THE LECH KRZYŻANIAK EXCAVATIONS IN THE SUDAN

KADERO

Prehistoric settlement

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The excavations carried out in Kadero showed that the artefact material was concentrated within two – the northern and the southern- middens. L. Krzyżaniak estimated the area on the basis of the concentration of artefacts on the surface. The northern midden apparently covered an area of 4200 the southern one only 1900 square metres. The Kadero site is however, highly eroded and Krzyżaniak suggested that the Neolithic extent of the middens was originally smaller and only over the following millennia, the material was spread over a larger area following the erosion activity (Krzyżaniak 1991:516).

A detailed planigraphy of pottery material revealed that the area of a midden can be defined as one in which the occurrence of artefact material is at least 20 cm thick, and the intensity of pottery occurrence reaches over 1 kg/m^2 . While in most cases the thickness of the artefact layer is 40 - 50 cm, over 90% of the pottery was found on the surface and in the topmost 20 cm of the layer (Fig. 1 – 2). In places of the highest pottery concentration over 5 kilograms of material could be collected from one square metres.

In the remaining area of the site the material occurs only in the subsurface layer, both in the inter-midden surface and on the boundaries of the site. Due to considerable erosion no structures representative of the spatial organisation of the settlement were preserved.

Following the above principles it can be assumed that the northern midden originally cov-



Fig. 1. Kadero. Surface of the site covered with the artefacts



Fig. 2. Kadero. Section of the trench

ered an area of ca 600 and the southern one only 250 square metres. The shapes of the middens differed as well. Basically, they are separated from the area where graves occurred (Fig. 3). The only exceptions are the four burials found on the

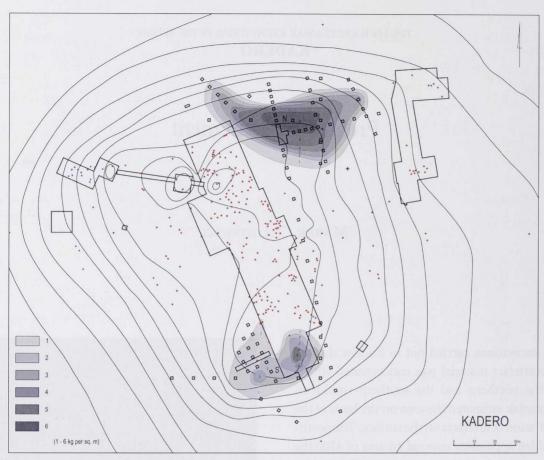


Fig. 3. Kadero. Distribution of potsherds in the middens (1-6 – kg per sq. m)

boundary of the southern midden. It cannot be excluded that these graves are older than the midden itself; the ¹⁴C- dating is younger than that of the northern midden (see Kabaciński this volume). The intensity of pottery is matched by the frequency of animal bones which are also concentrated within the same areas as the pottery. Their spread is slightly smaller; as also the amount of bones. The highest concentrations of bones amounts to 1 kg/m² in weight; at the boundaries of the midden the weight amounted to only 100 g /m².

Spatial distribution of quern fragments and sandstone tools present a different picture. They were scattered over a larger area, and mostly concentrated in four elevations of the site. The bigger concentration actually protected the mound against erosion. Areas of highest concentration produced over 50 quern fragments and grinders per 1 square metre (Fig. 4).

The high erosion of the original surface of the site (confirmed by graves now found on the surface) considerably disturbs the vertical stratigraphy of the site and significant shifting of the material, both vertical and horizontal, has to be

considered. Rodents also have done their job only too well: traces of their enthusiastic activity could be observed in archaeological trenches. At times fragments of one and the same vessel were found on the surface and in the deeper strata of the site.

The artefact material was most abundant in the thin layer, directly beneath the surface (Krzyżaniak 1975b:190, Fig. 2:1-2). The space between the artefacts was filled with aeolian sand (Fig. 4). It contained fragments of quern and other sandstone objects, pottery, tools and production waste of chert, rhyolite and quartz. Occasionally there occurred small ornaments made of ostrich egg and carnelian, pieces of stone mace heads as well as bone heads and shells from the Red Sea. Mollusc shells of Limicolaria flammata and of Pila ovata were plentiful. Nile mussels shells (Aspatharia rubens) and river oyster (Aetheria elliptica) were also found. Split animal bones were frequent. There were also occasional botanical remains (Celtis integrifolia). Overall, the material resembled the finds from the Esh Shaheinab Neolithic settlement, though was not identical (Krzyżaniak 1975b:190).



Fig. 4. Kadero. Concentration of the grinding stones

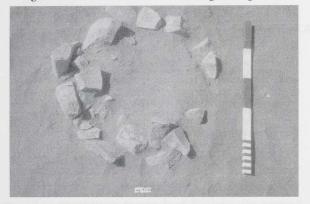


Fig. 5. Kadero. Fireplace on sq. 471

Since all contents of the trenches were sifted, the amount of material obtained was truly huge (see relevant chapters). Pottery material was basic for defining the settlement phases in Kadero. The wavy line and dotted wavy line pottery indicate that the mound situated within the Nile valley had been inhabited by the Early Khartoum culture population. The material that linked with that culture is somewhat scarce and can be found scattered all over the site, though perhaps it is more noticeable in the south-western part. The frequency of occurrence is similar both within and outside of the middens. It seems certain that at least a seasonal camp-site of the Early Khartoum people was found here. Also, it cannot be excluded that some of the highly eroded unfurnished graves might have a similar chronology.

There is no doubt that the densest human settlement of the site took place during the Neolithic Period in its early phases. Even though, as was the case with the earlier settlement, there are no preserved remains of dwellings or hearths, the huge amount of artefacts points to a years-long, intensely used habitation site. Only in one case, a small pit enclosed with stones, some of them quern fragments was found which could have been a hearth. It was 60 cm in diameter and 25 cm deep and con-

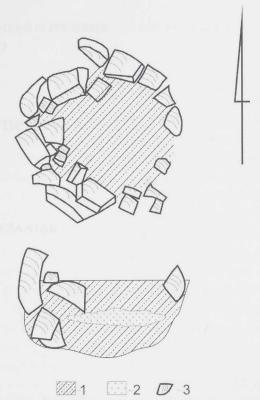


Fig. 6. Kadero. Fireplace on sq. 471. 1 – gray sand with ashes, 2 – gray sand with charcoal, 3 - stones

tained a few bone and Neolithic pottery fragments (Fig. 5 - 6). The presence of the middens with their high concentration of used artefacts and the minimum number of artefacts between the middens, indicate a deliberate removal of waste and used tools to the area of the middens. The "clean" area between the middens was used both as a dwelling place and a burial ground probably also as a cattle kraal. During the Neolithic Period the mound on which the site was situated was at least nearly a hundred cm higher and thus offered protection during the floods of the Nile.

Settlement remains reveal that the Kadero economy was mixed – husbandry and gathering, based on cattle husbandry and exploitation of wild grasses growing in the Nile valley (wild sorghum, Krzyżaniak 1991). The significance of the Kadero site lies in the fact that exceptionally both an Early Neolithic settlement and a cemetery are present. It seems that during the Late Neolithic phase the site was less intensively used for human settlement, perhaps caused by changes in the environment and the economy (a more nomadic life-style). However Kadero continued its function as a burial ground and a seasonal dwelling place for human groups.