

SARDIS: ARCHAEOLOGICAL RESEARCH AND CONSERVATION PROJECTS IN 2001

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Surveys, excavation, conservation, restoration, touristic enhancement and study projects at the city of Sardis (Fig. 1) in 2001 (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, particularly to Director General Dr. Alpay Pasinli, Excavations Division Director Melik Ayaz and to Excavations Division Officer Nurhan Ülgen; and to Manisa Museum, Director Müyesser Tosunbaş and Assistants Nilüfer Önder, Baran Aydın and Emin Torunlar. The Ministry of Culture Representative was Uğur Hoşgören (from the Uşak Museum), who provided valuable assistance in many ways and offered wise and helpful advice throughout the season.

Survey included geomorphological drilling and coring sondages, topographical mapping and geophysical programs. Geomorphological drilling and coring aimed to locate former channels, i.e., "palaeochannels", of the Hermus River/Gediz Çayı. Modern vegetation patterns had suggested to geomorphologist D.G. Sullivan that the River once had passed close to the ancient city. Drilling and coring (by means of a truck-mounted drill, with tower and hydraulic press; rented from Ege Temel Sondajcılık, Bornova), located a palaeochannel 340 m. north of city site and 9-12 m. below modern ground surface; the palaeochannel could be identified with the Hermus from unique "signature" gravels (notably including basalt from the volcanic fields of Kula, ca. 55 km. to the east; which is traversed by the Hermus alone of waterways near Sardis). The palaeochannel was located in a series of corings that transected its width; where its orientation is north-south. It probably came much closer to the site, perhaps as close as 16 m. from the chain of artificial mounds that define the formal north limits of the ancient city (Fig. 2). Fundamental questions remain: the date of the channel-presumably earlier or later than the time of Alexander the Great, when the river reportedly was twenty stades (3-4 km.) distant from Sardis (Arrian, *Anabasis Alexandri* 1.17.4)- more or less where it is today; the direction of flow (north-to-south or south-to-north ?); and the relevance of river proximity to Sardis for communication, commerce and security.

Topographical mapping was done with Total Station electronic transit and Global Positioning System (GPS) equipment, generously loaned by the British Institute of Arc-

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haeology. With the latter, 175 hectares were surveyed in walks totaling 184 km. (within 48 days). Survey result provided a more accurate record of topographic relief, notably clarifying the form of ancient sub-surface terraces on lower Acropolis slopes (Fig.3). on one of those terraces, within Building A (a large Roman building of unknown function, which was evidently fortified in Late Roman or Byzantine times), survey identified two large marble voussoir blocks (which were cleared for measurement and subsequently reburied); they belong to an arch with an inner diameter of 13-13.5 m. (Fig. 4). From fill underneath one block was recovered the bronze lid of a small box in the shape of a cross (Fig.5).

Geophysical survey aimed to identify subsurface features in an unexcavated and archaeologically promising part of Sardis: a flat terrace, ca. 100 m. on a side, in central Sardis, just west of the stadium. Survey was conducted by Professor Mahmut Drahor and a small team of his staff and students from Aegean University (G. Göktürkler, E. Şengül, S. Arslan); over a total area of about 20 *dönüm* or slightly less than two hectares, and with four geophysical techniques (magnetic; resistivity, using Twin and Wenner profiles; very low frequency (VFL) resistivity; and seismic). Preliminary results of magnetic survey may show the terrace wall and some less predictable features: anomalies in the middle of the terrace and at the west end of the stadium central axis, and an opening in the "terrace wall" on the stadium axis (Fig. 6).

Excavation was conducted in several parts of the site, and exposed archaeological material ranging in date from the Lydian era of the 7th and 6th centuries B.C. to Middle Byzantine times in the 9th-10th centuries A.D.

On the west side of the city site Archaic city defenses were explored in several places. Attempts to trace the west line of Archaic defenses northward and to identify a connection with the putative north line of Archaic defense, in the chain of artificial mounds on the north side of the city site (Fig. 1, 2), again (as in 2000) was unsuccessful; although a short part of the west defense line was located: the east face of the earlier Archaic defense wall, ca. 40 m. north of the gate (in sector MMS/N). Near the bottom of the wall face rested a gray-ware dish fragment with a short graffito in an undeciphered script; which, according to R. Gusmani, is not obviously Lydian, Phrygian, or Carian.

South of the gate, excavation clarified the form-but not the function-of the glacial and large recess of the earlier Archaic defenses (i.e., which antedate the mid 6th century B.C.). The earlier Archaic glacial-immediately south of the gate-is wider and higher than had been appreciated (more than 30 m. broad; still standing 17-18 m. high, but probably incorporating a natural ridge); and the recess floor rests high up in the glacial (not at ancient ground level, as previously had been supposed (Fig. 7). Chronologically diagnostic pottery fragments from the earlier glacial included at least one Lydian column crater, Lydian lamps, and three Wild Goat-style oinochoe fragments (two of the last illustrated in Fig. 8); which suggest that the glacial was created no earlier than ca. 600 B.C. The earlier glacial was covered with debris from the mid 6th century B.C. destruction that may be associated with capture and partial sack of Sardis by the Persians in the 540s B.C.; and the matrix of that destruction debris contained two bronze arrowheads (trilobate and leaf-shaped) and skeletal remains of two human casualties, which had had been unceremoniously dumped on the glacial, presumably when the Persians took Sardis (Fig. 9). (The glacial may have been a dumping ground prior prior to the destruction; the skeleton of a dog rested on and in glacial earth; Fig. 9). Of the human casualties, one is attested only by left arm bones; the other by most of the skeleton (of a man, tentatively estimated to have stood 1.61-1.65 m. high). Autopsy is scheduled for this summer. The later Archaic glacial contained a lebes/dinos fragment (Fig. 10) that preserves two painted figural friezes; at least one of the human figures wears leggings with diagonal bands, like the figure labeled "This (is a) Lydian (Sardian)" on the Tomb of Xerxes at Persepolis (Naqsh-e Rostam) in Iran.

On the east side of the (sector CW6; Figs. 1, 2 far right) the Archaic defense wall-discovered in 2000-continued to be explored in limited excavation. The internal corridor, which had been destroyed and become archaeologically conspicuous as the result of violent conflagration, may have been an original feature of the defenses (rather than a secondary "tunneled" feature), since its wall and floor appear to be formed of finished mudbrick surfaces. This part of the Archaic defenses has been presumed to antedate the middle of the 6th century B.C. on the slight evidence of construction parallels with early Archaic defenses on the west side of the site, and of a Wild Goat-style pottery fragment that rested on coursed mudbrick under disturbed fill. Not far from the corridor, the defense wall has an exterior east face; partly buried in it was an iron spearhead (Fig. 11): possibly thrust there during an attack, perhaps as late as Hellenistic times, when this part of the exterior face was still exposed. The interior west face of the wall was not located, because of extensive Roman overburden.

In a small sondage on the west side of the city (sector MMS/S, below the floor of a Late Roman house, room 'O'; sondage begun in 1998), excavation in 2001 outside the corner of a Lydian house (from which many household items had been recovered in excavations of 2000) uncovered layers of occupation going back to the early 7th or late 8th century B.C. A leaf-shaped arrowhead of bronze, recovered from a level below, and therefore antedating, that of the mid 6th century B.C. (Persian) destruction, suggest that the leaf-shaped arrowhead is a Lydian type (although it is probably neither the only Lydian type nor an exclusively Lydian one).

From post-Archaic eras, excavation on the east side of the (sector CW6) uncovered fragments of Hellenistic or Roman terracottas figurines, a fragmentary Roman inscription that records a petition to the emperor, and mentions Proconsul Manilius Fuscus, who held office in A.D. 210 and was the husband of a benefactress of Sardis, Flavia Politta; and Fragments of Middle Byzantine glazed pottery. On the west side of the city, paving and cobbles uncovered 15-25 m. east of the Roman Bath-Gymnasium Complex (in sector MMS/N) may be identified with a plaza, possibly one cited in an inscription (IN 36.A1; *plateia Sardonorum*), which had been postulated for this location by M.L. Rautman.

Conservation and related efforts aimed to clean, stabilize, and restore objects and monuments for storage and indoor and outdoor display. Some 13-14 square meters of mosaic paving, which had been lifted in 1990-1992 from a Late Roman portico (at sector MMS/N) were backed and stored in specially-designed racks; (**) and an expanse of mosaic paving in the Byzantine Shops portico was repaired, consolidated, and rebuired for protection (Fig. 12). Fragmentary wall painting that had been recovered in 1995 from a Late Roman house (sector MMS/S, room "E,") was consolidated and embedded in a glass-fiber and plaster of Paris matrix. In the group of Lydian and Late Roman house rooms (at sector MMS) scheduled for touristic display, tets to arrest damage to wall and floor surfaces from salt efflorescence were initiated, and a major drainage problem was addressed (and at least temporarily resolved). A small public fountain, which features a restored Archaic lion head from Sardis for the spout and a Archaic palmette for the handle, was installed, near the Temple Artemis, in memory of Professor George M.A. Hanfmann, founding director of the Sardis Expedition.

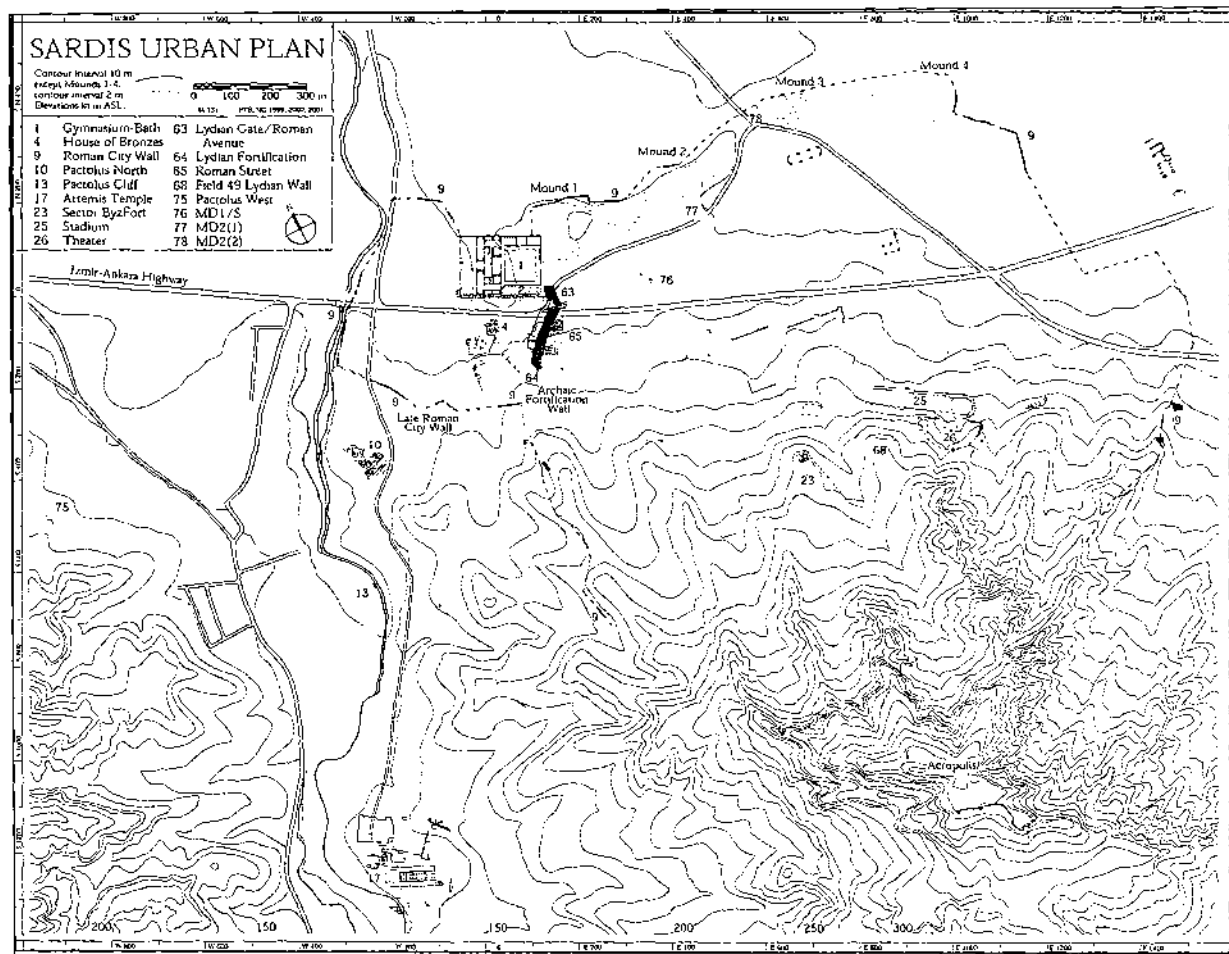


Fig. 1: Sardis, site plan, with key features identified. nos. 63 is at sector MMS/N; 65 at sector MMS; 9, far right, at sector CW6.

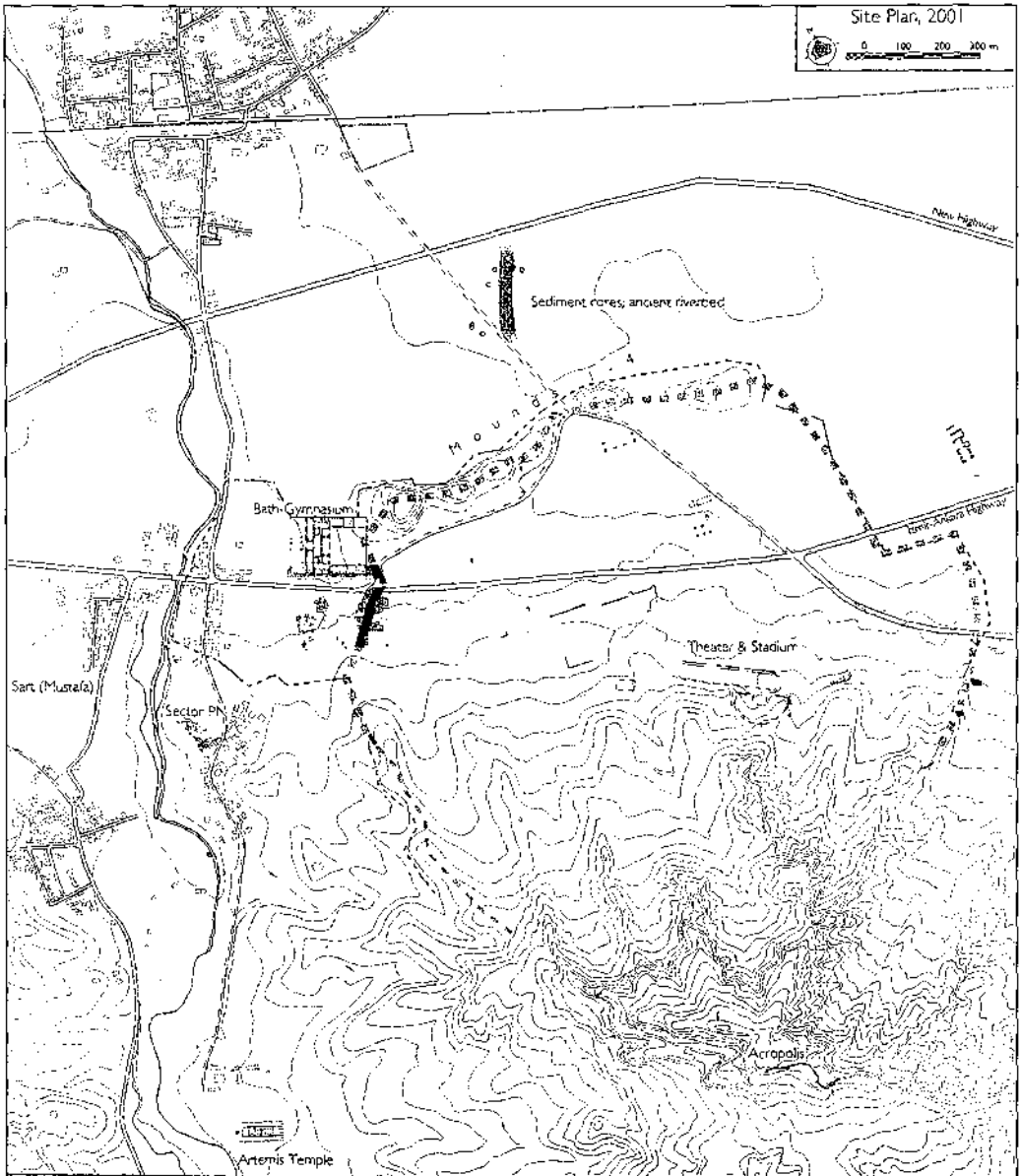


Fig. 2: Sardis, site plan. The Archaic defense line is reconstructed with a thick dashed line. The small circles north of Mounds 1-4 mark the sites of geophysical drilling and coring; a short segment of the early channel of the Hermus River (Gediz Çayı), with its north-south orientation, is reconstructed

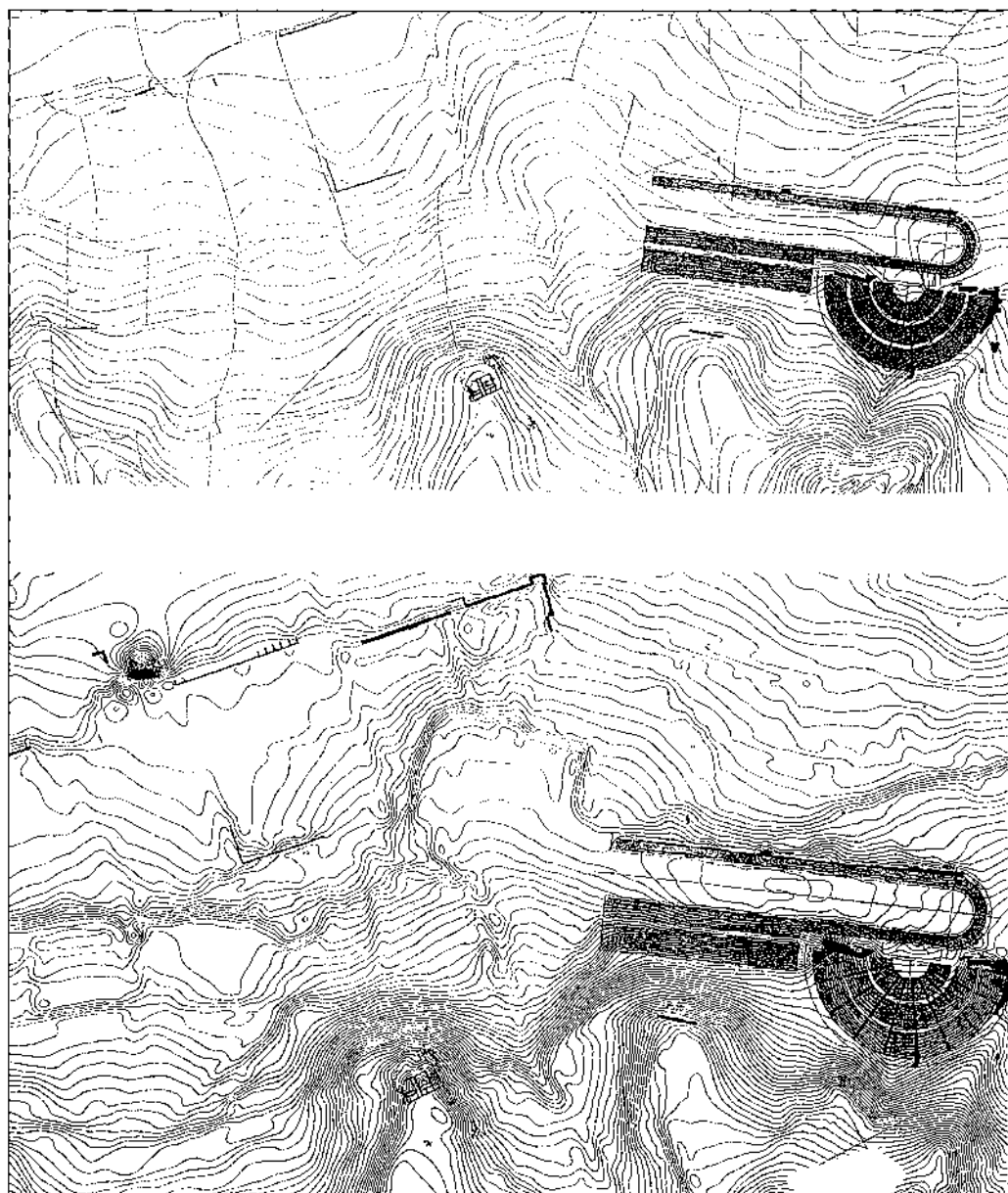


Fig. 3: Central Sardis, on the lower north slopes of the Acropolis (with stadium and theater restored), showing refinements in topographic mapping before (above) and after (below) 2001 surveys with Total Station electronic transit and Global Positioning System (GPS) equipment

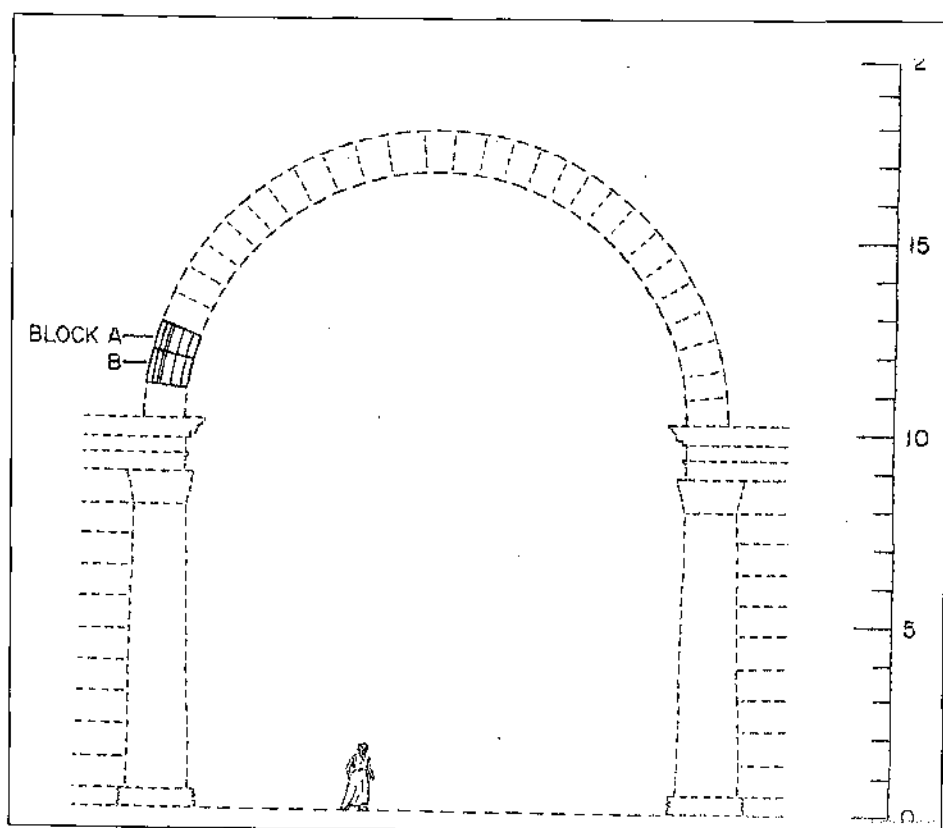


Fig. 4: Voussoir blocks from an arch with a span of 13-13.5 m., restored; the blocks are located inside Building A; see Fig. 1

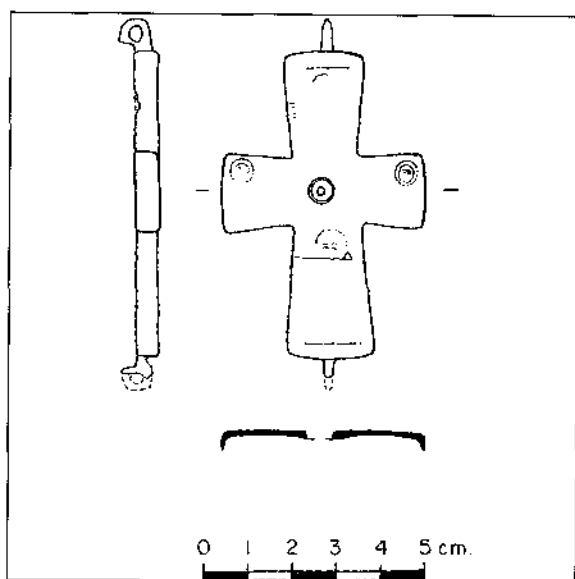


Fig. 5: Bronze lid from a box in the shape of a cross; recovered in Building A (Fig. 1), underneath the voussoir blocks shown in Fig. 4

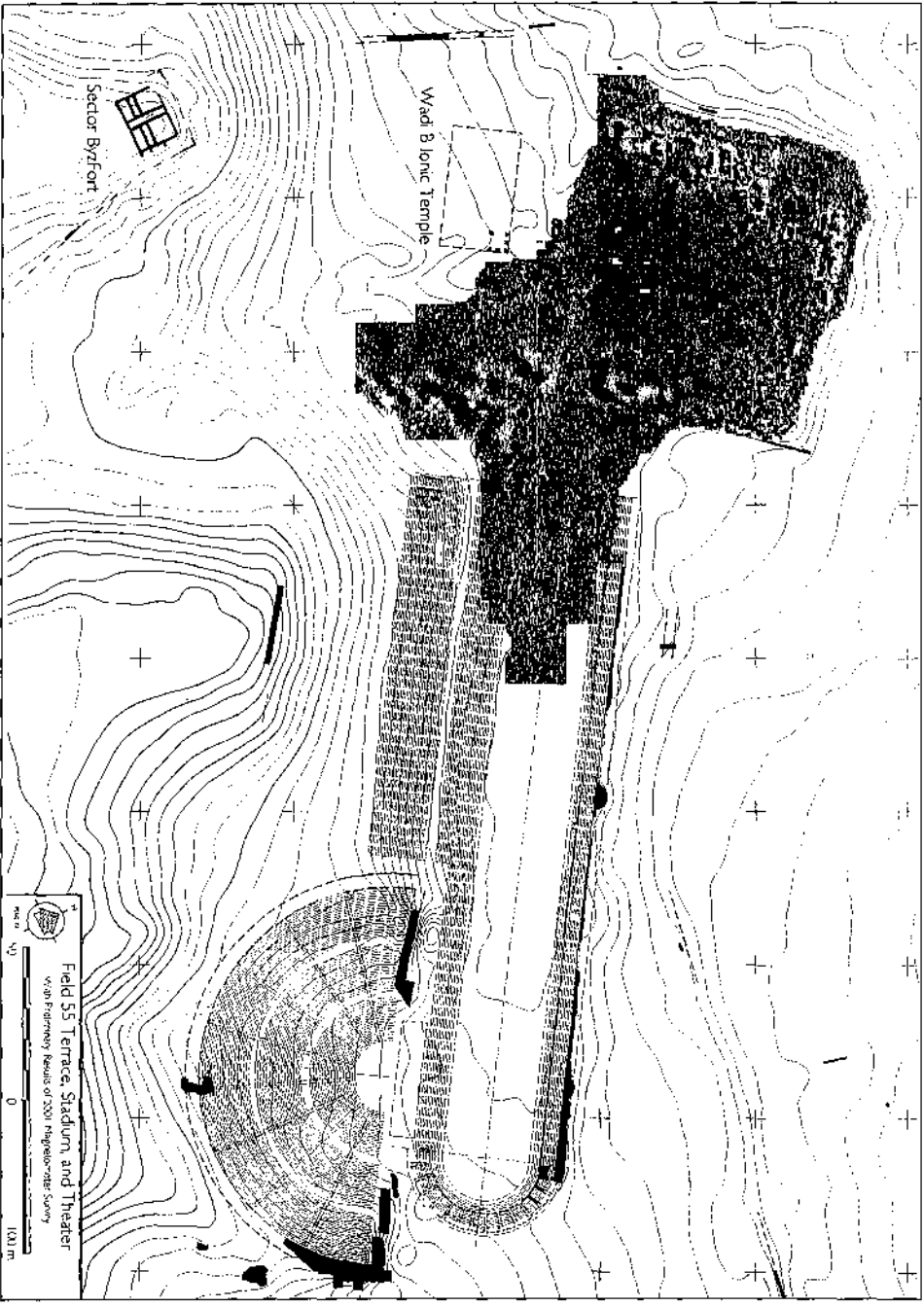


Fig. 6: Central Sardis, on the lower north slopes of the Acropolis (with stadium and theater restored), showing preliminary results of 2001 magnetometer survey

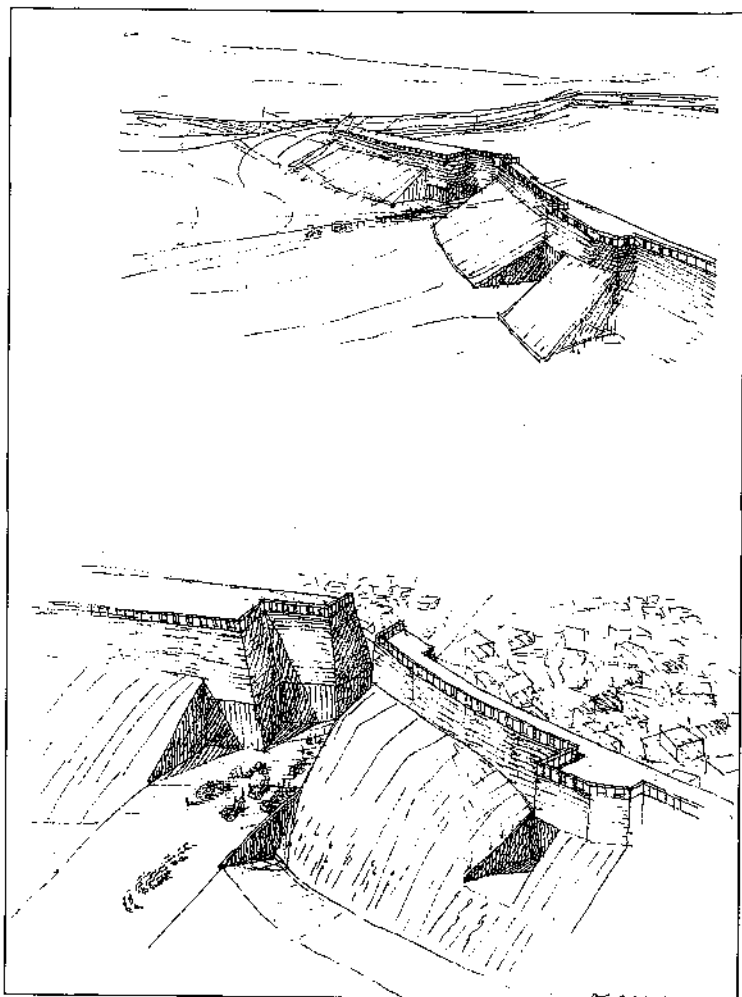


Fig. 7: Earlier Archaic defenses, with wall, glacis, gate passage, at large recess (at right), on the west side of Sardis (sector MMS), reconstructions (by P. T. Stinson): Above, as previously conceived; below, as understood from results of excavation in 2001



Fig. 8: Two fragments of Wild Goat-style oinochoi, recovered from fill layers of the earlier Archaic glacis (at sector MMS; left, P01. 9: 11219; right, P01. 11: 11221)



Fig. 9: Earlier Archaic glacis (sector MMS), partly excavated at left; and with surface exposed at right. A human skeletal assemblage (which rested in destruction debris of the mid 6th century B.C.) is being cleaned at middle right. (A canine skeletal assemblage deposit, which antedates the mid 6th century destruction, is being cleaned at bottom)



Fig. 11: Iron spearhead, which had been implanted in an east face of the (earlier?) Archaic defense wall on the east side of the site (sector CW6; M01. 12: 11222); above, partly excavated in situ; below, after removal and cleaning



Fig. 10: From the later Archaic glacis (sector MMS): lebes/dinos with two painted figural friezes showing one or more men wearing diagonally-striped leggings (P01. 1: 11202)



Fig. 12: Mosaic paving in the portico of the Byzantine Shops, on the south side of the Roman Bath-Gymnasium Complex: after conservation and consolidation (and before reburial)