MVSE

## Excavations in the South Mound at Naukratis: 1981

IIn 1883 the ancient city of Naukratis was identified with the Egyptian village of Kom Ge'if by the patriarch of British archaeology, Sir William Flinders Petrie. ${ }^{1}$ Subsequent excavation by $\mathrm{Pe}-$ trie and other archaeologists at the end of the nineteenth century ${ }^{2}$ succeeded in uncovering much of the Archaic (7th-6th century B.c.) city which, according to Herodotus, was the only emporium in Egypt to which the early Greek merchants could bring their wares. ${ }^{3}$ While the work of these early excavators did much to increase our knowledge of the early phases of the history of Naukratis, it also raised many questions, and in an attempt to answer these questions the Naukratis Project was conceived. ${ }^{4}$ This project, which includes archaeological survey and excavation at more than a dozen sites in a 25 kilometer area to the north and west of Cairo (Fig. 1), utilizes archaeological techniques developed after Petrie's time. By using a wide range of support disciplines not normally integrated into nineteenth century archaeological research, the excavators are endeavoring to place Naukratis and its environs in their total chronological, historical and ecological perspective. The following report deals with but a single facet of the work conducted by the Naukratis Project during the 1981 season: the excavations in the South Mound at Naukratis (Fig. 2).

The 1981 program of excavation at Naukratis was the direct continuation of the work initiated during the 1980 season $^{5}$ when preliminary testing of the western end of the South Mound indicated a succession of building phases dateable to the Ptolemaic and/or early Roman period (4th C. B.C.-A.D. 1st c.). Because these historical epochs were only briefly noted by Petrie and his successors, and because the South Mound is located in the area in which Petrie claimed to


1. Map of the Nile Delta showing area under study by the Naukratis Project.
have excavated the Great Temenos (Fig. 3) which he identified with the Pan-hellenic sanctuary of the Archaic period, emphasis during the 1981 season was placed on horizontal exposure of architectural features. Accordingly, excavation was conducted in four major areas of the South Mound (Fig. 4): 12 and 15 along the southern flanks; 66 and 88 in the northeast corner; 315 and 316 at the base of the northern face; and 491, 492 and 502 on the high western summit of the mound directly above the small probes excavated in 1980.
2. Aerial view of the South Mound.
3. Composite plan showing the perimeter of the lake formed in the depression left by Petrie's excavations, and the location of the South Mound within Petrie's "Great Temenos."


4. Plan of the South Mound, showing the areas tested during the 1981 season.

## Areas 12 and 15

Areas 12 and 15 are two, four-meter squares that exhibit the same basic stratigraphy: the severely disturbed remains of a nineteenth century Islamic cemetery just below the surface, and a series of intact burials of similar date cut into, or built upon, a thick layer of detritus from a substantial mudbrick structure whose founding level is well below the present level of ground water.

The lower, intact stratum of Islamic burials consisted predominantly of children who lay on their right sides with their heads to the west, facing the holy city of Mecca. Sophistication in tomb construction varied widely from simple, disarticulated clusters of bones dug into windborne sediment and detritus levels, to fairly substantial mudbrick tombs. Separating these tombs from the earlier structure below is a series of detritus loci, formed by the collapse and
subsequent erosion of the upper portions of the structure. The northern or southern faces of this wall could not be excavated because of the superimposition of the later tombs, but enough was uncovered to define it as a nineteen-meter (east-west) wall with a minimum width of three meters. It is preserved to a height of over one meter but its founding level could not be determined since it is, at present, below the modern water table.

Ceramic inclusions were relatively frequent in the mudbricks of both walls and their detritus but unfortunately were usually morphologically non-diagnostic. Vessel forms which could be determined, as well as the fabrics of the smaller fragments, agree with the pottery excavated during the 1980 season and suggest a Ptolemaic date for the structure.

The presence of disturbed and undisturbed tombs in Areas 12 and 15 casts considerable doubt on some of the statements made by Petrie
concerning his excavations in the southern limits of the city. Although he noted the existence of an Arabic cemetery over a portion of the Great Temenos area when he arrived at Kom Ge'if, he also claimed to have financed the transfer of the contents of these graves to two large, communal tombs which subsequently allowed him to "clear all the chambers" of the Archaic structure. ${ }^{6}$ The empty tombs discovered just below the surface at first seemed to agree with Petrie's description and offered the hope of reinvestigating the early architecture cleared by Petrie in 1884 . The lower stratum of intact burials, however, dashed these hopes and appear at this stage of our research to confirm some of the doubts raised by Hogarth after his excavations at Naukratis in 1903, as to just how much of the southern portion of the site was actually investigated by Petrie. ${ }^{7}$ The 1981 excavations below these tombs, however, have presented us with a good indication of the scale of the building program pursued by the Ptolemaic architects, for if the mudbrick walls exposed in Areas 12 and 15 do indicate elements of a single architectural unit it would be a minimum of nineteen meters on one side with walls at least three meters thick.

Further clearance had been planned for the Ptolemaic architecture in Areas 12 and 15, as well as in Areas 66 and 88, but the articulation and photographic recording of the later skeletons so disturbed the people of the village that midway through the season we were prohibited from continuing excavations in this part of the mound. Subsequently we shifted the focus of our work to the base of the northern limits of the South Mound where deep cuttings made by local farmers had reduced the area to a level well below that of the ubiquitous nineteenth century cemetery. The selection of this area proved to be
fortuitous for we were rewarded with our first opportunity to obtain horizontal exposure of Ptolemaic mudbrick architecture without the problems presented by the intense covering of later tombs.

## Areas 315 and 316

After the initial clearing and cleaning of this area, the recent cuts of the villagers were regularized into a nine-meter balk running east-west, to the north of which two four-meter squares (Areas 315 on the east and 316 on the west) were laid out between the northern edge of the mound and a small pathway (Fig. 5). Two stratigraphically distinct architectural phases were detected in these two squares: an upper stratum which can be correlated in both squares and a lower stratum observable only in Area 316.

The lower stratum consists of two parallel mudbrick walls oriented approximately northsouth, indicated by bold lines in Figure 6. Between these walls was a $5-10 \mathrm{~cm}$. thick floor apparently of detritus origin, but including small ceramic fragments, pieces of kiln waste and bits of charcoal evenly distributed throughout the matrix. This surface and its related walls had been built upon a considerable fill (over 30 cm . before ground water was reached) which was rich in pottery that can be dated to the Ptolemaic period, thus offering a terminus post quem for the sequence of architecture in these two squares.

The upper stratum is architecturally more extensive than its predecessor. The major structural features consist of an east-west mudbrick wall indicated by light lines in Figure 6, with a possible doorway at its eastern end. A northsouth wall is bonded into the main wall in Area 316 while a parallel wall abuts the main wall in

5. Area 315 (on the left) and Area 316, seen from the north.

7. Simplified top plan of the probes at the western end of the South Mound.


Area 315 about 10 cm . above its founding level, thus indicating at least one phase of remodeling of the structure. To be associated with this complex is another wall which is the logical extension (westward) of the main wall. It is represented on the plan by a segmented line because, although it is evident in the west balk in Area 316, it never appeared as a distinct archaeological entity during the excavation of the square itself. The line and direction of the north-south wall which must have joined it was touched upon only during the final days of the excavation and its individual mudbricks were not distinguishable at the level to which it was excavated. Its founding level, however, agrees well with that of the western end of the main wall and must, therefore, be contemporary with the earlier sub-phase of the upper stratum structure.

The date of the pottery associated with the main upper stratum architecture is, as we have seen in all other areas so far discussed, purely

Ptolemaic with its best parallels in the Chatby and Hadra cemeteries in Alexandria, and in various contexts in Syria-Palestine dating to the third to first centuries B.C. ${ }^{8}$

## Areas 491, 492 and 502

These three squares are located above the two small soundings made during the 1980 season (Fig. 7). In fact, Area 492 is the eastern extension of the 1980 Area 1, but at a higher level, and was dug this year in order to provide some horizontal exposure to the vertical sequence established during the initial season of excavation.

The major architectural elements in these three squares are an east-west wall in Area 502 which can be traced on the surface to the extent shown on the plan; a parallel wall shown at the extreme south of Area 492, and a north-south wall which connects the western end of these

8. Some of the ceramic vessel forms from Areas 491, 492 and 502.
two walls. To the primary walls three, evidently sequential, north-south walls had been added, which can be seen in Areas 492 and 491. Based on the top levels of all of these walls, they appear to have continued in use as each additional wall was built and respective floor added.

The ceramic material found in and below each of the floors of the various phases of this structure is purely Ptolemaic (Fig. 8) with many parallels in both shape and fabric to the third to first century B.C. pottery found in other areas of the South Mound.

The 1981 season of excavation in the South Mound at Naukratis/Kom Ge'if has continued to illustrate the extensive and intensive Ptolemaic building activity in the southern part of the city, and has shown that remains of the earlier periods of the city's history-if they ever existed in this area-are presently lost below the rising ground water. Succeeding seasons of excavation will concentrate on the area north and northeast of the lake formed in the depression left by the excavations of Petrie and his successors in hopes of finding more evidence of the Archaic city which made this Greek outpost in Egypt such a truly unique settlement.

ALBERT LEONARD, JR. University of Missouri-Columbia

WILLIAM D. E. COULSON<br>University of Minnesota

${ }^{1}$ W. M. F. Petrie, Naukratis I (London 1886).
${ }^{2}$ E. A. Gardner, Naukratis II (London 1888); D. C. Hogarth, "Excavations at Naukratis," Annual of the British School at Athens 5 (1889-90) 26-97; and D. C. Hogarth, H. L. Lorimer and C. C. Edgar, "Naukratis 1903," Journal of Hellenic Studies 25 (1905) 105-36.
${ }^{3}$ History 2.97, 178.
${ }^{4}$ The Naukratis Project is co-directed by Professor W. D. E. Coulson of the University of Minnesota and the author, the former having specific control over the survey and sounding of the environs of Naukratis, the latter being in charge of the excavations at Naukratis (Kom Ge'if) itself. Reports of the initial, 1977-78 season appeared in the Newsletter of the American Research Center in Egypt 103 (Winter 1977-78) 12-26, and Journal of Field Archaeology 6 (1979) 151-68. Publications on the 1980 season appear below in note 5 .

The 1981 season was funded by a matching grant from the National Endowment for the Humanities with matching funds provided by the Social Sciences/Humanities Research Council of Canada and private individuals and groups, with additional monies provided by academic institutions in the state of Minnesota, especially the Graduate School of the University. The Naukratis Project wishes to thank the Museum of Art and Archaeology, University of Missouri, for its support of the 1981 season.
${ }^{5}$ W. D. E. Coulson and A. Leonard, Jr., "Naukratis 1980," Newsletter of the American Research Center in Egypt 112 (Fall 1980) 49-50; and W. D. E. Coulson and A. Leonard, Jr., Cities of the Delta, fasc. 1, Naukratis (Malibu 1981).
${ }^{6}$ W. M. F. Petrie, Naukratis I, 34.
${ }^{7}$ D. C. Hogarth, Journal of Hellenic Studies 25 (1905) 111-12.
${ }^{8}$ Hadra Cemetery-Rue d'Aboukir: A. Adriani, Annuaire du musée greco-romain 2 (1935-9) 81, fig. 40 (hereafter abbreviated as $A M G R$ ); Ezbet el-Makhlour: ibid. 117, fig. 53; el-Manara: Adriani, AMGR 3 (1940-50) 26, fig. 21. See also Kom el-Nougous, ibid. 142, fig. 70. For the Syro-Palestinian parallels, cf. P. W. Lapp, Palestinian Ceramic Chronology: 200 B.C.-A.D. 70 (New Haven 1961).

## ABOUT THE AUTHORS

WILLIAM BIERS, Professor of Classical Archaeology in the Department of Art History and Archaeology at the University of Missouri-Columbia, has excavated extensively in Turkey, Israel, Greece and now Portugal, and is a frequent contributor to Muse (see volumes 5, 6, 7 and 13). His book, The Archaeology of Greece, published by Cornell University Press, is a standard text for university students in archaeology.

JOSE CAEIRO is a member of the Archaeological Service of the Southern Zone of Portugal and teaches at the University of Evora. Specializing in Roman Provincial archaeology, he has excavated extensively in Portugal.

CANDACE CLEMENTS received her B.A. In Art and French from Austin College, Texas, and has just completed her M.A. in Art History at the University of Missouri-Columbia with a thesis on the 1762 edition of the Contes of La Fontaine. At present she holds a curatorial internship at the Joslyn Art Museum in Omaha, Nebraska, and recently received a fellowship to pursue doctoral studies at Yale.

WILLIAM COULSON is Associate Professor of Classics and Classical Archaeology at the University of Minnesota where he has taught since 1968. He received his Ph.D. degree from Princeton University and has worked as a senior staff member on excavations at Nichosia (Greece) and Tel Mikhal (Israel). He is at present co-director of the Naukratis excavations and of the Kavousi Project in East Crete.

MARIO DEL CHIARO is Professor of Art History at the University of California-Santa Barbara. A member of Phi Beta Kappa, he received his Ph.D. from the University of Cali-fornia-Berkeley in 1956. He has participated in archaeological excavations in Turkey, Yugoslavia, Italy and Sicily and directed the University of California-Santa Barbara excavations at Ghiaccio Forte, Tuscany. He has written numerous articles and reviews, is author of two books on Etruscan red-figured pottery and is currently preparing a Guide to Italic and Etruscan Art in United States Public Collections.

SHARON HERBERT is Associate Professor of Classical Archaeology and Research curator of the Kelsey Museum, University of Michigan and is a graduate of Stanford. She is co-principal investigator of the excavations at Tel Anafa. Her previous reports have appeared in Muse 12, 13 and 14.

ALBERT LEONARD, JR. is Associate Professor in the Department of Art History and Archaeology at the University of Missouri-Columbia. With a Ph.D. in 1976 from the University of Chicago, he has been director or co-principal investigator of archaeological investigations in Greece, Italy and Jordan, and is currently co-director of the Naukratis excavations in Egypt.

NANCY B. REED is Associate Professor of Classical Art and Archaeology at Texas Tech University in Lubbock. While her excavation experience has encompassed Greece, Texas, and most recently Florida, her primary research interests are in the Greek Orientalizing period and Cretan Daedalic art.

DAVID SOREN is Chairman of the Art History and Archaeology Department at the University of Missouri-Columbia. "Search for Apollo," a film produced by the University under the direction of David McAllister about the Kourion excavations on Cyprus where Soren has been co-director (see Muse 14), has won a number of awards: the Ciné International Golden Eagle; two Angenieux awards from Industrial Photography Magazine and the Midwestern Regional Case Award. Soren's first volume on the excavations at Kourion is being published by the University of Pennsylvania Museum. He has also excavated at several sites in Tunisia.

