In 1973, a casual rest stop on the way from Bir Sahara East, located deep in the desert, to Abu Simbel in the Nile Valley led to one of the most important discoveries in the history of prehistoric archaeology in the Sahara: the discovery of Nabta Playa, a huge paleolake basin with hundreds of Stone Age camps, tumuli, groups of megalithic structures and alignments of stelae.



Western shores of the Nabta Playa Basin, South Western Desert, map of Megalithic Structures (drawn by M. Puszkarski)

The megaliths of Nabta were not recognized or identified for a long time. We began to realize their significance only in 1992, and we are still learning about their role in the spiritual and religious life of the Neolithic pastoralists of the South Western Desert. Our intimate relationship with the megaliths of Nabta Playa has brought us to the stage where we may say that we have, at least partially, unveiled their significance.

The megaliths of Nabta Playa stretch for about 2,500 meters, in an approximately north-south direction, with a slight deviation toward the west. There are several separate groups of megaliths. Beginning from the north, there is a group of about ten preserved tumuli built of broken sandstone blocks, placed along the rocky west bank of a shallow wadi valley entering the basin from the north. This wadi ends in a small cromlech – a stone circle – that has been identified as a calendar, placed on top of a small sandy knoll.

The tumuli included offerings of large articulating pieces of butchered cattle, goats, sheep and perhaps also humans. The largest and conceivably oldest tumulus contained an entire young cow – the most precious offering a herder could make – placed in an elaborate chamber covered by a tamarisk roof. This sacrificial cow was laid to rest here some 7,400 years ago. Because of the tumuli's clearly sacrificial function, we named this shallow

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wadi the Valley of Sacrifices. It was this very valley that brought water to the basin after the first rains. This was an ideal place to bribe the gods and beg for rains.

The stone ring at the mouth of the Valley of Sacrifices contains two lines of stone sights, consisting of pairs of narrow, upright slabs aiming approximately toward the north, and toward the position where the sun rose at the summer solstice (the beginning of the rainy season) about 6,000 years ago. This paleoastronomical date situates the last use of the devise in time, like a broken wristwatch pointing to a murder victim's time of death. According to the dates and associated archaeological artifacts, it was the Ru'at El Baqar people who erected the Valley of



Skeleton of a young cow in the chamber under a tumulus

Sacrifices tumuli. The Valley is the earliest ceremonial center in Africa, marking the dawn of complex societies.

Stone structures of Megalith Builders

To the south of Valley of the Sacrifices is a low elongated hill, and beyond it are two similar, but smaller, parallel rises. These knolls were carved in the ancient lake clays by the desert winds of the hyperarid phase that immediately preceded the wet period of the Cattle Herders. All the hills are flat-topped and contain Megalithic structures erected by the Ru'at El Ansam, or Megalith Builders.

A 600 m long alignment of originally upright megaliths, or menhirs, extends along the northern hill. These sandstone blocks, some of them several tons in weight, today appear as clusters of broken rocks. Only two blocks remain partially embedded in the clays, albeit at a tilt. Most of them - if not all - have been shaped by knapping into sub-rectangular plates with rounded, ogival or shouldered tops and flat or rounded bases. All were facing the northern heavens. The paleoastronomer J. McKim Malville determined that the line of megaliths was in fact composed of three sub-lines that were aimed at the point where the brightest star of the Big Dipper, σ Ursa Majoris, rose between ca. 6,700 and 6,000 years ago.

Several other lines of upright menhirs have been recognized and mapped in the area south of the first line. So far, the best pale-oastronomical associations have been identified for two of these alignments. The first is a 250 m long double alignment of blocks pointing toward the point where the brightest stars in the belt of Orion, ε Orionis and ζ Orionis, rose between around 6,170 and 5,800 years ago. The second line, slightly shorter but quite distant from the two previous ones, points toward the position of Sirius, σ Canis Majoris, around 6,800 years ago.

Further beyond the long alignment of menhirs are two groups of megalithic sandstone block clusters placed over two neighboring flat clay rises, termed the Western and the Eastern Group of Megalithic Structures. Both groups are composed of concentrations of whole and broken, horizontal, flattish sandstone blocks of various sizes, some several tons in weight. At the southern end of the largest, western group, a big sand-





Tilted stela of northern megalithic alignment

Reconstructed stelae of a megalithic structure, Western Group (by M. Puszkarski) stone quarry is still visible. This is the place where the blocks were extracted.

We first recognized the clusters of megaliths as being man-made structures in the early 1990s. We saw them as representing gigantic, disturbed tombs, perhaps guarding the buried treasures of rich chiefs of yesteryears. Several years later, we decided to open three of them. Much to our chagrin, they yielded almost nothing. All three, however, had enormous pits excavated in the lake clays underneath the surface blocks. The pits led to a mushroom-like sandstone rock, a natural phenomenon formed by the desert winds well before the deposition of the lake clays. The rocks were slightly worked by knapping to form a mysterious, crude, nose-like projecting point at the northern side of the rock. Afterwards, the pit was refilled with the previously excavated clay. One of the pits had a piece of charcoal that radiocarbon dated between 5,600 and 5,500 years ago, thus situating the moment of construction in time. The largest cluster of megaliths, centrally placed over a small hillock, contained a treasure: a large block of sandstone weighting over a ton and only slightly shaped and polished, with a form resembling a cow to a very imaginative observer. This unusual central megalithic structure, designed Complex Structure A, seems to form a basal hub or the starting point of the described alignments.

We spent many years trying to find a logical explanation for the mysterious groups of horizontal megalithic structures, but all our results were unpromising. Two years

ago, unhappy with ourselves, we decided to go back to our silent megaliths. This time we began to uncover all the structures from beneath the desert sands and then to map them in detail, and we also tried to refit the broken individual megaliths. It was still early on in the project when we realized that many, and in some instances all, of the blocks were shaped in the same fashion as the blocks of the alignments. They also varied in size and weight, from megaliths weighing several tons to small baby ones. A few upright, broken bases were found still embedded in the clays, clearly indicating that the megaliths had originally been set vertically.

If we were right, studying the dispersal of the broken fragments and their position would lead to a reconstruction of the individual megaliths' original arrangement. Indeed, we soon came to understand the kinetics of collapse and the reason for their fall. Once again, the responsibility lay with the prevailing northerly desert winds, which had carved out holes in front of the megaliths and caused their collapse. That is why we know now that all the individual stones were generally facing north, toward the area of the night skies occupied by circumpolar stars. The fact that so many megaliths are shaped, some into anthropomorphic shouldered figures, suggests that they served as stelae, commemorating the dead.

The ancient shores of Nabta Playa still guard many startling surprises. Just a few months ago a new double stone cromlech, some 17 m in diameter, was found on a prominent sandstone hill located 500 meters



Lifting a shaped sandstone block from the pit under the central megalithic structure

> to the west of the Western Group of Megalithic Structures.

Megalith Builders' society and beliefs

Much organized work and effort went into building the megaliths. This, in itself, indicates complex and structured societies, with dominant families whose power was inherited. The discrete groups of stelae at Nabta Playa might suggest lineages of such families. The archaeology of the Cattle Herders as well as the Megalith Builders shows that both societies were nomadic pastoralists whose economy was based, or largely dependant, on cattle husbandry. The erection of the tumuli and complex megalithic structures imply that both are an expression of an elaborate Late and Final Neolithic ceremonialism unprecedented in Africa. Largely similar, although generally much later, regional ceremonial centers with megalith alignments, tumuli and stone circles are reported from the Sahelian and Sub-Saharan parts of the continent. Close resemblances to the center in Nabta Basin are found among modern cattle pastoralists in the Sahelian Belt of Northern Africa, such as the Habana, Beni Helba Baggara and Gura'an.

The Late and Final Neolithic societies of the South Western Desert lived in a symbiotic relationship with their agricultural counterparts in the Upper Nile Valley. This relationship is clearly seen in the presence of many imported goods from the Nile Valley, and perhaps also in a multiethnic character of the desert population. Yet the ceremonial center of Nabta Playa also shows that at least some of the roots of ancient Egyptian beliefs, magic and religion are present there. The brightest star of the Big Dipper, Dubhe - toward which the stelae of the longest alignment were aligned - was a very important star in Ancient Egyptian cosmology and cosmogony, as was the entire constellation Ursa Majoris, the focus of a set of symbols and myths combining cattle, funeral rituals, kingship as well as cosmic and terrestrial order. On the other hand, the alignment pointing towards the two brightest stars in Orion's belt, Alnilam and Alnilak, indicate Orion's importance to the populations of the South Western Desert. Orion, or Sahu in Ancient Egyptian cosmogony, is a constellation often associated with Osiris as Sahu--Osiris. The third of the described alignments points to the rising position of Sirius, or Sothis, a prominent object in the dawn skies of June and July during the Final Neolithic at Nabta, and the primary calibrator of the Egyptian calendar for two millennia beginning in the First Dynasty.

Perhaps the most convincing tie between the myths and religion of Ancient Egypt and the Cattle Herders of the South Western Desert are the groups of Nabta Basin stelae. The stelae here face the circumpolar region of the heavens. According to the early Egyptian mortuary texts known as Pyramid Texts, this is a place where the stars never die and where there is no death at all. This is the region of Dāt, the goal of the deceased, the *Field of Offerings*, in which the departed will live as an "effective" spirit. We cannot rule out that the mushroom rocks under the stelae were considered to be launch pads sending the deceased, symbolized by the upright megaliths, to Dāt.

In the Nile Valley, in Upper Egypt, it was Menes, the king of Upper Egypt, the first

king of Dynasty I, who unified the Upper and Lower Egyptian kingdoms around 3,100 BC. Earlier kings of Upper Egypt had certainly preceded Menes or Nermer. One of these, known as Scorpion, apparently tried to subjugate the north. The first prehistoric ruler of Upper Egypt must have begun by unifying the late Predynastic chiefdoms or poleis often associated with the capitals at Buto and Hieraconpolis. The date of this crucial event for the history of Ancient Egypt has not been established; it may have preceded the unification of Egypt by a few centuries. The world of the Megalith Builders of the South Western Desert collapsed around 5,300 years ago, or 3,350 BC, when the deadly desert again returned to the area. And it is here that the prehistories of Upper Egypt and the South Western Desert may have met. The well-organized and usually very worrisome desert herders, probably speaking the same or a similar language as the people in the Nile Valley, when pushed towards the relatively crowded Valley inhabited by traditionally peaceful peasant societies, may have served as catalysts for these processes.

Further reading:

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Eastern Group (by M. Puszkarski)