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New data on the late prehistoric settlement at Minshat Abu Omar, Eastern Nile Delta

A preliminary report on the augering programme carried out at Minshat Abu Omar, in the eastern part of the Nile Delta has just been published by this author elsewhere (Krzyżaniak 1992) but it is felt that its updated version still may be of interest to the reader of this volume.

The location of the habitation area of the social group which buried its dead in the Late Predynastic–Early Dynastic cemetery at Minshat Abu Omar (Kroeper and Wildung 1985) has been one of the major aims of the Munich East Delta Expedition. As a result, a research programme has been formulated at an early stage of this project which comprises an extensive surface examination of the land in a radius of several kilometers from the Minshat Abu Omar *gezira* mound and on the mound itself, as well as the sondages and augerings in the vicinity of the cemetery.

Unfortunately, no sites of pre-Ptolemaic–Roman times were found as a result of this surface examination (Krzyżaniak 1989). Bearing this evidence in mind and the widely believed ideas suggesting the location of older settlements in the Delta below the present level of the ground (*e.g.*, Trigger 1985: 21) it was decided to embark on a programme of a systematic field-work by sondages and augerings in the area of the *gezira* mound of Minshat Abu Omar. It was hoped that the older habitation would be located below the level of the cultivated fields, not far from the local burial ground.

A further step was a testing of the pre-Ptolemaic–Roman settlement situated in the northern part of the local *gezira* and known as Tell es-Saba'a Banat. It was made by a 5 m deep sondage and it was hoped that the predynastic midden rested under the remains. However, it turned out that the floor settlement layers, resting on the archaeologically sterile *gezira* sand could be dated to the Saitic period (*ca.* 7th century B.C.) while the upper portions of the midden con-

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tain layers dated to the Ptolemaic and Roman periods. The settlement history at this part of the *gezira* was thus dated to *ca*. 700 B.C. – 400 A.D.

After several attempts at augering made in order to gain the technical experience, to train the local workforce and to work out the method of recording, the first systematic investigation of the *gezira* by drilling took place in the spring of 1987. A narrow strip of cultivated land adjoining the present limit of the Minshat Abu Omar *gezira*, at the southern end of the mound, was investigated by augering a net of points. As a result, habitation remains of New Kingdom times were found in this area, containing potsherds, lithic implements, isolated personal adornments and animal remains (food offal). It seems that these remains constitute a midden of *ca*. 2 m in depth; the top part of this midden equals the cultivated level.

The next step was to investigate by auger the cultivated fields in the immediate vicinity of the local cemetery. In choosing the place of the testing the local surface relief, the horizontal stratigraphy of the Late Predynastic–Early Dynastic cemetery and what is known about the ancient Egyptian settlement habits in the riverine environment were taken into account.

Consequently, the testing was made on the cultivated fields to the east of the present *gezira*. The augering was executed along two lines. The borings were made for a distance of 1000 m along one line and 300 m along the other at 50 - 150 m intervals, depending on the accessibility.

A hand-operated auger was used in this testing. A team of four local workmen was employed in the field-work (Fig. 1). Depending on the depth of augering and a kind of the sediment penetrated, three different heads of the auger have been used (Fig. 2); the maximum depth of the testing was 7 m.



Fig. 1. Minshat Abu Omar. Different stages of the augering.



Fig. 2. Minshat Abu Omar. Head of auger.

The results obtained in the course of the testing can be summarized as follows:

1. The present sandy *gezira* mound constitutes only the top portion of a much larger sandy hill which is now submerged in alluvial sediments of riverine origin which are younger than the hill; its size and surface area have therefore been much larger in the past.

2. A settlement layer of Late Predynastic–Early Dynastic date was found on the slope of the submerged part of the hill, some 500 - 700 m away from the contemporary burial ground. As indicated by the contents of the several borings, it has the features typical of a midden, being rich in potsherds, flaked and ground lithic implements, food offal in the form of charred botanical and mineralized animal remains and the remains of fireplaces and probably constructions made of mud clay. The midden, with a maximum thickness of 2 m, rests on archaeologically sterile yellow sand and is overlayed by a layer of similar sand *ca*. 0.5 - 1.0 m in thickness which, in turn, is overlayed by a thick, 2.0 - 3.0 m, layer of dark-brown river silt. It seems that this silt was deposited in post-Roman, perhaps Medieval times, when very high Nile floods took place (Hassan 1981: 1142, 1144). Few Saitic–Roman period potsherds found in this silt may originate from the nearby settlement or tombs of this date. It is worth adding that the present ground water level is *ca*. 1.5 m below the surface of the land and, therefore, the Late Predynastic–Early Dynastic midden is well water-logged.

3. In the course of augering made further up along this line, some 600 - 1000 m away from the Late Predynastic-Early Dynastic cemetery and outside its settlement midden, a different geomorphic situation and archaeology have been met. Here the now submerged and rather flat surface of the hill is overlayed first by thick deposit of compact dark-grey-violet mud, rich in organic material. It, in turn, is overlayed by a layer of dark-brown river silt (the surface of this silt is now cultivated). On the flat, sandy surface of the hill, some 6 m down, finds of potsherds were made in several borings. The potsherds are not diagnostic in shape, and are of a rough ware clearly different from anything previously found at Minshat Abu Omar. It seems that their technology may be similar to the Neolithic wares of Northern Egypt. The layer of mud overlaying the ceramicbearing surface of the hill, later therefore than the potsherds, was radiocarbon dated by four measurements made on samples of mud. The dates form a sequence starting at 4,030 b.p. ± 70 in the upper portion of the mud layer and ending at 5,720 b.p. ± 80 at its floor and above the ceramic-bearing surface. It seems, therefore, that this pottery is older than 5,700 b.p.





1: dark-brown silt of post-Roman (?) date; 2: fine, light-coloured sand; 3: heavy, compact dark-violet mud rich in organic matter; 4: Late Predynastic settlement remains; 5: coarse sand; 6: occurrence of the Neolithic (?) potsherds; 7: augering point.

The above results can be illustrated by a section showing the geomorphic and archaeological stratigraphy at Minshat Abu Omar (Fig. 3). It is to be mentioned that the results presented in this paper are of preliminary character and should be substantiated by future field-work, particularly by more augering.

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