

## EXCAVATIONS AND RESEARCHES AT SARDIS - 1975

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The eighteenth campaign of the Harvard - Cornell Archaeological Exploration of Sardis was directed by C.H. Greenewalt, Jr., joined subsequently by G.M.A. Hanfmann. Erol Çakır of the Archaeological Museum, İzmir was our helpful Government Representative. Sixteen foreign and one Turkish member took part in the campaign; in addition, our authorized agents, civil engineer T. Yalçinkaya and architect consultant M.C. Bolgil assisted the work in various ways. We are appreciative of the aid extended to us by Kubilay Nayır, then Acting Director of the Manisa Museum, and his assistants. We are again indebted to the Director General of Antiquities and Museums Hikmet Gürçay for his help and interest. The campaign was supported by funds from participant institutions and for some of the staff travel to Turkey and research expenses principally in the U.S.A. by grant No. RO - 10405 - 74 - 319, National Endowment for the Humanities.

Because the plan for the 1975 campaign called for completion of documentation of previous excavations, only small scale excavations were made during this season.

### Gymnasium - Bath Area

Architect F.K. Yegül undertook several investigations to clarify important problems of plan, design, construction, and water supply of the Gymnasium - Bath complex<sup>1</sup>. To determi-

ne the western boundary of the central bath building, he excavated a trench (N 70 - 81/W 18.10 - 19.10) which disclosed that a vaulted (service ?) corridor ran along the western wall of halls BCH and BNH (Fig. 1). Its vault sprang at ca. \* 102.5. The distribution of piers in the western wall permitted better correlation with units in the western, largely unexcavated (B - West) part of the complex. The placing of western face of west wall at W 18.10 permitted a series of more exact measurements of the entire complex. Thus it was ascertained that the *plaestra* is a virtually perfect square (64.60 by 64.54 N/S) attesting great precision of planning.

The Marble Doors which led from the central building (BCH) into the hall with the swimming pool (BE - H) were reconstructed in drawing for a northern and a southern passage. The niches along the western side of the hall with the swimming pool (BE - H) were cleaned and their subfloors, marble revetments, and water supply terracotta pipes investigated. They served as fountains and pools.

The work of measuring and drawing the Second Stroy Pavilions of the Marble Court was completed in final form. They show the pavilions as restored with the new parts in darker hatching (Fig. 2).

Cleaning of Screen Colonnade and Other Columns in the Marble Court

It was observed by Prof. Greenewalt and Chief Conservator, Prof. Majewski that various original parts of columns had become obscured by cement during reconstruction. From July 18 - August 19 some workmen were employed in cleaning a number of columns by wetting the stone and rubbing it with fine carborundum (Fig. 3). Notably in the case of **pavonazetto** (purple and white) marble this resulted in notably improved effect.

#### Acropolis

As detailed in last year's Report (5 - 6), work on a trench near the Lydian masonry terraces on the North side of the Acropolis (W 178 - 196/N 99-107, top at ca. \*392., bottom ca. \*383.5) was stopped on August 15, 1974. It was resumed by C.H. Greenewalt, Jr. from August 8 - 15, 1975. The trench was re-excavated, cleaned, and somewhat extended. A bank of Hellenistic debris was removed but no archaic deposit was found underneath. It was also ascertained that a broad conglomerate platform (shown in Fig. 4 at ca. W 180 - 188/N 100 - 104, \*389.01) underlay the destruction debris. It was also noted that the huge L-shaped block, which occasioned the excavation was still resting on a pocket of fill, not on conglomerate itself (W 193 - 195/N 103 - 105.5, top \*384.14; cf. also Fig. 5). The trench was recorded by architect R.L. Vann.

#### Pactolus North

Since several projects concerned this sector, fallen earth was cleared away and other cleaning operations performed August 16 - 18. Architectural work was done on the plan of the Persian period by K.J. Frazer, and on the plan of Early Christian and Byzantine

levels including the basilica EA and the Middle Byzantine church E, and on the sector plan of the Islamic - Turkish period. This work was largely carried out by R.L. Vann.

#### Study of Lydian - Gold Working Industry - work at PN Sector

The Lydian gold - working and refining facilities and the technological artifacts found in these working areas from 1968 - 1970 were studied by S.M. Goldstein, Associate Curator, Corning Museum of Glass and a member of the Sardis Expedition in 1968 - 1970. At the sector, in collaboration with architect R.L. Vann, Goldstein developed a plan of the Lydian level showing Gold Refining Area and findspots of materials associated with industrial activity. In accordance with his suggestions, draftsman E. Wahle then developed tentative reconstructions of the Lydian Industrial Area during the operation of the gold refining facilities.

#### Study of Lydian Technological Materials in Cooperation with Ege University

In the Sardis Laboratory, Goldstein worked on technological materials previously recovered from the site. He established contact with Doc. Dr. Özcan Dora, Jeoloji Kürsüsü Başkanı, Ege University, Bornova - İzmir, who is in possession of advanced modern equipment for spectroscopic and microscopic analysis. The entire scholarly value of the material we found and of Dr. Goldstein's publication depends on securing a sufficient number of scientific analyses of the small gold specimens now kept at the Manisa Museum. We hope that specimens now in the Manisa Museum will be made available for analysis by Doc. Dr. Ö. Dora. Among the results of S.M. Goldstein's work was the observation that one of the specimens may show stamped parts of devices used on early Lydian

<sup>1</sup> For the plan, cf. *TürkArkDerg* 21 : 2 (1974) 61 - 62, fig. 15; and 22 : 1 (1975) 23, fig. 1.

coins (incuse square and lion). This may indicate direct connection between the gold refining workshops and the royal mint, which may have controlled the production.

Church «EA» and Church «E»  
(Pactolus North)<sup>2</sup>

In the south aisle of the 13th century church «E», the south and the west wall of the rectangular sunken area known as «peseudo-crypt» or «Pit 1» were recleaned and the frescoes on the south wall investigated by H. Buchwald and the conservator J. Soultanian. It was observed that there were two major layers of frescoes and that the painted south wall did not bond with the west wall but continues behind it westward (Fig. 6). Buchwald suggests that the painted wall belonged to the Early Christian basilica «EA» and that the builders of the 13th century church «EA» constructed the sunken area to permit the painted wall to be seen, possibly because it carried representations of saints buried under the «pseudo-crypt.» Unfortunately, the fresco is so poorly preserved that it is no longer possible to decide whether any figures of saints were represented.

On July 18-21, Buchwald worked out a plan for the study of the Early Christian (ca. 350-400 A.D.) basilica and of the scattered architectural fragments which may have belonged to it. Subsequently, E. Wahle and F.K. Yegül measured and drew some fifty architectural pieces which may relate either to the earliest church construction or to later restorations; evidence for such restorations appeared in the study of the walls, floors, and doors. At least six different types of double-engaged columns were discerned. Ac-

ording to Buchwald, these columns are to have served as supports in the colonnade of the nave; they may have been used as intermediate supports of windows (Fig. 7). Interesting fragments of altar screen lintels seem to belong to a restoration of church «EA.» Fragments of four lintel blocks show an earlier style characterized in their relief decoration by horseshoe arches; other fragments belong to a replacement block which shows semi-circular arches. Buchwald tentatively assigns the original screen to a restoration after the partial destruction of 616 A.D.; the restoration block was made when the lintel was re-used in the 13th century church «E».

In the last days of the season Buchwald and Hanfmann cleaned some walls which may belong to a group of rooms on the west side of the atrium of the Early Christian church «EA». Traces of mosaic floors are preserved. The thickness of the walls suggests that they served as supporting walls of the platform on which the church complex rose above the Pactolus.

Main Avenue and Synagogue Area  
F.K. Yegül studied the intersection

where the Main Avenue of Sardis intersected the East Road running along the East side of the Gymnasium. He observed traces of three massive piers. They are arranged in a square, and Yegül suggest that the intersection was spanned by a four-way arch, a Tetrastylon built possibly ca. 400 A.D. (or later).

Interior of the Synagogue

Making use of the new results reached in the studies of coins and inscriptions from the Synagogue, L.J. Majewski studied the mosaics and other interior decoration of the Synagogue. In his comprehensive study, which will be a chapter in the

<sup>2</sup> For plans, axonometric view, and photographs of PN with the two churches of. *TürkArkDerg* 21 : 2 (1974) 60, figs. 4 - 6; 22 : 1. (1975) 20 - 21, figs. 27 - 30.

final publication, he concludes that the decoration of the last phase (Phase IV, according to A.R. Seager's architectural study)<sup>3</sup> was a long and nearly continuous process which may have lasted from ca. 280 to ca. 410 A.D. The earliest mosaics of the Main Hall date ca. 280-300 A.D. (Bays 1 and 3), the others from ca. 330-380. In the Forecourt, one group was laid ca. 350-380 A.D., the other ca. 380-410 A.D. The luxurious and varied marble revetments of the Main Hall and the Forecourt were either contemporaneous or slightly later than the floor mosaics of these units.

Used perhaps just above the level of the marble revetments were wall mosaics with geometric patterns of glass and stone and even gold tesserae. Although not more than 4 sqm were found fallen on the floor, they include part of a dedicatory inscription, and indicate that «a shimmering, jewel-like surface» was an important part of the effect of this grandiose interior.

#### Research and Study of Objects: Corinthian Pottery

Judith Schaeffer continued her study of Corinthian pottery making additions to previously reconstituted pieces. Her study of stratification of some 250 pieces from the Lydian Market («Lydian Trench-House of Bronzes» area), adds important chronological data to the stratification system previously developed by G.F. Swift, Jr.<sup>4</sup> Late Geometric and Early Protocorinthian (ca. 730-700 B.C.), Late Protocorinthian and Transitional (650-625 B.C.), and especially Early Corinthian (625-600 B.C.) and Middle Corinthian

(600-575 B.C.) are well represented.

#### Turkish Pottery

Howard Crane worked on Turkish ceramics. Because the Sardis material comes at least in part from a stratified context in the village in sector Pactolus North, it is important as a coherent local corpus of pottery ranging from the 14th into the 18th century. Crane identified examples of «Miletus ware», which he believes was made, at least in part, locally; imported Iznik I, II, and III wares (ca. 1490-1560) and «Golden Horn» ware, (Figs. 8-9)<sup>5</sup>, as well as blue- and - white paste cups, possibly of the 17th and 18th century. There are also a few fragments of porcelain. Crane has made a pioneering classification of local glazed wares, some of which may have developed from previous Byzantine glazed wares.

#### Study of Contemporary Methods of Pottery Making

To obtain better understanding of local traditions in pottery, Crane and A.P. Lins, Conservator, visited local potteries at Urganli, Datbey, and Gökeyüp Köy on the road to Demirci. They were able to observe the use of materials and techniques, some of which were used in ancient pottery-making by the Lydians.

#### Stone Sculptures

In conjunction with the preparation of a volume on Ancient Stone Sculpture from Sardis, G.M.A. Hanfmann reviewed and described, E. Wahle drew, and E. Gombosi photographed or re-photographed a number of sculptures found at Sardis. Three interesting reliefs (NoEx 75.1-3), two venationes

<sup>3</sup> A.R. Seager, *AJA* 76 (1972) 432-435, III. 2. For a preliminary discussion of mosaics and interior decoration, cf. L.J. Majewski, *BASOR* 187 (1967) 32-49, figs. 49-60.

<sup>4</sup> Cf. *BASOR* 203 (1971) 9.

<sup>5</sup> Height ca. 10 cm. Inv. P 63. 471 A - IP 8. According to H. Crane; «Body of rather sandy white clay, unslipped. Typical pattern of spiral vines with little rosettes in cobalt blue on white ground.» (letter December 1975). The dating is also that proposed by Crane.

and one with a cult scene found at Sardis in spring of 1975 and now in the Manisa Museum, were also studied. A Late Hellenistic funerary stele with a horseman,<sup>6</sup> much defaced (NoEx 75.4), was brought from Mersindere (Fig. 10) ca. 3 km. west of Sardis.

#### Lydian Textiles

In 1963, during excavations of a small chamber tomb at Bin Tepe (BT 63.2) there were found imprints of textiles on iron plates from the corners of a coffin or couch. C.H. Greenewalt, Jr. collaborated with L.J. Majewski and J. Soultanian in making a reconstruction of the sarcophagus, and integrating their findings concerning the textile from Bin Tepe into a study of Lydian textiles as known from literary and archaeological sources. A sample of gold-thread from a textile of Roman times was found in an earth - soil piece taken in 1972 from the bottom of a Roman sarcophagus, which had been brought to Sardis in 1972, prior to its transfer to Manisa. It illustrates a tradition of gold - woven textiles for which Sardis was famous since Lydian times.

#### Laboratory and Conservation

In addition to considerable work on current projects, the two marble legs of the monumental table found in the Synagogue and decorated with Roman eagles (see Report, September 1974) were found to have developed further fissures. It became necessary to dismantle the legs completely and to re-assemble them using akemi and brass pins and iron clasps. The two legs were transported to Manisa Museum. An old break opened in unloading will be treated at the Museum.

<sup>6</sup> H. 1.18 m. In front of the tree on the left, much damaged, is the small figure of a groom. The stele is made from a large (nearly half) segment of a Doric column.

Cleaning was also undertaken of the three reliefs with hunting and cult scenes (NoEx 75.1 - 3) brought for this purpose from the Manisa Museum. A fine Byzantine bronze lamp holder (M 63.5, from Byzantine Shops) was also brought back from Manisa Museum and reassembled in a more correct way. Experiments begun in 1974 to attain efficient preservation of metal objects were continued in 1975.

#### Epigraphic Finds

In April 1975, on the property of Mustafa Barut, at the eastern edge of the village of Sart Mahmut, just south of the railroad, during the construction of a concrete well, a vaulted chamber tomb was discovered and recorded by K. Nayır, Acting Director of the Manisa Museum. Four small marble urns in form of chests bore inscriptions. Two inscriptions (IN 75.1) on one of the urns were found by Clive Foss, epigraphist of the expedition, to contain as designations of dates the names of two eponymous annual officials (Damas and Akiamos), whose names also appear on local Sardian coins under Augustus and Tiberius (cf. BMC Lydia, p. ci). Two other urns were inscribed in Greek and one in Latin (IN 75.2 - 4). As the northernmost structure hitherto reported from the urban area of ancient Sardis and as a datable example of Late - Hellenistic Early Roman funerary architecture, the chamber tomb, which lies buried 6 m. below surface, will merit detailed description and study.

#### Recording

While the number of objects found during the 1975 season was small, the recorder Th. Vann worked intensively to meet the many demands for information, re-photography, and re-drawing of hundreds of objects needed for publication. She proceeded with the large task of re-organizing and re-listing

the objects according to the new research categories (such as metal objects, Islamic pottery, Corinthian pottery etc.).

#### Conclusions

During the seasons of 1974 and 1975, excavations and other sector activities were intentionally kept to a small scale, in order to permit the staff to concentrate on completing the recording of previous seasons. This task has been largely accomplished

and publication of the results is proceeding. R. Gusmani's, *Sardis Monograph 3, Neue epichorische Schriftzeugnisse aus Sardis* (Harvard University Press, Cambridge, Mass, 1975) has just appeared. *Sardis Report 1, A Survey of Sardis and Major Monument Outside the City Walls* by G.M.A. Hanfmann and J.C. Waldbaum is expected to appear soon. Plans are being made for a new stage of excavations and field exploration, which will emphasize the Prehistoric and Lydian period.

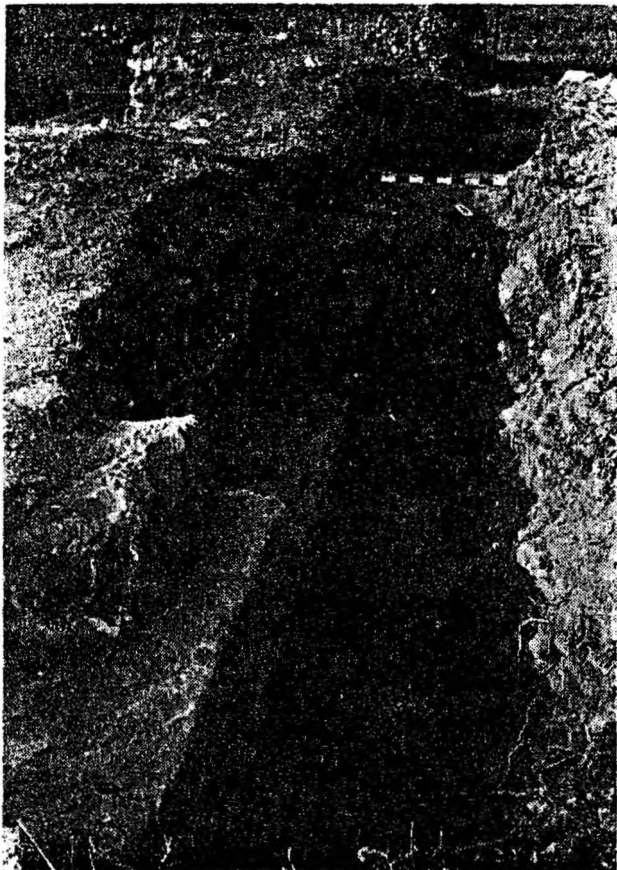


Fig. 1 — Gymnasium-Bath, Vaulted corridor  
west of Hall BCH. 75.16.18

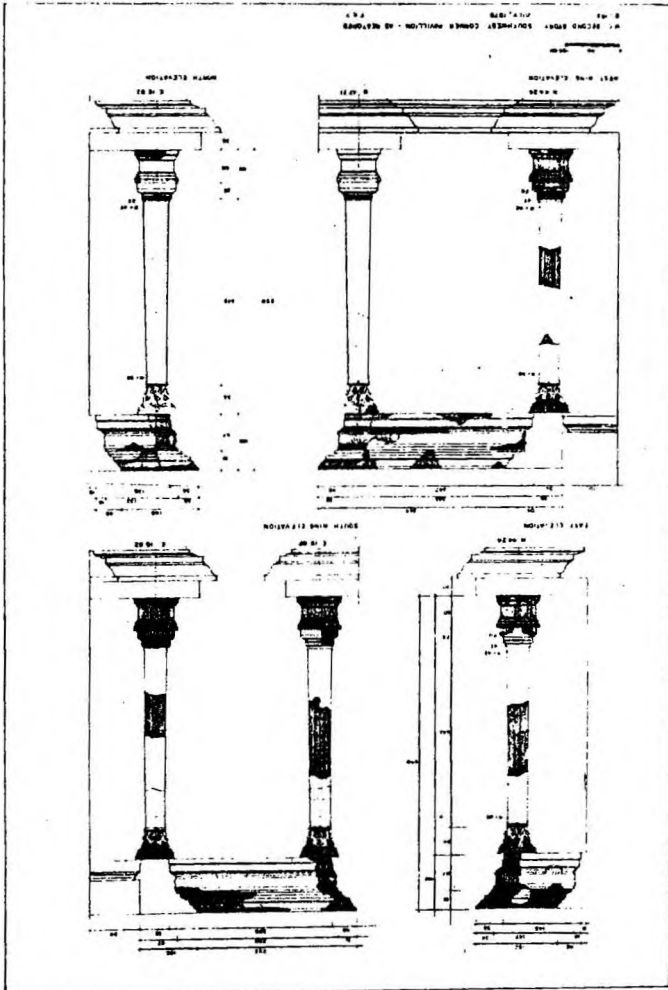
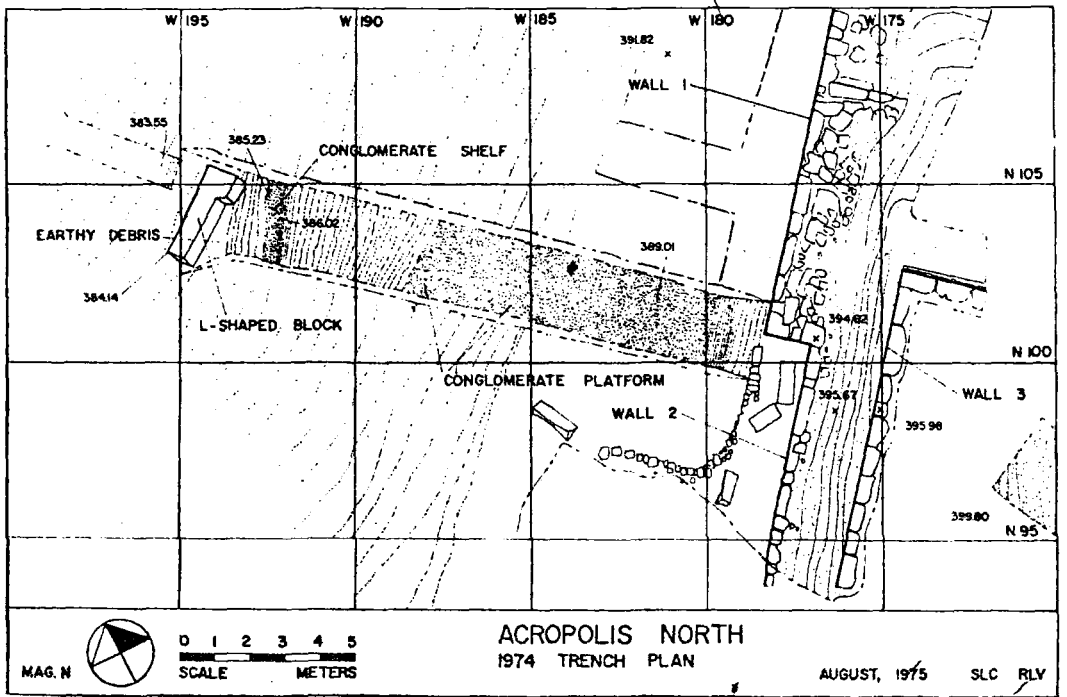


Fig. 2 — »Marble Court» of the Gymnasium. Second story corner pavilion, as restored. Drawing by F.K. Yegül. Restored part in darker hatching.





Fig. 3 — Column in the southern colonnade of the Palaestra being cleaned 75.1.18



1:50

AC-40a

Fig. 4 — Plan of trench on North Slope of the Acropolis.



Fig. 5 — View of trench on North Slope of the Acropolis with L - shaped block, looking east. 75.49.18



Fig. 6 — Church «E», Pseudo - Crypt in South Aisle, at join of painted south wall (left) and west wall. The painted south wall continues behind the join with west wall. 75.10.22

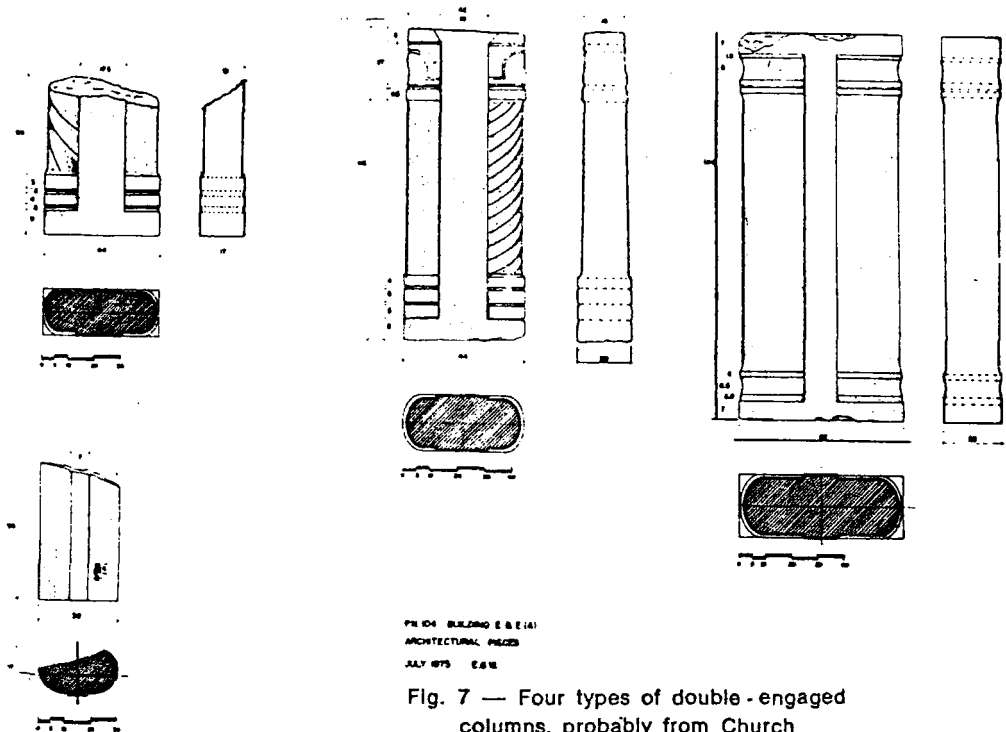


FIG. 104. BUILDING E & E (A)  
 ARCHITECTURAL PLANS  
 JULY 1975 E.S.N.

Fig. 7 — Four types of double - engaged columns, probably from Church «EA.» Drawing by E. Wahle.

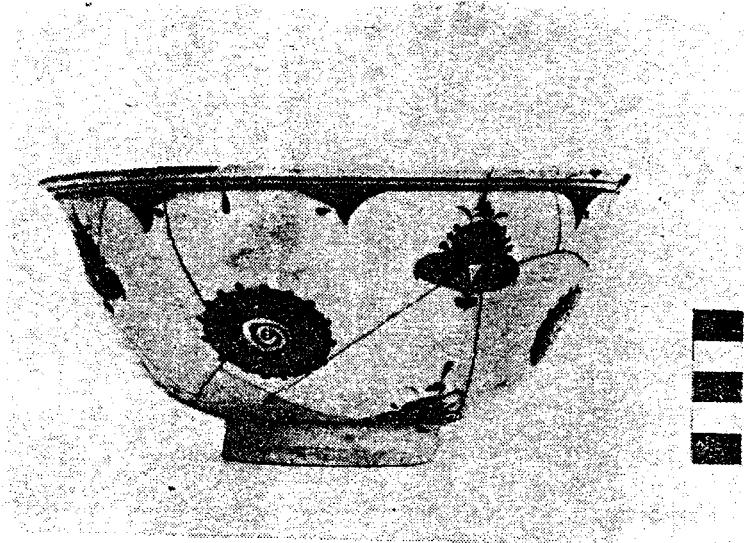


Fig. 8 — «Golden Horn» Ware, ca. 1530.  
Cup, exterior (IP 8 : P 63.471 A).  
75.51.7

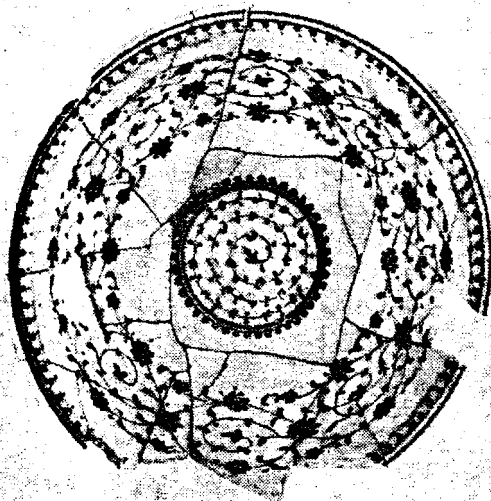


Fig. 9 — «Golden Horn» Ware, ca. 1530.  
Cup, interior (IP 8 : P 63.471 A). 75.51.7



Fig. 10 — Hellenistic Stele from Mersindere  
(NoEx 75.4). 75.58.23