

Polish-American archeological excavations in Egypt

Prehistoric Herdsmen



Professor Michał Kobusiewicz is an archeologist exploring Neolithic sites in Egypt

MICHAŁ KOBUSIEWICZ
Institute of Archaeology and Ethnology, Poznań
Polish Academy of Sciences
mkobus@man.poznan.pl

ROMUALD SCHILD
Institute of Archaeology and Ethnology, Warsaw
Polish Academy of Sciences
rschild@archeolog.iaepan.edu.pl



Professor Romuald Schild directs the archeological expedition in the Eastern Sahara

The shepherds who settled the Eastern Sahara in the fourth millenium BC developed a culture whose archeological remains are of astounding richness

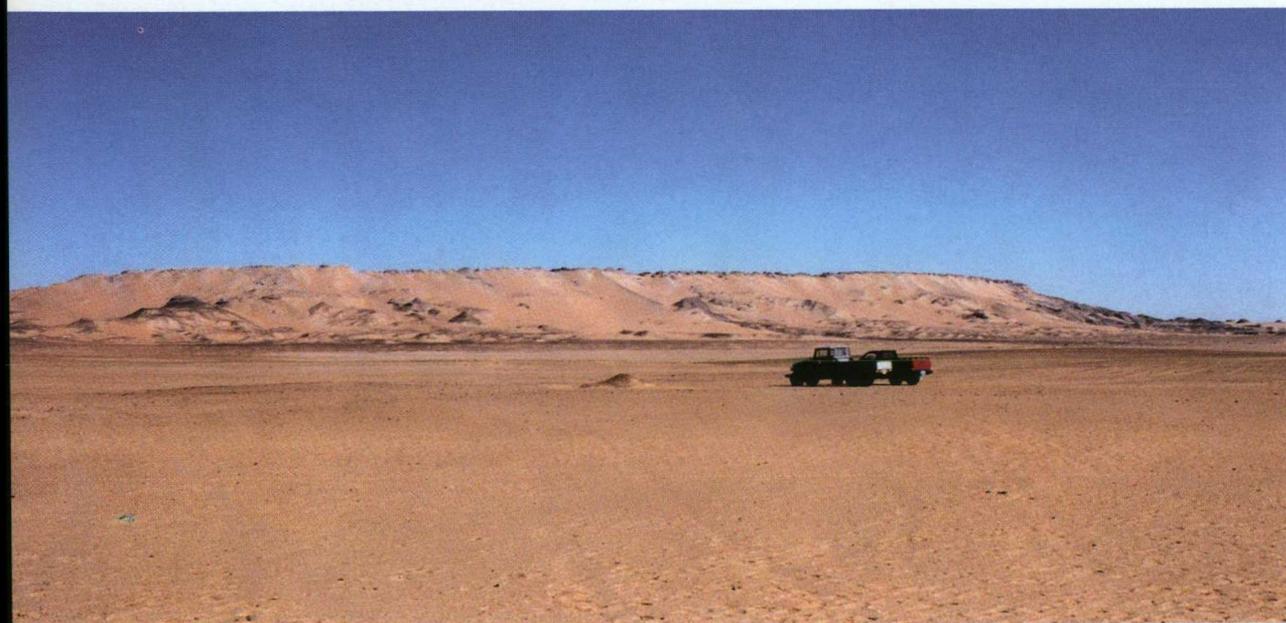
Polish pre-historians have been engaged in intensive research in northeast Africa for more than 40 years. The greatest accomplishments in this field have been achieved by the international Combined Prehistoric Expedition (CPE), with a core comprised of Polish and American archeologists. The expedition's director was originally Professor Fred Wendorf from Southern Methodist University in Dallas; it is now

being directed by Romuald Schild from the Institute of Archaeology and Ethnology, Polish Academy of Sciences.

The CPE has devoted a considerable portion of its efforts to researching areas in the eastern Sahara, namely the Western Desert in Egypt, also known as the Libyan Desert. The more than one dozen excavation seasons carried out in this region (whose climate essentially makes work only possible in wintertime) have concentrated on *Homo sapiens'* earliest history, studying the people who dwelt here beginning more than a hundred thousand years ago. The greatest focus has been placed on researching the late Stone Age, i.e. the Neolithic, when humanity was partially abandoning its hunter-gatherer way of life and switching to an economy based on food production. For the ancient residents of the Western Desert, this chiefly meant raising cattle.

Life in the Neolithic

In the fourth millennium BC, the lands of the present-day Western Desert were still covered by dry savanna. The last damp stage of the early Holocene, during which



Michał Kobusiewicz

A view of the excavation area in Gebel Ramlah, located in the Egyptian portion of the Western Desert



The skeleton of an adult buried in a typical position heading West and facing South

precipitation here sometimes reached up to 200 mm per year, was just drawing to an end. Such amounts of rainfall sufficed to sustain a short grass savanna, with vegetation lush enough for animals to survive on it. Vast areas encompassing southern Egypt and northern Sudan were dotted in places with larger or smaller bodies of collected rainwater. It was on their banks that the herders and cattle-breeders of the late Stone Age set up their settlements.

Our excavations have enabled us to learn quite a bit about how these people lived. They inhabited settlements that were most likely composed of huts with external stone-laid hearths. Men and livestock alike drank groundwater that was drawn from deep wells. By these late Neolithic times, humans had for thousands of years already known techniques of ceramic-making, smoothing stone tools, and producing quern-stones for grinding. The inhabitants of these settlements attached great importance to adorning and decorating themselves, as is evidenced by the extensive cosmetic artifacts that have been unearthed, including various sorts of pigments, palettes used for processing them, and ornamental containers

for storing them. Such late Neolithic people's chief means of survival came from breeding the local aurochs, long since domesticated, and to a smaller extent from breeding small ruminants, sheep, and goats.

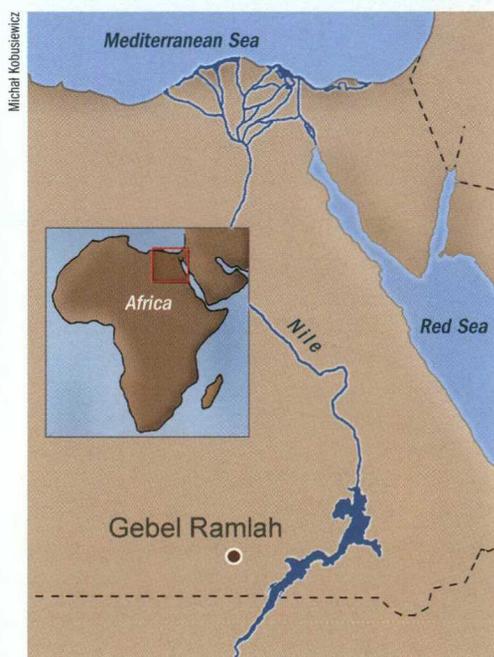
After the annual damp season subsided, these shepherds drove their animals out into the vast plains, now turned green with new grass. For several months of the year they moved from one spot to another, as the savanna became exhausted by grazing. Such migration is evidenced by the scattered remains of thousands of hearths they used at their temporary pastoral campsites.

Livestock was only rarely slain. These people probably ate various sorts of dairy products and presumably also drank the blood of their animals, letting it in small quantities that were easy to regenerate and not harmful to the livestock.

Three cemeteries

Due to recent discoveries emerging from the careful investigation of three clan burial grounds, we have been able to learn much about the burial practices, beliefs, and also the social organization of these early herders.

In the years 2001-2003, the Combined Prehistoric Expedition concentrated on the newly-discovered ancient water body called Gebel Ramlah (Sandy Mountain) Playa, located in the Egyptian portion of the Western Desert, some 130 km directly west



Location of Gebel Ramlah excavation site

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of Abu Simbel, near the Sudanese border. Numerous remains of Neolithic cattle-herder settlements were discovered along the edge of this former lake. Archeologists were not overly surprised at this fact, as it follows a commonly occurring settlement pattern. Yet the discovery of three cemeteries accompanying such settlements, the first such sites ever to have been encountered, proved to be a revelation.

All three burial grounds are very similar to each other and all of them are very closely grouped chronologically. Both the finds unearthed at the cemeteries and the results of radiocarbon dating tests indicate that human remains were buried here some 6,000 years ago. The circumference of the individual burial grounds does not exceed 10 meters. All told, there are 67 individuals buried at the three sites. As the remains are

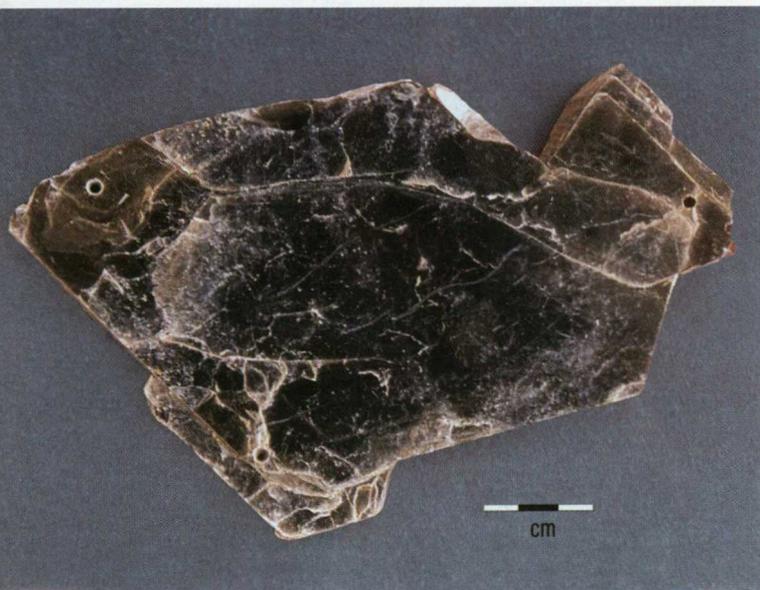
of dental features has shown that two different populations - Mediterranean and sub-Saharan - coexisted here, there are no differences of any sort evident in the way they were buried.

Two different types of graves are present: burials of single individuals, and collective graves where the more or less complete skeletons of 2-8 individuals were interred.

Neolithic beauty

The exceptional wealth of the grave goods is striking. Many deceased were laid to rest with ceramic pots, sometimes beautifully decorated. It seems that vessels of one particular sort, called tulip beakers, were produced exclusively to be used as grave goods. Such pots were usually placed on the chest or near the head. They were accompanied by sets of cosmetic artifacts consisting of flat stone palettes, circular grinding stones for grinding color-bearing minerals, and also containers made of ivory, decorative bovine horn, sandstone, or ceramic. The latter were used to store pigments obtained from various sorts of dark-red or yellow ochre (iron ore), green malachite, and probably also white limestone and black coal. Some of the palettes have preserved traces of these materials to this very day.

Other means of personal adornment included necklaces strung from beads of various types and sizes, made of agate, carnelian, gneiss, fired clay, bone, or snail shells. The smallest of the beads, about two millimeters in diameter with a hole cut straight through them, are astounding in terms of the precision and technique involved in their production: we do not know how their makers bored holes less than a millimeter in diameter through hard stone. Decorative pendants made of bone are sometimes encountered, as are lip and nose plugs made of bone or turquoise. Also highly popular were bracelets wrought from large mussel shells from the Red Sea, or made of ivory. Bone needles, long gazelle bones fashioned into daggers, and also beautifully produced flint knives and flint or agate arrowheads have also been frequently found. Many graves contain large sheets of mica more than 10 cm across and about 1 cm thick. They must have been highly prized, since they were frequently buried



Michał Kobusiewicz

This tilapia fish made of mica found in one of graves is the oldest known sculpture to have been discovered in Egypt

relatively well preserved, the age and sex of the deceased can in most cases be identified. Both men and women were buried here, although the latter were in the majority, and there are also children present. The age of the deceased ranged from infancy to somewhat over 40 years old. There are no signs of any sort of social stratification, usually manifest in terms of differences in the size and construction of graves, or in the quantity and quality of the grave goods they contain. Interestingly, even though an anthropological analysis employing such techniques as a detailed inspection



Michał Kobusiewicz

in the vicinity of the head of a body. One such slab was shaped into the form of a fish. This sculpting is so accurate and realistic that one archeozoologist, upon observing it, immediately identified the find as depicting a *tilapia* fish - a species very frequently encountered in the Nile. This is the oldest known sculpture to have been discovered in Egypt. One of the graves also contained a miniature boomerang, or more precisely a throwing stick for hunting, made of bone with a decorative incision. Many burials were also accompanied by polished pebbles of unknown function, made of quartz, agate, or other types of rock.

It is especially interesting that the cemeteries offer indications that the surviving contemporaries of the people buried here took a keen interest in ensuring that their remains were kept well-preserved. Archeologists have found evidence of such an interest in the form of two skulls which have had some of their upper teeth replanted in the lower jaw, or vice versa. Also, the forearm of one woman was found to be wearing four bracelets which were later, at a time when this was already a bare skeleton, fastened in place with small wedges made of small human bones. Another skull was found to have eighteen teeth placed in the eye hole, while another had three teeth in the nasal aperture. Many burials were sprinkled over with sizeable amounts of hematite dust - a

custom widespread in prehistoric times, in both the old and the new world.

Rest in peace

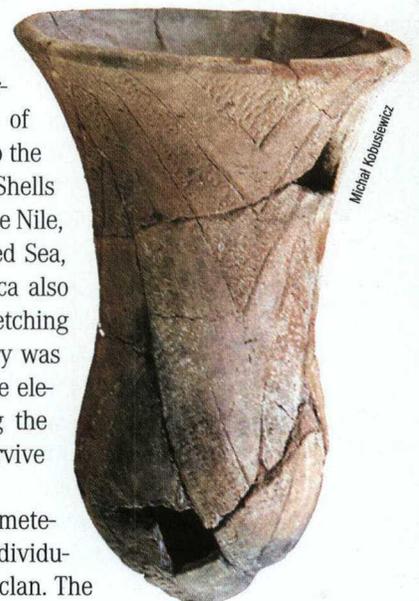
On-site research at the above cemeteries has drawn to a close. At the present stage, there are some interesting conclusions that can be drawn from the analysis of the relics found there.

The people inhabiting the shores of the Gebel Ramlah lake were not cut off from the rest of the world. Their contacts sometimes stretched very far, as is evidenced by unearthened objects made of raw materials that were not to be found in the vicinity, and must have been brought in from outside. The best example of such long-distance imports is a nose plug made of turquoise, the closest sources of which are located 1,000 km to the north, on the Sinai Peninsula. Shells were brought in either from the Nile, 100 km away, or from the Red Sea, much further to the east. Mica also came from the mountains stretching along the same seacoast. Ivory was brought from the south - since elephants, which belong among the Ethiopian fauna, could not survive in such dry savanna.

Each of the discovered cemeteries contains the graves of individuals who belonged to a single clan. The

Bracelets crafted from large mussels shells from the Red Sea or ivory were a highly popular means of personal adornment for this Neolithic people

Such vessels, called tulip beakers, were produced exclusively to be used as grave goods



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single graves that exhibit preserved anatomical order represent the burials of individuals who died at the settlement and were interred there. The secondary graves, in which the bones have been mixed up and the skeletons are incomplete, can be interpreted as being the burials of individuals that died far from home, during the course of far-ranging migrations with the herds. For some reason it was felt that these people should be buried at the clan cemetery, and so their remains were transported through the entire grazing season, until the herders returned to their lakeside settlement. The bodies must have decomposed quickly in the hot climate and were placed into the graves as remnants, without regard for preserving their anatomical order, hence the chaotic arrangement of the bones. This is just what is exhibited by the aforementioned reinsertion of fallen-out teeth, the reaffixing of bracelets, and the placement of teeth in the eye or nose hole of skulls. These careful efforts to "repair" human remains attest to an exceptional concern for keeping bodies whole, in as undamaged a condition as possible. And so, the idea of preserving the body so that the spirit could rest in peace in the afterworld - a notion so typical of the beliefs of the ancient Egyptians - may indeed have originated with the Neolithic peoples inhabiting the ever-drier savanna in what is today the Western Desert, only centuries prior to the emergence of ancient Egypt.

Stone monoliths

In the basin of the dried-up Nabta Playa lake, located only 20 km away, the same people who left behind the graveyards at the foot of Gebel Ramlah erected gigantic clusters of stelae, extending over many square kilometers. Four large clusters of such menhir monoliths have been found, each of them consisting of many smaller groups as well as of single stelea. These monoliths were made of sandstone that had been split away from its original source, and then chipped into a sculpted form. They range in weight from tens of kilograms up to many tons. They were all originally sunk into the ground facing northwards, towards the area of the sky where the stars never die, i.e. where they never disappear from the firmament. This is where the oldest



Jack Kabaciński

known Egyptian beliefs, as preserved in the Pyramid Texts, maintained that people went after their death. Each group of Nabta Playa stelae most likely symbolized the souls of the deceased from an individual herdsman clan, with the smaller clusters representing specific extended families, just like at the Gebel Ramlah cemeteries.

In recent years, the expedition has discovered a massive kurgan in the Nabta Playa lake basin, towering over the fields of stone monoliths, now destroyed by the desert winds. Its small burial pit was found to contain the head of a child 2.5 to 3 years old, undoubtedly the offspring of a powerful ruler of the Nubian Desert about 3,500 years BC, just prior to the establishment of the first Egyptian state.

We already know that soon after this date, drought forced the herders to abandon these lands. Digging deeper and deeper wells proved insufficient, and people had to go elsewhere in search of water. And so where might they have gone, if not to the relatively close Nile Valley? They brought with them the various achievements of their culture and their belief system. Perhaps it was indeed these people who provided the crucial stimulus towards the emergence of state organization in ancient Egypt. ■

Further reading

- Kobusiewicz M., Kabaciński J., Schild R., Irish J.D., Wendorf F. Discovery of the first Neolithic cemetery in Egypt's Western Desert, *Antiquity* 78, Number 301, September 2004, pp. 566-578.
- Schild R., Wendorf F. (2004). *The Megaliths of Nabta Playa. Academia - The Magazine of the Polish Academy of Sciences* 1(1).

The Gebel Ramlah excavations are conducted by archeologists from the Polish Academy of Sciences and the University of Alaska at Firebanks