

EXCAVATIONS AT SARDIS, 1978-1988

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This report summarizes the results of excavation at Sardis in the past decade, which has focused on monumental buildings of the Lydian period and on residential quarters of Lydian and Late Roman periods. Other significant discoveries and research projects of the same years are listed. Specific years of discovery are cited in parentheses, as a key to fuller discussion that appears in annual reports, of which the most thorough are those in **Bulletin of the American Schools of Oriental Research** and the **Supplement** of that **Bulletin**.

The most complex of the monumental Lydian buildings, «Colossal Lydian Structure», is located at the foot of the Acropolis, ca. 400 m. east of the present bed of the Pactolus stream (sector «MMS»; Fig. 1, A). This building was huge, originally 20 m. wide and at least 70 m. long; and much of it, including substantial mudbrick parts, is well preserved and still stands to an height of 8 m. Only the central portion and two long sides of the Structure can be explored; one of two ends is buried under an enormous mound of Roman occupation strata and debris, the other was destroyed when the Ankara-İzmir highway was widened (presumably in the 1950s). Massive, solid construction and steep sides suggest that the Structure was some kind of fortification. Three major construction phases may be distinguished.

(1) The original Structure shows two design and construction systems: the north part is substantially built of coursed mudbrick, which rests on a relatively low stone socle, and has sloped faces; the southern part is faced entirely with stone (as preserved) and the faces are vertical (Figs. 2-4; the junctures of these systems have not been exposed). The east face contains a broad rectilinear recess. Pottery from a sondage below the foundations (1977) suggests for this phase a date in the second half of the 7th century B. C. The same sondage revealed the foundation of an earlier structure, built of large shaped blocks.

(2) An earthwork about 15 m. wide and still standing to an height of 12 m. was built against one side of the Structure. The earthwork is

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formed of sloping layers of earth, sand, and gravel (Figs. 5, 6); each layer is evidently composed of a series of strips, separated by simple retaining walls of fieldstone and mudbrick. Where its sides are interrupted or terminated the earthwork is retained by substantial stone walls (Fig. 2, lower left; Fig. 7, left). The earthwork may have been an **agger** or **glacis**, designed to protect the original building against sapping and mining.

In the middle of the 6th century B. C., Colossal Lydian Structure was partly destroyed. Destruction is most conspicuously attested by a large deposit of fallen brick, which evidently represents dumped superstructure, and which rests against the sides of the Structure (and still stands to an height of 7-8 m. against the Structure faces, and extends out to distances of up to 17 m.; Fig. 3, inset; Fig. 8). A high percentage of fallen bricks in this deposit is semi-baked; there is evidence that semi-baking may be a deliberate feature of brick manufacture (in contrast to the bricks that survive **in situ**, which are only sun-dried) rather than a haphazard consequence of destruction (1984). The date of destruction is indicated by diagnostic pottery recovered from the deposit of fallen brick (Attic or Ionian, Fikellura; 1982) and from an occupation floor covered by that deposit (Attic and Corinthian complete vessels), together with a C¹⁴ date of 570 B. C. ± 50 years for organic material from the same surface (1984; see also N. H. Ramage in **AJA** 1986). The evidence for date and military context suggests that the destruction is a result of the siege, capture, and partial sack of Sardis by Cyrus the Great of Persia between 547 and 542 B. C. Two human skeletons, one in the deposit of fallen brick (1988), the other on the occupation floor covered by that deposit (1986) and an iron helmet trimmed with bronze, of **Spangenhelm** type (1987; Fig. 9) in the deposit of fallen brick were evidently casualties of that event.

(3) After the destruction, the Structure was rebuilt, with a higher earthwork and a narrow stone wall (Fig. 2, «secondary wall») bedded in the truncated stump of the original building.

For the immediate urban context of Colossal Lydian Structure, the only evidence is part of a residential quarter near one side (opposite the earthwork), of which about 100 m.² have been excavated (1984-1986). The quarter is attested by four spaces, which may belong to two separate residences (Fig. 2, right; Fig. 3, lower left). This part of the quarter was blanketed by a thick deposit of fallen brick from the Structure; consequently architecture and artifacts are unusually well preserved. One space was evidently an all-purpose room, as indicated by its contents

(hearth and cooking wares; loom weights, cosmetic jars, trinkets and jewelry, knucklebones, a touchstone of black chert, etc.; 1984-1985). The other three spaces evidently belonged to one unit, and include a kitchen (with two hearths, one of which contained dung fuel, and a bench supporting grinding stones; Fig. 10), open yard, and workshop (with two benches, a few small tools, ca. 5½ kgs. of raw glass or cullet; 1986). Some 300 complete or near complete artifacts of clay, metal (mostly iron), and stone were recovered from the four spaces. Most artifacts are associated with food preparation or serving and are of ordinary types; but some are infrequent in the archaeological record (e.g iron spits and bucket handle, there handled collander, iron grater) or exotic (the Attic cups, referred to above; the spouted vessels illustrated in Figs. 11, 12; 1986). Most of the glass cullet is opaque red (for which see R. H. Brill and N. D. Cahill in *Journal of Glass Studies* 1988; the rest translucent yellow). Finished glasses include two pear-shaped beads made of citrus-like wedges of different colored glass; to one of them adhered a small textile fragment, evidently a kind of cashmere (1986). The terminus ante quem for all this material is the middle of the 6th century B.C., and most of it is probably no earlier than ca. 575 B.C.

Just to the north of Colossal Lydian Structure (and on the other side of the modern Ankara-Izmir highway) are two other monumental Lydian buildings of which parts have been exposed (sector «MMS-N»; Fig. 2): one is attested by its W-shaped, zig-zag facade, faced with ashlar masonry in sandstone and limestone (1981-1984); the unfinished sandstone blocks bear «masons' marks» (for which see R. Gusmani in *Kadmos* 1988 Fig. 13). The other evidently resembled a stubby, exceptionally thick casemate wall, and was built, apparently as blockage, against the zig-zag facade of the first. On either side of the «casemate wall» and passing beneath it are several closely-spaced strata of gravel surfaces, which resemble road or street surfaces. These buildings are approximately contemporaneous with Colossal Lydian Structure; and fallen brick destruction deposit rests against the outer face of the «casemate wall.» Although their orientation is distinctly different from that of the Structure, they might be functionally related to it (the «Zig-zag building» and the Structure possibly forming two sides of a gateway, which was blocked by the «casemate wall»). Significant zones of Lydian occupation are located to the east and to the west of these buildings in the city site; therefore it is not clear that the buildings demark a city perimeter.

About 100 m. north of these buildings (as they have been exposed to date) is one end of a chain of four low mounds, which extend some 900 m. to the east. The Late Roman city wall was built against the north

side of these mounds, which shows that they formed the formal north limits of the city at that time. A sondage in one mound («mound two,» 1985; Fig. 1, B) revealed the uppermost standing parts of another huge Lydian building, faced with ashlar masonry in white limestone (Fig. 14). The two westerly mounds may be essentially created by the ruins of this building, or of it and others in a related sequence (conceivably belonging to the defenses of the Lydian city?).

On the north flank of the Acropolis, monumental terrace walls of the 7th and 6th centuries B.C. revet the sides of two natural flat-topped spurs. On one spur («field 49») the wall features polygonal-«cyclopaean» masonry in grey-brown stone, and evidently was built in the 7th century B.C. (1981-1982; Fig. 1, C). On the other spur (sector «ByzFort») the wall is faced with ashlar masonry in white limestone, and was evidently built in the middle decades of the 6th century B.C. (1983-1988; Fig. 1, D; Figs. 15, 16). The masonry facing *in situ* at the end of that spur (Fig. 16) was part of the terrace foundation; it was buried at the time of construction, as is attested by stratified working layers of limestone chips in the earth fill outside the facing. These terraces attest the importance of the north flank of the Acropolis for the Lydian and Lydo-Persian city, for they presumably were built to enhance the setting of important buildings on the spurs (occupation strata of the 7th and 6th centuries B.C. have been exposed on the spur revetted with the ashlar masonry terrace); and with the staggered terrace walls on the Acropolis summit (1960, 1971) they suggest a grandiose topiary scheme of urban topographic design, which aimed to replace the irregular contours of nature with straight, vertical sides and crisp angles.

In the 5th and 6th centuries A.D. a residential quarter existed at the site of Colossal Lydian Structure (between ca. 500 B.C. and ca. A.D. 400 occupation remains there are poorly preserved), and is attested by residential units, a colonnaded street, and an outside well (sectors «MMS» and «MMS-S»; Fig. 17). A cluster of some 21 spaces may represent two or more residential units, each with a peristyle-type court and an apsidal «triclinium.» Some spaces were semi-subterranean (built into the fallen brick destruction debris of Colossal Lydian Structure), and their protected walls and mural decoration are well preserved: notably a small square room that contains niches revetted with colored stone, and an apsidal «triclinium» with murals representing *opus sectile* panneling in veined and brecciated stones of various colors (1980, 1982). Three rooms contained large stone-lined water tanks. Relatively few artifacts were recovered in excavation (two fragmentary dishes of «Asia Minor Light-Coloured Ware with 'champlévé' treatment» are among the few luxury items; 1983, 1985, 1987); the rooms had been partially stripped

of their wall revetment and floor tiles during or after abandonment in the late 6th/early 7th centuries A.D., and must have been emptied of their contents at that time. A lead seal «of Kosmas the Deacon» from one room (1988) may be evidence that one unit was a deacon's residence; and prominent crosses on the wall of another rooms and on a stone water tank in yet another (Fig. 18) would be consistent with an ecclesiastical association (the residential quarter is located near a major street and a public bath, which is characteristic for Early Christian deaconries).

Excavation also uncovered one corner of an early Roman peripteral temple (near the stadium, 1981, 1982; see also C. Ratté, T.N. Howe, and C. Foss in *AJA* 1986), a water distribution chamber of the 1st century B.C./A.D., which may have been a regional «*castellum aquae*» (sector «ByzFort,» 1986; Fig. 19), several Roman and Late Roman chamber tombs, the former containing significant grave offerings (1980, 1986; one excavated by the Manisa Museum), the latter with mural paintings (1979; one excavated by the Manisa Museum), and a Lydo-Persian chamber tomb that had been excavated by the Butler Expedition in 1912 and that is noteworthy for architectural features and grave offerings (1984). Limited excavation clarified features on top of the Tomb of Alyattes at Bin Tepe (1983). Epigraphical discoveries included two short dedicatory texts in Lydian (1978, 1983; see Gusmani in *Incontri Linguistici* 1980/81 and *Kadmos* 1985), a Hellenistic grave stone with short text in Greek, later reinscribed with another funerary text in Lydian (1984; see R. Gusmani in *Kadmos* 1985), a boundary stele of the Sanctuary of Artemis with 76-line text recording asylum locations as established by Julius Caesar eleven days before his assassination in 44 B.C. (1982; see P. Herrmann in *Chiron* 1989), a column or statue pedestal with text commemorating Tiberius as (re)founder of Sardis after the earthquake of A. D. 17 (1979), an «altar» commemorating a priestess of Demeter **Karpophoros** and her father (1984), and a pedestal with an honorific text for an archon of Sardis of the 3rd century A.D., which cites a visit to Sardis by Marcus Aurelius and Commodus (designated **theoi**; 1982). A survey project recovered evidence for vegetation and climatic history in the region, identified a former bed of the Gediz çayı-Hermus River near the south side of the River plain (1982), and recovered in a lake core from Gölcük in Boz dağı/Mt. Tmolus a 12 cm. -thick layer of volcanic ash or **tephra** deposited by the eruption of Santorini in the middle of the 2nd millennium B. C. (see D. G. Sullivan in *Nature* 1988). A touristic exhibit of recreated Lydian roof and revetment tiles, which are displayed on the «corner» of an hypothetical, anonymous «Lydian building» and in an enclosure planted with shrubs and trees attested for ancient Lydia, was completed in 1981 (Fig. 20).

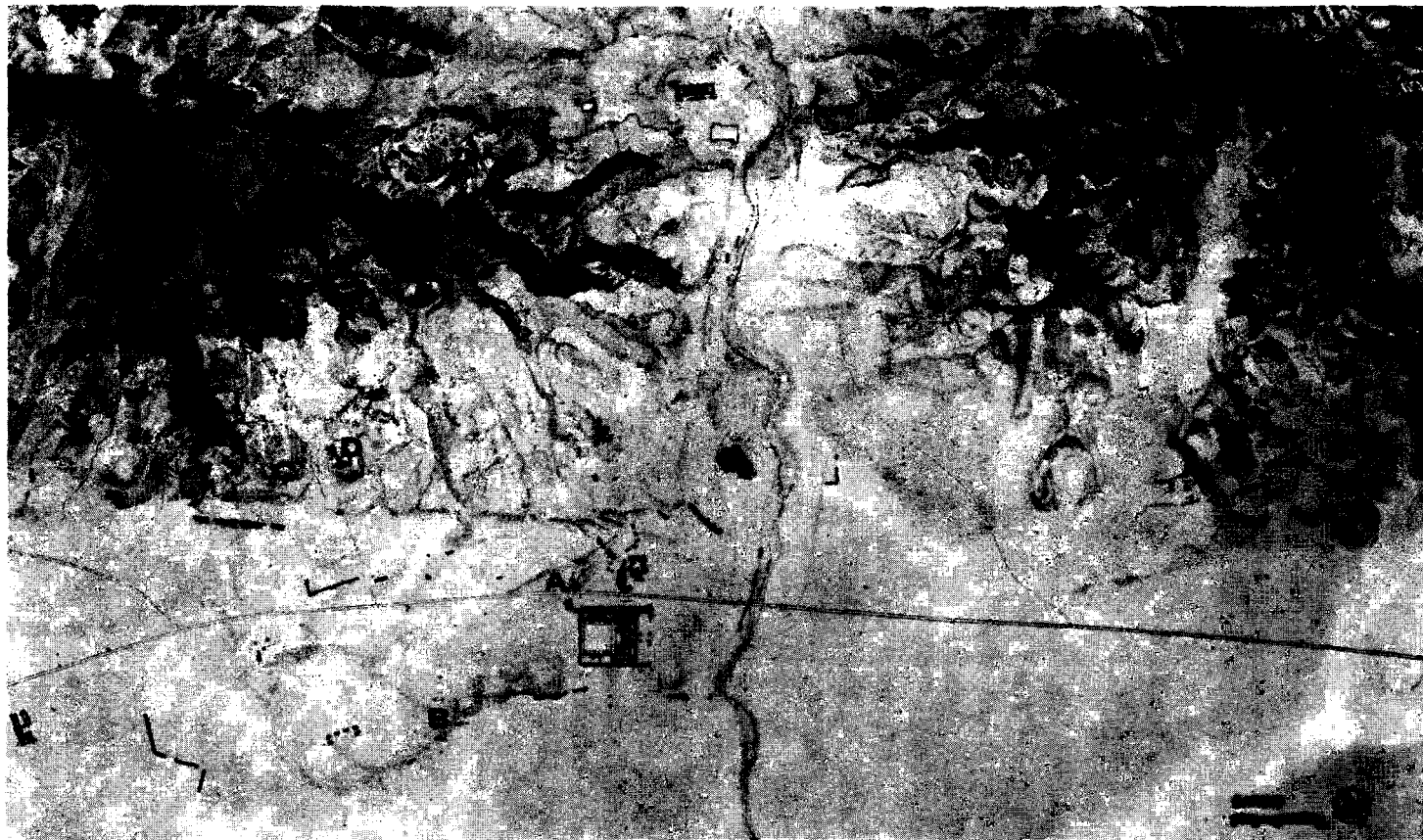


Fig. : 1 — Sketch map of Sardis (with South at top)

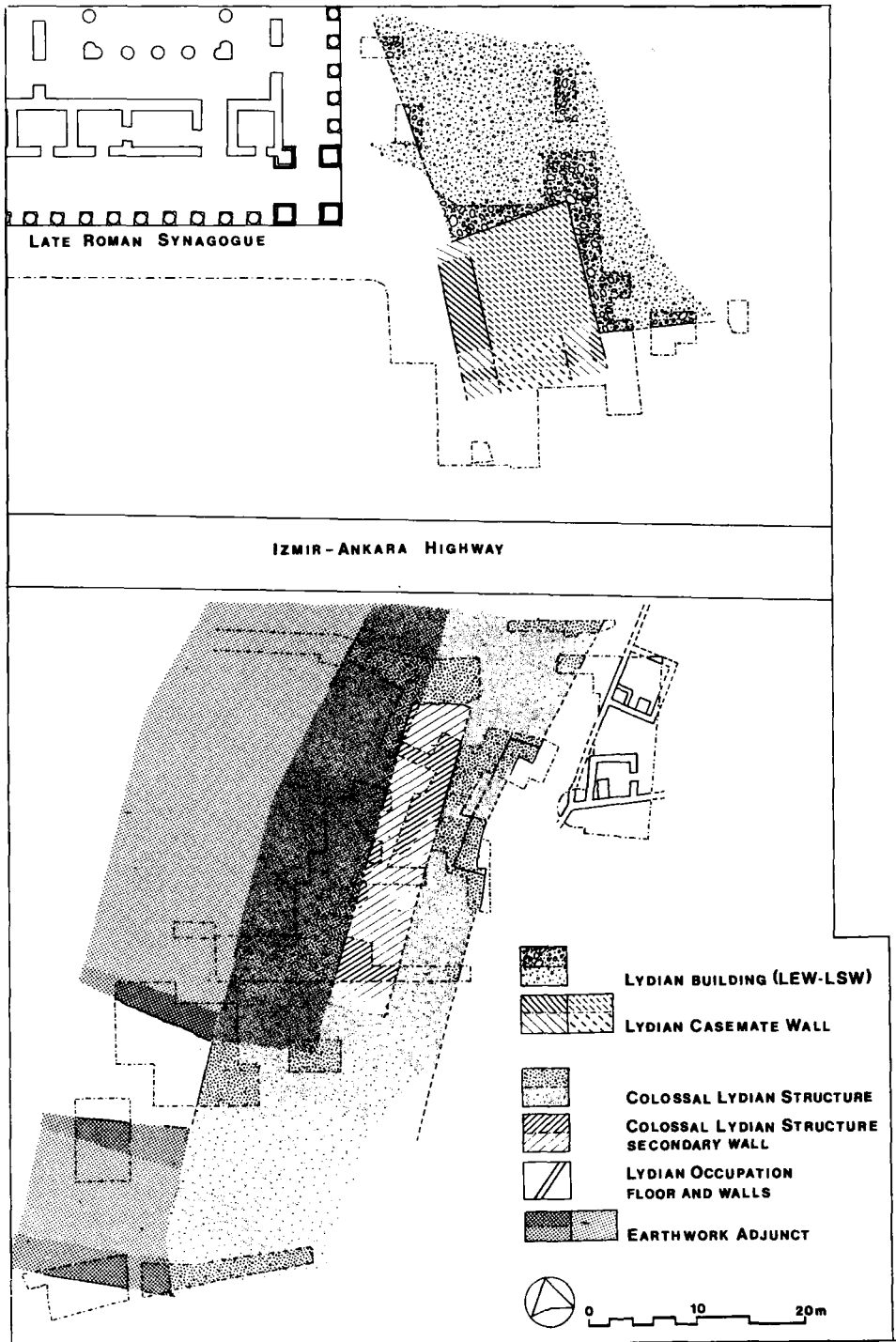


Fig. : 2 — «Colossal Lydian Structure,» Lydian residential quarter, and Lydian buildings to the north, plan

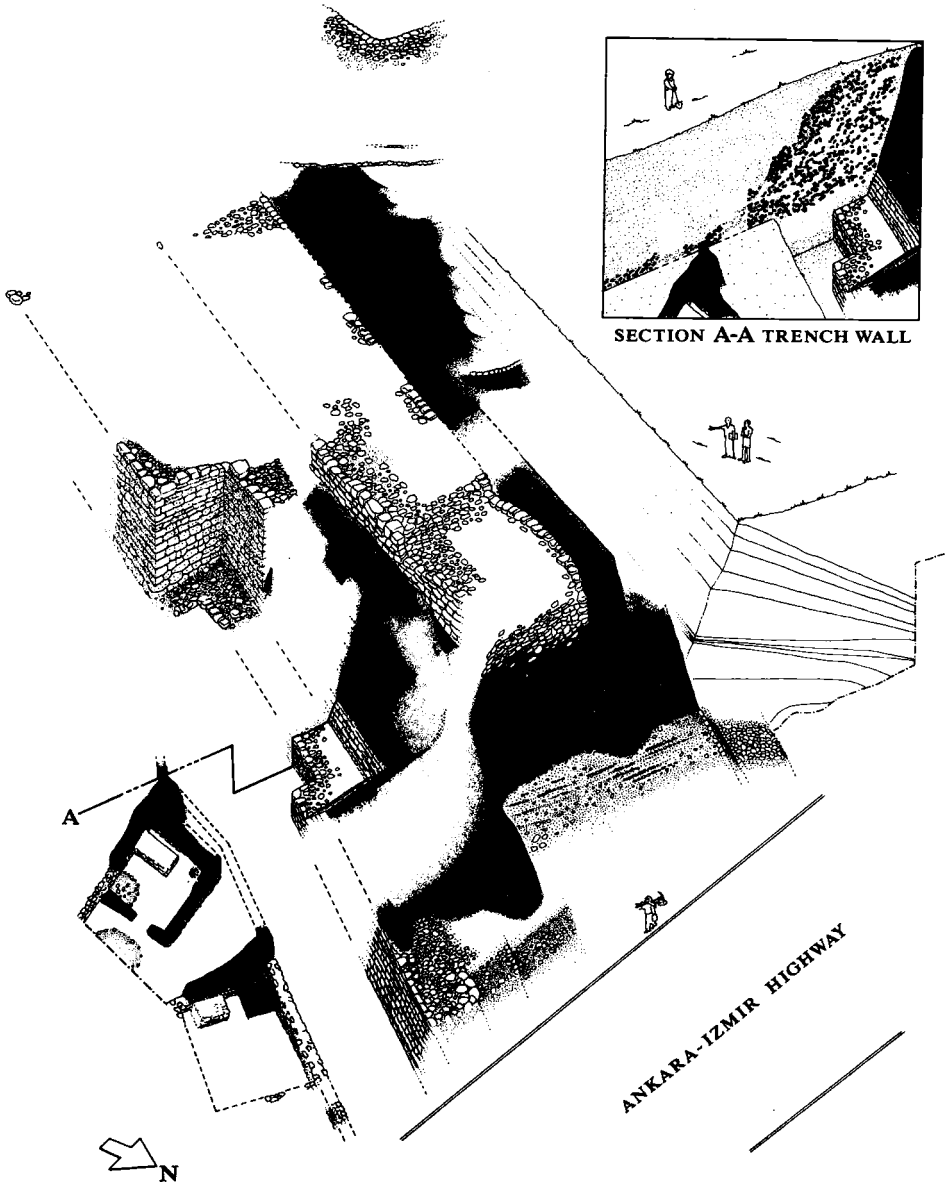


Fig. : 3 — «Colossal Lydian Structure» and Lydian residential quarter interpretive perspective view looking south (revised through 1986).



Fig.: 4 — «Colossal Lydian Structure,» sloped (east) face of coursed mudbrick with stone socle

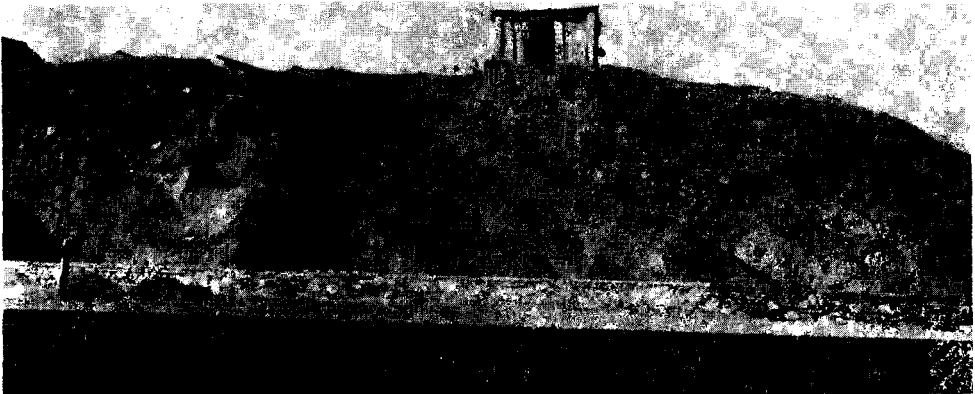


Fig.: 5 — «Colossal Lydian Structure,» north scarp looking south, showing sloping layers of earthwork (and in foreground macadam of Ankara - Izmir highway).

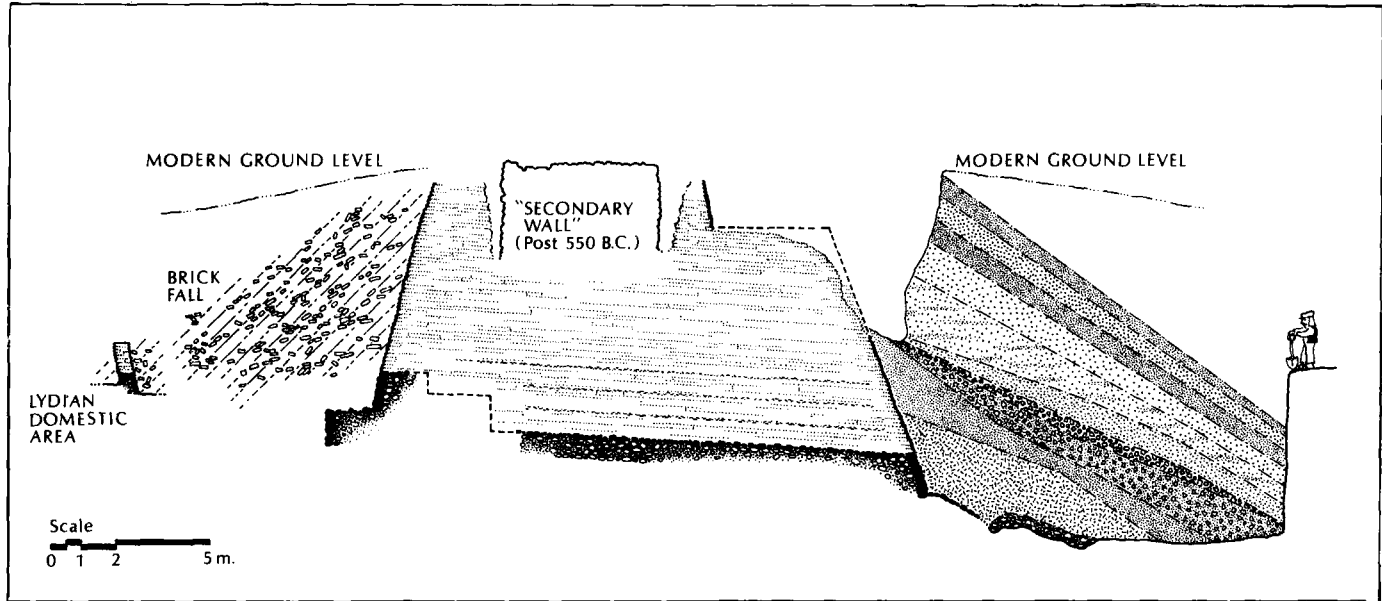
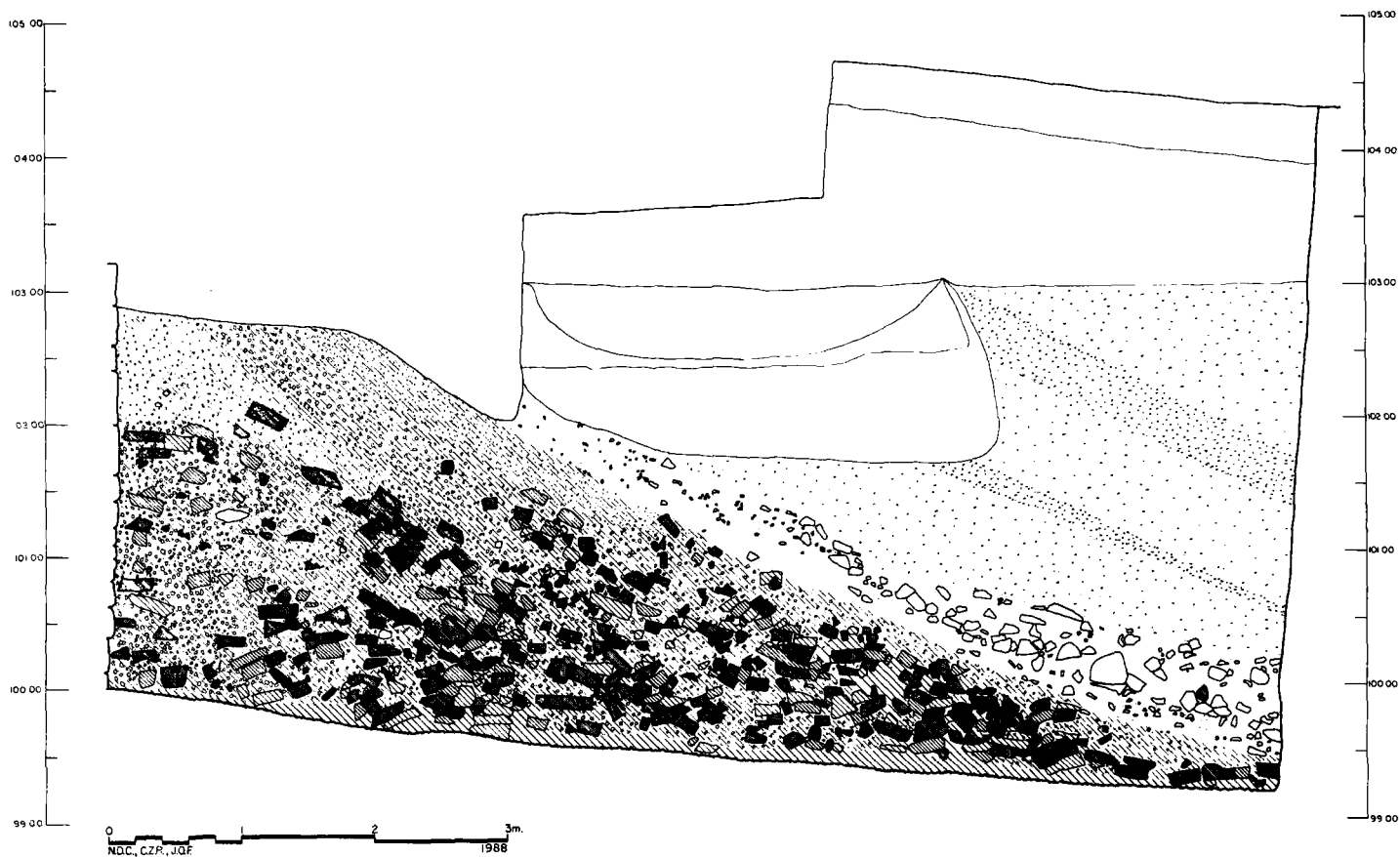


Fig. : 6 — «Colossal Lydian Structure.» hypothetical staggered section through north end, looking south



Fig. : 7 — «Colossal Lydian Structure,» recess in west side Wall at left, with horizontal socket for wooden beam, retains one segment of the earthwork (cf. fig. 2, lower left)



Sector MMS Lydian Brick Fall Against West Face of Colossal Lydian Structure

MMS 65 1988

Fig. : 8 — «Colossal Lydian Structure,» section through destruction deposit of fallen brick (on west side looking south)

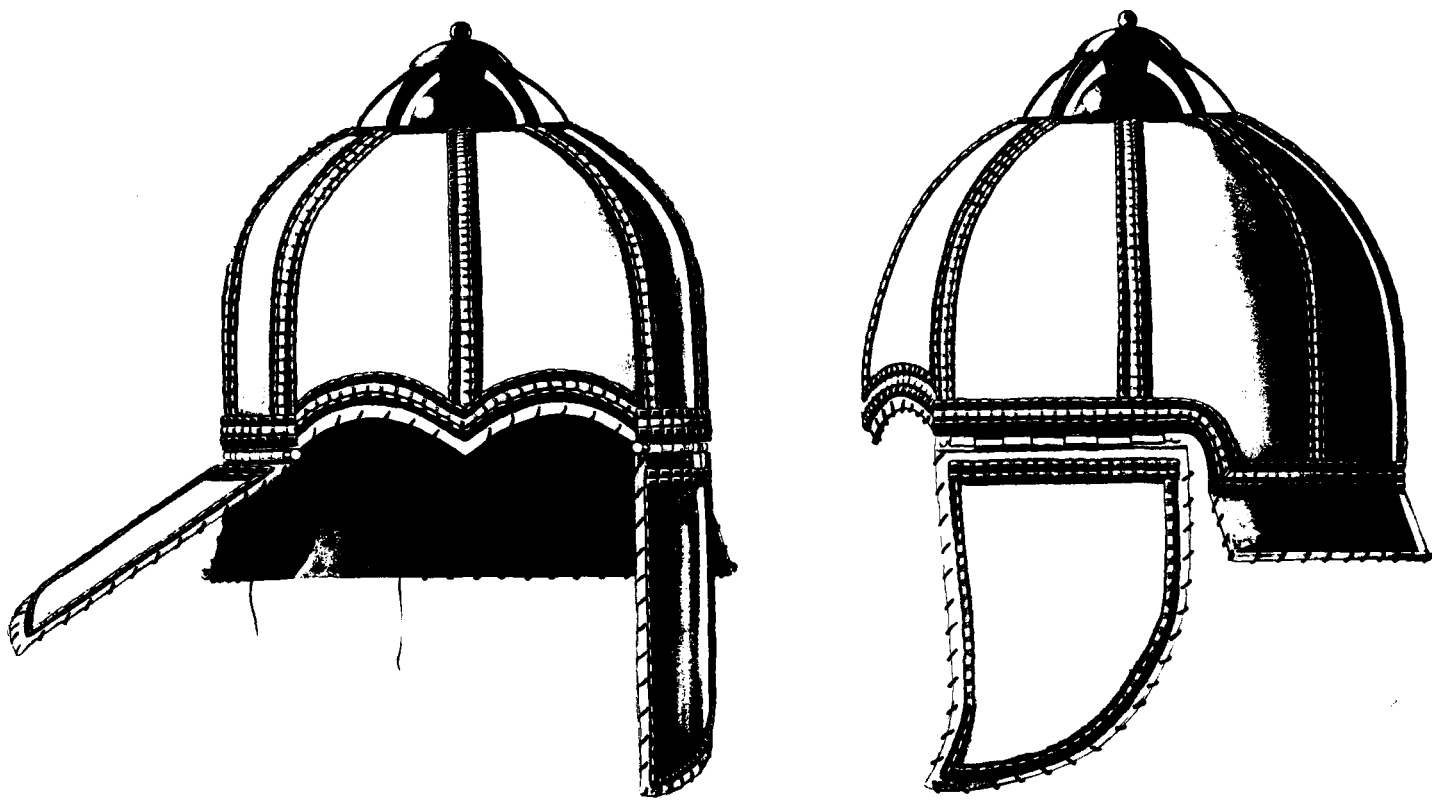


Fig. 9 — Reconstruction of helmet from destruction deposit of «Colossal Lydian structure.»

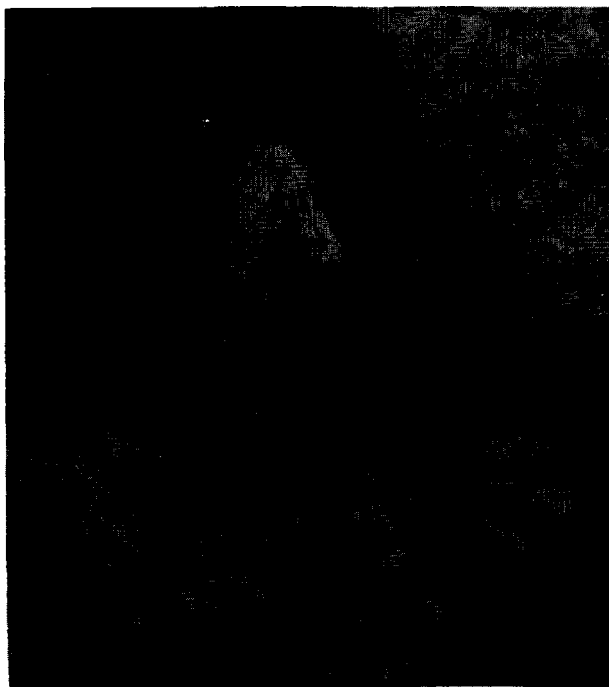


Fig. : 10 — Lydian residential quarter kitchen : bench with grinding stones (demonstrated by M. J. Rein)



Fig. : 11 — Spouted vessel in the form of a duck, from Lydian Residential quarter (kitchen)

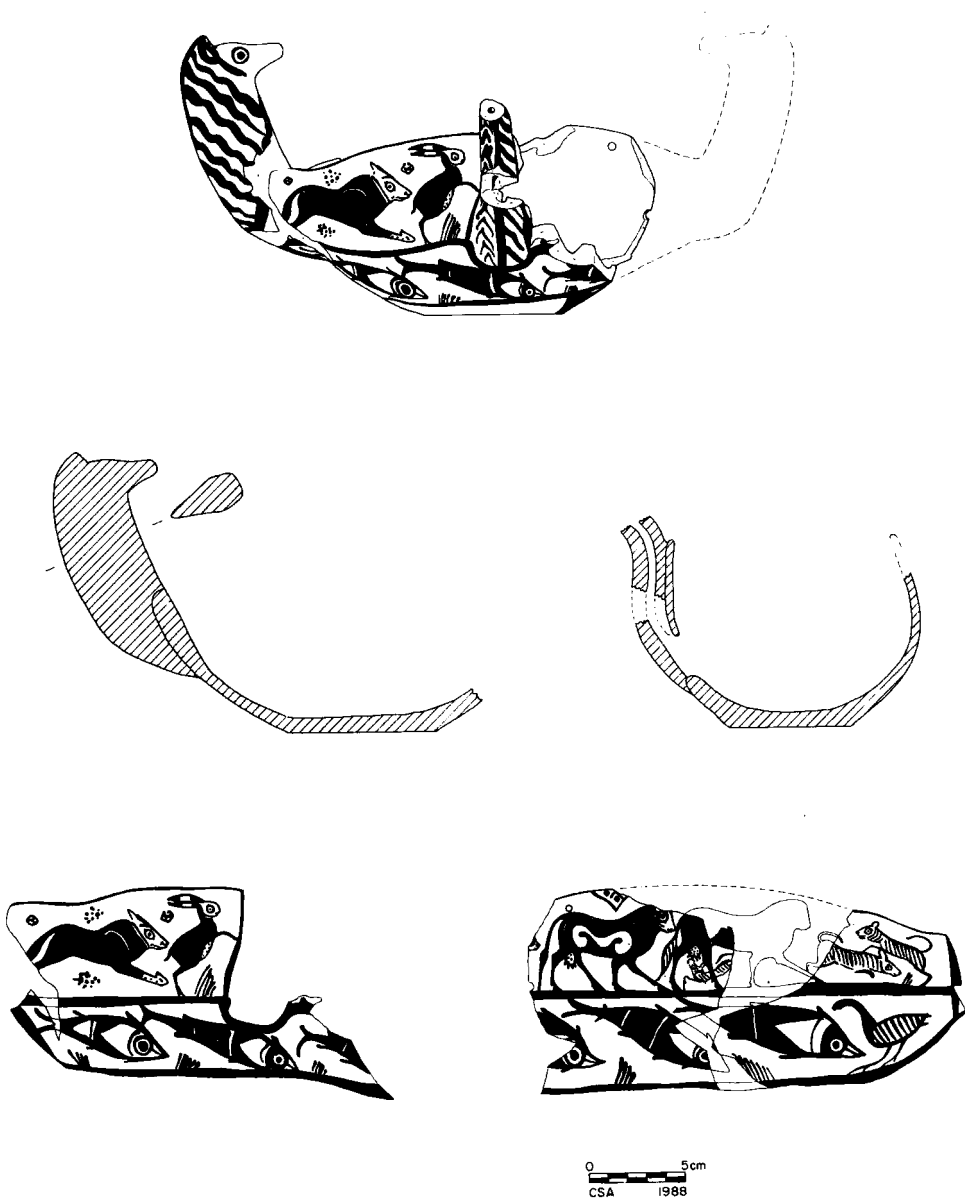
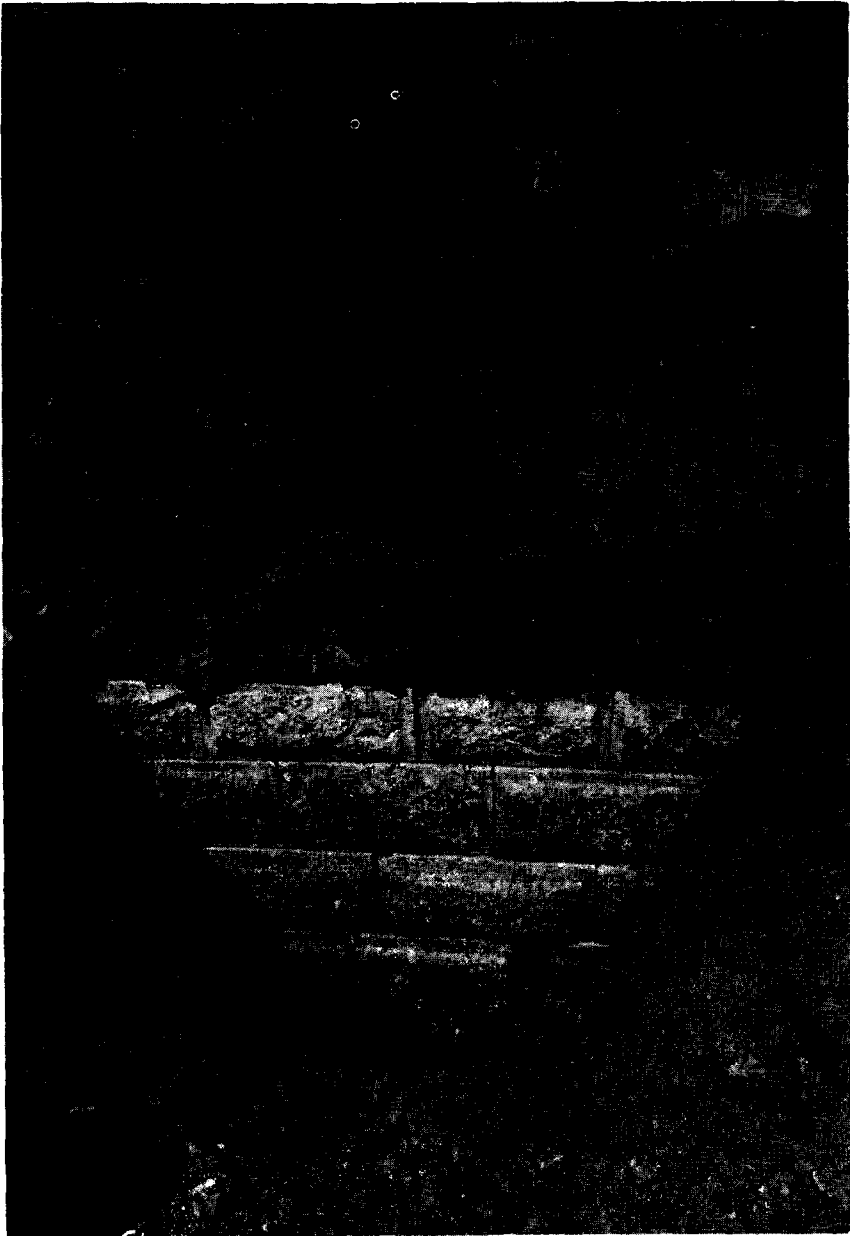


Fig. : 12 — Spouted vessel in the form of a boat (?), from Lydian residential quarter (yard)



**Fig. 13 — Lydian building with zig-zag facade: sandstone segment, with
-masons marks.-**



**Fig. : 14 — Lydian building revealed in sondage in chain of mounds
(cf, Fig. 1, B)**

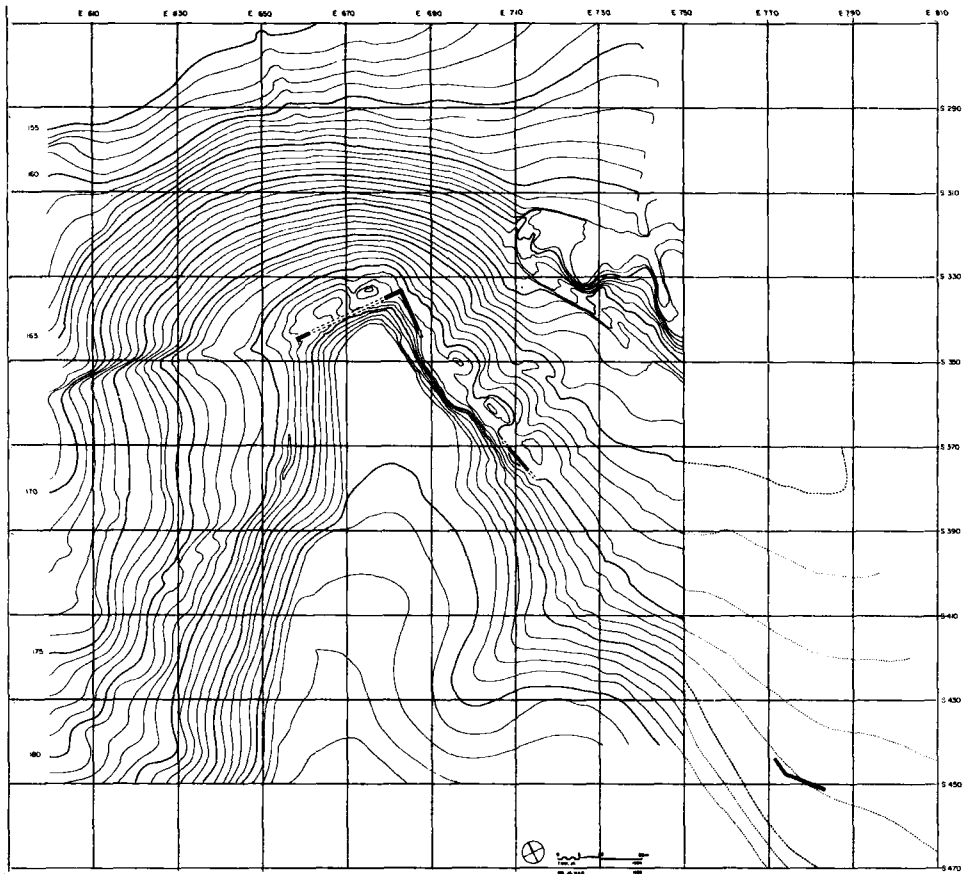


Fig. : 15 — Flat-topped spur on north flank of Acropolis (Sector 'ByzFort-') contour plan with excavated segments of Lydian terrace facing shown as heavy lines

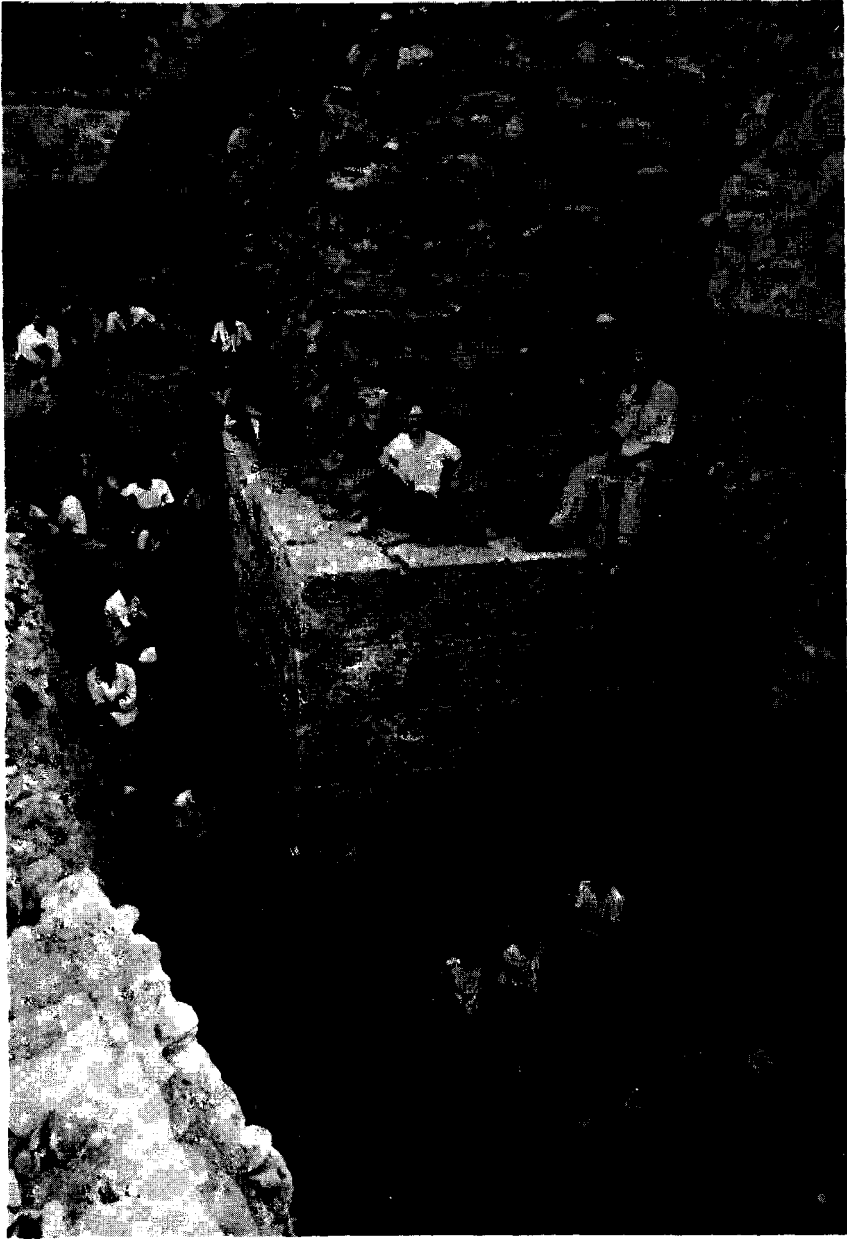


Fig. : 16 — Lydian terrace wall that revets flat-topped spur on north flank of Acropolis (sector «ByzFort» northeast corner, looking south)

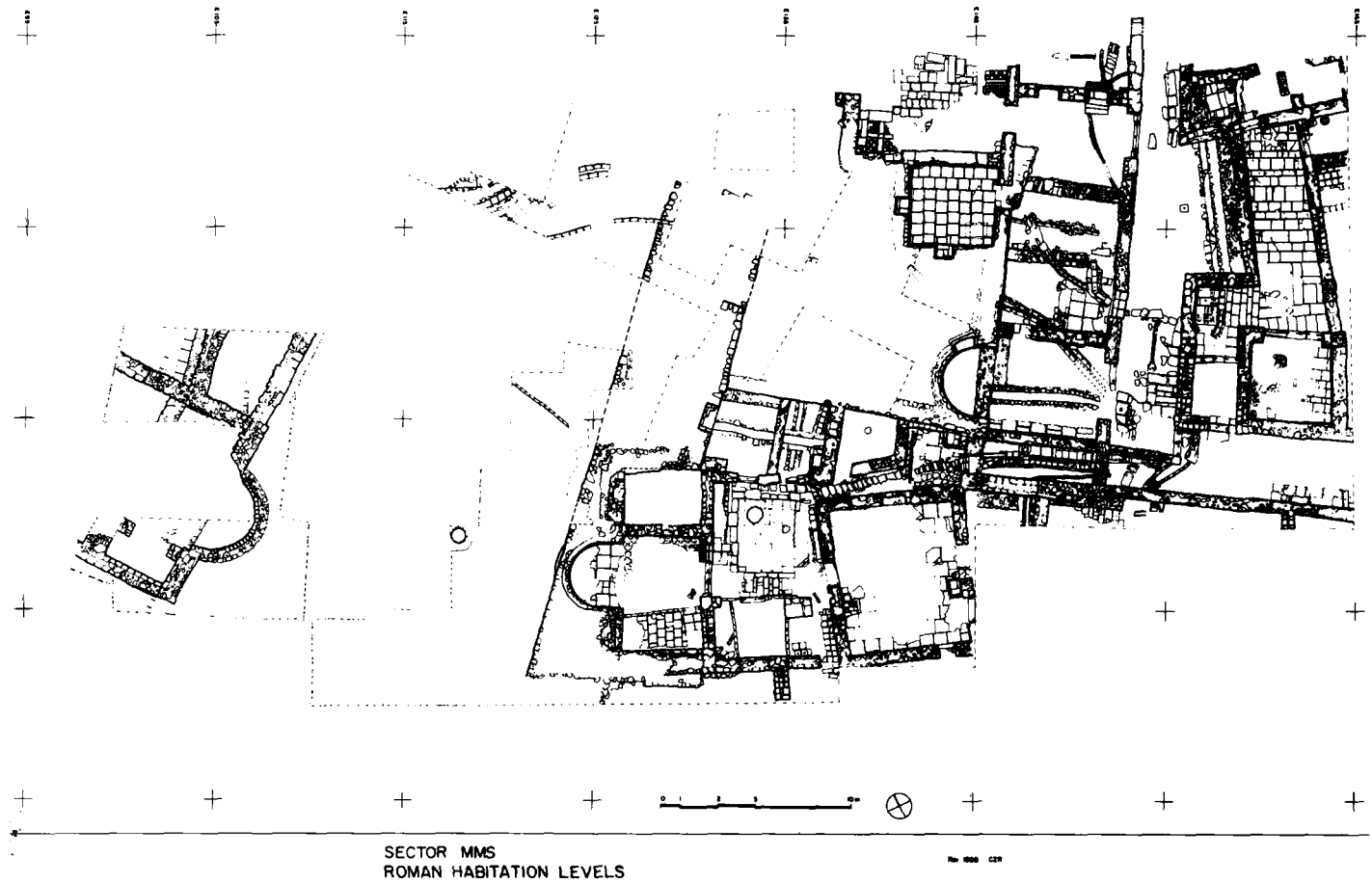


Fig.: 17 — Late Roman residential quarter (showing residential units and outside well; with colonnaded street excluded), plan



Fig. : 18 — Water tank with cross in Late Roman residential quarter

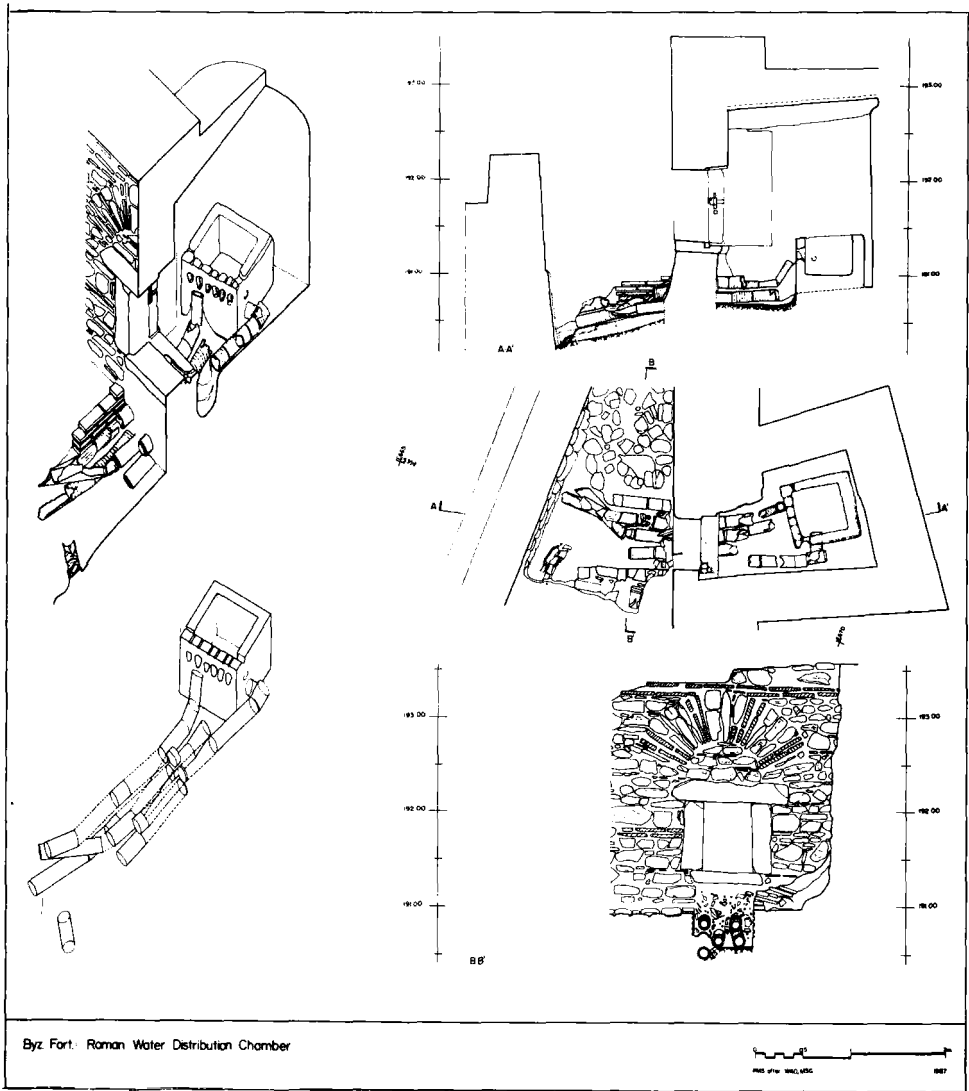


Fig. : 19 — Roman water distribution chamber section, plan elevation, and isometric views

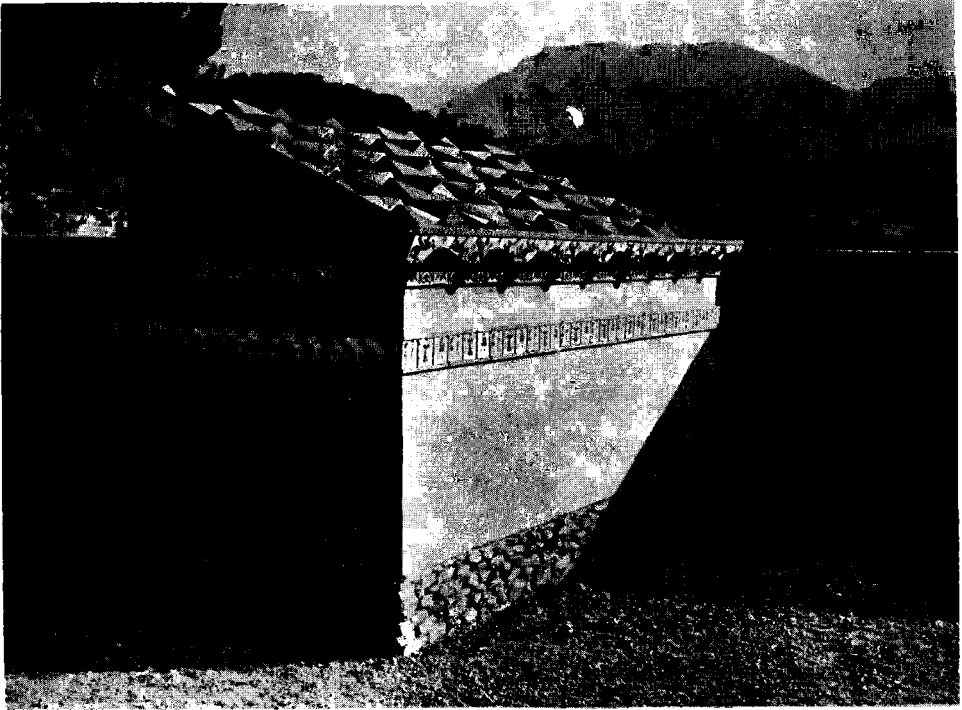


Fig.: 20 — Display of recreated Lydian roof and revetment tiles