

## NOTIZIARIO ARCHEOLOGICO

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## THE TWENTIETH CAMPAIGN AT SARDIS, 1977

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The twentieth field season of the Sardis Expedition (June 23 - September 5, 1977) was managed by a staff of eighteen: Professor David Mitten (Harvard) was associate director; Professor Andrew Ramage (Cornell) was assistant director; the undersigned was field director.

*Urban Survey Project.* The aim of this project is to record systematically the site's surface remains and geological features (which represent a considerable asset of unexploited and readily accessible topographical evidence) and to use the data thereby gained, together with that from limited sub-surface sampling, to clarify problems of urban topography (notably Sardis' changing nuclei and boundaries through history). Eric Freedman (University of California at Berkeley), who conducted a pilot study for the project in 1976, was joined this season by Professor Eugene Sterud (SUNY Binghamton) and Mark Clymer, who loaned and operated an electronic transit (Hewlett-Packard 3801A, modified) capable of measuring automatically and with great precision horizontal, vertical and slope distances (as well as zenith and horizontal angles). Within fifty working hours, this team recorded nearly 100 acres of complex terrain in two important regions of Sardis; and Clymer has produced both hand-drawn and computer-printed maps with one-meter contour intervals.

*Excavation: Tomb of Chrysanthios.* Priority in the season's excavation program had been reserved for the Late Roman underground tomb, a rectangular barrel-vaulted chamber having well-preserved painted decoration on plastered wall and ceiling surfaces, which Professor Mitten and Freedman had discovered in 1976. We had thought the tomb held no further surprises for us this year, but careful cleaning and consolidation of the murals by Professor Lawrence Majewski (director, New York University Institute of Fine Arts Conservation Center) and his student, Carlie Cleveland, revealed unsuspected richness in the colors and no less than three painted inscriptions (in addition to the one known from 1976; exceptional in tombs of this kind, whose painted decoration rarely includes written texts), all concerned with the tomb's builder and owner, one Flavious Chrysanthios, a high salaried official and director of the munitions factory at Sardis (Cf. C. H. Greenewalt, Jr., in M.

J. Mellink, *American Journal of Archeology* 81:3 1977, 308-310, fig. 19). One of the new inscriptions identifies Chrysanthios as a « painter from life », *zographos*, which may signify that the murals' lovely floral displays, wreaths, cornucopiae, fruit baskets, doves and peacocks were painted by none other than the exalted owner. To determine the nature of earlier occupation in that otherwise unprobed region of Sardis, Carol Harward (Fogg Art Museum) dug a sondage beneath the tomb's floor and exposed an earlier Roman inhumation grave and, below and just above bedrock, the remains of a Lydian house (with walls, hearth and brazier *in situ*, trays for baking) of the seventh or sixth century B. C.

For technical reasons, it proved impossible to remove the painting (for display in the Manisa Museum); but the decoration is now well recorded in black and white and color photographs by Elizabeth Gombosi (Fogg Art Museum) and water color renderings by Majewski. Although closed and reburied for security reasons at the end of the season, the tomb remains accessible by special arrangement.

*Excavation: Lydian tumulus tomb.* A tomb of the Lydian period was excavated by Judson Harward (Harvard) and Carol Harward. Exposed masonry of this monument, located in another unprobed region of the site, had come to our attention in 1976 as a result of Freedman's urban survey work. The structure proved to be a fairly typical Lydian *tumulus* or funeral barrow sepulchre, consisting of burial chamber, built of neatly cut and jointed limestone blocks and containing a pair of well preserved limestone couches; and an entrance corridor (*dromos*) with walls of roughly hewn stone. Design and construction show certain slight peculiarities and deviations from the norm which call for study and explanation. Of the original interment(s), nothing remained. The tomb had been reused for burial in Hellenistic and Roman times, from which it retained much pottery (some with painted texts, presumably funerary) and terracotta figurines (a zebu and a herm, or votive pillar of Hermes). Sondages in chamber and entrance corridor revealed that the tomb rested on eight feet of earthy debris; just above bedrock were walls (one preserved to a height of five feet) and pottery remains of the Lydian period, seventh or sixth century B. C.

*Excavation: « Northeast Wadi ».* Judson Harward reopened excavation in the torrent bed northeast of the Artemis Temple, « Northeast Wadi », which in 1969 and 1914 had yielded much Lydian material of high quality and interest (Archaeological Exploration of Sardis Report 1, *A Survey of Sardis and the Major Monuments Outside the City Walls*, 1975, 118-125). Although severely curtailed as a consequence of *Ramazan*, the Moslem month of fasting, excavation yielded further remains of Lydian domestic architecture (including a well preserved quadrilateral cellar) and Lydian painted pottery of unusually wide variety, including a fragment of the unique «Horseman Vase», recovered in 1914 and later published by Professor George M. A. Hanfmann, and notable for its richly colored relief decoration and rare transitional Geometric-to-Orientalizing decorative style.

*Excavation: monumental Lydian structure.* By far the most significant monument investigated in 1977 is a massive structure of the Lydian period (probably seventh century B. C.) constructed of mud brick on a stone sockle: the brick construction survives to a maximum height of six meters and displays some forty courses; the sockle has a stepped face of rough ashlar masonry crowning a *glacis* of roughly trimmed stones. The construction appears to be solid for a distance of fifteen meters. The purpose which this structure served is not yet clear; a fortification wall or gate seem likely possibilities.

The structure is located in, and is the substance of, a hillock close to the Izmir-Ankara highway directly south of the antient Synagogue entrance (at ca. E 116.8-138.5/S 51-58.5 on the 'B' grid). When the hillock was partially bulldozed away in the 1950's to make way for the highway, the mud brick was exposed in section in the scarp of the surviving part of the hillock; but the bricks' identity and antiquity were not recognized until 1976 by A. Ramage.

The upper parts of the hillock scarp reveal clear evidence of post-Lydian activity above and intrusion into the Lydian structure (pits, Roman water pipes, rubble and mortar walls). The surface of the hillock (most of which is now planted in grapes), however, displays some Lydian as well as post-Lydian remains.

The Lydian structure is at present understood from remains which are exposed in the hillock scarp and in two trenches which were dug at the foot of the scarp in a roughly east-west alignment. It should be borne in mind that only one face of the structure was detected, and of that only its stone parts. All mud brick vertical planes are the result of arbitrary excavation into the interior of the structure.

The mud brick is preserved to a height of six meters and evidently comprises about forty courses of brick. Throughout most of the mud brick mass some mud

brick forms were clearly revealed by color or texture, while adjacent expanses showed no sign of individual bricks. Mud mortar also was not easy to recognize. The bricks appeared to vary considerably in size, but to have an average dimension of .50 m. by .30 m. by .12 m.; and to have a uniform, or nearly uniform orientation, either northeast-southwest or northwest-southeast (i.e., diagonal to the line of trench scarps). In several adjacent courses, vertical joints appeared to coincide.

The lower scarps of both trenches showed a series of two or three very narrow horizontal lenses of fibrous matter, often carbonized, sometimes white in color; spaced .70-.80 m. apart and above the lowest course of mud brick. In all three scarps of the sides of the west trench over the stone sockle, two lenses could be distinguished; both lenses terminated ca. .30 m. short of the top face of the stone crepis (in both north and south scarps). In places these lenses were not detected, or disappeared with persistent scraping of the scarp. The lenses may tentatively be identified as the remains of matting or rushes, laid at intervals to establish an overall bearing surface or « to ensure quick drying and to assist in preventing longitudinal cracking », as regularly done in Egypt in *Saite* times and earlier.

The surface of the stone sockle inclines gently to the west (with an altitude change of ca. .65 m. over a twelve meter distance). The top of the sockle consists of small riverine stones framing, and sometimes capping, a series of narrow channels, ca. .06 m. wide, containing woody remains. These channels presumably are the sockets of wooden timbers, which have disintegrated since antiquity. Directly beneath the small riverine stones and timber hollows is a flattish surface of larger stones, the top of a rubble packing ca. .50 m. thick (as determined by a sondage in the east trench).

To the west, the sockle terminates in a face, which consists of stepped construction in rough ashlar masonry above a sloping *glacis* of roughly trimmed stones. The stepped portion, ca. 1.25 m. high, consists of eight courses and as many steps of modest height (.12-.19 m.) and depth (.06 m.; i.e., unthinkable as functional stairs). The top of the uppermost step is flush with the surface of the sockle behind. At the foot of the stepped construction, the masonry surface is disturbed (in the very narrow space exposed); ca. .45 m. out from the lowest step, a *glacis* extends at a gradient of ca. 35 over a distance of one meter to a depth of ca. .65 m.; at that point the *glacis* appears to continue, but digging was suspended for want of time and elbow room.

Underneath the sockle (as exposed in the east trench) are the remains of one or two older struc-

tures, built of very large stone blocks, some more than .70 m. long, roughly dressed, and laid in courses. Directly underneath the bottom stones of the socle is an outside corner, three courses and ca. 1.20 m. high, with northwest and southwest faces, which disappears into the scarps. Below and supporting the corner construction is a similar construction with only one exposed face, parallel to but somewhat beyond the line of the northwest face of the corner above and extending under the corner into the scarp to the east. Although these elements may be differentiated, they could belong to one and the same structure. Outside the corner to the west and « running up to it were ca. eight layers of alternating dark (greenish) 'occupation' and lighter (yellow) sandy strata » (Ramage).

Evidence for the date of the structure is provided by diagnostic pottery fragments recovered from within the mud brick construction, within what appears to be partly disintegrated and fallen mud brick accumulated against the west side of the construction, and from debris underneath (and 'sealed' by) the stone socle. The fragments of Lydian bichrome, black-on-red, streaky-glaze, and grey wares, of an Eastern Greek type orientализing oinochoe (P77.17: 8330), Ionian cup, and Protocorinthian skyphos (P77.16: 8329, from debris underneath the socle) suggest a date in the last quarter of the seventh century for the building of the massive mud brick and stone structure.

The average lateral dimensions calculated for the mud bricks (.50 m. by .30 m.) are close to those of bricks which were known as *Lydian* to the Greeks (Vitruvius 2.3.3) and which have been recovered at Smyrna in the context of occupation which followed a conquest by Lydians: .45 m. by .30 m. Several features of design and construction also appear in Bronze and Iron Age architecture of the Near East, perhaps significantly in that of southeastern, central, and western Anatolia. The coincidence of vertical joints in adjacent mud brick courses is a feature of the core of the fortification wall at Carchemish. Layers of rushes or mats between periodic courses in mud brick construction were standard in Egyptian building, as has been remarked; and such a layer intermediate between stone socle and mud brick superstructure has been recognized in the Iron Age fortifications of Tarsus. Wooden beams laid in parallel rows between stone socle and mud brick superstructure are a feature of the circuit and citadel fortification walls at Zincirli. Stone socles of ashlar masonry with stepped outer faces also appear in the fortifications of Zincirli and in fortifications at the Phrygian site of Gordion. *Glacis* are displayed in the outer faces of Bronze Age fortifications at Troy (in stone) and Akko (Acre; in

mud brick), and in Iron Age and Classical fortifications at Pontic Ak Alan and Aeolian Yanikkoy-Neonteichos (in stone).

Too little of the structure as yet has been exposed to establish its identity. Several features, in combination or alone, suggest that it might belong to a fortification system, perhaps a tower-gate complex: size and solidity of construction; location plausible for intersection with the city of an east-west thoroughfare, and where in fact east-west routes are documented for Roman, Byzantine, Ottoman times and the present day; parallels to construction and design features, particularly the stepped face and *glacis* of the stone socle. It is also conceivable, however, that the structure might be an artificial terrace or platform (perhaps to support a monumental building; for which the remains of substantial Lydian stone sculpture and architecture recovered nearby in the Late Roman Synagogue could furnish a precedent for this part of Sardis).

« *Non-excavated* » finds. In addition to artifacts recovered in excavation, the Expedition acquired and inventoried several ancient items inadvertently (?) discovered at Sardis by local villagers. The most significant of these is a grave stele inscribed in Lydian (preserving the name of the deceased's father and the verb « to make »). It is carved in relief with a funeral banquet scene of conventional type, which includes an exceptionally charming figure of a young girl; the style suggests a date in the fourth century B. C. Noteworthy among the other 1977 « non-excavated » items are a curious example of later Roman folk art (crudely carved grave stone or votive plaque) and the grave stone of a Roman *retiarius* gladiator (who fought in the arena with net and trident).

*Research.* For the publication of the Imperial Roman Gymnasium-Bath complex, two important chapters (on building materials and techniques; and building history) were completed by Professor Fikret Yegül (University of California at Santa Barbara) partly on the basis of fresh data obtained through autopsy. For the publication of terracotta figurines by Dr. Ruth Thomas, major work in cleaning and photography was done by Elizabeth Gombosi.

*Reconstruction Project.* The aim of this project is to recreate molded and painted Lydian revetment and roof tiles (whose original visual effect in assemblage is all but impossible to appreciate from the very fragmentary remains), and to display these in an appropriate architectural context, outdoors at Sardis. Before the season began, three museums (Metropolitan Museum of Art, Louvre, Istanbul Archaeological Museum) had provided impressions or casts of tiles from Sardis in their collections, to be used in recreating facsimiles of those tile types; at Sardis, Elizabeth

Wahle (Fogg Art Museum) worked on designs for reconstructing the more problematic of those types. Eric Hostetter (Harvard) who conducted a pilot study for the project in 1976 and directed it in 1977, and Margaret Caldwell (Cornell) perfected techniques of tile reproduction (notably: a white slip, authentically made from local primary clays, which would resemble the ancient kind in color and texture and at the same time be sufficiently stable for outdoor exposure; and a drying system for the larger tiles which would not allow them to crack during water evaporation), discovering in the process much about the problems encountered in ancient tile production; and produced examples of three tile types (roof « cover » tile; pattern ornament revetment tile, pediment tile decorated with confronted rampant lions) in quantity sufficient for the reconstruction display and replacement contingency; these tiles are ready for painting

and firing in 1978. Much thought was given, by Hostetter and Wahle, to the design and location of the reconstruction; and a structure design, site, and landscaping proposal to be submitted to the Turkish Department of Antiquities and Museums was initiated (and is now in progress).

For 1978 another season of excavation and research at Sardis is planned. The program would include continuation of the Survey and Reconstruction projects and of excavation of the monumental Lydian structure(s); and, if funds permit, excavation in a potentially rewarding Lydian occupation zone (e.g., « Northeast Wadi ») and sondages to determine the extent of Lydian habitation in as yet unprobed regions of the (Roman city) site.

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