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A N N U A L O F T H E M U S E U M
O F A R T A N D A R C H A E O L O G Y

The Naukratis Project: 1982



1. Core-drilling at
Naukratis: Area 316.

During the summer of 1982, the Naukratis Project conducted its fourth season of archaeological excavation and survey in a 30 km. area to the north and west of the ancient city of Naukratis (modern Kom Ge'if) in the western Nile Delta.¹

Work at Naukratis itself was again concentrated on the South Mound where previous seasons of excavation have produced extensive remains of the Ptolemaic period² but nothing of the Archaic Greek architecture claimed to have been found in this area by Petrie. To date, ten Ptolemaic building phases (or sub-phases) have been identified in the South Mound above the modern level of ground water which has risen significantly since Petrie's excavations in the 19th century.

Clarification of the situation below the present water table was achieved by core-drilling in Area 316 (Fig. 1) which had been excavated to ground water at 4.0 m. above sea level during the 1981 season.³ Although a large portion of this area had been damaged by local farmers during the winter of 1981-82, the original south baulk of the previously back-filled square was re-located, enabling the profile produced from the core to be added below the stratigraphic sequence determined in the 4.0 x 4.0 m. square of the 1981 season.⁴

Sherds and "micro-sherds" were among the inclusions found in the various soil matrices above sea level, but none of these sherds appeared—by their fabrics—to be different from the Ptolemaic repertoire previously encountered on the mound. Ceramic inclusions abruptly ceased to appear in the core at sea level where a grayish, silty mud was encountered. The soil became sandier below sea level and was still being described by the project's geologist as "muddy, coarse sand" when the operation was terminated at ca. 0.60 m. below sea level (Fig. 2). Such muddy, coarse sand is thought to be indicative of a large, moving body of water which suggests that the Canopic branch of the Nile, or a substantial relative of it, once flowed through the area presently occupied by the South Mound. If our interpretation of the ceramic material from the core is correct (i.e. nothing pre-Ptolemaic) this would greatly support Hogarth's contention—after his own excavations at the site—that "there is nothing answering to the Hellenion in this part of the mounds, but no Great Temenos at all."⁵

Such a conclusion is admittedly harsh, but it should be noted that nowhere in his excavations of the southern end of the city of Naukratis could Hogarth find walls more than a third of the thickness claimed by Petrie for his sixth century B.C. Great Temenos. In fact, the walls that Hogarth did uncover appeared to him to have the "character of a



2. Examination of soil from core-drilling in Area 316.



3. *Preparation for excavation at Kom Hadid, view from the southwest.*

dwelling house,"⁶ which is basically what the present excavations have revealed in about 6.0 m. of vertical deposit in the South Mound.

Work was also initiated at neighboring Kom Hadid (Fig. 3), located to the east of the lake which fills the depression left by the 19th century Naukratis excavations. Kom Hadid was initially studied by the project during the winter of 1977-78 when it was identified as the site of one of the 8 to 10 foot high "slag heaps" recorded, but evidently not excavated, by Petrie.

In connection with these heaps of slag Petrie mentions "large substructures of red baked Roman brick, some chambers of which show many successive coats of painted frescoes,"⁷ but no evidence of these rooms was visible during either the general area survey of 1977-78 or the intensive survey of Naukratis and its environs in 1980 and 1981.

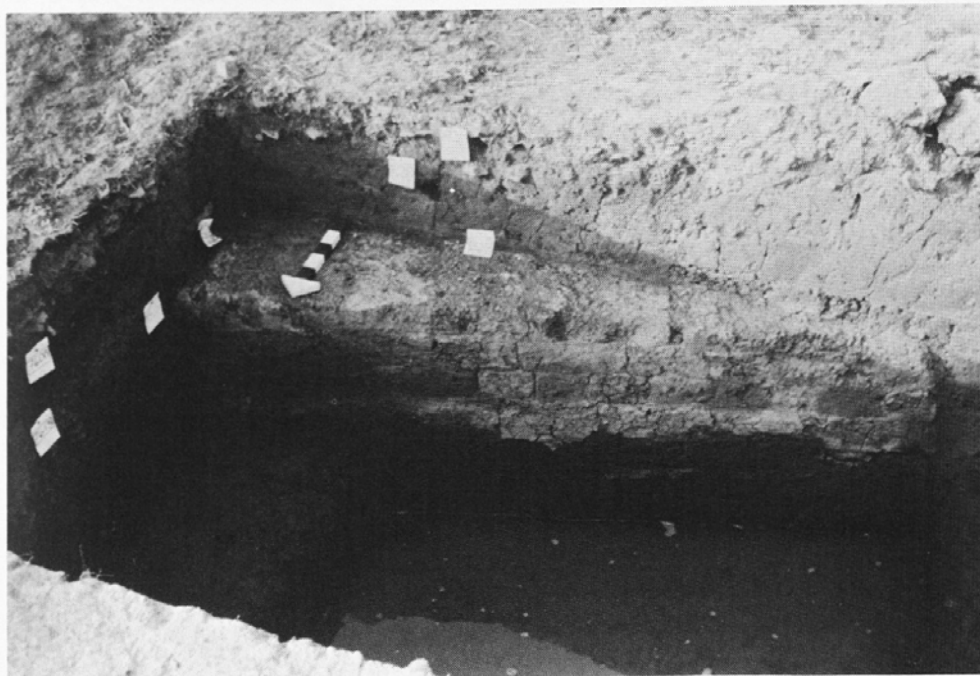
In an attempt to identify the source of the tremendous quantity of "slag" on the present surface as well as to clarify Petrie's reference to the frescoed brick chambers, six (4.0 x 4.0 m.) squares were opened at Kom Hadid during the 1982 season. When, however, a major mudbrick wall was encountered in Area 76 (Fig. 4), logistics, and the temporal limitations of the season, forced our work to be concentrated in three areas where this 1.70 m. wide wall was excavated to a length of over 9.0 m. Finds from loci sealed by the collapse of the wall

suggest that the building of which it formed a part had originally been decorated with a pebble mosaic floor and walls decorated with red and gray marble veneer in a technique similar to the Roman *opus sectile*. Small fragments of wall plaster, some showing several phases of painted decoration, agree with Petrie's report. A small piece of limestone, carved with an "egg and dart" motif, further contributes to our impression of the decoration of the building, while a fragment of a fluted limestone column found in an upper level of Area 130 might have originally come from this building. It is unfortunate that, because of the high level of the ground water, only eight courses of this wall could be exposed, and that the original floor of the building is presently inaccessible through conventional excavation.

In addition to the size and decoration of this building, the importance of the section of ancient Naukratis preserved at Kom Hadid is attested to by the presence of imported black-glazed sherds, stamped amphora handles of East Greek origin, faience bowl fragments, lamps and pieces of terracotta figurines and plaques that were found during the excavation of less secure loci.

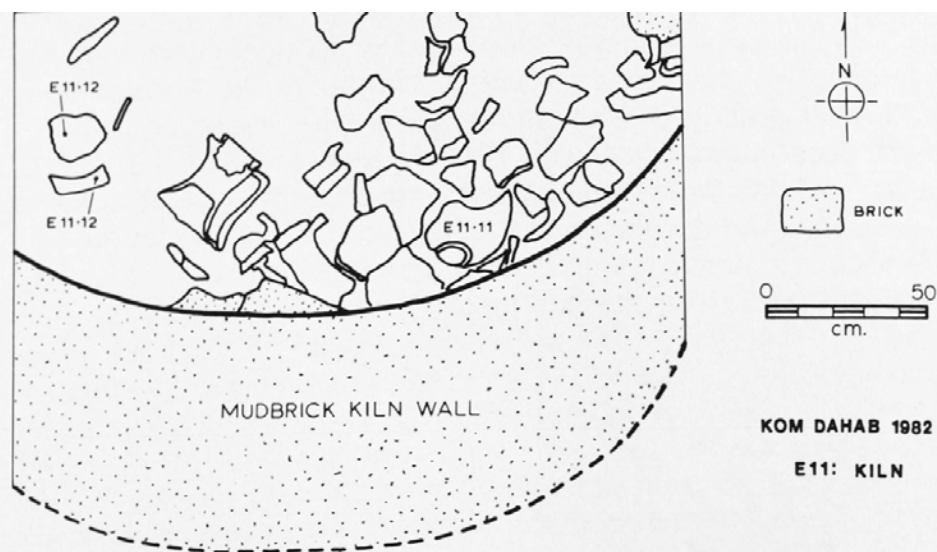
While some of the Kom Hadid ceramic forms differ, and other known shapes occur more frequently, the assemblage of domestic pottery from Kom Hadid is for the most part comparable to the Ptolemaic material from the South Mound. If Petrie was correct in attributing his "frescoed chambers" to the Roman period, which the presence of *opus sectile* might indicate, the common tableware would suggest an early date within this period.

In the survey area excavation was continued at both Kom Firin and Kom Dahab, two of the most important sites in the vicinity of Naukratis.⁸ Because of the large amount of "kiln waste" or "furnace product" encountered on the surface of Kom Dahab during the survey



4. Mudbrick wall in Area 76 with rising ground water in the foreground.

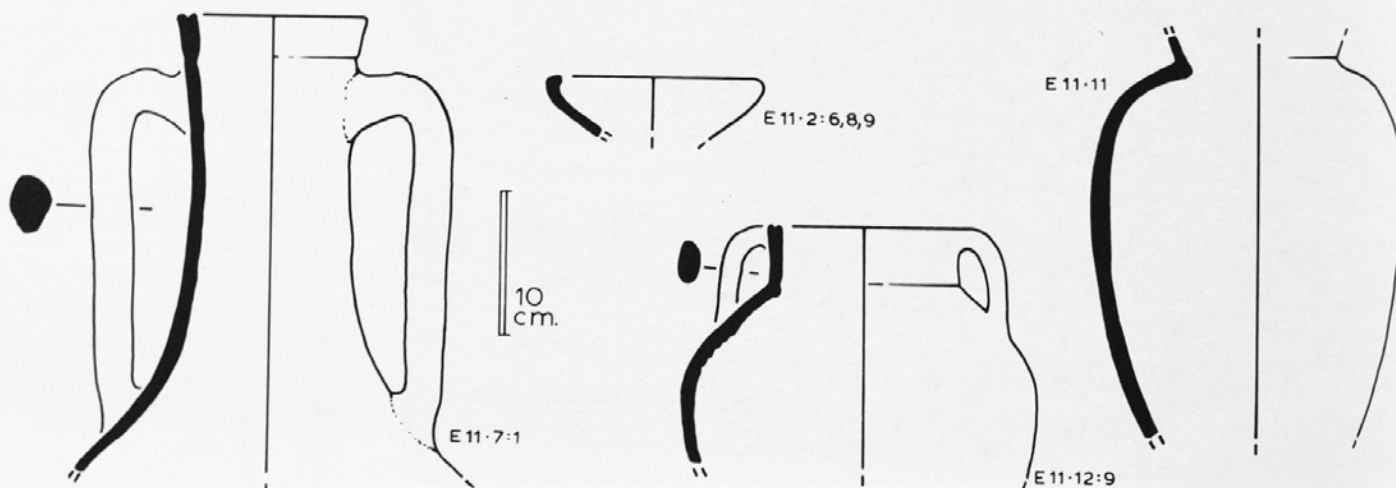
5. Kom Dahab: Trench E 11, plan of the kiln as excavated in 1982.



of 1981, and the limited number of vessel types from the excavations at the site in 1981, a magnetometer survey was conducted at one meter intervals over the eastern portion of the site during the 1982 season in an attempt to determine whether or not a kiln was located there.⁹ The normal value of the magnetic intensity at Kom Dahab was about 42,980 gamma; but, near the southeast corner of the mound in grid E11 there was a strong anomaly with a maximum value of 43,070 gamma, typical for the strength of an anomaly from a structure.¹⁰ A 2.0 x 2.0 m. square was opened, centered over the anomaly, and approximately 0.10 m. below the surface a circular line of baked mudbrick forming the inner surface of a kiln wall appeared (Fig. 5). Since the kiln was constructed of unbaked mudbricks, it was difficult to delineate the exterior surface of the wall exactly; but, based on our preliminary investigations, it seems that the kiln should have an interior diameter of approximately 3.10 m. and a wall about 0.70 m. thick.¹¹

6. Kom Dahab: Trench E 11, ceramics from inside and outside the kiln.

Approximately 0.90 m. below the surface the first partially intact vessels were encountered inside the kiln (Fig. 6). These were amphorae of the types found previously, although to date only necks,



shoulders and handles have been excavated. Several large amphora fragments along with a number of incurved-rim bowls were also recovered from a thick ash layer outside the kiln.

In an effort to interpret the evidence from the kiln at Kom Dahab, a visit was paid to a modern potters' workshop at nearby Gazayer Isa. This workshop has been in existence for 150 years and has remained within the same family for the entire time. Inspection of the kilns at the workshop suggested that the ancient example at Kom Dahab was probably constructed in a similar manner: of mudbrick, circular in shape, with a furnace chamber beneath the floor, and an open roof which was covered during firing. The modern kilns are about 4.0 m. in diameter. Although the pottery from the 1982 excavations at Kom Dahab has not been thoroughly studied, it appears that the kiln should be dated to the late Ptolemaic or early Roman imperial period.

The 1983 season of archaeological exploration in the Naukratis region will essentially be a study season in which limited excavation will be combined with a thorough study of the artifacts produced by the past three seasons of work at more than a dozen sites, in an attempt to understand the cultural development of a neglected historical period in a little-studied part of Egypt.

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²See W. D. E. Coulson and A. Leonard, Jr., *Cities of the Delta 1, Naukratis* (Malibu 1981) 18-44; "Investigations at Naukratis and Environs, 1980 and 1981," *American Journal of Archaeology* 86 (1982) 366-371. These reports contain the appropriate maps, plans and ceramic profiles for the South Mound. This information appears, in an abbreviated form, in *Muse* 15 (1981) 39-45.

³For the results of the excavation of Area 316, cf. *Muse* 15 (1981) 42-44.

⁴The program of core drilling was conducted by Dr. John Gifford of the Archaeometry Laboratory, University of Minnesota-Duluth.

⁵D. G. Hogarth, H. L. Lorimer and C. C. Edgar, "Naukratis 1903," *Journal of Hellenic Studies* 25 (1905) 111-112.

⁶Hogarth, *op. cit.*

⁷W. M. F. Petrie, *Naukratis I* (London 1886) 10.

⁸For a map of the survey area, see Coulson and Leonard, *AJA* 86 (1982) ill. 2.

⁹The work at Kom Dahab was conducted by Professor Nancy Wilkie of Carleton College, Northfield, Minnesota. For a plan of Kom Dahab, see Coulson and Leonard, *Cities of the Delta*, fig. 37.

¹⁰M. Aitken, "Magnetic Location," in B. Brothwell and E. Higgs (eds.), *Science in Archaeology* (London 1969) 692.

¹¹A group of kilns of the Ptolemaic to early Roman periods has been excavated at Tell el-Fara'in, but none was as large as the kiln at Kom Dahab. Cf. *Journal of Egyptian Archaeology* 53 (1967) 149-155; 55 (1969) 23-30.

about the authors

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