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Survey in Northwestern Sinai

Prehistoric research in Sinai has been intensified in recent years, particularly concentrated on the Early Bronze Age exploitation of the copper mines in the eastern and southern part of the region. Northern Sinai has received much less attention, even though this is supposed to have been the natural land-bridge between the Nile Valley and the Levant throughout history. However, surveys carried out in the seventies by Bar Yosef and Phillips (1977) and by Oren (1973; 1989) revealed in north-eastern Sinai pre-pottery remains followed by a more intensive Chalcolithic and EBA I occupation (Oren & Gilead 1981), which seemed to extend also westward, into the eastern Nile delta.

Systematic archaeological and geomorphological research in north-west Sinai was resumed by the Franco-Egyptian archaeological mission of Tell el Herr in 1990, under the pressure of the government program for agricultural development of the Mediterranean coast between el Qantara and el Arish (Valbelle et. al. 1992; Marcolongo 1992; Caneva 1992). The area most threatened by heavy surface modifications includes the easternmost part of the Nile delta, with the Pelusiac branch and the corresponding lagoons (Fig. 1), though the surrounding regions will also probably be influenced by the new urban development. The fact that recent geomorphological and archaeological investigations in the Delta suggests that a considerable amount of the sediments has been deposited very recently in the fan of the Nile branches and in the surrounding areas, means that only deep soundings into the silt layer would expose Neolithic and Early Predynastic remains in this region, assuming that these coastal areas were inhabited during those periods. The Mediterranean coast was therefore excluded from the prehistoric surface investigation in the region, and research concentrated on the sand dunes south of the lagoons.

The whole region was previously included in the wide area between the Suez canal and Gaza which was extensively explored by a team from Ben Gurion University of the Negev during the seventies (Oren 1973). Large portions of this area, however, were left unexplored, probably due to the presence of military installations. In particular some unexplored areas were concentrated around zone H

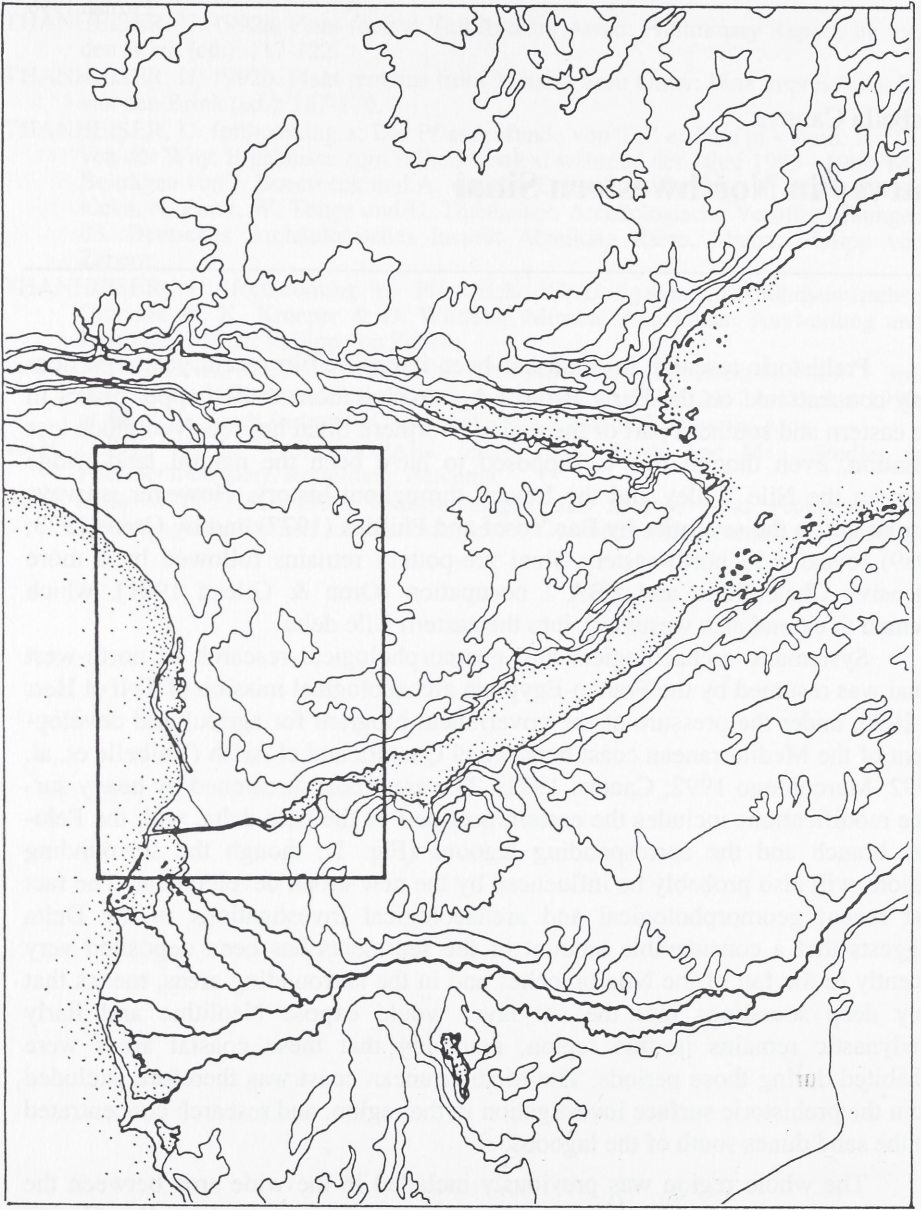


Fig. 1. The Delta and the Sinai with the research area marked in Fig. 2

and east of zone T of the Israeli network. Our first intervention was made in the proximity of zone H (Fig. 2), in which no Predynastic sites were recorded by the Israeli expedition. This area, however, had provided at the beginning of the century one of the richest Protodynastic findings, probably remnants of grave goods, which included a number of complete jars, but whose context was never found (Clédat 1914).

In the first phase, an area of about 20 square km was explored, including area H, east of the main road connecting the coast with the southern hinterland. The landscape here consists of active sand dune structures which, with the exception of the small depressions between the dunes which contain either scattered wild bushes or planted palm trees, have almost no vegetation whatsoever. The region is now only seasonally inhabited by Beduins who go there from the new villages along the coast, where they are now settling, during transhumance or when dealing with the cultivation of the date palms. The dunes are huge barriers of fine sand, up to 20 m high and more than 100 m long, which follow each other in an endless undulation of the surface with a north-west south-east orientation.

The use of a car in this morphological situation was difficult and dangerous. The use of a camel was a great improvement, but most of the survey was carried out by walking into the dunes from different points of the main east-west and north-south roads, which served as important reference points.

Potsherds were found scattered almost everywhere, especially in the flat interdune spaces, but only in a few cases were concentrations of archaeological materials consistent enough to suggest the presence of a more or less permanent village. The dispersion of the objects in most cases would be more indicative of a traditionally mobile frequentation of this territory, following the needs of either a pastoral or a trade or a military model of occupation.

The poor preservation of the pottery, which in all cases was exposed on the surface of the sites which lack any archaeological deposits deeper than 2 or 3 cm, made the cultural attribution of these remains a very difficult task. The majority of the findings consisted of a red burnished pottery that could be dated to the Greek-Roman period. Byzantine and Early Islamic sites were also frequent and were the only ones that abundance and variety in the findings on the surface, including metal and glass objects. This might reflect the existence of a certain kind of stable settlement which probably represents the first permanent occupation of the territory. These periods are well documented by more impressive urban sites and monuments along the coast. Strangely enough, pottery belonging to the Egyptian dynastic periods was totally absent, in spite of the massive presence of dynastic settlements and fortified cities only a few km apart on the coast. This would suggest that the occupation of the desert hinterland in the course of history depended on military or economic strategies which changed through time. Predynastic sites were also absent in this area. A feature common to all the periods represented was that the remains of occupation were always found in the flat interdune valleys, suggesting that this occupation model offered

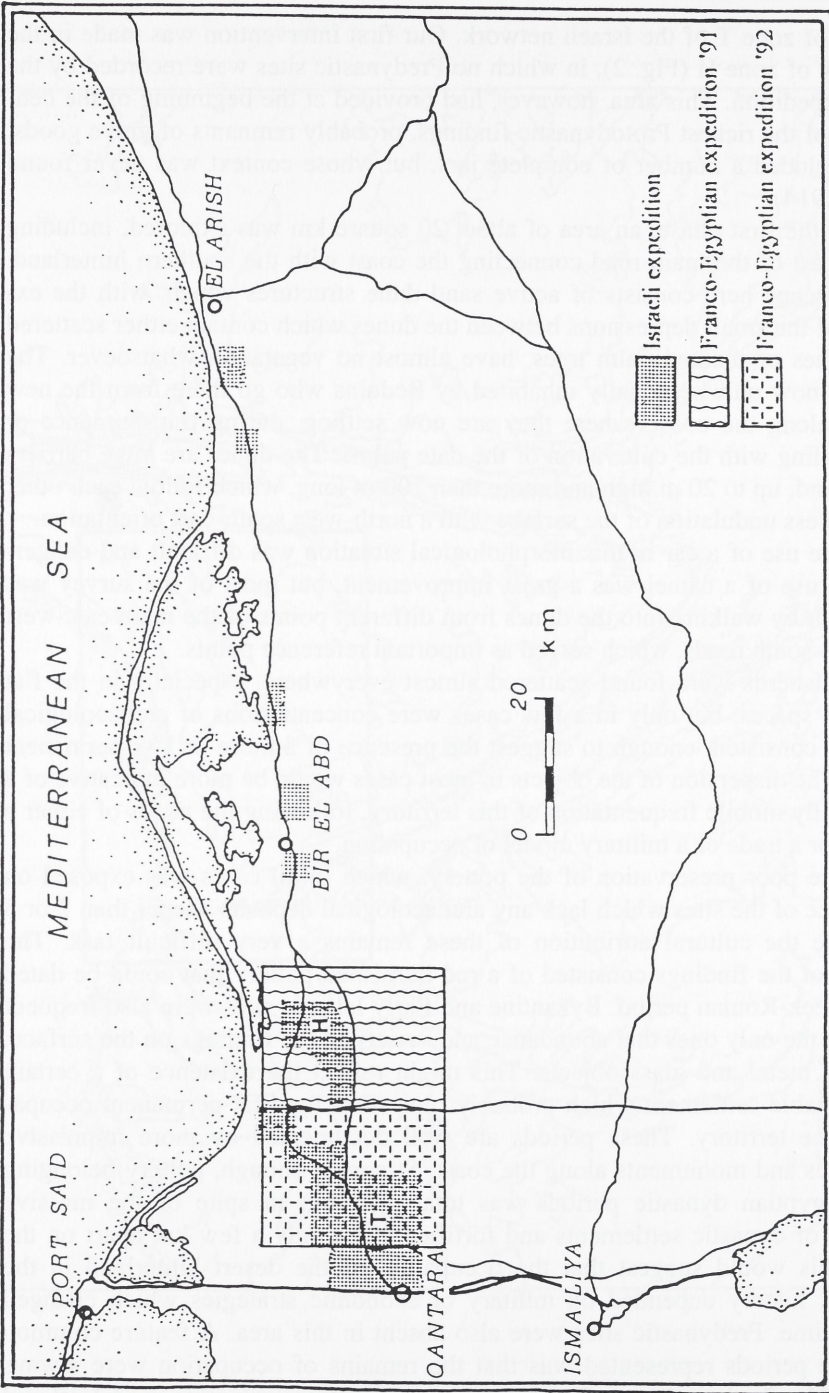


Fig. 2. The research area in the Northwestern Sinai.

advantages that were shared by all these people through the ages, such as the water reservoir and shelter against the prevailing winds. These advantages also seem to be important today for the cultivation of the date palms, which are usually planted in the depression along the north-eastern slope of the dunes, even if sometimes the trees are gradually buried by the displacement of sand.

These observations also suggest that the general morphology of the dunes has not radically changed during the last two millennia. In this perspective, it seemed likely that the total absence of prehistoric sites in the area explored in 1991 was to be ascribed to an occupation model established in a different geomorphological situation which might have been hidden later by the more recent dune structures. The geomorphological analysis, in fact, revealed that fossil dune formations oriented orthogonally to the active ones were still exposed west of zone H. This area, labelled zone T, was partially explored by the Israeli expedition, which reported the existence there of predynastic remains. It is in the spaces between zone T and zone H, and partially in the zone T itself, that our research concentrated in 1992.

Twelve new sites were found, all located in the interdune depressions, with the same location as in the other areas. The sites, however, were better preserved owing to the fact that the valleys are facing a different orientation, which means that the dunes present their profile and not their face to the wind. Instead of being slowly buried, the interdune valleys were deflated by constant wind action. Consequently, not only was a higher concentration of archaeological materials visible, but traces of older dune formations also appeared beneath, bearing what appeared to be the earliest pottery found in the region. A provisional attribution to the Ptolemaic, Byzantine and Islamic periods was made for the materials collected on the surface. Once again, Egyptian Predynastic or Palestinian Early Bronze Age materials were not found even on the oldest dune systems or in the sites already explored by the Israeli expedition.

Conclusion

The results of the new exploration in this region can be summarised as follows:

1. The hinterland of the western Mediterranean coast of Sinai includes areas characterised by different geomorphological formations. These differences, which now affect the visibility of the sites, might also have influenced the choice of human settlements in the past.
2. The formation of the new dune system probably dates back to the beginning of this era, since no earlier archaeological materials were found between these dunes, which were probably slightly displaced through the following two millennia. Only the Islamic sites appeared still to be *in situ*, whereas the earlier remains were more widely scattered on the sandy surface.
3. The human occupation of this region seems to have always been of a seasonal type. It was never concentrated in permanent villages, whose structural remains

and habitation debris would, despite the erosion, still be visible; this is the case with both the Islamic sites in this area and the large Predynastic sites at the edge of the desert, such as Maadi.

4. Unlike the coastal regions, which were scattered with important Pharaonic sites, this area appears to have been extensively occupied only from the Ptolemaic period onward. As for the Predynastic period, no sites seem to have existed in this territory despite the evidence of cultural and economic contacts between the Nile valley and southern Palestine in the 4th millennium B.C. provided by the archaeological documentation in both areas. These contacts are related to the explosion of foreign trade relations which characterise the beginning of urbanisation in these areas, as they do throughout the Near East. However, the nature of these relation and the routes and intermediaries of the trade network established between the two areas are still a subject for speculation.

It is possible that part of the rough undatable pottery found during our survey belongs to that period, having been produced by local people. The local cultures, which might have played an important role in the relations between Egypt and Palestine, have never been defined. Pastoral groups, usually difficult to define archaeologically, may have inhabited the desert in a more consistent way than they do at present and may well have had a role in the transport of goods through this harsh territory, as well as in its military occupation during the Pharaonic period.

At any rate, materials belonging to either the Egyptian Predynastic or the EBA of Palestine were not found here in their diagnostic form as they were east of our concession area. The presence of a local contemporary culture, with different pottery, is possible, but its definition does not help in the reconstruction of the external expansion of the emerging urban societies in Egypt and Palestine. The picture of the overland route between the two areas should therefore now take this gap into account.

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