## **SARDIS**, 1976

## Crawford H. Greenewalt, Jr.

Archaeological research in 1976 was conducted during two and a half months (June - September) by a staff of thirteen members (of Turkish, American British, and New Zealand nationalities).<sup>1</sup> The season's program included two feasibility studies for future projects (concerning reconstruction of Lydian architectural terracottas, and urban historical topography); the recording of new discoveries (a Late Roman painted underground tomb, a massive structure of mud brick perhaps dating from Lydian times, a cache of Lydian pottery recovered during the digging of a modern well near Sart Mahmut, tumulus chambers in the western region of Bin Tepe, ruins at a site called «Karadut» in the Tmolos/Boz dağ range); and the study of antiquities recovered at Sardis in earlier seasons (Lydian architectural terracottas, Attic figured and black-glaze pottery, Hellenistic relief pottery).

Lydian Terracotta Reconstruction project. The high quality, cheerful colours, and thematic variety of Lydian architectural terracottas from Sardis (mainly of the sixth century B. C.), conversely the fragmentary condition of most recovered examples, which frustrates appreciation of their complete aspect and collective visual effect,<sup>2</sup> inspired the idea that

The work of several participants profited by a grant from the National Endowment for the Humanities.

The privilege to do scholarly research at Sardis again was granted by the Ministry of Culture and the Department of Antiquities and Museums, whose officers showed their customary kindness and helpfulness. These gentlemen, particularly Messrs. Hikmet Gurçay, Burhan Tezcan, and Çetin Anlağan, also the acting director of the Manisa Museum, Kubilây Nayır, are fundamentally responsible for the success and untroubled atmosphere of the 1976 season. The Expedition once again is deeply grateful to them.

<sup>&</sup>lt;sup>1</sup> The 1976 staff included: G. M. A. Hanfmann, director; Ismet Algedik, government representative and commissioner; Teoman Yalçınkaya, administrative officer; C. H. Greenewalt Jr., field director; D. G. Mitten, associate director; A. Ramage, archaeologist and specialist for Lydiam terracottas; N. H. Ramage, specialist for Attic pottery; I. Hanfmann, specialist for Hellenistic relief pottery; F. K. Yegül, specialist for gymmasium-bath complex; E. R. Hostetter, specialist for terracotta reconstruction project; E. E. Freedman, specialist for urban survey project; S. Payne, palaezoologist; E. Gombosi, photographer and recorder; K. J. Frazer, manager. Professor L. Robert again was epigraphical consultant.

<sup>&</sup>lt;sup>2</sup> E. g., G. M. A. Hanfmann, Letters from Sardis (Cambridge, Massachusetts 1972) pl. II, fig. 71.

examples of Sardian architectural terracotta types might be recreated and appropriately combined for display in an outdoor architectural context at Sardis A feasibility study for this project was performed in 1976 by E. R. Hostetter, who concentrated on the fundamental question : can moulded architectural terracottas which accurately reproduce the forms and «glaze» (i. e., slip) decoration of ancient examples be recreated at Sardis by our Expedition? The successful recreation of two architectural terracotta types provides an affirmative answer : FIG. 1.

Of the two types reproduced one was a «star - and - scroll» geison plaque, the other a «confronted pegasoi» sima plague<sup>3</sup> Clay for the terracotta body and for most of the «glazes» was obtained in the near vicinity : for the body and red glaze form potteries at Urganlı (near Akçapınar between Turgutlu/Kassaba and Salihli), for the white glaze from Kula, and for the black glaze from Kutahya.

The tiles were produced first by taking impressions of original terracotta fragments; second by collating in positive clay casts the decorative elements taken in step one and producing full-scale positive models of the tiles (for the two types reproduced, practically no improvisation was necessary); third by making moulds of the models created in step two; fourth by casting positives from the moulds created in step three; fifth by retouching the positives with stylus and brush to clarify definition (as seems to have been done also in antiquity) and combining separately cast parts, FIG. 2, like the spout of the «pegasoi» **simas**; sixth by painting the positives with «glazes» which had been prepared after much experimentation (involving nearly 200 small «test» tiles, made to check colour and adhesiveness). The moulded and painted tiles were fired in the UZGUR Tuğla Fabrikası near Salihli.

An objective of the terracotta reconstruction project would be to display reproductions also of other figural **sima** and **geison** types, perhaps of pedimental and acroterial types, and of Sardis - type roof tiles painted with lozenges in white - on - black and black - on - white colour schemes. The design of the structure on which the tiles would be displayed and the location and setting which the structure would occupy at Sardis also were given much attention, and require further consideration.

Urban Survey Feasibility Study. This study was initiated on the premise that a considerable fund of unassimilated evidence exists at Sar-

<sup>&</sup>lt;sup>3</sup> Cf. T. L. Shear, Terra - Cottas Part One, Architectural Terra - Cottas; Sardis X (Cambridge 1926) 31 - 33, 36 - 40; A. Akerström, Die Architektonischen Terrakotten Kleinasiens (Lund 1966) 71 - 73, 75 - 76, cf. 140, 148.

dis (in the form of diagnostic antiquities exposed at ground surface, signs of geological change and stability) whose systematic study and collation could yield important new information about the city's historical topography.

The feasibility of such a project was scheduled to be studied in 1976 by two anthropologists with training in Greek and Roman archaeology. Owing to unavoidable circumstances, however, the study could be performed by only one of these, E. E. Freedman, and within a period of less than a month.

An L-shaped zone of some 1,140,000 square meters, bounded by the Pactolus stream, the İzmir - Ankara highway, and the Acropolis cliffs (FIG. 3), was systematically examined by Freedman (assisted by D. G. Mitten and the writer). Because of time limitations, this zone excludes about three - fifths of the Roman city (further to the north and east). Despite limitations of time and manpower, this preliminary examination produced evidence for major features and aspects of Sardian topography which had not been fully appreciated or even guessed before; e.g.:

(a) that in Roman or later times the occupation territory of Sardis extended south of the Artemis Temple by some 750 m. or more, east and perhaps also west of the Pactolus (as indicated by heavy concentrations of pottery and tile), in regions hitherto considered to have been cemetery territory (these regions do not appear in FIG. 3).

(b) that a considerable area between the Artemis Temple and urban regions to the north (specifically, the hilly zone east of the Pactolus between the «Northeast Wadi» and Kekliksuyu) was uninhabited before Late Roman times (and until that time had been only a burial ground; this area is shaded with dots in FIG. 3).

(c) that certain parts of the Lydian city, whose present ground surfaces are littered almost exclusively with Lydian artifacts and tiles (a sampling of which is illustrated in FIG. 4) and which in one place exhibit architectural remains, experienced little or no occupation in post - Lydian times and therefore promise Lydian remains which are directly accessible and uncontaminated by the intrusions and destructions of subsequent occupation.

(d) that urban patterns of Roman Sardis on the lower north slopes of the Acropolis might be ascertained with a minimum of excavation; from the exposed walls of what appears to have been a complex system of landscape terracing, from surface contour anomalies which evidently signify individual building units or complexes, and from differences in the character of architectural debris and artifact concentrations which could suggest domestic, industrial, or other activity for particular regions (FIG. 5 illustrates some diagnostic artifacts from one location).

The only excavation made in connection with the Urban Survey study in 1976 was a small sondage, dug to determine the situation and condition of a column whose shaft just broke the surface of a field on the lower north slope of the Acropolis (at ca. E. 340/S. 240 on the «B» grid). The column proved to rest in situ, its foot more than 3 m. below ground surface. The unchanneled lower part of the shaft suggests that it belonged to a secular building (stoa colonnade or house peristyle?). The shaft is substantially enveloped by two later walls oriented at right angles to one another, one built of brick faced with plaster, the other of coursed brick and field stone (FIG. 6).

Painted Roman Tomb (Hypogaeum). The most pretentious ancient monument discovered in 1976 was a painted subterranean tomb or hypogaeum of the Late Roman period, which came to the attention of Expedition members as a consequence of the Urban Survey feasibility study. The tomb is situated in a small valley enclosed by spurs of the Acropolis, ca. 240 m. east of Sector PC and ca. 200 m. north of the «Pyramid Tomb» (at ca. E. 30/S. 620 on the «B» grid). The top of the tomb lies only .30—.35 m. below modern ground level, and the discovery, made sometime during the Spring months, evidently resulted from the introduction to the valley of ploughing by tractor, which pulled up the entrance covering and exposed the conspicuous void below.

The tomb is a rectangular barrel-vaulted chamber oriented northsouth (3.50 m. long, 2.80 m. wide, 1.70 m. maximum height); it is entered through the ceiling by means of a rectangular aperture in the north end and three stone steps socketed in the north wall (FIG. 7). The entire interior wall and vaulted ceiling surfaces were plastered and painted. Colours include pink, red maroon, dark blue, light blue, yellow, pale green, dark green, brown, black, and white. The lower walls (to the level of the springing of the vault) are painted with a dado simulating revetment panels of veined and brecciated stone; the upper walls are painted with a free - field composition featuring baskets, cornucopiae, wreaths, doves, peacocks, and individual flowers : the last serve as filing ornament between the other motifs and alone spangle the upper vaulting (FIG. 8). The south lunette features a dipinto, framed by a wreath (FIG. 9), which identifies the deceased owner of the tomb : Chrysanthios, doukenarios fabrikesios, i.e. a salaried high offical and armourer, evidently in the important arms factory which was established at Sardis in the time of Diocletian or Constantine I.4

The painted plaster generally is well preserved on vertical surfaces, poorly preserved on the vaulting; much of the missing painted plaster may be submerged in a layer of earthy debris which covers the floor of the tomb (and any remaining contents). Since the recovery of such fragments and the cleaning and consolidation of the paintings in general should be supervised by a qualified conservator, it was decided to postpone excavation and cleaning of the tomb until appropriate expertise could be secured. Precautions were taken to ensure that the structure would not be violated in the meantime.

The tops of three or four other hypogaea were recognized immediately to the northwest of this one; and another with vivid painted decoration reportedly was exposed several years ago some 100 m. further to the north. This evidence, together with surface irregularities in the central part of the tobacco field, suggests that there is a heavy concentration of Roman tombs in the valley.

Structure of Coursed Brick. What may be a monumental structure of mud brick was first seen by A. Ramage in the hillock which lies immediately south of the İzmir - Ankara highway directly across from the Synagogue entrance (at ca. E. 120/S. 40 on the «B» grid). The northern part of that hillock was obliterated years ago when the highway was created; and since that time the scarp of the remaining part has intermittently been quarried by local villagers for clay. «Shaving» of this scarp in 1976 revealed what appeared to be some fourteen horizontal courses of mud brick (individual «bricks» average .10—.15 m. thick, .53—.55 m. long — or thick?) which extend for a distance of 3.00 - 3.50 m. (FIG. 10).

The horizontal position of the 'bricks' would indicate that they rest in situ and are part of a built structure; their apparent extent suggests that they should be part of a monumental building. Fragments of pre-Hellenistic Lydian pottery were recovered on the top of the hillock and

<sup>4</sup> For the arms factory at Sardis, C. Foss, Byzantine and Turkish Sardis; Sardis Monographs 4 (Cambridge, Massachusetts 1976) 14 - 15, 106. Four other Late Roman vaulted chamber tombs with similar painted decoration have been exposed at Sardis; for these, H. C. Butler, The Excavations Part I, 1910 - 1914; Sardis I (Leiden 1922) 174, 181 - 183; T. L. Shear, «Sixth Preliminary Report on the American Excavations at Sardes in Asia Minor,» AJA 26 (1922) 405 - 407; G. M. A. Hanfmann, «The Fourth Campaign at Sardis (1961),» BASOR 166 (1962) 30 - 33; Hanfmann and K. J. Frazer in Hanfmann and J. C. Waldbaum, A Survey of Sardis and the Major Monuments Outside the City Walls; Sardis Report 1 (Cambridge, Massachusetts 1975) 59 - 60.

some 4-5 m, west of the 'brick' remains in the same scarp. Might, as Ramage theorized from the first, the 'brick' belong to a fortification wall of the lower city and fix in at least one direction the hitherto elusive limits of Lydian Sardis?

Several aspects of the feature have puzzled the writer (and account for the qualified identifications in this report) : (1) the 'bricks' reveal little or no signs of straw content; (2) there is little or no mud mortar, so conspicuous in mud brick construction at Gordon and Old Smyrna and in the north wall of Building «H» at Sardis' sector HoB; (3) the 'brick' forms are visually elusive in places where they might be expected to be traceable, i.e. between some (apparent) courses and in the zone in which the construction evidently terminates (and where a vertical face should appear but, despite cleaning and scrutiny, has not been observed). Two visitors experienced in the identification of mud brick (R. Bridges, G. Bakır), however, both unhesitatingly endorsed Ramage's identification of the feature as a mud brick structure.

Lydian Pottery from Sart Mahmut Well. During the Spring months, the digging of a well in a garden of Sart Mahmut, ca. 670 m. north of the Izmir - Ankara highway (at ca. w. 97 - 98/N 650 - 651 on the «B» grid) produced a large quantity of pre - Hellenistic Lydian pottery which allegedly had rested 6 - 9 m. below ground level.

The owner of the well, who had saved some fragments, informed the Expedition and permitted the earthy debris extracted from the well shaft to be searched for more. In this way nearly three thousand fragments of pottery and roof tile were recovered. Of these, 100-odd were «post-Lydian» (fourth century B.C., Hellenistic, Roman) and imported wares of the sixth century B.C. (fragments of Lakonian crater, Corinthian plastic aryballos in the form of a spotted animal, Attic Siana cup); the rest were Lydian, and included a considerable repertoire of typical Lydian shapes and decorative conventions. Shapes included amphora, hydria, column crater, lebes, trefoil - mouth oinochoe, skyphos, fruit dish, stand, brazier, cooking jug, bread pan; decorative conventions included bichrome, streaky-glaze, marbling, black - on - red. Fig. 11 illustrates the shoulder of an oinochoe decorated with tongues and bands in streaky glaze and bearing an incised sketch of a grazing deer in the Wild Goat style (inventoried NoEx 76. 13). The same earthy debris from the well also yielded bones, identified by S. Payne as horse, bovid, pig. hare, juvenile sheep and goat (many), tortoise, and large bird; and an oyster shell.

Noteworthy are both the large quantity of Lydian pottery relative to the area sampled and the evidence for intensive Lydian occupational ac-

tivity 650 m. beyond the northermost location for which Lydian occupation at Sardis previously was attested (beneath the Marble Court of the Roman gymnasium - bath complex).

Bin Tepe. Two tumulus tombs situated in the western region of the western region of the Bin Tepe cemetery, some 3 km. north of Kestelli köyü and allegedly accessible for the past ten years, were reported to the . Expedition by local villagers. One of these (whose tumulus, with two other tumuli and two recently exposed cist and sarcophagus burials, is located in a field just to the west of «Seref Ali's» farmstead) is unlike other know Bin Tepe tumulus tombs in having three chambers, (one with antechamber), pitched ceilings, and a very long dromos. The three chambers are disposed in a clover - leaf arrangement; the one on axis with the dromos has the antechamber, and that chamber and antechamber have the pitched ceilings (ceilings of other units in the complex are flat). Wall and ceiling surfaces of all units display traces of crude mortar, similar in texture to the underlayers of painted stucco. All interior units are half filled with earthy debris, from which only a few non-diagnostic pottery fragments were recovered. The chamber to the right of the entrance dromos contains part of a marble basin - like object, presumably a sarcophagus. The pitched ceilings and crude workmanship (irregular dimensions of parallel walls and courses; imprecise masonry jointing; rough surface finish; reuse of material - marble blocks, contrasting with the normal limestone) suggest that this tomb was constructed in the later fifth or fourth century B.C., or later, when the traditions of sixth - century - B.C. tumulus chamber design and technique were no longer carefully observed.

From the same locale was recovered a grave stele of the Roman period, in almost pristine condition (inventoried IN 76. 9; Fig. 12) : beneath flat relief renderings of mirror, comb, and bird framed within a wreath is an inscription which identifies the deceased as a three year - old girl.

The other tumulus tomb, situated on a hill some 1.5 - 2 km. east - southeast of the first, is of conventional design (single chamber with dromos) but is noteworthy for the very finely chiseled surfaces of its limestone blocks and for the utilization of limestone bedrock, appropriately cut and trimmed, for one entire wall and part of another (adjoining) in the chamber.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Limestone bedrock was similarly utilized for the «crepis» wall in the tumulus locally known as Karnıyarık Tepe at Bin Tepe, G. M. A. Hanfmann, «The Eighth Campaign at Sardis (1965),» BASOR 182 (1966) 28-29; also at Belevi, S. Kasper, «Der Tumulus von Belevi,» AA (1975) 223-232.

The chamber of the Tumulus of Alyattes also was visited by Explidition members, and yielded three fragments of pottery : two lydia and a delicately banded (local) skyphos, Fig. 13.<sup>6</sup>

Site at Karadut. An ancient site situated on the northern crest of the Tmolus (Boz dağ) range ca. 2.5 - 3 km. southwest of the Artemis Temple and locally known as Karadut was visited for the first time by Expedition members (half a day's excursion. The site, flattish or gently rolling terrain now largely planted in grain crops, covers an area of perhaps some 1200 sq. m. Ancient occupation is attested by conspicuous quantities of pottery and tile fragments in the fields (where, at one place identified by local villagers, an ox once had fallen into a submerged pithos) and by rulned structures near the edge of the mountain crest. Two pairs of narrow rectangular chambers with well-preserved barrel vaulting, one displaying traces of mortar stucco, identified themselves as cisterns. The existence of an ecclesiastical structure or structures was suggested by the presence of three double - engaged window columns (one in a building ruin, the others in field stone piles). The invariable material of construction was local schist with mortar; marble parts were sparse (and included fragments of screen balustrade and moulding, in addition to the window columns). Mosaic paving beneath the surface of some fields was alleged by local villagers.

None of the remains seen on this excursion indicated occupation before the Roman period. To F. K. Yegül, the style of the marble parts seemed consistent with a date in the fourth or fifth century A. D.; on the other hand, some letter forms on an extremely worn stone inscription recovered in one of the cistern (removed to the Sardis Expedition compound und and inventoried IN 76. 7) appeared to the writer consistent with a period no later than the third century A. D.

The Lydian communities Itone and Kerassai, cited by Nonnus (Dionysaica 13. 464 - 470) have been associated with the mountains near Sardis;<sup>7</sup> but in antiquity as today Tmolus must have held many modest communities. From the worn text of the Karadut inscription diligent and informed study conceivably might yet coax a toponym.

**Inventoried Small Finds.** Of the small finds recovered by the Expedition in 1976, two are of special interest.

For investigations of the Tomb of Alyattes, J. F. M. von Olfers, «Über die lydischen Königsgräber bei Sardes und den Grabhügel des Alyattes,» AbhBerl (1858) 539-556;
G. M. A. Hanfmann, «The Fifth Campaign at Sardis (1962),» BASOR 170 (1963) 52-57, figs. 39-41; Hanfmann (supra, n. 2) 118-120, figs. 88, 89.

<sup>&</sup>lt;sup>7</sup> Cf. L. Robert, «Philologie et Geographie,» Anatolia 3 (1958) 137-144.

One is a marble volute fragment, evidently part of an lonic capital, Figs. 14, 15 (the rendering of the «underside,» Fig. 15 is inappropriate for the upper surface of a volute finial<sup>8</sup>), whose small size suggests a votive pedestal rather than a building column. The interest of this piece lies in the evident Archaic date and in the curious floral - form appendage on the volute's underside (which wrecks the critical cohesiveness and rhythm of the lonic capital's volute forms). This item was recovered from a farm shed at 'Dede Mezarı', ca. 1.5 km. west of Sart Mahmut, where a low hillock (now featuring a saint's mausoleum and graves of the Etyemez family from Mersindere village) exhibits fragments of ancient pottery and in 1960 yielded a small marble kore in relief.<sup>9</sup>

The other item of interest is a gemstone of carnelian, engraved with a bearded and helmeted head (Fig. 16). This gemstone was presented to the Expedition by Sergeant James L. Jackson, who had purchased it in Sart Mustafa. Two features of the engraving, the dragon - like form of the helmet crest and the combination of beard and moustache with shoulderlength hair, have suggested to D. G. Mitten and the writer that it may not be ancient. From the evidence of a photograph, J. Boardman has written «I think you are right to be suspicious about the gem. The features are mean, treatment of hair, neck and ?shoulder very odd and the helmet more Renaissance in conception than Roman, I should judge.»

If, as Mitten has supposed from the beginning, the gemstone is not a deliberate forgery but a work of the 16<sup>th</sup> century or later, how did it reach Sardis : through modern antiguities dealers who «seed» the site for acguis itivetourists, or through trade «in Ottoman times, when there was a great deal of movement between Ottoman Turkey and western and southern Europe» (Mitten)?<sup>10</sup>

**Research and Study.** Studies of the following antiquities were made in connection with the program for publication of material excavated or otherwise recovered at Sardis between 1958 and 1975: Roman Imperial gymnasium - bath complex (by F. K. Yegül), Lydian architectural terracottas (by A. Ramage), Attic figured and black - glaze wares (by N. H. Ramage, Hellenistic relief wares (by I. and G. M. A. Hanfmann).

<sup>&</sup>lt;sup>8</sup> Like those from Monodendri and Miletos, A. von Gerkan, Der Poseidonaltar bei Kap Monodendri; Milet I. iv (Berlin 1915); Stephanos; Theodor Wiegand zum 60. Geburtstag von Freunden und Verehrern dargebracht (Berlin 1924) 5, 8-9.

<sup>9</sup> G. M. A. Hanfmann, «The Third Campaign at Sardis (1960),» BASOR 162 (1961) 48-49.

<sup>&</sup>lt;sup>10</sup> For a gold ducat of the Holy Roman Empire recovered from Bin Tepe, Hanfmann (supra, n. 2) 127, fig. 93.



Fig. 1 Recreations by E. Hostetter of two Lydian architectural terracotta tile types.

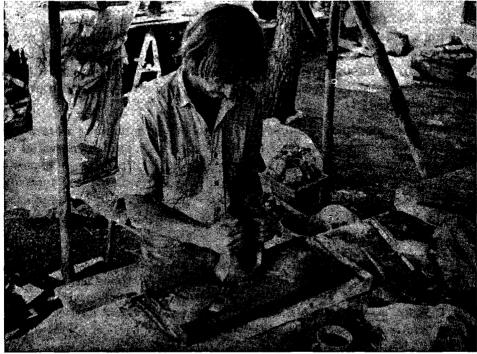


Fig. 2 E. Hostetter attaching spout to reconstructed pegasoi sima. 96

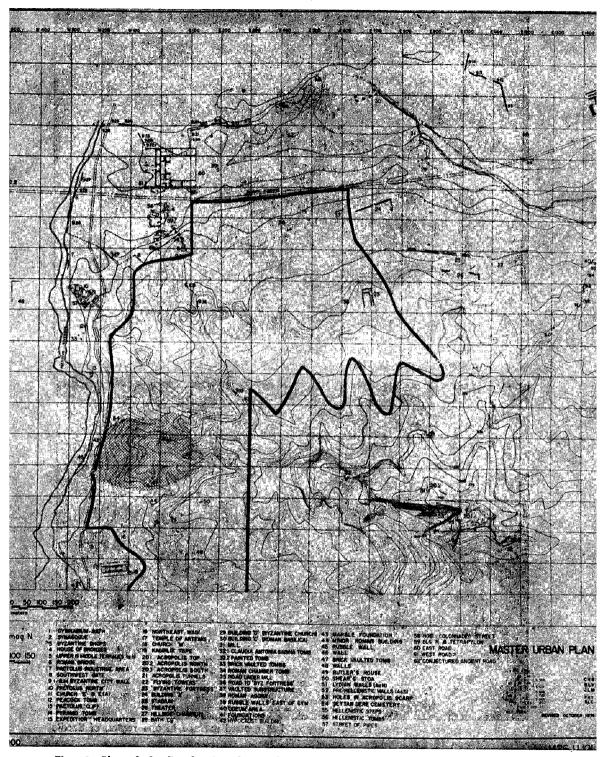


Fig. 3 Plan of. Sardis showing the northern part of the area covered in E. Freedman's urban survey feasibility study.

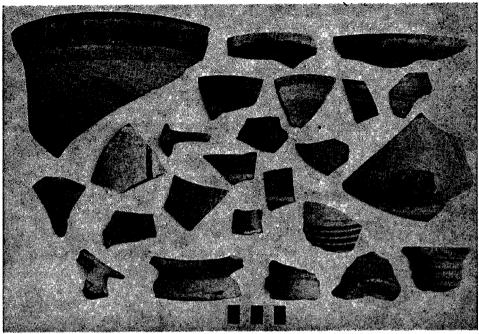


Fig. 4 Examples of Lydian pottery remains exposed at ground surface in one region of Sardis (Area II, Field 10).

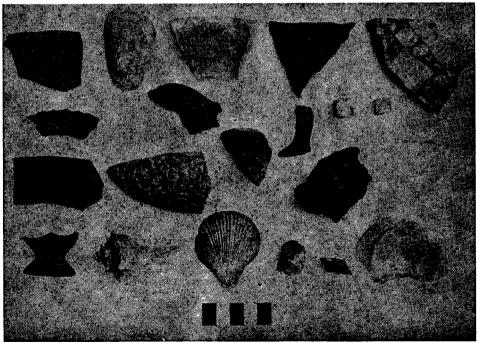


Fig. 5 Examples of Roman artifacts exposed at ground surface in one region of Sardis (Area II, Field 29).

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Fig. 6 Doric column in situ on the lo<sup>w</sup>er north slopes of the Acropolis (view looking east).

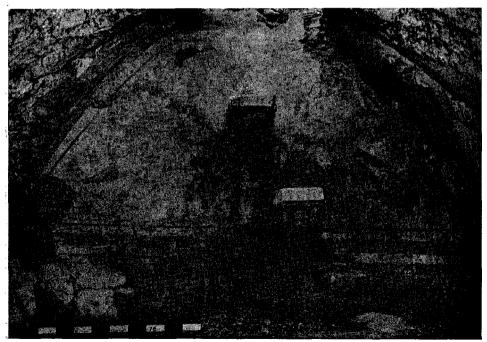


Fig. 7 Roman hypogaeum, north <sup>W</sup>all and entrance.



Fig. 8 Roman hypogaeum, south end of West wall.

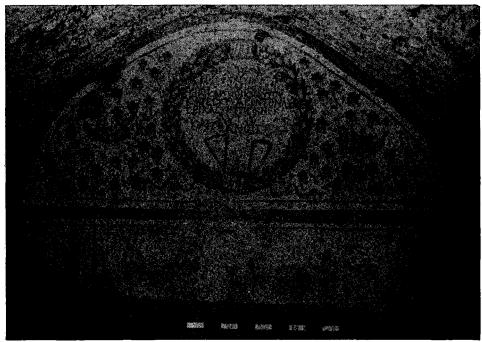


Fig. 9 'Roman hypogaeum, south end.

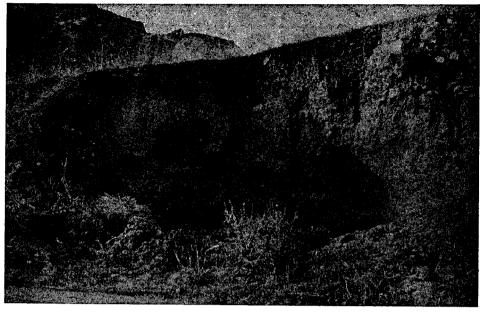


Fig. 10 Mud brick construction in hillock immediately south of Synagogue entrance.



Fig. 11 Fragment of Lydian oinochoe With incised deer (foreparts), from modern well near Sart Mahmut.



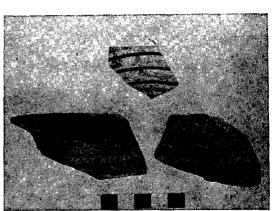


Fig. 13 Lydian potterly fragments from the Chamber of the Tumulus of Alyattes.

Fig. 12 Roman grave stele from Bin Tepe.



Fig. 14 Ionic capital fragment from 'Dede Mezarı' near Sart Mahmut.



Fig. 15 Ionic capital fragment from 'Dede Mezarı' near Sart Mahmut.



Fig. 16 Engraved gemstone acquired in Sart Mustafa.