

## SARDIS: ARCHAEOLOGICAL RESEARCH AND CONSERVATION PROJECTS IN 1999

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Excavation, topographical recording, conservation, restoration, touristic enhancement, and study projects at Sardis in 1999 (early June to mid-August) were conducted by the Archaeological Exploration of Sardis, or Sardis Expedition, which is co-sponsored by the Harvard University Art Museums and Cornell University. For support, assistance, and trust as well as for fundamental permissions, the Sardis Expedition is deeply grateful to the General Directorate of Monuments and Museums, acting Director General Kenan Yurttagül and all Officers, to the Manisa Museum, Director Hasan Dedeoğlu, Officers, and Staff; and to Ministry of Culture Representative Uğur Hoşgören (Uşak Museum), Ömer Çakır, and Nurhan Ülgen (both General Directorate of Museums and Monuments, Ankara). The good advice, helpful ideas, and supportive attitude of the Representatives immeasurably contributed to the 1998 programs.

Excavation continued in the locale south of the Roman Bath-Gymnasium and Synagogue complex, where a Late Roman suburb of the 4th-7th centuries A.D. overlies Lydian defenses and houses of the 7th and 6th centuries B.C. (sectors MMS/N, MMS, MMS/S; Fig. 1).

Building phases of a Late Roman residence with twelve ground-floor rooms, excavated in previous seasons (sector MMS/S; Fig. 1) were clarified with respect to a drain under rooms P and Q, a secondary partition wall between rooms Q and O, and walls of room N). Below one of the rooms (O), excavation of pre-Roman occupation levels continued; and at end of season reached the top of an occupation stratum of the mid 6th century B.C. (which included robbed walls and deposits of destruction debris probably to be associated with the capture of Sardis by the Persians in the 540s B.C. (Fig. 2).

For the Lydian defenses, aspects of design and chronology were clarified. At the east side of the fortification wall, a U-shaped platform that fills a narrow recess in one side of the wall (sector MMS; in Fig. 1 the north end of the recess appears to the left of Late Roman rooms III and IV) was shown to be an integral part of the wall itself, since it bonds with substructure of the facade behind. As excavation in previous seasons had shown, the platform postdates strata that contain Lydian column crater fragments and a fragment of an Ionian or Attic black-glaze cup, which all may be dated to the late 7th or early 6th century B.C. The Lydian fortification wall, therefore, can be no earlier than those fragments; and so must have been built barely a generation before it was substantially destroyed in the middle of the 6th century B.C.

At the north end of this locale (sector MMS/N; immediately east of the Late Roman Synagogue east entrance; Fig. 1), excavation located the stone socle and

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more mudbrick construction above the socle, which belong to the west side of the Lydian fortification wall (Fig. 3).

Before 1999, excavation of the Lydian defenses had been confined to a stretch ca. 180 m. long (due to the inaccessibility and complexity of the defenses; sectors MMS/N, MMS, MMS/S; Figs. 1, 4). In 1999, efforts were made to locate the Lydian defense line farther away, to the north and south.

To the south, a plausible location seemed to be a ridge of the Acropolis, the lower end of which evidently carried the Lydian defenses in sectors MMS/N, MMS, and MMS/S, and the upper parts of which carry remains of the Late Roman city wall. At a location on that ridge approximately 200 m. south of sector MMS/S (sector CW32), three excavation trenches exposed parts of the wall (Figs. 4, 5). It is 10 m. wide, which is half the width of the fortification wall in sectors MMS/N, MMS, and MMS/S; there, however, a large gate in the wall and the flatter terrain on which the wall is built would have made it more vulnerable to attack.

A segment of stone socle that is exposed for the full width of the wall (Fig. 6) rests on sloping terrain and has a top surface that is stepped (down to the northwest, like the terrain; with risers ca. 0.50 m. high and 1.50-1.60 m. apart), probably to provide a more closely horizontal building surface for mudbrick or pisé construction above. The west face of the wall, which is located just inside the line of the Late Roman city wall (Fig. 5), still stands more than 7 m. high (the bottom was not located). It has a stone socle eight courses high as exposed, with a stepped face; and, above the socle coursed mudbrick. (Remains of three saplings were detected between two mudbrick courses, in a final cleaning; for sapling layers in Lydian mudbrick construction between mounds 1 and 2 on the north side of the city site, see below.)

Those exposures of Lydian fortification wall were located on the steep west side of a ridge that also has a steep east side; and their location is important evidence that this north-south line of defense, which includes the previously-explored stretch in sectors MMS/N, MMS, and MMS/S, faced west; that central Sardis in Lydian times lay to the east of that line; and that Lydian occupation sectors HoB and PN (the latter with its gold refining installations), and the Pactolus stream (modern Sart Çayı) all lay outside that line of defense. (At the end of the 1999 season, all trenches at sector CW32 were backfilled.)

An attempt to locate the Lydian defenses further to the north, specifically by excavation in the northeast corner of the *Palaestra* of the Roman Bath-Gymnasium complex (sector PA), was unsuccessful. At that location (Fig. 4), where the topography in Lydian times evidently sloped down to the north, there is a deposit of earthy debris that is more than 3.5 m. thick and that appears to be a feature of the late 6th century B.C. if not somewhat earlier. That deposit contains "Brick Fall" destruction debris of the mid 6th century B.C.; which suggests that the Lydian fortification wall may have been located nearby.

In the locale of the northeast corner of the *Palaestra* there may have been a major orientation change in the Lydian defenses, from north-south to east-west; and the chain of artificial mounds oriented east-west along the north side of the ancient city site, with their western terminus just outside the northeast corner of the *Palaestra* (Fig. 4, mound 1) may mark the line of the Lydian defenses and be partly created by their remains. Limited excavation in 1985 in one of those mounds, mound 2, exposed monumental stone masonry that could belong to the Lydian fortification wall; and excavation between two of the mounds, mounds 2 and 3, in 1997 and 1998 located a massive building that could belong to the Lydian defenses or to a platform or terrace that supported the defenses. In 1999, excavation between mounds 2 and 2 and at the east end of mound 2 (sector MD2[2]) located more of that Lydian building; but, as in 1997 and 1998, only in its core. Exterior faces of the building were not located.

A deep trench, continued from 1998 (in sector MD2[2]), exposed construction of the Lydian building that stands 10 m. high (all of it below modern ground surface; Figs.

7, 8). Most of the construction consisted of mudbrick and "slurries" of mud and stone. Between every six mudbrick courses is a layer of wood saplings (which have become compressed to the thickness of cardboard); altogether nine sapling layers were identified (two layers in 1998, seven in 1999; Fig. 8). The lowest of them rests on fieldstone construction that evidently belongs to the socle or foundation of the building (Figs. 7, 8). Only the top of that stonework was excavated, because the modern water table is located just below its top, and made deeper digging inadvisable for security reasons. Limited excavation at the east end of mound 2 exposed mudbrick construction of the same kind, and indicated that the building partly creates that mound. (At the end of the 1999 season, all trenches at sector MD2[2] were backfilled.)

Some 5 km. west of Sardis, near the modern town of Ahmetli, a tumulus tomb of the 6th century B.C. was excavated in 1999 by the Manisa Museum. The Museum invited the Sardis Expedition to record discoveries in photographs and drawings, and to assist in the consolidation and protection of tomb furniture (marble funeral couches, or *klinai*, that had been wantonly broken by grave robbers in 1999). The tomb will be published by Manisa Museum director Hasan Dedeoğlu. The painted decoration, on upper walls and ceiling of the tomb chamber, is noteworthy for its vivid colors. The main colors are red, turquoise green, deep blue, and black; respectively produced by red ochre, malachite, Egyptian blue, and carbon, according to polarized light microscopy carried out by Sardis Expedition conservators (E. Roblee and E. Barro). The ceiling pattern may simulate wood beams supporting reed or rush matting, like such matting that has left impressions in the clay covering of a tumulus tomb near the village of Sarıçalı between Gölarmara and Akhisar, and that are simulated in the Etruscan "Tomb of the Capitals" at Cerveteri. (For reed roofs of houses at Sardis in the early 5th century B.C., see Herodotus 3.101.) The decoration of the gables in the tomb chamber near Ahmetli belongs to a tradition of gable design in Phrygia (as attested by "doodles" of building facades of the 8th century B.C. at Gordion and by well-known rock-cut facades at Midas City).

Special conservation efforts focused on Late Roman wall and floor surfaces that had been excavated in previous seasons.

In Late Roman town houses, wall painting in two rooms (sector MMS room VI; sector MMS/S room D; Fig. 1) and *opus sectile* floor paving in a third room (sector MMS room I; Fig. 1, directly north of room II) were consolidated and cleaned, largely under the direction of Gülseren Dikilitaş, of the Conservation and Restoration Center in İstanbul (Fig. 9).

Salvage of floor mosaics that had been partly damaged or destroyed by fire in 1997 was completed in 1999. The mosaics belonged to a portico that flanked a major colonnaded avenue. In previous seasons, about 95 m<sup>2</sup> of floor mosaic (Fig. 10) had been faced, lifted, and stored in two depots for future backing. One of the depots, which contained 48 m<sup>2</sup> of floor mosaic in 29 stacked segments (slightly less than half the total amount of floor mosaic that had been lifted) was destroyed by an accidental brush fire in 1997; and in consequence most of the floor mosaic that it contained became separated from its facing, and many of its mosaic *tesserae* were permanently dislocated and irreversibly blackened (i.e., in their cores as well as on their surfaces). Through processes of temporary backing and refacing or of overturning stacked segments and refacing (in 1998 and 1999) approximately 38 m<sup>2</sup> of the 48 m<sup>2</sup> were recovered (Fig. 11). The inscription, which identifies the donor of the floor mosaic and of other portico decoration (one Flavius Archelaos, a prefect, eparchos) is lost; fortunately it is recorded in photographs and drawings.

Fragments of the three marble funeral couches (*klinai*) and a fragmentary marble door leaf from the tumulus tomb near Ahmetli were partly cleaned and consolidated; and were stored in one of the main Sardis Expedition storage depots and in a shed specially built to hold them (with steel doors, fitted with padlocks) in the Expedition compound.

One of the Lydian terrace walls on lower slopes of the Acropolis was vandalized in 1999: corner blocks of beautiful limestone masonry (at sector ByzFort) were pried out of position (Fig. 12). Remote from excavation and touristic locales of Sardis by 700 m. lateral distance and 90 m. altitude, and concealed to view from below by Late Roman ruins, that terrace wall is virtually impossible to guard. To restore the corner would require dismantling it to the bottom masonry course; the fragility and fragmented condition of the masonry and its steeply-sloped setting would make that a problematic effort. Lower courses of the corner were covered by earth, and the protective shelter on top was rebuilt.

Study projects in 1999 concerned architecture of the Temple of Artemis (by F. K. Yegül), Church M and Late Roman/Early Byzantine building D (by K. Kiefer, R. L. Vann), Lydian pottery (by Y. Polat, T. Asena), Late Roman pottery (by M. L. Rautman), Lydian refining installations for gold and silver at sector PN; by A. Ramage). Results of the last study are published in *King Croesus' Gold: Excavations at Sardis and the History of Gold Refining*, by A. Ramage and P. T. Craddock (Archaeological Exploration of Sardis in association with the British Museum Press).

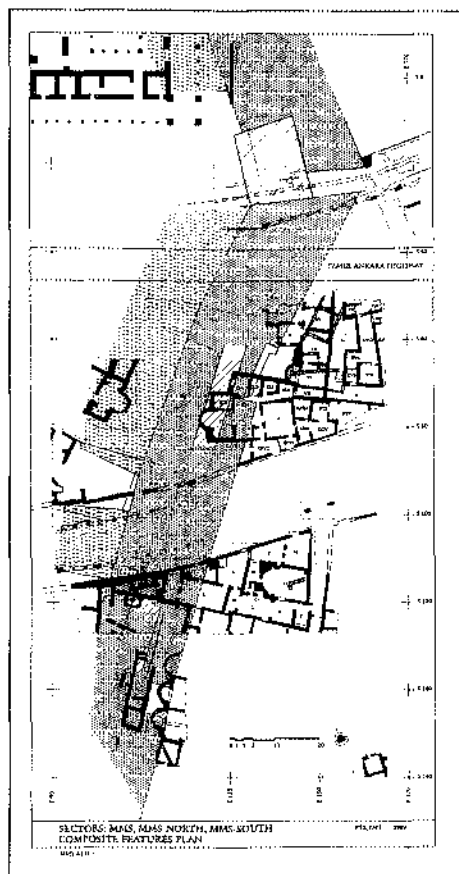


Fig. 1: Sectors MMS/N, MMS, and MMS/S, composite plan showing Late Roman and Lydian features



Fig. 2: Sectors MMS/S, excavation below Late Roman room O: top of Lydian stratum. View looking east

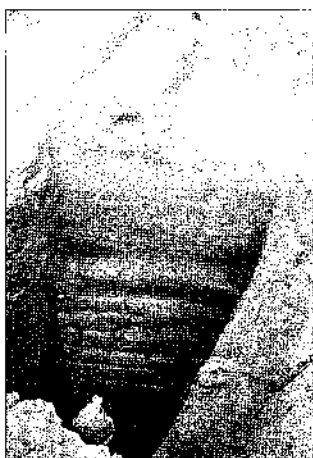


Fig. 3: Sectors MMS/N, west side of the Lydian fortification wall: stepped stone socle supporting mudbrick construction. View looking east

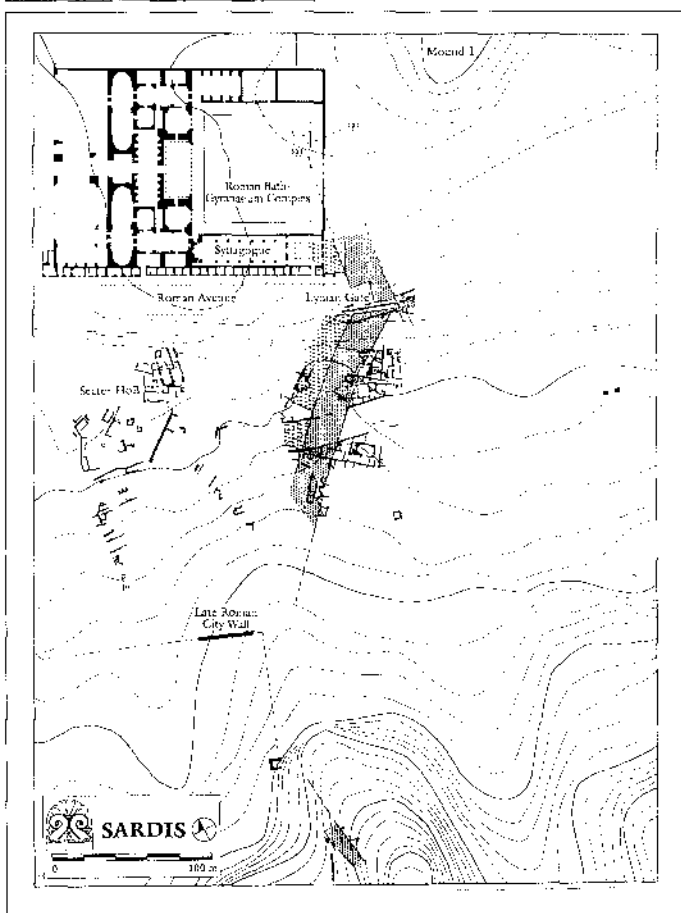
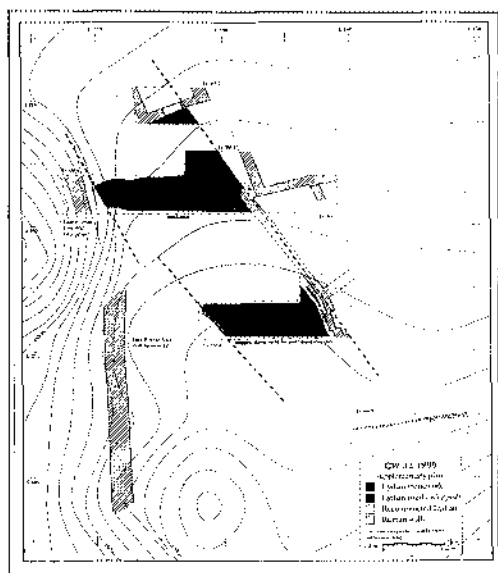


Fig. 4: Western parts of Sardis, including sectors MMS/N, MMS, MMS/S (middle center), CW32 (bottom center), PA (i.e., *Palaestra*; with label "Roman Bath-Gymnasium Complex), and other features, plan



**Fig. 5: Sectors CW32, Lydian fortification wall and Roman buildings, plan**



**Fig. 6: Sectors CW32, stone socle of Lydian fortification wall (with Roman house [?] wall at farther end of trench). View looking east**

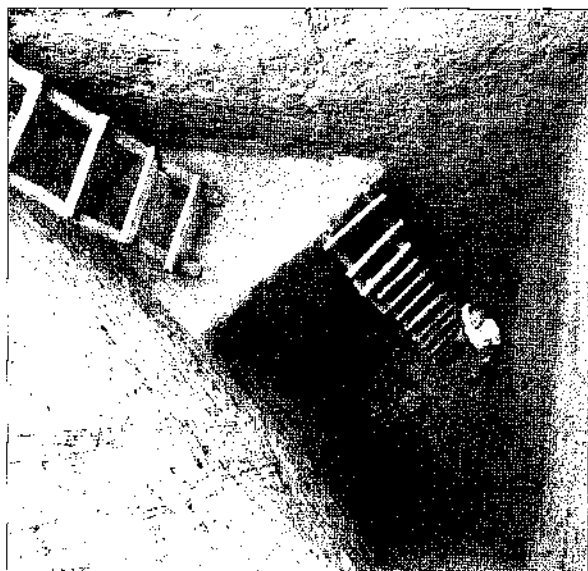


Fig. 7: Sectors MD2 (2), deep trench through Lydian building construction. View looking down to top stones of socle or foundation

Fig. 8: Sectors MD2 (2), deep trench: sections through Lydian building construction, showing coursed mudbrick, sapling layers, and top of stone socle or foundation

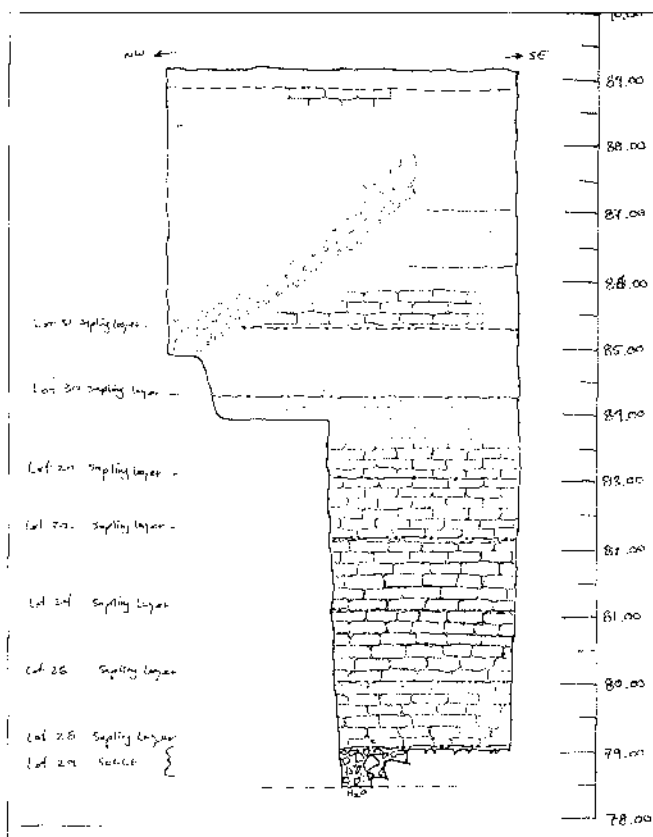






Fig. 9: Sectors MMS, Late Roman room VI: wall painting being cleaned and consolidated under the direction of conservator G. Dikilitaş (foreground)

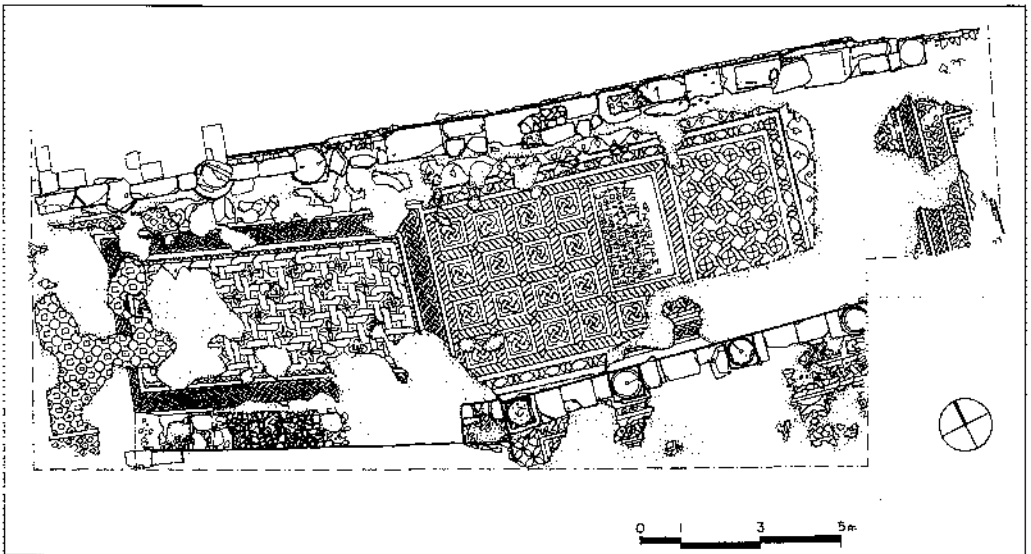


Fig. 10: Sectors MMS/N, south portico of colonnaded avenue, with floor mosaics that were lifted in previous seasons

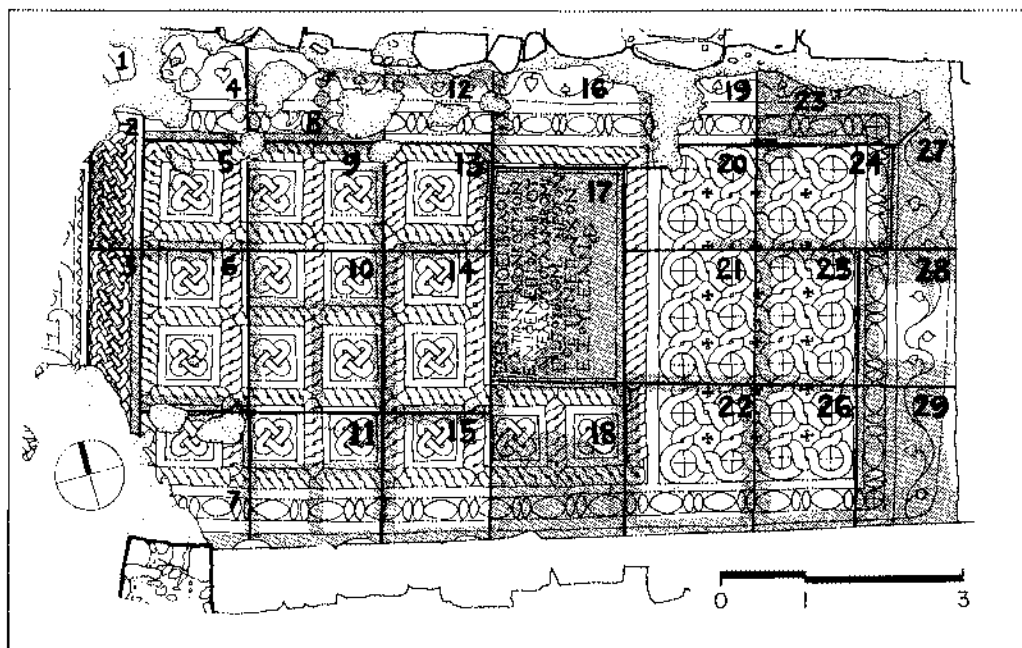


Fig. 11: Sectors MMS/N, detail of Fig. 10, showing 29 sections of floor mosaic that were lifted in 1991 and stored in a depot that burned in 1997. Parts of the mosaics that were lost as a result of the fire are shaded grey



Fig. 12: Sectors ByzFort, corner of Lydian terrace wall that was vandalized in 1999