

ARCHAEOLOGICAL EXPLORATION OF SARDIS

THE BYZANTINE SHOPS
AT SARDIS

J. Stephens Crawford

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ARCHAEOLOGICAL EXPLORATION
OF SARDIS

*The Harvard University Art Museums
Cornell University
The Corning Museum of Glass
Sponsored by the American Schools
of Oriental Research*

General Editors

George M. A. Hanfmann†
Jane Ayer Scott

Monograph 9

THE BYZANTINE SHOPS AT SARDIS

J. Stephens Crawford

with contributions by

*Martha Goodway, George M. A. Hanfmann,
Jane Ayer Scott, Pamela Vandiver,
and Michael D. Weishan*

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EDITOR'S PREFACE

This volume is the last in the series of the Archaeological Exploration of Sardis to bear the name of George M. A. Hanfmann as senior editor. Hanfmann died unexpectedly of heart failure on March 13, 1986. Hanfmann was the John E. Hudson Professor of Archaeology at Harvard University and, with A. Henry Detweiler, then Associate Dean of the College of Architecture at Cornell University and the president of the American Schools of Oriental Research, was the founding director of the Archaeological Exploration of Sardis. A program of excavation, research, publication and public dissemination has been carried on at Sardis, the capital of ancient Lydia, now situated in western Turkey, since 1958 by Harvard and Cornell Universities under the general sponsorship of the American Schools of Oriental Research. The Corning Museum of Glass joined the venture in 1961. Since 1975 the fieldwork has continued under the direction of Crawford H. Greenewalt, Jr., Professor of Classical Archaeology at the University of California at Berkeley and Honorary Research Associate of the Harvard University Art Museums.

Publication of the results of the work accomplished at Sardis between 1958 and 1976 was George Hanfmann's first concern from 1970 until the time of his death. With the publication of *Sardis*, R1 in 1975, R2 in 1978, and *Sardis from Prehistoric to Roman Times* in 1983, Hanfmann had completed his own major contributions to the publication of the results attained at Sardis during his directorship. He left several articles in press and smaller contributions and notes which will enlighten and enliven the preparation of future volumes. Hanfmann's great foresight and clarity of planning left

us with a publication scheme, loyal and enthusiastic collaborators, and well organized records and depots. For the last, Ilse Hanfmann left an equally important legacy. Had it not been for her patient and exacting record keeping while she served as recorder in the field (1958–1971) and in the Sardis office at Harvard we would not be able to retrieve the records, photographs, drawings and plans to continue the work. Mrs. Hanfmann died on December 31, 1987.

During the years that this volume was in preparation George Hanfmann read each successive draft of the chapters that J. Stephens Crawford prepared on the history, use, and construction of the Byzantine Shops and their position in the broad picture of commercial architecture in the later Roman empire. He arranged the collaboration to supplement those chapters with a record of the currency and the finds in use in the Shops. Hanfmann was truly the editor of this volume and, although his name will no longer appear on the series' title, his knowledge, foresight and planning and the warmth of his collaborative spirit will infuse the subsequent volumes in this series. Perhaps his greatest and most generous contribution to the publication program that was so close to his heart was to have stepped back himself so that others were prepared to carry on when he could no longer do so. Andrew Ramage, Professor of Art History at Cornell and Associate Director of the Sardis program has agreed to serve as series editor with J. A. Scott. Ramage has made Sardis the primary focus of his research since 1965. Crawford H. Greenewalt, Jr., David G. Mitten, James Loeb Professor of Classical Art and Archaeology and Sardis' Associate Director at

Harvard, and the editors will constitute a publication committee to oversee future volumes.

George Hanfmann always considered it a great privilege to work in Turkey and those of us who joined him found that opportunity one to be cherished. We take this opportunity to express our profound gratitude to the government of the Republic of Turkey for that privilege. The Department of Antiquities and Museums and the Directors General, their officers and representatives, have been unfailing in their help. We owe a special debt of thanks to the successive directors of the Archaeological and Ethnographical Museum in Manisa. Kemal Ziya Polatkan headed the commission which collaborated on the restoration of the Bath-Gymnasium Complex. Kubilây Nayır and Hasan Dedeoğlu supervised the care of the site and the restored monuments. Both directors were very helpful in expediting the final phase of research for this study. Hasan Dedeoğlu graciously provided generous gallery space for special exhibits on Sardis. Barbara McLaughlin undertook this project, and among the displays she prepared is one that shows some of the finds from the Shops. Other finds presented in this volume are stored in the depots of the museum or at the excavation camp at Sardis.

The excavation, restoration and landscaping of the Byzantine Shops and the greater Bath-Gymnasium Complex of which they are a part lasted eighteen seasons, from 1958–1975.¹ We are grateful to Mehmet C. Bolgil who guided the restoration from 1966–1973.² Conservation, especially of the mosaics, was under the supervision of Lawrence J. Majewski, Director of the Conservation Center, New York University, from 1964–1988. Our debt of gratitude to Teoman Yalçinkaya cannot be adequately expressed. He assumed responsibility for the completion of the restoration of the Shops and it is thanks to him that they were open for the visit of the participants of the X International Congress of Classical Archaeology held in Turkey in 1973 and that the restoration has been maintained until the present time in spite of storms, floods, increased tourism and the occasional errant vehicle from the ever more heavily

trafficked Izmir-Ankara highway. In the process of preparing the Shops for public access, Yalçinkaya kept meticulous fieldbooks and some of the most attractive and interesting finds resulted from his careful work. He is now the overall manager of the site at Sardis and as the expedition agent he offered many generous and helpful services to make the completion of this study possible. In his long service as camp manager, Kenneth J. Frazer contributed a great deal to the success of the work at the Shops, as he has to all aspects of camp life and work at Sardis.

This is the ninth Monograph and twelfth volume that presents the results achieved at Sardis since 1958. We are grateful to the author, J. Stephens Crawford, who first excavated in the Byzantine Shops in 1967 when he was a student of G. M. A. Hanfmann. His doctoral dissertation resulted from this involvement and he persisted diligently with the subject to prepare this important contribution to the series.

We are indebted to many for the preparation of this volume. The research assistants in the Sardis Research office at Harvard have assumed much responsibility for assembling the illustrations and the lists of finds. In the early stages the author and editors were assisted by Electra Yorsz, Debra Hudak, Conyers Thompson and Catharine von Klemperer. Andrew Rasanen assembled the lists of finds and plotted those from the floors and the features on enlargements of the state plans. His work provided the basis for the schematic plans of the individual Shops which were executed by Catherine Alexander following a scheme worked out by Kathryn Gleason. In consultation with the author, Elizabeth Wahle prepared the lively reconstruction drawings of the interiors of the Shops and Catherine Alexander did the reconstructed views and the stratigraphic section. Most of the pottery drawings were made by Kathryn Gleason at Sardis in 1986 and the inkings were prepared by Timothy Barner and Catherine Alexander. Much of the field photography is the work of Elizabeth Gombosi, expedition photographer from 1968–1977 and 1983. Photographic prints were prepared by Gombosi, Steve Shipp and Michael Hamilton. The illustrations were sized and the line drawings pasted up by Catherine Alexander and the layout was prepared by J. A. Scott.

The coin lists were painstakingly entered on a data base by Lucinda Scanlon. This is the beginning of a project to computerize all the coin finds at Sardis so that they will be retrievable by locus, coin number, mint, issuer, or publication number in *Sardis* M1 and

1. For a brief summary of the excavation and restoration of the Bath-Gymnasium complex see *Sardis* R3, x–xi. A short summary of the excavation of the Shops by season with references to the annual reports in *BASOR* is found at the beginning of Ch. III of this monograph.

2. Bolgil contributed a very useful account of the process of restoration, *Sardis* R3, Ch. 14. The construction methods were much the same for the Byzantine Shops.

M7. The coin finds for each Shop were checked and the lists edited for publication by Michael D. Weishan. Weishan helped to assemble the lists of finds and did much to ensure the accuracy of presentation of the plans. The final stage of the editing of the text is largely his work. The final corrections were entered by Deborah Zeidenberg who saw the volume through the printing and read the proof. She prepared the index and the concordance of finds.

Many colleagues have cheerfully responded to requests for help and advice and all deserve individual thanks but only a few can be mentioned by name. Crawford H. Greenewalt, Jr. permitted the study of the finds during the field seasons under his direction. Andrew Ramage and David G. Mitten were cheering and helpful companions in the field. John Hayes provided a copy of proof of his forthcoming *Sigillate Orientali*. Clive Foss has been a constant source of help with numismatic and epigraphic matters and of moral support. James Morgentstern, John Rosser, James Russell and Gary Vikan have offered helpful and constructive comments. Curtis N. Sandberg reviewed the notes on the finds and provided some of the comparanda and cross references to previous publications.

Both the excavation and research programs have been made possible by grants and contributions extending over three decades from the Bollingen Foundation (1959–1965), The Corning Glass Works Foundation (1960–1978), the Old Dominion Foundation (1966–1968), The Loeb Classical Library Foundation (1965–1970), the Wenner Gren Foundation for Anthropological Research (1967), the Charles E. Merrill Trust (1973), the Ford Foundation (1962–1972), the Billy Rose Foundation (1967–1983), the Samuel H. Kress Foundation (from 1977), the Institute for Aegean Prehistory (1989), and the Lucius N. Littauer Foundation (from 1989).

It is to the group of Supporters of Sardis, established in 1957 and including the individuals and private foundations who contribute through Harvard University, that we owe the continuity of support that has provided the backbone of the project for over thirty years. To all of them we offer warmest thanks for their generosity and their enthusiasm, and special thanks are due to Catharine S. Detweiler, Mehmet Ergene, William Lee Frost, George I. Harris, Richard Howland, James Humphrey, Mrs. George C. Keiser, Bonnie Loper, Andrew Oliver, Jr., Nanette B. Rodney, Mrs. Gustavus F. Swift and Julian H. Whittlesey. We have benefitted from the advice and support of several members of the

Harvard Overseers' Committee to Visit the Fogg Art Museum, now the Harvard University Art Museums, especially Alexander Abraham, James R. Cherry, Landon T. Clay, John B. Elliott, Thomas B. Lemman, Norbert Schimmel, Richard Sherwood, Mrs. Guy Smallwood, Edwin Weisl, Jr. and Malcolm H. Wiener.

Federal funds have been received through the research programs of the National Endowment for the Humanities,³ and the National Science Foundation⁴ and the Department of State.⁵ The National Endowment for the Humanities has played the key role in sustaining the program since 1967. Our special gratitude goes to the friends and foundations who enabled the project to receive the Endowment's support through their matching contributions. In accordance with a request of the Endowment, we state that the findings and conclusions presented here do not necessarily represent the views of the Endowment.

This is the fourth volume in the Sardis series to benefit from a grant from the Publication Program of the Division of Research Programs of the National Endowment for the Humanities.⁶ We join the author in gratitude to the University of Delaware for substantial subvention funds which were used to match the NEH grant. The major part of the publication cost has been defrayed from the George M. A. and Ilse Hanfmann Publication Fund. To the donors to that fund and to the directors of the Harvard University Art Museums who encouraged the establishment of the fund, John Coolidge and Seymour Slive, we are profoundly grateful.

3. Awarded to Harvard University, grant nos. H67-0-56, H68-0-61, H69-0-23, RO-111-70-3966, RO-4999-71-171, RO-6435-72-264, RO-8359-73-217, RO-10405-74-319, RO-23511-76-541, RO-20047-81-0230, RO-20607-84, RO-21414. In 1983 the Endowment awarded grant no. GM-21549-83 from the Division of Public Programs to Cornell for a traveling exhibition, "Twenty-Five Years of Discovery at Sardis," which was circulated to museums throughout the country through August 1987. During the exhibition at the Oriental Institute of the University of Chicago a symposium and publication of the papers, *Sardis: Twenty Seven Years*, were made possible by grants from the NEH with the Illinois Humanities Council, the Illinois General Assembly, the Archaeological Institute of America and its Chicago Society, the Turkish Consulate General in Chicago and several private institutions and individuals.

4. To Cornell, grant no. BNS78-07861, 1978–1980, for urban survey and environmental studies.

5. To Harvard in Turkish funds, 1962–1965, no. SCC 29543 under the Mutual Educational and Cultural Act, Public Law 87-256 and Agricultural Trade Development and Assistance Act, Public Law 480 as amended.

6. To Harvard, no. RP-20754-86. Previous publication awards were grant nos. RP-10050-80-0387, RP-20247-81-2162, RP-20360-82.

The Shops that now stand restored along the north side of the Izmir-Ankara highway at Sardis, somewhat dwarfed by the massive restoration of the Marble Court of the great Bath-Gymnasium Complex which they adjoin, were dubbed "the Byzantine Shops" when they were first discovered in 1958. The name has stuck and is familiar in the literature but the period they were in use, the fourth through the early seventh centuries, predates the Early Byzantine period by some definitions. The Shops provide but a window on the life, commerce and building of late Roman Sardis, a city which covered an area of three square miles. The broader picture of the late Roman and Early Byzantine city has been presented in detail by Clive Foss in *Sardis, M4* published in 1976. Hanfmann's view of the extent of the city is summarized in *SPRT* (pp. 139–148) and in "Roman and Late Antique Sardis," the published version of a paper presented at Yale.⁷ Excavation to the

south and east of the Byzantine Shops continues to expand our knowledge of the city plan⁸ and of the process of de-urbanization and decline.⁹ As we expand our research the deposits found in the Byzantine Shops will provide a valuable reference point, and it is unlikely that another sector will provide as complete and lively a picture of life in late Roman and Early Byzantine Sardis as the one presented here.

8. At MMS, MMS/S, MMS/N from the south colonnade of MRd to about seventy meters SW and at SEBF, a spur of Ac just to the W of the theater, see Fig. 5. In 1980 D. G. Mitten reopened the excavation of the late Roman House of Bronzes (HoB). Reports on the 1978–1985 seasons are published by Crawford H. Greenewalt, Jr. with Marcus Rautman and others in *BASOR* 245, 15–18; 249, 1, 8–13; *BASORSup* 23, 68–73, 76–78; 24, 1–6; 25, 16–20, 34–36; 25, 57–62, 75–76. Reports on subsequent seasons are in press. A volume on the archaeology of late Roman and early Byzantine Sardis is envisioned.

9. See Kraabel, Yegül, and Scott in *Sardis: Twenty-seven Years with lit.*

7. *Rome and the Provinces: Studies in the Transformation of Art and Architecture in the Mediterranean World* ed. C. B. McClendon (New Haven 1986) 21–28.

Jane Ayer Scott
Harvard University

AUTHOR'S PREFACE

Of all the pages I have written, the greatest pleasure is to write these: acknowledgements to some of the people who have helped me during the preparation of this monograph.

The late George M. A. Hanfmann heads the list. I am proud to have been his student and grateful for the opportunity he gave me to be a part of the Sardis Expedition. His suggestions, criticisms and comprehensive knowledge will be very evident in the following pages. I have tried to be as generous to my students as he was to me. I am also very grateful for his close direction during my first attempts at excavation, as well as that of the late Ilse Hanfmann and Gustavus F. Swift, who taught me to recognize strange Late Roman and Byzantine pottery which I had never seen before.

David G. Mitten, whose warm friendliness as a teacher first attracted me to Harvard, was my principal predecessor in the excavation of the Byzantine Shops. I owe to him and the other Sardiens who worked in this sector a great debt, but especially to David Mitten, because he was able to tell me what to expect to find and how the finds of my excavation were related to those of previous seasons. His careful fieldbooks are the source of most of the information prior to 1967 used in this book.

Herbert Bloch has always been a source of welcome encouragement, reminding me, when I worried about how long the work was taking, about his own long trial with his monumental work on Monte Cassino.

Andrew and Nancy Ramage, Sidney Goldstein, Andrew Seager and Crawford H. Greenwalt, Jr. have always been helpful in the field and through their writings. Andrew Ramage especially taught me to look carefully and patiently and not to accept the glib, partial explanations to which I am prone. Crawford H. Greenwalt, Jr. taught me how much of ancient Sardis is still present in the plants, animals, land and Turkish people.

Clive Foss's monograph in this series has been of great value in making understandable the historical context of the Byzantine Shops, especially in the interpretation of the dye shops and the cloth industry. By also writing a unified history of Late Antique and Byzantine Ephesus, he has placed similar remains at Sardis in a clearer perspective.

Elizabeth Gombosi took most of the photos which appear here, without which any text would be unintelligible to those unfamiliar with the site. Elizabeth Wahle drew the useful, lively reconstruction sketches to show how the Shops looked in use. Catherine S. Alexander did the meticulous plans and the other reconstruction drawings.

The ever-patient Sardis Research Office under the direction of Jane Ayer Scott has constantly supplied me with otherwise unavailable material, especially copies of the ever-growing literature on Sardis, which has vastly changed the picture of the Byzantine Shops since their excavation was completed. In addition to her role as

general editor, Jane Scott also wrote the object descriptions which are so crucial for the understanding of the Shops' contents. Michael Weishan helped edit and revise the various versions of the text and assembled it all on the computer.

I would like to thank the National Endowment for the Humanities for its generous support of the Sardis Expedition over the years. Without its help, many of us would never have been able to work at Sardis.

Outside the Sardis staff, I am indebted to Benjamin Mazar and Nahman Avigad of the Hebrew University, Jerusalem, who generously put aside their own work to provide me with valuable information on comparanda from the biblical archaeological literature. The staff of the excavations on the Ophel provided further information and guidance around the site.

Pierre Amandry sent me unpublished data, kept me from errors in the description of the remains at Delphi, and kindly criticized my discussion of them.

Here at the University of Delaware, I must first thank William I. Homer, Damie Stillman and Wayne Craven

who helped me in many ways, especially in finding support for my research. Helen Gouldner, Dean of the College of Arts and Sciences, funded my trip to Israel, as well as several smaller grants for various expenses. Robert Varrin of the Research Office provided a publication subsidy. Susan Davi, reference librarian and ancient art historian, ran down many obscure sources, as did David A. Pendlebury.

Lastly I would like to thank several other people not directly involved in the project: Eleanor G. Huzar and Eldon Van Liere of Michigan State University, who initially trained me and remain close and perceptive colleagues; my parents John and Margaret Crawford, who have supported me and Sardis through thick and thin; and finally my wife Helen, who has seen me through the many times I thought I could not complete this book.

John Stephens Crawford
Newark, Delaware
1989

Technical Abbreviations

Ant.	Antoninianus	I.	left
AE	bronze (coins)	L.	length
a.s.l.	above sea level	LRC	Late Roman C (pottery)
BS TS	technical sample number, see Appendix 2	M (preceding cat. no.)	metal
C (preceding cat. no.)	coin	m.	meter(s)
C.	century (all dates are A.D. unless noted)	max.	maximum
ca.	circa	mm.	millimeter
cat.	catalogue	N	north
ch.	chapter	no(s).	number(s)
cm.	centimeter	obv.	obverse
D.	depth	P (preceding cat. no.)	pottery
deca.	decanummius	P.	preserved
diam.	diameter (diameter is taken at the ext. rim of a plate or body of a vessel, unless otherwise noted)	pena.	pentanummius
dim.	dimension	P.H.	preserved height
E	east	P.L.	preserved length
ESB	Eastern Sigillata B (pottery)	P.W.	preserved width
esp.	especially	P. Wt.	preserved weight
est.	estimated	publ.	published
ext.	exterior	R (preceding coin no.)	Roman
g.	gram(s)	r.	right
G (preceding cat. no.)	glass	rev.	reverse
GR (preceding coin no.)	Greek	S (preceding cat. no.)	stone
H.	height	S	south
horiz.	horizontal	T (preceding cat. no.)	terracotta
illeg.	illegible	Th.	thickness
IN (preceding cat. no.)	inscription	uninv.	not inventoried in the excavation recording system
ins.	inscription	unpubl.	unpublished
int.	interior	vert.	vertical
J (preceding cat. no.)	jewelry	W	west
L (preceding cat. no.)	lamp	W.	width
		WP	wall painting
		Wt.	weight
		* (preceding numeral)	level (e.g. *98.00)

Dimensions are given in meters throughout the volume; m. is only used when needed for clarity.

Sector Abbreviations

Ac	Acropolis	MC	Marble Court, entrance to baths from Pa
AT	Temple of Artemis		
B	Bath-Gymnasium Complex	MMS	Monumental mudbrick structure of the Lydian-Persian period and Roman buildings overlying it
BCH	Central hall of the Bath Block of B		
BE	Units E of the Bath Block		
BE-A, BE-B, BE-C, BE-D	Units S of BE-S and BE-H, probably <i>apodyteria</i> and lounges	MMS/N	Lydian buildings related to MMS, N of the modern highway and the segment of Marble Road overlying it
BE-AA, BE-BB, BE-CC, BE-DD	Units N of BE-H and BE-S, probably <i>apodyteria</i> and lounges	MMS/S	Lydian buildings related to MMS, S of the modern highway and the segment of Marble Road overlying it
BE-E and BE-EE	Corridors between BE-C, BE-CC and BE-H		
BE-H	Frigidarium	MRd	Marble Road, colonnaded E-W road S of B (previously Main Road)
BE-N, BE-S	The entrance halls from Pa into the dressing and bathing units N and S apsidal halls of the Bath Block	Pa	Palaestra
BNH, BSH	Bath Block	Pa-E, Pa-N, Pa-S, Pa-W	Colonnaded abulatories of Pa
BS	Byzantine Shops, built along the S side of B. BS W 13-1: from SW corner of B to SE corner of BSH. BS E 1-19: SE corner of BSH to SE corner of Syn FC	RT	Road Trench, excavated segments of the Marble Road
BWH	Caldarium	Syn	Synagogue, hall S of Pa (originally mirrored LNH)
CG	Roman bath near the E section of the city wall	Syn Fc	Forecourt on E end of Syn
HoB	House of Bronzes	Syn MH	Main apsed hall of Syn
LNH 1,2,3	"Long North Hall" rectangular hall N of Pa, divided into three units	Syn P	Porch leading to Syn Fc from E Road

BIBLIOGRAPHY AND ABBREVIATIONS

The following list includes references which are cited more than once and are therefore abbreviated in the text. Full references are given in the text for works cited only once.

Abbreviations of periodicals used throughout are those listed in the *American Journal of Archaeology* 90 (1986) 381–94. Abbreviations of classical authors generally follow those set forth in the *Oxford Classical Dictionary*, 2nd rev. ed., eds. N. G. L. Hammond and H. H. Scullard (Oxford 1970) ix–xxii.

The monographs and reports published by the Harvard-Cornell Expedition and referred to here are cited below under *Sardis*. The reports of the Princeton Expedition were published under the general series title of *Sardis*, Publications of the American Society for the Excavation of Sardis. Seventeen volumes were planned by H. C. Butler, Director of Excavations (*Sardis* I [1922] viii); of these, nine were actually published and those referred to in this volume are cited here under *Sardis*.

All publications preceding the Princeton Expedition will be found in the prospective *Bibliography of Sardis* (available in photocopy form from the Archaeological Exploration of Sardis, Harvard University Art Museums, Cambridge, MA 02138). A preliminary selection appears in G. M. A. Hanfmann, *Letters from Sardis* (Cambridge, Mass. 1972) xvii–xxvi, and in G. M. A. Hanfmann, *Sardis from Roman to Prehistoric Times* (Cambridge, Mass. 1983). Reports of the current expedition have appeared regularly in the *Bulletin of the American Schools of Oriental Research (BASOR)* from 1959–1980, in the *BASOR Supplement* from 1981 to the present, and in *Türk Arkeoloji Dergisi (TürkArkDerg)* of the Turkish Department of Antiquities.

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- XI *Das Asklepon 4 Via Tecta und Hallenstrassen: Die Funde* (Berlin 1984).
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THE BYZANTINE
SHOPS AT
SARDIS

I DESCRIPTION AND HISTORY OF THE BYZANTINE SHOPS AND THE COLONNADE

The primary importance of the Byzantine Shops at Sardis lies in their unique completeness. Historically, we can trace the history of the Shops from the reconstruction of the city after the earthquake of A.D. 17 to their destruction nearly six hundred years later.¹ In terms of finds, the Shops constitute a rare sealed deposit of securely dated material containing over one hundred types of objects; no other shops from this period have been discovered with their contents, for all practical purposes, intact. Nor have any other equivalent shops provided such complete information about their occupants' trades, religion and wealth.

The Byzantine Shops line the north side of the monumental, marble-paved road called the Main Avenue, which runs northwest to southeast past the southern wall of the Bath-Gymnasium complex and the entire length of the Synagogue (Figs. 1-5). A corresponding row of shops flanks the south side of the road as well, but because its shops and most of its colonnade lie under the present Izmir-Ankara highway, excavation of these shops is impossible.²

The geographical situation of Sardis has made it a focal point of commerce since pre-Lyidian times. The city lies at the junction of the Pactolus and the Hermus

river valleys and is bordered on the south by the steep foothills and high mountains of the Tmolos Range. The mountains make the river valleys the easiest way to reach the interior of Asia Minor. The Hermus valley, running from east to west, is a graben valley; the Pactolus valley, running from south to north, is stream-eroded.³

Roads or paths have followed the courses of these rivers since prehistoric times.⁴ An east-west road skirted the high, conglomerate hills that form the Acropolis and Necropolis of Sardis; a north-south road passed near the Temple of Artemis and proceeded south from Sardis to the mountain villages, the city of Hypaepa and from there on to Ephesus.⁵ The intersection of these two roads provided a focal point which created a sort of natural *cardo* and *decumanus*, although the roads did not meet at right angles, nor was a strict planning grid used throughout the city.⁶ These two paths have determined the locations of the two modern

1. *Sardis* R3, 17-19. See also Hanfmann, *Croesus*, 49. Hanfmann believed that the original colonnaded street at Sardis might have been the earliest in Asia Minor, *Sardis* R1, 31.

2. For excavations in 1978-1980 of the S side of the E extension of MRd *BASOR* 245, 15-18, fig. 13; 249, 20-13, figs. 13-16; *Sardis* R3, 19-20, fig. 29.

3. L. T. Semple, *Geography of the Mediterranean Region* (New York 1931) 19, 174-175; *Sardis* R1, 18-19; Hanfmann, *SPRT* 1-4; *BASOR* 245, 7-15; 249, 29-31.

4. For the geographic context of Sardis in the prehistoric period, see D. G. Mitten, G. Yügrüm, "Ahlatlı Tepecik beside the Gygean Lake," *Archaeology* 27 (1974) 22-29; idem, "The Gygean Lake 1969: Eski Balikhane, Preliminary Report," *HSCP* 75 (1971) 191-195; *Sardis* R1, 18-19, 22; Hanfmann, *SPRT* 17-22; see also *supra* n. 3.

5. *Sardis* R1, 18-19, 30-31. Excavation cited *supra* n. 2 revealed 4-5 surfaces of an archaic road running E-W.

6. *Ibid.* 30.

villages of Sart Mahmut and Sart Mustafa as well as the commercial area between them.⁷

Naturally, commercial activity gravitated towards such a crossroads; the Lydian marketplace (seventh–sixth century B.C. at Sardis sector HoB) is one example of this attraction; the Byzantine Shops (fifth–seventh century) is a second.⁸ In the early periods of Sardis' history, this commerce drew together a mixture of peoples: Lydians, Carians, Phrygians, Greeks and Persians. In later periods, the Byzantine Shops give evidence of Romans, Greeks, Christians and Jews, each of whom left testimony of their respective customs and beliefs in the archaeological record.⁹

The discovery of gold in the Pactolus river provided a perfect complement to the city's ideal commercial location and greatly contributed to the rise of Sardis as an important economic center early in its history. This prominence is witnessed by the presence of Sardinian gold in Croesus' dedications in Greece and numerous literary references. After the gold production declined, the manufacture and export of textiles, arms and other articles formed the basis of trade and commerce well into the Roman and Byzantine eras.¹⁰

The magnificent buildings of the western part of the city's center, the Bath-Gymnasium complex and the Synagogue, along with a row of modest, two-storied Shops, were destroyed in the early seventh century; the agent of destruction, be it man or natural causes, is uncertain.¹¹ Set afire, these Shops and their Colonnade

collapsed, effectively sealing their contents inside. The suddenness of the destruction is evident from the fact that valuable goods, household articles, and even coins were left behind, though the complete lack of human skeletons from the area of the Shops would indicate that some short warning allowed the residents themselves to avoid the tragedy.

After the destruction, there was a definite period of abandonment, judging from a thick, sterile layer with few finds of any kind. There apparently were no attempts to recover objects from the Byzantine Shops or to rebuild them.¹² Everything lay as it had fallen (Fig. 7). The Byzantine Shops no longer played an active role in the Bath-Gymnasium complex; those entering the Complex at later periods passed through the old entranceways into B-W South Area and BE-A or over the buried shops into BE-B.

It is clear that the entrance into the Complex between Shops E I and W I came back into use later in the seventh century as a means of access through BE-A to the limekiln built into BE-C and the squatters' smelters in BE-A.¹³ Some of the slag from these operations seems to have been dumped on top of the remains of the West Shops. Coins of Constantius II (A.D. 641–668) indicate the date of this activity.¹⁴ Foss's suggestion that the materials produced were needed for the renewal of the Main Avenue and the military highway to the east seems very likely.¹⁵ Large quantities of lime were

7. Ibid. 34; *Sardis* M4, 103.

8. *Sardis* R1, 28, 31–32; *BASOR* 249, 14–15. For the Lydian market Hanfmann, *SPRT* 29–30, 81.

9. Lydians and Carians, *Sardis* M3, 79–112, *SPRT* 88, 96; Phrygian Adrastus, Herodotus I.35–45; *Sardis* M2 no. 89; Greeks, Persians and Romans, *ibid.*; Jews, see *infra*, and *ibid.* nos. 212 and 275, L. Robert, *NIS* 37–58, Kraabel in *Sardis: Twenty-seven Years*; *Sardis* R1, 6, 30; *Sardis* M4, 29ff.; Christians, *ibid.*; Kraabel in Hanfmann, *SPRT*.

10. Gold: *ibid.* 37–42; G. M. A. Hanfmann, J. C. Waldbaum, "New Excavations at Sardis and Some Problems of Western Anatolian Archaeology," in ed. J. A. Sanders, *Near Eastern Archaeology in the Twentieth Century: Essays in Honor of Nelson Glueck* (Garden City 1970) 311–313; *BASOR* 228, 54. Textiles: Magie, 47–49; *Sardis* R1, 21–22; *Sardis* M4, 15; C. H. Greenewalt, L. J. Majewski, "Lydian Textiles," in K. De Vries, E. Kohler, eds., *From Athens to Gordion: The Papers of a Memorial Symposium for Rodney S. Young* (Philadelphia 1980) 133–148. Arms: Jones, *Roman Empire* II, 834; *Sardis* R1, 31–32; *Sardis* M4, 1; C. Foss, "The Fabricenses Ducenarii of Sardis," *ZPE* 35 (1979) 279–283.

11. C. Foss, "The Persians in Asia Minor and the End of Antiquity," *EHR* 90 (1975). For an explanation of the theory of an attack by forces under Chosroes II in A.D. 616, see *Sardis* M1, 2, *Sardis* R1, 32–33, *Sardis* M4, 53–55. The fall of A.D. 616 is suggested

in R1, rather than spring or summer as in M1. Recently however, this idea has come under much debate. See P. Charanis, "A Note on the Byzantine Coin Finds in Sardis and their Historical Significance," *Epet* 39–40 (1972–72) 175–180; M. Rautman, "The Decline of Urban Life in Sixth Century Sardis" *The XVII International Congress of Byzantine Studies, Abstracts of Papers* (Washington D.C. 1986) 285 for alternate theories of Sardis' decline and destruction.

12. *Sardis* M4, 59–60. Excavations show clearly that the colonnades collapsed when the Shops collapsed, because the fallen columns and the S wall of the BS were covered by the Byzantine Road. The author disagrees with Bates (*Sardis* M1, 2–3) that the fill in E 5 was disturbed, possibly by a pit. It seemed well sealed during excavation, but there was an entrance to the squatters' occupation in BE-B over the remains of E 4, and the silver hexagram of Heraclius (no. 827) found at a fairly high level (*96.90) may have "crept" down from a higher level at the time the MRd was renewed (A.D. 641–688). See J. Gilluly, et al., *Principles of Geology* (San Francisco 1968) 187–189 for the phenomenon of "creeping."

13. An object thought to be an anvil was found in BE-A, but this is unconfirmed, *Sardis* M8, 9; *BASOR* 187, 14. Samples of the "slag" were taken but have not been scientifically analyzed. For phases of interconnection between BE-A and BS, *Sardis* R3, 93–94.

14. *BASOR* 187, 16–17, 20, fig. 43; 211, 27–28; *Sardis* M1, 2.

15. Foss, 106; *Sardis* M4, 57; see also *BASOR* 211, 28.

also required for the construction of the Acropolis fortifications, built in the later seventh century A.D.¹⁶ A grave (Grave 72.4) with a cross on its stone cover slab, dug into the earth lying on the floor of BE-C, would seem to imply that the passage continued to be used after the limekiln workers had departed, as logic would dictate that the burial could only have taken place after work had ceased in BE-C. The fact that the grave had been opened and looted indicates even later activity.¹⁷

In the course of the rebuilding the east-west highway in the time of Constans II, the remains of the old road were paved over with cobblestones at a higher level and the area of the destroyed Byzantine Shops and the Colonnade was considerably altered (Fig. 6). The new road, with its cobblestones set in lime mortar, overlay the former Colonnade and extended to the south wall of the Byzantine Shops. Further evidence of the road's rebuilding occurs in the "packed column area" at the southeast corner of the Synagogue Porch, where it meets the Byzantine Shops' Colonnade. The road remained a major artery with a width of ca. 14 m. At an uncertain later date, it was again replaced with another, the Ottoman Road, which was also cobbled.

The Ottoman roadbed lay even further north, so that it covered the south wall of the Byzantine Shops.¹⁸ The levels at which these features occur give an idea of how much debris had accumulated: BS Colonnade stylobate, *96.80; Byzantine Road, *96.85; Ottoman Road, *97.72.¹⁹ It is not possible to compute exactly the rate of deposition for this area of Sardis, as the Bath-Gymnasium Complex acted as a barrier to downslope movements toward the Hermus plain. The difference in level between the Byzantine and Ottoman Roads would seem to suggest, however, that the latter may have been constructed relatively late.

Orientation and Plan

The Marble Road at Sardis runs northwest-southeast. A western section of the Marble Road was excavated in 1961 and a smaller, east trench in 1962 (Figs. 4–7).²⁰ The width of the road is 12.50. The width of the Colonnade including the Shops is ca. 12.35. A similar width

could be expected for the south Colonnade and Shops still buried under the modern highway.²¹

The approximate equality in dimensions between the Shops plus Colonnade and the width of the Marble Road raises an interesting possibility. Did the Shops, Colonnades and Marble Road form a unit based on a module? The πῆχυς or cubit may have been the module used (0.444 m).

Elsewhere in the Roman Empire, a module of five meters (sometimes including the width of one partition wall between shops) seems to have been used.²² The use of a modular system at Sardis might further indicate the Romans' intention to regularize the urban center after the earthquake of A.D. 17. The Hellenistic Steps, differing in orientation, underscore the difference between the earlier and the Roman city plans (Figs. 5, 599, 600).²³

Reconstruction of the Last Phase of the Colonnade

A total of nine column bases was found in, on the stylobate of, or directly in front of the Colonnade (Figs.

21. Excavation in 1979–1980 beyond the SE corner of the Complex has revealed a continuation of MRd with a mosaic-paved ambulatory ca. 8.50 and a marble paved sidewalk ca. 2 m. W.; the discovery of the S wall of the colonnade suggests there could have been a row of shops here too. *Sardis* R3, 19–20, figs. 27, 29–30. In 1989 excavation was resumed to the E and W, exposing more of the mosaic paving and a doorway in the back wall of the ambulatory. Groups of stone and tile pieces remain articulated and will permit reconstruction of the S Colonnade after further excavation and study (unpublished report by C. H. Greenewalt, Jr.; publication forthcoming in *BASOR*).

22. When the Roman ft. of 0.295 is used to calculate the module, the figure is very unwieldy: 16.00–17.50 Roman ft. The cubit or πῆχυς, on the other hand, of 0.444 is equal to the int. dim. of some of the Shops when multiplied by 10 (4.40 is an average W.). This might also account for the W. of the mosaic, ca. 4.40; the W. of the stylobate blocks is ca. 0.60. The word πῆχυς is repeatedly used in a building ordinance from Pergamon (*OGIS*, 483, 1.126). In note 1 of the commentary on the ins., Dittenberger dates it from the time of Trajan and Hadrian; the law itself was passed some centuries earlier. Neither the Byzantine ft. (at 0.315) nor "Bethlehem ft." (at 0.309) form simple modules, although the former comes close to 14 ft. (13.96). For the Byzantine ft. generally, P. Underwood, "Some Principles of Measure in the Architecture of the Period of Justinian," *CahArch* 3 (1948) 64–74. For other units of measure, D. Viedebant, "Forschungen zur Metrologie des Altertums," *Abh. der philologische-historische Klasse der königliche sächsische Gesellschaft der Wissenschaften* 34 (1917) 3. The evidence seems to support the theory that the plan of the MRd and the Colonnades antedates the Byzantine period. In the 1978 season excavation proved the S colonnade to be wider (6.20) than the N colonnade. This does not preclude earlier modules. See also *Sardis* R3, 19; *BASOR* 245, 16–17; *TürkArkDerg* 36 (1982) 101.

23. Ch. III *infra*, "Sondages below the Floors," *BASOR* 170, 51, fig. 37. For a general discussion on the shift of alignments, *Sardis* R1, 30–31, fig. 10.

16. *Sardis* M4, 59 no. 8 with lit.

17. *BASOR* 211, 28.

18. *BASOR* 166, 45–46; *Sardis* M4, 57.

19. *Ibid.* 45, fig. 3. Cf. *Sardis* R3, 17–21.

20. Information on the Road Trench used in this section comes from *BASOR* 166, 40–46; 154, 17.

7, 8). These bases fall into two basic size groups. The first group consists of five small Attic bases with plinths (Fig. 9). Their moldings are not exactly alike. Their heights vary between 0.175–0.20. However, their plinths differ by only a centimeter in length–width (0.54–0.55). Their upper diameters vary from 0.37–0.49. The second group consists of four much larger Attic bases without plinths (0.88–0.90 lower diameter, Fig. 10). One large, rectangular base with two receding curved moldings was found *in situ* (Fig. 13).

Three Ionic pedestals were found in the course of excavation of the Byzantine Shops and Road Trench (Figs. 11, 12). The three pedestals have rather similar dimensions. The height differs (0.94–1.23) but there is less variation in width (0.58–0.64). The length of two of the pedestals was probably quite similar, but as they were found broken, only an estimate of their original size is possible. The third pedestal (also broken) measures 0.51 by 0.49 by 0.61.

Capitals in the Byzantine Shops Colonnade are of no consistent style or size. Practically every order is represented: Pergamene, Doric, Ionic (the predominant), Corinthian and Composite (Figs. 14–19). Some of the capitals were recut to make them shorter, in order to correspond better with the varying heights of the different shafts. The heights of the capitals range from 0.12 to 0.44. Another interesting practice is the use of small Attic bases as capitals (Fig. 13). This occurs not only in the Colonnade but also in E 6 and in the shrines of the Synagogue.²⁴

Twelve columns, either complete or fragmentary, were also discovered (Figs. 20, 21, 22). The shafts, like the pedestals and bases, can be placed into two categories based on the measurements of their lower diameters. The first group, containing ten columns, has lower diameters of 0.34–0.38 (Fig. 20). The second group, containing seven columns, has lower diameters of 0.42–0.48 (Fig. 21). The fragmentary state of the other columns makes exact determination of their lower diameters impossible. However, it seems clear from their curvature that three of these should be assigned to the first group and one to the second group.

The difference in diameters is reflected in the columns' heights. Three columns in the first group are preserved completely enough to determine exactly their heights: 1.96, 1.92 and 1.70. No column in the second group is

preserved to its full height, but one, RT 20, is almost complete (2.18). Even though very squat proportions resulted, the columns in the Colonnade were obviously cut down to achieve an even height, estimated to have been between 2.70 and 2.98 (Figs. 8, 22, 31).

No stone entablature exists for the Colonnade. The discovery of heavy masses of charcoal, however, suggests that there was once a wooden entablature (Figs. 27, 31). The one marble entablature block unearthed in the Colonnade (RT 1) obviously came from elsewhere, since its width (1.30) makes it much too broad for columns of either group.

A wooden entablature would have been easier for the small columns to carry as well as being cheaper to build.²⁵ It was probably Ionic or plain in style. A modest arrangement might have been as small as 0.30 in height; Vitruvius' proportions (3.5.8–11) would result in a height of ca. 0.48.

Although only a single large rectangular base (RT 15, Figs. 7, 13) was found *in situ* on the stylobate, the interval of the Colonnade can be determined quite accurately, as the sections of the stylobate formerly covered by the columns are only roughly finished, while the exposed portion is smooth. In the destruction of the Colonnade, many column bases and pedestals fell forward into the street (Fig. 7). This is the reason so many columns were found shattered. When they fell, they exposed the roughly finished areas on the stylobate. As in so many other respects of the construction of the last phase, inconsistency occurs in the Colonnade's interval, but the maximum variation is only 0.20.

The evidence for the interval begins at E 1.83, where there is a roughly worked area 0.94 wide. A large, square base with an Ionic profile molding (RT 15, Fig. 13) is *in situ* 1.93 further east and is 0.89 wide (E 4.70–5.59). The next rough area is 2.02 further east, where it is 0.85 wide (E 7.61–8.46). The next is 1.82 further east (E 10.28–10.95) and 0.67 wide. The rest are: 1.89 (smooth) and 0.68 (rough) E 12.84–13.52; 2.02 (smooth) and 1.02 (rough), E 15.54–16.56. This last rough area has a square hole in the center, possibly for a tenon of some kind.

While only the position of RT 15 is certain, it may be legitimate to suggest where some of the recovered column sections and their now-lost counterparts may have stood.

24. Hanfmann, *SPRT* fig. 274.

25. Mansel, *Ruinen* 18.

The rough space at grid position E 2.00 is 0.94 wide, almost exactly the same as RT 15 (W. 0.95), so there might have been a corresponding base in this position. The roughened areas further along the stylobate correspond more closely in size to the pedestals than any of the preserved Attic bases, which are too small and may, in any case, have been used as capitals. No preserved architectural piece corresponds very closely to the rough area at E 8.00. However, there is a pedestal (RT 23, W. 0.58) which corresponds rather closely to the 0.67 wide rough area at E 10.50. There is also a pedestal (RT 16, W. 0.64) which matches quite closely the rough area at E 13.50 (W. 0.68).

Our reconstruction utilizes some of the best preserved architectural pieces (Fig. 8): two shafts from the smaller group; two Ionic, one Composite, and one Corinthian capital; three of smaller diameter shafts, two pedestals; two Attic bases and RT 15. The two smaller shafts marked with Chi-Rho monograms (the third and fourth counting from west to east) were lying directly in front of their position in the reconstruction. While the interval is accurate, the choice of the capitals was arbitrary. Some of the architectural pieces not used in the reconstruction are now displayed in the Shops (Fig. 19).²⁶

Mosaic Pavings

Mosaic pavement appeared in three main areas in the ambulatory of the Colonnade: W 45.00-W 50.00; E 0-18.00 and E 72-91 *96.60 (Figs. 24-26, 507, 565).²⁷ Similar mosaic was also discovered in an area of the corresponding south Colonnade E 84.00-85.00/S 30.00 *96.80.

In one of the preliminary reports, the mosaics were dated to the first half of the sixth century on the basis of comparison to mosaic patterns at Ephesus.²⁸ L. J. Majewski has now come to the conclusion, based on coins found in the bedding of these and similar mosaics elsewhere in Sardis, that the mosaics date to the fifth century A.D.²⁹ The revised date is compatible with the early fifth century date suggested by the author for the construction of the last phase of the Byzantine Shops.

The westernmost area of mosaic is in the area called Shop W 12, which was actually the entrance to BW South Area (Figs. 23, 24).³⁰ The mosaic is composed of dark gray-blue (usually called black) and white tesserae, respectively basalt and limestone.³¹ As preserved, the pattern consists of a vine scroll and leaf register, a plain register, a "coil around bar" register, another plain register, a stepped register, a register of double guilloche and a final, inverted stepped register.

The second area of mosaic was located at another major entry to the Gymnasium (BE-A) at E 3.90-5.60/S 0-2.30 (Fig. 25). The pattern as preserved is composed of four registers. The one which runs north-south along the west wall of Shop E 1 is of Maltese crosses at a 45 degree angle to the register's axis; the second is plain white; the third stepped; the last guilloche. The design is completely executed with black basalt tesserae on a white background.³²

The third mosaic area is located at E 9.00-18.00/S 5-5.20-9.00 (the first south coordinate varies because the front wall of the Shops steps forward to conform to the south wall of the Synagogue, which is not straight). The tesserae are also black and white, but the patterns are different. There are two panels. The first (E 8.00-13.00) has a border of circles with dots in the centers; the edges of the circles are connected with straight lines. Next comes a square of guilloche. Within this is a pattern of octagons, which contain squares with lines projecting from their corners, creating small hexagons. The second panel has a similar border, but is decorated with a scale pattern with dots in the centers.

The mosaic discovered in patches between E 72.00-91.00 in front of Shops E 14-E 16 is in two fragments (Fig. 26).³³ One fragment is 1.50 long by 0.90 wide; the other is 1.70 long by 2.00 wide. The first fragment, composed of the usual basalt and limestone tesserae (0.02-0.03 square), contains three registers of semicircles, cable, and pendant circles containing four-pointed stars. The second fragment contains registers of ivy leaves and guilloche and an inner field of lozenges and hexagons. It is interesting to note that this pattern compares closely with that of the black and white repair

26. *BASOR* 215, 152.

27. For preliminary reports *BASOR* 157, 33-34; 166, 44-45, n. 70.

28. *BASOR* 157, 33.

29. Telephone conversation April 19, 1976. This supersedes the report in *BASOR* 170, 29.

30. *BASOR* 157, 34; *Sardis* R3, 23, fig. 36.

31. *BASOR* 170, 29.

32. *BASOR* 166, 40, fig. 33. Subsequently excavated in 1967. See also *Sardis* R3, 18.

33. *BASOR* 170, 38.

in BE-C (E 0–6.66/N 15.00–20.00).³⁴ The date of the Colonnade mosaic and this repair are very likely the same.

A small area of the south Colonnade mosaic was uncovered at E 84.00–85.00/S 30.00 *96.80. The tesserae were the same as the north Colonnade, and the pattern consisted of two registers; the first guilloche, the second ivy leaves. A second, more elaborate area of mosaic containing an inscription is associated with a fountain in MMS-N.³⁵

The Roof

The beam structure of the roofs of the Shops and of the Colonnade is hypothetical because the fire which accompanied the destruction of the Shops consumed the wooden roofs almost entirely. Burned wood from rafters was found lying in a north–south direction in the Colonnade at E 40.40/S 6.20 *96.81 (Fig. 27). These beams were ca. 0.10 in diameter, and they appeared rounded, not squared—more like poles than beams. They occurred at intervals presumably corresponding to the intervals between columns (1.85) and spanned the space from the south wall of the Shops to the capitals of the Colonnade. Whether there was a continuous roofline from the south wall of the Synagogue to the Colonnade, or whether there were two separate roof structures, one for the second story of the Shops, the other for the Colonnade, is uncertain (for a hypothetical solution see Figs. 31, 32).

Accompanying the beams is a thick layer of charcoal, presumably from the planks which formed the roof of the Colonnade (Fig. 34). The pan tiles, which were supported by this roof, were found in large numbers, usually broken into small pieces by their fall. The larger pieces indicate that they were flat, 0.30 square, 0.04 thick, with a lip of 0.03 running around three sides. The fourth side had no lip and rested on the tile below. These tiles were perhaps laid on top of a layer of earth or plaster (Figs. 29, 30).

Historical Observations

In the author's opinion, the Byzantine Shops' Colonnade represents a transitional phase between the monu-

mental shop colonnades of the Roman Empire (financed by civic, Imperial or private donations) and the simple, agglutinative, "squatter" architecture of the medieval period (financed or merely executed by individuals) such as that of twelfth century Corinth (*infra*, Ch. IV). The major trend in this development is the gradually increasing appropriation of public spaces and property for private use and/or ownership. In the Byzantine Shops at Sardis one sees an attempt to imitate the forms of an earlier, grander Roman Imperial style; however, the Shops' inferior execution, irregularities, and reduced scale reflect the change in patronage from the centralized support of an emperor, city or aristocrat to that of individual shop owners with vastly inferior resources.

The varying thickness of the walls above the foundation level, the seams in them, and the uneven quality of work between adjacent Shops or groups of Shops suggest piecemeal construction, contracted for and executed by different individuals, rather than a centrally contracted and uniformly executed civic or Imperial project (e.g. Fig. 171). The Shops were flimsily attached to previous structures, as the existence of holes for rafters and second story floor beams in the south wall of the Bath-Gymnasium attests (Figs. 56, 62). Various nooks, cupboards and other spaces are clumsily hacked out of the south walls of both the Gymnasium and the Synagogue (e.g. Fig. 277). The Shops even trespass on the Colonnade with structures attached to individual units (W 3, Figs. 126, 129).³⁶

At Sardis, the fact that the encroachment of the private Shop on the public space was tolerated may be indicative of a general decline of administrative authority in the fifth and sixth centuries.

In the earlier Roman period, the nuisances of the *tabernae* and the conflict between public right of way and private usurpation of public colonnade space had been the subject of legal action and even literary comment. Julius Caesar, for example, ordered landlords to clean in front of their doors or to pay for publicly contracted cleaning.³⁷ The encroachment of shopkeepers and sidewalk peddlers provoked Domitian to forbid the use of public colonnades for display of merchandise; as Martial (VII.61) describes:

34. For BE-C dating, *Sardis* R3, 90.

35. *BASOR* 245, 17; 249, 10, 13, fig. 16; *Sardis* R3, 20.

36. MacMullen, *Social Relations*, 87, quoting Gregory of Nyssa, *De pauper. amand.* I, PG 46.457.

37. Carcopino, 46; *CIL* I² II 32–49.

No pillar is now girt with chained flagons, . . . nor does the grimy cook shop monopolize the public way. Barber, tavern-keeper, cook and butcher keep within their own threshold. Now Rome exists, which so recently was one vast shop.³⁸

However, despite the efforts of the state to maintain the integrity of the public sidewalk, there was a good reason why legislation was ineffective—the poor had nowhere else to go.

. . . the hand reached out to beg can be seen everywhere. The open air is their dwelling, their lodgings are the porticoes and street corners and the less frequented parts of the marketplace.³⁹

Furthermore, the colonnades were sometimes used, with the spaces between the columns walled up, as emergency hospitals and refugee housing in times of disaster.⁴⁰

To D. Claude, the failure of the central administration in the Late Antique period to enforce the separation between public and private property, despite repeated edicts and periodic efforts by provincial governors, is symptomatic of the decline in both the eastern and western Roman Empire of the classical concepts of *polis* and *civitas*. He sees the encroachment as part of the transformation of the Roman city into the medieval city.⁴¹

This is not to say that the Imperial desire to free public space from private use no longer manifested itself. In addition to the earlier laws mentioned above, Ulpian, the Emperor Zeno, and especially Justinian all published edicts to halt the process.⁴² However, the threat of fines and destruction had little effect—bribing the provincial governor or his agents was a general means of circumventing the decrees. Only occasionally are there actual occurrences of clearing the colonnades, such as that by the Hegemon of Edessa in 494/495.⁴³

When the Byzantine Shops are considered in these respects, they seem to confirm the general trend reflected in Claude's theory. First, there are at least two instances in which Shops (W 1 and W 2) encroached on the Colonnade by building seating facilities for their cus-

tomers (Figs. 126, 129, 130). In the case of W 1, a cut-down, monumental Corinthian capital was moved into the Colonnade outside the Shop's window (Fig. 128). In the case of another restaurant, W 2, a substantial L-shaped brick construction in front of the building effectively blocked off over half the width of the Colonnade (Figs. 126, 132).⁴⁴

Besides these instances of encroachment, there is other evidence that display or manufacture was going on in the Colonnade at the time it was destroyed. Four copper alloy cauldrons were found in the Colonnade, one outside of E 3 (Fig. 202), two outside of E 5 (Fig. 225), another outside of E 15 (Fig. 507); these may have been used for commercial purposes. A copper alloy bowl was found outside the doorway of E 13, a dye shop probably owned by the same man as E 6-E 8. Even the Colonnade in front of the Synagogue was not immune to encroachment. A small shop was built there. It is quite clear from the evidence at Sardis that the process of private encroachment on the Colonnade was significant by the early seventh century A.D.

Description and Reconstruction of the Shops

Total Height

Because the height of the Colonnade entablature is not known, the height of the front (south) wall of the Shops cannot be precisely determined. However, a reasonable approximation can be calculated, since we know the approximate height of the Colonnade up to its capitals and also the height of a hole for a rafter beam, the only one preserved, in the south apse of BSH at ca. *101.50, or ca. 5 m. higher than the Shops' floors (Fig. 131). Assuming a height of between 0.25 and 0.50 for the wooden entablature, the resulting height for the front wall would be between 4.25 and 4.50 (Fig. 32).

Levels of Second Story Floors

The second story floor levels of the Shops are not uniform, no doubt because the differing requirements of each Shop determined the height of the first floor ceiling. Evidence for the heights comes from beam holes preserved in the north walls of the Shops, putlog holes

38. Carcopino, 47.

39. See n. 36 *supra*.

40. Jones, *Roman Empire* II 810 and n. 96.

41. Claude, 58. "Archäologische und schriftliche Quellen bezeugen gleichermassen, dass im 6. Jh. die Regeln der städtischen Baupolizei nicht mehr überall mit der nötigen Sorgfalt eingehalten wurden. Somit scheint die Idee des Privateigentums über die des Gemeineigentums an städtischen Grund und Boden zu haben."

42. For Zeno, *ibid.* 54; Justinian, *ibid.* 55.

43. *Ibid.*

44. This structure caused some confusion in the early stages of excavation because it appeared to be a separate room, *BASOR* 154, 16–17, fig. 12.

(they are confirmed by other evidence as having been used for floor beams after construction of the wall was completed) and heights of completely preserved interior columns.

The column in E 8 (Figs. 322, 323) and one of the columns in E 6 have no capitals (Figs. 270–272). Either they had wooden capitals or, more plausibly, the beams were laid directly on the columns. The positions of the putlog holes correspond to the column heights in E 6.

Shops with beam holes in their north walls are W 8, W 10 and E 4 (Figs. 56, 62). The holes are generally round, ca. 0.10 in diameter, although one square hole, 0.08, does exist. The putlog holes are rectangular. The holes in the north wall are ca. 0.10 deep, but the putlog holes extend through the entire south wall.

The known second story floors are at:

		H. from 1st story floor
E 4	*98.79	2.29
E 6	*99.05	2.55
E 8	*98.35	1.85
W 8	*99.10	2.60
W 10	*99.10	2.60

E 8's second story would seem to have been extremely low. It may have been a mezzanine and not a complete second story with a floor as is the case in a shop in the House of Neptune and Amphitrite at Herculaneum.⁴⁵

Flooring

First story floors are of three types: 1) packed earth, 2) roof tiles and/or brick, and 3) fitted marble slabs. Good examples of earth floors are found in E 4 and E 5 (with schist slabs, Fig. 224), tile and packed earth floors in E 2 and E 2A (Fig. 169, 187), and fitted marble slabs in E 3 and E 6 (Figs. 204, 272).

The second story floors were probably wooden planks nailed to the horizontal beams, judging from the large number of long, iron nails in the burn strata. The average Shop contains ca. 50 such nails. Some carbonized beams survived in E 5 (Fig. 226). They were 0.17 square. Bricks and tiles seem to have been placed on top of the planks in some cases; they were simply laid on top of the plank floor, and not attached to it. This

idea was suggested to the author by M. T. Ergene, who also noted that the practice continues to this day in some Turkish villages.

The Sardis second story floor beam structure may have been similar to that of the flat roof of a *fullonica* at Herculaneum (Reg. I, VI, 7).⁴⁶ The *fullonica* has an opening for a skylight which at Sardis could have been used for a ladder or stairway.⁴⁷ Another comparison comes from the excavations on the Ophel in Jerusalem, where a well-preserved Byzantine house (locus 7066), destroyed in 612, shows rows of beam holes for the second story floor, ca. 0.20 square.⁴⁸

Roofing

Very little direct evidence is available regarding the beams of the Shops' roof structure because the damage caused by the fire and subsequent collapse of the walls is so total. The roofing structures probably consisted of rafters and planks, perhaps similar to the so-called Gaggera roof.⁴⁹ Roof structures that may be similar are those of the Portico on the Via dei Sepolcri outside the Herculaneum Gate and the Portico along the garden of the Villa of Julia Felix, both found at Pompeii.⁵⁰ Vitruvius (4.2.1) describes the usual beam structure, mentioning that if the span is moderate (as it is in the Byzantine Shops) no cross beams or struts are necessary. The rafters may have formed a roofline which continued out over the Shops to the capitals of the Colonnade (Fig. 32).

Roof tiles are found in considerable numbers. The standard size is 0.42 square, although some are as large as 0.46. The 0.42 tile is 0.044 thick with a raised rim around the edges. Several right angle tiles (L. 0.332, W. 0.12, Th. 0.024) were found in W 11 which may have been used on the west end of the building to cover exposed wooden rafters (Fig. 30).

Exactly how these tiles were set on the roof is uncertain, but judging from both modern practices and

46. Spinazzola, 46, fig. 43. Holes for 2nd story beams were found in the shops on the Lechaion Road at Corinth, *Corinth* XVI. See also the reference to holes found in a well-preserved Byzantine house S of Robinson's Arch (Locus 7066) in Jerusalem, Mazar, "Temple Mount," 39.

47. Hodge, 57–58, fig. 14, examples from the Casa del Telaio in Herculaneum with lit.

48. Mazar, "Temple Mount," 39.

49. Hodge, 50.

50. Jashemski, 48, fig. 82; Kraus, 75, fig. 90; plan of Portico outside Herculaneum Gate, 14.

evidence found at other ancient sites, the tiles were laid in overlapping rows upon a layer of earth or plaster. Some of the tiles were in fact discovered with plaster adhering to them.⁵¹

Windows

First story windows were not the usual means of lighting the Shops' interiors, since the doors, open during business hours, normally admitted sufficient light to illuminate the Shops. However, first story windows do occur in E 1 and E 8; the window in E 10 had an iron window grille with spikes at the interstices, presumably to discourage theft (Fig. 347).⁵² Not all the Shops have south walls preserved to a sufficient height to tell if they had first floor windows or not.

Although the actual second story or transom windows perished when the south wall of the Shops collapsed, substantial remains of the window glass and leading survive. The window frames were probably wooden, although their exact sizes and locations in the wall are unknown. Parallels from Ostia, Jerusalem and Rome suggest that there were transom windows placed above the door lintels.⁵³

From the shape of the leading and some of the larger fragments, we can determine that while some of the panes had raised rims and had convex sections, the majority had rims level with the panes and rounded sections.⁵⁴ Some of the windows were square or rectangular, others possibly arched.⁵⁵ Axel von Saldern notes in his examination of the Sardis window glass that it varies in thickness from "paper thin" to ca. 0.002.⁵⁶ He also suggests that the glass came from local factories.⁵⁷

51. Hodge, 60–66. Hodge is skeptical about the general tendency to postulate plaster beddings, but they would be as effective a seal against moisture as our modern tar paper beneath shingles.

52. E 1: W. 0.83, no evidence of frame, glazing or grill; perhaps used to pass food into the Colonnade. E 7: W. 0.95, groove for frame Th. 0.021. E 8: W. 0.89; groove for frame. E 10: iron window grille with spikes at bar intersections W. 0.725, H. 0.475. Iron window grille without spikes from Boscoreale, now reconstructed in the Metropolitan Museum of Art, New York, P. Lehmann, *Roman Wall Paintings from Boscoreale in the Metropolitan Museum of Art* (Cambridge, Mass. 1953) 88, pl. 23; G. M. A. Richter in *Bulletin of the Metropolitan Museum of Art* 1 (1905–6) 96.

53. Packer, 25; *ARE*, pls. 85, 86, 90, 92; Mazar, "Temple Mount," 39.

54. Hanfmann, "Glass," 52; *Sardis* M6, 91.

55. *Ibid.*

56. *Ibid.* The phrase "paper thin" occurs in von Saldern's unpublished report of August 3, 1968, 12.

57. *Ibid.* 2.

The panes of the windows were held in place by lead strips with a Z-shaped profile which would have been inserted into wooden window frames. A large amount of this leading was found in the Colonnade in front of E 10, but not enough remained joined together to permit a complete reconstruction of the structure. All examples of the leading found are straight, not curved.⁵⁸

Although no evidence of shutters was discovered in the excavations, the Shops may have had them. Second story windows had shutters in Herculaneum, and the Sardis Shops' first story windows were probably closed in some similar fashion.⁵⁹

Doorways

Doorways in the Byzantine Shops vary in width considerably, averaging about 1.30. The thresholds are made of marble blocks, often reused, set into the wall. Occasionally the thresholds are made of more than one piece, but they are usually single, solid slabs.⁶⁰ The lintels were probably wooden, but none are preserved and no wall of sufficient height remains to preserve the lintel holes. Pompeii, Herculaneum and Jerusalem do provide examples, however.⁶¹

The doors of the Shops are bivalve, as shown by the iron door pins set in lead to the right and left sides of the threshold slabs, with iron sockets set around them (0.06–0.09 diam.). An excellent example of such an assembly comes from E 7, where it was found *in situ*. The rectangular holes in the center of the threshold slabs were intended for lock pins. The doors were probably barred on the inside as well. The front edge of the threshold slab is raised to prevent the doors from opening outward.⁶²

Stairs

Remains of staircases are found in E 4, E 5, E 6, E 9 and E 12. They are located in either the northeast or

58. *Sardis* M6, p. 92.

59. M. Grant, *Cities of Vesuvius* (London 1972) fig. 33. For other shutters see Packer, 27.

60. Similar doors were found at Corinth, *Corinth* XVI 100 fig. 11. See also Packer, 23, pl. 35, fig. 93.

61. Pompeii: Spinazzola, 324, fig. 366. Herculaneum: Kraus, 125, figs. 125, 144. Jerusalem: Mazar, "Temple Mount," 39.

62. Similar thresholds were found at Corinth, *Corinth* XVI 100 fig. 11; cf. Packer, pl. 37, fig. 100, Shop 1, Reg. I.xi.2, 3.

southeast corners.⁶³ The method of construction varies. In E 4 the steps themselves are made of brick with a solid, mortared rubble and brick construction below (Fig. 209).⁶⁴ In E 6 the brick steps are supported by a brick half-arch. The space so created was used for storage (Fig. 268, 271).⁶⁵ In E 9 large drain pipes are used both for storage and support for the steps. The upper part of the staircase, perhaps made of wood, covered a toilet or washing place (Fig. 336).⁶⁶ In E 12 a brick staircase covers a rectangular storage area in which many glass vessels were found (Figs. 382, 392).⁶⁷ The remaining Shops had no surviving staircases, although wooden ones or ladders may have been used there.

None of the preserved staircases reaches the level of the second story floor, nor could any have reached this height unless its steps were impossibly narrow. Ladders or wooden steps must have continued from the tops of the masonry steps, (i.e. from circa 1.50 m.) and continued to the second story (Fig. 32). The complete staircase was probably L-shaped, as sometimes occurs at Ostia.⁶⁸

Wall Construction

Multiple masonry techniques are found in the walls of the Byzantine Shops, but four predominate. The most common, except in corners and doorjambes, is one of a mortared rubble and fieldstones, often utilizing spoils. This is a variation on the system of piers and mortared fieldstones used in the construction of the Bath-Gymnasium Complex and the Synagogue.⁶⁹ The main difference is that spoils are especially common in the Shops' walls and the mortar is poorer than in earlier construction; in fact, there is so little lime in it that it is often little better than mud. The modern reconstruction required rebuilding every wall with cement, as deterioration of the original mud mortar was extremely rapid. In most of the better construction, brick lacing courses were used, with random occurrences of broken or whole bricks in the poorer walls. Infilled doors or other altera-

tions to the main wall scheme are usually of brick, but sometimes mortared rubble and fieldstones are used; in other cases the latter alterations are clearly separated from the other construction by seams (e.g. the W wall of W 8, Fig. 71). The walls do not have a uniform thickness, distance from each other or length. They are often not straight. The quoins and doorjambes are almost always piers made of reused marble blocks.

At two points in the eastern alignment, between E 6 and E 7 and between E 9 and E 10, the south wall contains a seam and moves, or "steps" backward in alignment (Fig. 331). The wall also "steps" forward at one point between E 5 and E 6. This forward shift might be explained by the fact that the south wall of the Synagogue was not straight and forced the realignment of the wall. The backward "steps" however, cannot be so explained. Most likely the different builders used varying thicknesses for the south wall, the width being based both on the projected weight of goods to be housed on the second story and on the quality of wall the owner could afford. This inconsistency underscores the lack of a central contractor or overall control.⁷⁰ The fact that the West Shops show no such fluctuations may indicate that the Shops were begun from the west. Public or donated funds may have run out after the western section was completed, and individual shop owners building the eastern section may not have discovered the error in the south wall of the Synagogue before some kind of correction was necessary.

Drains

A large drain, laid out in the original planning of the complex, flows along the entire length of the back wall of the Byzantine Shops.⁷¹ This drain meets the large drain which flows northwards under the Synagogue, the entire Palaestra and LNH 2. Arches made of flat fieldstones and schist slabs (*96.75) were constructed over the drain in the Shops' partition walls (e.g., Fig. 189). The south wall of the drain, also composed of fieldstones and schist slabs, descends to *94.85, where a layer of coarse stones forms the floor of the drain. The north wall of the drain is formed by the south wall of the Gymnasium Complex. The parts of the Shops' floors

63. *BASOR* 191, 16–22; 177, 19–20. Placement of stairways is very common at the corners in Late Antique structures.

64. *BASOR* 191, 17; Packer, pl. 86, fig. 218, room 6, Reg. IV.ii.103.

65. *BASOR* 191, 18–19; cf. *Corinth* XVI 102; Packer, pl. 27, fig. 100, Shop 1, Reg. I.xi.2–3.

66. *BASOR* 191, 18.

67. *BASOR* 177, 20; *Sardis* M6, p. 92.

68. Packer, 29.

69. *Sardis* R3 ch.11.

70. This confirms observations by D. Claude and C. Foss about lack of overall control in planning and execution of Late Antique urban construction: Claude, 58; Foss, *Ephesus*, 78–79.

71. *Sardis* R3, 26, 130–132, figs. 20, 44.

(*96.50) under which the drain passes are usually covered by rectangular schist slabs ca. 1.00 by 0.50.

Downspouts from the roofs of the Synagogue and Gymnasium were made of jointed ridged terracotta pipe segments and were found built into the walls or corners of most of the Shops (e.g. Figs. 187, 277). Similar vertical drains occur at Ostia.⁷² Naturally, the E-W

drain under the Shops was not just for rain water, but was also integrated into the entire water system of the Gymnasium, which would keep water flowing to flush out the drain, ultimately flowing out through the Great Drain which lies under the terrace that supports the complex. Presumably, much of this water came from the aqueduct donated by the Emperor Claudius.⁷³

72. Packer, pl. 61, fig. 171, passage 5, point C, Reg. III.x.1.

73. Hanfmann, *SPRT* 142.

II FINDS AND COMMERCE IN THE BYZANTINE SHOPS

In spite of their unpretentious architecture, a lively commerce seems to have existed in the Shops, as witnessed by the large quantity of objects found. Although the finds will be discussed under the individual Shops in Ch. III, the following general summary of object categories may be helpful.

The finds as a whole suggest a reasonable degree of prosperity. In fact, if the Byzantine Shops are compared to the shops of Pompeii and Herculaneum, the differences seem surprisingly small, despite the gap of nearly 550 years which separates them. As C. Foss rightly points out, at the time of its destruction, Sardis was a provincial capital and military center, and as such, prosperous.¹

Coins

Of the numerous coins found in Byzantine Shops W 9-E 19, 1065 were in sufficiently good condition to be catalogued and listed under the individual Shop descriptions in Ch. III.² They are also listed by mint in

Appendix 1. The coins were all found within the coordinates S 0-5.10, omitting the coins found in the Colonnade, and were located between *98.00 and the Shop floors or the bedding for the floors. Coins found in excavation below the floors are found in Ch. III, "Sondages below the Floors." Also not included in these lists are the few medieval coins found in the overburden and fourteen Turkish coins. Of the latter, thirteen were found in fill above the West Shops in 1958 and 1959³ and one, a fifteenth century akçe, was in the disrupted fill near the floor of E 14.⁴

The number of illegible coins excavated in the Shops was considerably larger than the legible ones. The lists do include coins which are at least partially identifiable: e.g. a coin referred to as "AE4, fifth century A.D." would be included among the Roman coins. Of the 1065 coins listed, the percentage breakdown is as follows: roughly 1.3% are Hellenistic, 1.7% are Greek Imperial, 50% are Roman (i.e. before A.D. 491), 47% are Byzantine.

The number of catalogued coins found in each Shop varies from 6 to 162; the average number was 40. Specifically, five Shops (E 3, 6, 7, 11, 15) had 1-10 coins, four (E 9, 13, 18, 19, W 7) 11-20, three (E 2A, 5, W 9) 21-30, two (E 17, W 7) 31-40, five (E 10, 12, 14, W 1, 8) 41-50, four (E 1, 4, 16, W 1) 51-60, one (E 2) 61-70,

3. The coins range from the 15th to 19th century (M7 Islamic nos. 56, 295, 331, 338, 361, 432, 485, 490, 496, 497 and three unpublished).

4. C62.251, M7 Islamic no. 17 found at E 84.00-85.00/S 2.00-4.00 *96.40-*96.20.

1. *Sardis* M4, 14.

2. The Byzantine coins found in the Shops from 1958 to 1968 are published in *Sardis* M1. In accordance with the precedent set by the British Museum, Bates selected A.D. 491 as the starting date of the Byzantine coinage. Bates notes that the Byzantine coins came predominantly from the four mints nearest Sardis. *Sardis* M7 covers the Greek and Roman coins up to A.D. 490 that were excavated between 1958 and August 18, 1972 and the Byzantine coins found from 1968 to that date. Coins found in late 1972 and 1973 are unpublished and have been identified by C. Foss.

and two (E 8, W 2) over 100. In other words, of the twenty-six Shops excavated, five had fewer than ten coins. Nineteen Shops had fewer than 50 coins and seven contained over 51. In fact, three Shops out of twenty-six produced 329 coins, 32% of the total number found in the Byzantine Shops. This may reflect the fact that some of the Shops may have been business offices and residences, while others may have been areas for the manufacture, storage and display of goods.

Evidence for Local Production

The preponderance of the material found in the Shops appears to have been produced locally. All of the coarse redware was made of a typically micaceous clay, clearly visible in the section of a sherd. The coarse black ware was essentially made from the same material, the different color being produced by firing in a reducing atmosphere. A non-Sardian origin of some of the fine redware objects, such as a plate from E 1 (P67.2:7284, Figs. 175–178)⁵ and the flask from E 5 (P68.165:7822, Figs. 255–257), seems likely, since their clay lacks mica. However, final word on many of the pieces must await further study.

The ochres in the paint and/or dye shops could have been made locally by roasting.⁶ The “Egyptian blue” frit might have been imported, but the technique of its production was widely known.⁷ A. von Saldern believed the glass at Sardis comes predominantly from local works.⁸ The majority of metal objects are probably primarily local.⁹

Pottery

The catalogued pottery from the Byzantine Shops represents a selection of the excavated pottery. Approximately 75% of the catalogued pieces are coarse redware made from micaceous (Sardian) clay. Most of the pieces are amphorae, which have both ribbed and smooth

bellies and shoulders, folded or plain strap handles, and pointed, knobbed, or small ring feet. This ware was also used for other shapes: basins, jugs, ribbed and plain cups, rimmed and unrimmed bowls, etc. These shapes, especially the bowls and basins, may be decorated with an incised undulating pattern of single or multiple lines, which is referred to as “Byzantine combed ware.” The same type of clay, with more sand and fine gravel added as temper and grog, is used for pithoi and their lids. Larger pieces of grog were used in the fabric of the basins and the section looks spongy.

The next largest group of vessels, about 20% of the total, is made of a coarse, gritty, black ware with a gray core. It is a form of the fabric used for pithoi, but contains large pieces of grog and was fired in a reducing atmosphere. This produces a uniform black color all over the surface, often further darkened and burned from use as cookware. The usual shape has an out-turned rim, rounded shoulder, belly, and bottom with no foot. Two curved, slim lug handles project from opposite sides of the shoulder. This is by far the most common shape, but plates and bowls are also made of this fabric.

Fine redware, the descendent of terra sigillata, comprises about 4% of the total. This fabric is used exclusively for plates, bowls and cups. Only one decorated piece was found, a plate with a cross and round border (P67.2:7284, Figs. 175–178) from E 1.¹⁰ The plates usually have a rounded rim and ring foot (e.g. Fig. 195). The majority of the bowls have a carinated profile, everted rim, and ring foot (e.g. Fig. 251). The cups are smaller with steep sides.

The remaining 1% of the pottery is divided among a number of fabrics and shapes. A few pieces, mainly bowls (as P67.7:7298 from E 5, Fig. 249), but also a few amphorae, are made of a buff clay, slightly finer than the usual coarse ware mentioned above. Some ribbed amphorae occur which have a white slip. A rare piece, found in E 5, is a “gold-dusted” jug (P68.176:7887, Fig. 260), basically similar in shape to a squat lekythos. There are a few small amphorae of smooth, gray fabric, some ribbed, with a rather narrow shoulder, long body and pointed foot. Very rarely buff sherds or white slipped sherds have red paint, but any pattern that may have existed is no longer distinguishable.

Ampullae or small “pilgrim flasks” are tear-shaped, with two holes for a suspension cord (e.g. P58.428:397,

5. Hayes, 409–410, pl. 23a, he believes the source of the ware to be in the Knidos region.

6. Cf. Pliny, *HN* 25.26.38; Vitruvius 7.7.2; *infra* for ochre and the question of the “Phrygian lapis.”

7. J. V. Noble, “The Technique of Egyptian Faience,” *AJA* 73 (1969) 435; C. Kiefer, A. Allibert, “Pharaonic Blue Ceramics, the Process of Self-Glazing,” *Archaeology* 24 (1971) 107; W. Williamson, “The Scientific Challenge of Ancient Glazing Techniques,” *Earth and Mineral Sciences* 44 (1974) 17–22; J. Riederer “Recently Identified Egyptian Pigments,” *Archaeometry* 6 (1974) 106.

8. *Sardis* M6, 2.

9. *Sardis* M8, 6–9.

10. *Supra* n. 5.

Figs. 155, 156, 488–492). Large flasks are round, with attached neck and lip and two strap handles; the only examples are from E 5 (P68.165:7872; P68.174:7885, Figs. 255–259) and E 12 (P64.177:6222, Fig. 420).

Occasional stray sherds (mostly Lydian) occur in the packed earth floors of the Byzantine Shops. Sgraffito pottery with its colored glazes was found only at levels above ca. *99.00 and only in the West Shops near the entrance to the Gymnasium (W 12).

Terracottas

Terracotta finds are primarily small, conical objects with and without holes at the apex (Fig. 125). They have been called “game pieces,” although they may have been spindle whorls or small weights. One terracotta stamp was found in W 2 (P58.290:542, Fig. 154).

Pottery Lamps

The pottery lamps are numerous, both decorated and plain. The most common ones have a pebbled surface (Wartzenlampen), ribbed pattern, or vine scrolls (e.g. Figs. 93, 424–427). The plain lamps are both round with short spouts and slightly narrower with more elongated spouts (e.g. Figs. 264, 265). Part of a four-spouted lamp was found in E 5 (L67.5:7295, Fig. 263).

Metal

Metal finds are very numerous and made of copper, copper alloy, brass, lead or iron. Large quantities of iron nails were found in all the Shops and are of two basic types: long and narrow with a small head; short with a wide, round head.¹¹ The former type was probably used in the wooden structure of the Shops’ roofs and second story floor; the latter most likely came from furniture. Tools (e.g. Figs. 57, 143–144, 240, 241, 362, 367) and agricultural implements (E 5, E 10–E 11, e.g. Figs. 360, 361, 363, 364) frequently occur. Weapons are rare, but a sword (M68.23:7889, Fig. 242) and a dagger (Fig. 239) were found in E 5. Iron locks occur in E 10–E 11 (e.g. Figs. 366, 368), but copper alloy locks are far more common. Iron folding chairs lay in the upper story of E 7 (Fig. 307).

Copper alloy objects form by far the largest group of metal finds from the Shops. The principal objects recovered were censers (e.g. Figs. 303, 304, 339, 566), over

100 locks (Figs. 351–353, 356–358), steelyards (e.g. Figs. 235–237, 472, 476), jugs (e.g. Figs. 285, 460), and buckles (Figs. 83–85, 116–119, 141, 192, 354, 582).

A lamp in the shape of a lion (which in an earlier, pagan period had carried a statuette of Cybele) proved, after analysis of a sample, to be made of brass (M67.4:7291, Figs. 232, 233).¹²

Stone

Stone finds are almost entirely utilitarian, but there are a few intact pieces and fragments of sculpture. The most common stone objects are mortars and pestles. Many Shops have one, but E 6 and E 7 have several (Figs. 280, 309, 310, 316). Most impressive are the two basalt mortars with lips from E 7 (S67.13:7351, S67.15:7353, Figs. 309, 310, 316). The mortars vary greatly in size. The smallest, often made from sculpture or furniture fragments, are 0.05 in diameter, the largest nearly 1 m. Sculpture, excluding pieces re-used in wall construction, is rare, but a fragment of a polychrome marble group which once represented Apollo and the Delphic tripod was found in E 2A (S68.1:7604, Figs. 191, 197). A furniture support with a figure of Dionysus leaning against a pillar was found in E 19 (S63.58:5765, Fig. 579) with a Roman table leg in the form of the forepart of a lion (S63.59:5766, Figs. 578, 580). A table leg (S58.8:605, Fig. 136) in the form of a statue of Attis (?) was found in W 2.¹³

Glass and Jewelry

Glass finds include a wide variety of vessels: bowls, salvers, lamps, bottles and flasks. Numerous fragments of window glass came from the former Shop windows. Window panes may have been for sale in E 12.¹⁴

Jewelry is rare, but two brooches with inlaid decoration were found hidden in the walls, one in E 6 (J73.2:8222, Fig. 283) and the other in E 9 (J73.1:8221, Fig. 338).¹⁵ Only one gem, a carnelian intaglio showing a sacrificing female nude (Seal 62.1:4172, Figs. 503, 504) was found in the Colonnade just outside the doorway of E 14.

12. Crawford, “Lamp,” 292. For the figure of Cybele see idem, “Mater in *Leone Sedens*: A Lamp from Sardis Reconsidered,” forthcoming.

13. Lion pillar, *Sardis* R2, 149, no. 220; Dionysus pillar, *ibid.* 150, no. 223; Attis (?) pillar, *ibid.* 150, no. 224.

14. *Sardis* M6, 92.

15. *Sardis* M8, 7, 116–117, nos. 684–685 with lit.

Censers and Incense

The censers found in the Byzantine Shops were almost certainly used for a secular purpose, deodorizing. The smells produced by dye shops were proverbially bad, according to ancient sources.¹⁶ While one most commonly thinks of incense in a religious context, symbolically cleansing the sanctuary with its pleasing scent, the secular uses of incense in ancient times are well attested.¹⁷

Columella, Celsus and Pliny the Elder all discuss the types of incense and their secular uses.¹⁸ Celsus and Pliny both mention styrax, a kind of incense produced in Asia Minor.¹⁹ Coins of Selge are decorated with representations of styrax, a principal product of that city.²⁰ Modern visitors to the fragrant outdoor bazaars and covered markets of Turkey are familiar with the modern equivalent of the ancient practice.

DYE SHOPS AT SARDIS

In Aristophanes' *Acharnians*, Dikaiopolis threatens to dip a duplicitous ambassador just returned from Persia in a Sardian dye, i.e., punch him in the nose.²¹ The fact that red dye was synonymous with Sardis suggests the importance of the dyed textile industry there in the fifth century B.C. Sappho speaks of a colored headband from Sardis and other garments in the sixth

century B.C.²² Pliny credits (wrongly) the Lydians of Sardis with the invention of dyeing wool, and Varro, quoted by Nonius and Pollux, refers to Sardian woolens and textiles.²³

Pliny also refers to Lydian ochre for painting, saying that it was formerly sold at Sardis, but was no longer available.²⁴ However, material which may have been ochre or some other kind of iron oxide was found in large amounts in E 6–E 8 and E 13–E 14 (*infra*).

Pliny discusses several dyes, although conclusive evidence for their use in the Byzantine Shops is lacking. Madder, Pliny says, was common in almost all the provinces and was used for dyeing wool and leather (*HN* 29.3.47).²⁵ The best known (and still used) madder in Asia Minor is known as “Turkey red,” a brilliant scarlet and “one of the most permanent dyes known.”²⁶ Pliny also mentions a mordant and a substance possibly used as a mordant, which were used to prepare textiles for dyeing, alum and the “Phrygian stone” (*HN* 35.15.189, 36.143.6).²⁷ Pliny states that the “Phrygian stone” received its name from its country of origin, that it looked like pumice in its natural state, and that it was used for dyeing clothes. It was prepared by steeping the stone in wine, then roasting it on a fire fanned by bellows, and finally quenching it with wine. Dioscorides describes the same material, saying that it was used by dyers in Phrygia, who imported it from Cappadocia. He describes it as naturally pale yellow with white patches and heavy, but says that it turned orange after roasting (Pliny says “red” but may mean that it became “red hot”).²⁸ K. Bailey theorized that it was a mordant, and that its color suggests it was an iron compound.²⁹

Until the red-orange material found in some of the Shops is scientifically analysed, it is impossible to say whether or not we have found red ochre or the “Phrygian lapis.” The large quantities of it, deposits almost a meter deep in the second stories of E 6–E 8 and E 13–

16. M. Grant, *Cities of Vesuvius: Pompeii and Herculaneum* (New York 1971) 198; A. Burford, *Craftsmen in Greek and Roman Society* (Ithaca 1972) 78, n. 175 cites Strabo 16.2.23 and Plutarch, *Pericles*, 1, 4; Robinson, 15, quoting the Papyrus Anastasi. For a translation which combines readings from the Anastasi and Sallier II Papyri see M. Lichtheim, *Ancient Egyptian Literature I* (Berkeley 1975) 184–192. She believes the word refers to mat weavers, 192, n. 11.

17. *Leviticus* 16.12ff.; *Psalms* 141.2; *Revelation* 8.3ff. For the secular uses see *infra* n. 18.

18. Convenient collections and discussions of this material exist in two modern works: S. Sidebotham, “Roman Economic Policy in the Erythra Thalassa 30 B.C.–A.D. 217” (diss. Univ. of Michigan, Ann Arbor 1981) Ch. II “Trade Goods”; N. Groom, *Frankincense and Myrrh* (Harlow 1981) incense for deodorizing 8, 13, 14, 17, 128, 155, 161, 229, Sardis 97, 114, decline and revival of incense trade 162–163, Nabataeans in Asia Minor (Miletus) 209.

19. Celsus, *Med.* 1.3; II.6, 10, 12, 18, 26, 28, 54, 56; Columella, *Rust.* III 8.4; Pliny, *HN* 12.38.78–12.40.81.

20. Groom, *supra* n. 18, styrax 30, 59, 92, 163, 202; Pliny, *HN* 12.40.81; coins Machatschek/Schwarz, 14.

21. F. W. Hall, W. M. Geldart, *Aristophanis Comoediae I* (Oxford 1964) *Acharnians*, line 112; *Sardis* M2, 44, no. 133 commentary.

22. *Ibid.* 45 no. 139. For a detailed discussion of Lydian textiles and dyes, see C. H. Greenewalt, Jr., L. J. Majewski, “Lydian Textiles,” in *From Athens to Gordon: The Papers of a Memorial Symposium for Rodney S. Young*, University Museum Papers 1 (Philadelphia 1980) 133–148.

23. *Sardis* M2, 44, no. 133; *Sardis* R1, 21–22.

24. *Sardis* M2, 45, no. 136.

25. Bailey I, commentary 159–160.

26. Robinson, 26.

27. Bailey II, 106–107 (alum); 122–123.

28. *Ibid.* 106–107.

29. *Ibid.* 259–260.

E 14, suggest that the compound might have been stored in sacks which have disintegrated.

Sulfur was used in antiquity in the fulling process to soften and bleach wool.³⁰ Sulfur springs exist near Sardis, and, in at least two instances, containers of sulfur were found in contexts which suggest dyeworks: the House of Bronzes (Unit 7) and E 6. In the House of Bronzes a marble stand containing sulfur was found in a basement room which presumably had been converted to industrial purposes. Along with it were found five basalt mortars, a pestle, a large bronze vat or cauldron and a vat made of marble slabs (L. 1.10, W. 1.40, H. 0.90).³¹ In E 6 the author found a pipe segment placed on end that contained a yellow substance which smelled of sulfur dioxide when burned (Fig. 269).

C. Foss believes a state-operated weaving mill existed at Sardis in late antiquity, as well as dye works, and mentions inscriptions which refer to guilds of clothes sellers and pantsmakers at Sardis.³² R. Forbes cites inscriptions mentioning dyers at Laodicea, Tralles, Miletopolis, Nicaea, and Sagalassos.³³ Furthermore, his description of dyeing in Rome during the Imperial and late Medieval periods as a Jewish/Syrian monopoly would tend to support the hypothesis that at Sardis, some, though clearly not all, practitioners of this trade were Jewish.³⁴

A major question in the interpretation of the remains of the Sardis dye shops is whether they actually engaged in the dyeing of cloth, or whether they only prepared dyes for use elsewhere. Before an answer can be attempted, a review of the remains of dye shops at other sites may be helpful.

Comparison with Other Sites

The *fullonicae* (fullers' shops) at Ostia have been the subject of a thorough publication by A. Pietrogrande.³⁵ Although he does not believe that the functions of a

fullonica and a *tintoria* (dye shop) were combined, he does concede that a small dye shop was active on the Via della Fullonica. He dates the installation to late antiquity, noting that the nature of the two trades is complementary.³⁶ The only difficulty in supporting his position, in the present author's opinion, is the unwarranted preponderance he gives to the fact that there are no furnaces in the *fullonicae*, equipment he believes to be absolutely essential for the dyeing process. The validity of this assertion would appear somewhat dubious, for both hot and cold dyeing processes were employed concurrently in the Roman/Byzantine era.³⁷ Furthermore, hot process dyeing can also be achieved by putting hot bricks or stones in the vats, and does not necessarily require placing the vat itself on top of a furnace.³⁸

Pietrogrande divides the *fullonicae* of Ostia into two types.³⁹ The first type was originally designed to be a *fullonica*. An example is Pietrogrande's "fullonica del Cardo" (Reg I, Is XIII n. 3), which contained more and larger equipment than the second, smaller type which was built into an already existing *taberna* and whose equipment had to be adapted to an unspecialized floor plan. The larger type is composed of two main areas: a large space (hall or *quadriporticus*) and a smaller, closed space located on axis behind it. Here were placed the large vats for soaking the cloth and the small basins for pressing the cloth, a process accomplished by treading the material in vats in a manner similar to pressing grapes. The smaller type of *fullonica*, Pietrogrande's "fullonica minore di Via della Fullonica" (Reg. II, IS XI, n. 2), also has two spaces on axis but lacks the *quadriporticus* or hall. The two spaces are referred to as a workroom and a free space.⁴⁰ Presumably, the two spaces in the smaller shops were used as a workroom and a drying room and in the larger shops the halls or *quadroportici* were used for drying.

At Sardis the two Shops associated with dyes have two such sections located on axis: E 6-E 7 (Fig. 267) and W 8-W 9 (Fig. 60). The location of the Shops along a Colonnade is ideal for dyeing and drying cloth, as shown in a relief now in Florence (Fig. 36).⁴¹ However,

30. Hanfmann, *SPRT*, 9, n. 25 with lit.; *BASOR* 157, 24; Pliny, *HN* 35.1.175.

31. Hanfmann, *SPRT*, 147, n. 107; *BASOR* 154, 27, n. 50; Hanfmann, *Letters*, 42, 94, fig. 63.

32. *Sardis* M4, 15, 19, 110, nos. 12, 13.

33. Forbes, 140, n. 146-150; *IGRR* IV, 863 (Laodicea); *BCH* 10 (1886) 519 (Tralles); *JHS* 27 (1907) 61 (Miletopolis); *IGRR* III, 360 (Sagalassos).

34. Forbes, 139; J.P. Wild, "Textiles," in D. Strong, D. Brown eds., *Roman Crafts* (New York 1976) 177.

35. Pietrogrande, *passim*.

36. *Ibid.* 89-90, n. 27.

37. Forbes, 130-131, 135 (hot process); 139 (cold process). See also Kardara, 262 no. 4.

38. Robinson, 23.

39. Pietrogrande, 77.

40. *Ibid.* 77-78.

41. Rostovtzeff, I, pl. 30:1, 2, with lit. Cf. Kraus pl. 144.

Shops E 6-E 7 have several peculiarities which would seem to indicate that they were used not only for dyeing cloth but also for the manufacture and sale of the dye itself. This hypothesis is supported by the objects found in the Shops.⁴² E 6, unique in that it had no direct access to the Colonnade but had to be entered from E 7, contained several mortars and pestles, amphorae and pipe sections holding pigments, and one large mortar probably used as a vat. In E 7 were discovered three more mortars, a pestle, and two steelyards probably used in measuring the dye (Figs. 306, 308-310, 316).⁴³ No vat, however, was discovered. The floor from E 7's door on the Colonnade to the doorway of E 6 was reinforced with schist slabs, suggesting it had to resist heavy weight and considerable traffic. Accurate measurement of the ingredients was important in dyeing, which could account for the presence of the steelyards in E 7. Comparison with the previously discussed shops in Ostia shows that they all had more than one vat, while at Sardis a single vat is the rule. This dissimilarity is probably the result of different production emphases: the numerous vats at Ostia reflect a concentration on dyeing cloth, while the many smaller vats at Sardis and the other implements found in E 6-7 suggest that dyeing and dye production were of equal concern.

The dye works at Isthmia (Rachi) consisted of four establishments having the same general plan—a rectangular tank, two circular vats and small, rectangular cisterns. The exact dimensions of the vats are not mentioned in the publication, but from the scale of the plan it appears that the rectangular tanks are approximately the size of those in W 8 at Sardis, but the number and type of containers differ.⁴⁴

The dye shops at Athribis and Jerusalem (*infra* Ch. IV) are similar to each other in having rows of small basins around the walls of an inner room and large rectangular vats.⁴⁵ Both these establishments are larger than the units at Sardis.

The dye shops at Debir and Gezer have large round vats, analogous to the round mortar perhaps used as a

vat in E 6 (Figs. 267, 271). There were at least twenty dye shops at Debir, judging from the preserved remains, and once again there is the combination of round and rectangular vats not found at Sardis.

The dye shops at Sardis lack permanent, built-in containers for ingredients. Instead, the ingredients were stored in containers of stone, terracotta or metal placed around the walls. They also lack the large, permanent vats of the size present in Pompeii and Ostia. This can partly be explained by the fact that, at Sardis, copper alloy basins were used in the Colonnade and terracotta basins, marble vats, and pithoi were used in the Shops themselves to supplement capacity.

At Ostia and Pompeii it seems clear that the process of dyeing took place *after* the cloth had been woven, thereby necessitating large vats. In the eastern Mediterranean, however, it was common to dye the yarn *before* the cloth was woven, especially when the end product might be cloth with elaborately woven designs as were famous in Lydia from the Archaic era. Yarn can even be dyed in pithoi or amphorae with large mouths; in fact, such vessels were in use at Debir as early as the seventh century B.C. (*infra* Ch. IV).⁴⁶ Thus, dyeing the yarn before weaving as compared to dyeing the woven cloth, may account for the lack of large vats in the Sardian dye shops.

EVIDENCE OF JEWS AND CHRISTIANS

Perhaps the most important discovery by the Harvard-Cornell Sardis Expedition in the realm of Late Antique studies is the Synagogue. The Byzantine Shops supplement the evidence from the Synagogue with epigraphic, symbolic and religious material.⁴⁷

The owners of restaurants E 1-E 2 and W 1-W 3 were Christians. The plate decorated with a Greek cross (P67.2:7284, Figs. 175-178) comes from E 1 and the presence of pig bones and shellfish in E 1 and E 2, as well as a graffito on a sherd showing a Latin cross and

42. This supersedes the interpretation as hearths, *BASOR* 191, 18.

43. An interesting glimpse of the dyers' trade can be seen on a Roman tombstone in the Parma Museum showing a dyer and the characteristic tools of the trade: steelyards, bags for wool or pigments and a small-mouthed jar for dye. See W. Born, "Purple in Classical Antiquity," *CIBA Review* 4 (1937) 112.

44. Kardara, pl. 79.

45. Athribis: Forbes, 130. Jerusalem: Mazar, *Mountain*, 248 and *infra*.

46. Debir (Tell Beit Mirsim): Albright, 62-65; idem, *The Archaeology of Palestine and the Bible* (Philadelphia 1974) 190-191; Kardara, 262-263. Gezer: Forbes, 139; Kardara, 262, n. 4.

47. Seager, Kraabel in Hanfmann, *SPRT*, 168-190. Kraabel in *Sardis: Twenty-Seven Years*, 62-73. The Synagogue will be published in a forthcoming report in the Sardis series by A. R. Seager with contributions by Kraabel and others.

the name Kyriak . . . (Kyriakos, P68.12:7614=IN68.8, Fig. 183) suggest this conclusion. Kyriakos may have been the restaurant's owner. An ampulla with a Latin cross embellished with circles (P58.428:397, Figs. 155, 156) comes from W 1, which was connected with Shop W 2. The residence/restaurant E 3 had a Latin cross with a rho top carved on the outside face of one of its west doorjamb blocks (Figs. 199, 201). Residence/wine-shop E 4 had two mussel shells in it, implying a Christian owner. Residence E 5 contained a large flask with Christian symbols (P68.165:7872, Figs. 255–257). Paint/dye shops E 6–E 8 had a Jewish owner, probably the same Jacob who owned E 13–E 14, since two graffiti mentioning him were found on pots in E 7 (P67.18:7341, P67.16:7339, Figs. 311, 312). In E 6 there was another graffiti with the name Agumiou (?) and a branch-like design which might be a *lulav* (P67.17:7430, Fig. 291). On the inside face of a block of the west doorjamb of E 7, two menorahs are incised (Fig. 279). The Jewish ownership of paint/dye shops E 13–E 14 is probable because of three graffiti on pottery. Two of these found in E 13 bear the names Theoktistos and Sabbatios (P62.371:4692, P62.394:4735, Figs. 428, 429); the third, found in E 14, mentions Jacob the Presbyter (P62.23:4180=IN62.14, Fig. 483). The presence of a small metal

object with a cross on it (M62.90:4294, Fig. 412) in E 13 may have been fortuitous, an instance similar to the lamp with a Chi-Rho on its handle found in a Jewish catacomb at Beth She'arim.⁴⁸ The glass shop, E 12, contained a graffito giving the name John (P64.147:6189, Fig. 422), a name that might be either Christian or Jewish. The discovery of a menorah incised on a marble plaque (S64.55:6587A-B, Fig. 386) in the upper story fill of this Shop made certain the Jewish identification of inhabitants. The owner of the dye shops W 7–W 8 was certainly Christian because Latin crosses on orbs were prominently displayed decorating a vat in W 8 (Fig. 68).

As might be expected, most of the Shops owned by Jews are near the Synagogue. None of the western Shops are known to have been owned by Jews.

48. Beth She'arim III 188, no. 23, pl. 70; M62.90:4294, E 14 *infra*. Avigad (personal communication, January, 1978) does not believe an object of such insignificance would antagonize a Jew of this period. The relations between Jews and Christians in the BS were presumably amicable. For relations between Jews and Christians at Sardis see Kraabel in *Sardis: Twenty-seven Years* and ed. A. Benoit et al., *Paganisme, Judaïsme, Christianisme: Influences et affrontements dans le monde antique. Mélanges offerts à Marcel Simon* (Paris 1979) 13–33.

III THE SHOPS, THEIR FUNCTIONS AND CONTENTS

with contributions by
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The Byzantine Shops were excavated over a period of fifteen years, from their first discovery in 1958, made in the course of tracing the south facade of "Building B," (as the Bath-Gymnasium Complex was originally designated, Fig. 1; *BASOR* 154, 16–18, fig. 3), to the last discoveries made during the final phase of cleaning and restoration in 1973 (Fig. 2). For the present, two Shops, W 10 and W 11, have been left incompletely excavated as controls. Because the excavation continued over such a long period, and in the early years was incidental to the study of the Gymnasium, the Marble Road or the Synagogue, there are anomalies in numbering and inconsistencies in the recording of levels and coordinates. The first Shops to be discovered were at about E/W 0 and excavation then proceeded to the west. For this reason the Shops were numbered west from W 1 and east from E 1, creating an artificial division of East Shops and West Shops. To eliminate this division we have decided to present the alignment from west, starting with W 13, to east, while still preserving the original identifying numbers which were set forth in 1967 to take the place of the temporary names (*BASOR* 199, 44).

The Sequence of Excavation

The references to the excavation reports are given below before the description of each shop. The detailed description of the excavation is not repeated in this book but the following provides a summary of the areas excavated, set forth chronologically by excavation season.

During the 1958 season W 1 and W 2 and the areas in the colonnade that fronted them were excavated

completely and W 3 was partially excavated (Figs. 110–159). These shops were crushed by fallen debris from BSH (*BASOR* 154, 16–18). In 1959 excavation was continued to the west in hopes of finding Shops that were better preserved. W 7–9 were completely excavated and W 10–13 partially (*BASOR* 157, 32–35, figs. 8, 18). In front of W 10 a small area of the mosaicked ambulatory was uncovered. Work in 1959 extended to the west extremity of the Bath-Gymnasium Complex, to W 13 where a trench was sunk below the floor through earlier Roman and Hellenistic levels to a layer containing mud-brick fragments with Lydian sherds ("Sondages below the Floors," *infra*). Excavation in these seasons was directed by D. G. Mitten.

The Shops *per se* were not excavated again until 1967. In 1961 D. G. Mitten excavated the colonnade and the Marble Road south of W 1–E 2A and C. H. Greenewalt, Jr. made a sounding to determine earlier road levels (Road Trench, E/W 0–E 20, Fig. 6; *BASOR* 166, 40–45, figs. 32–36). The stylobate of the colonnade on the south side of the MRd was discovered; the ambulatory would have been under the modern highway (*ibid.* 40). Items connected with the Shops were discovered in the road during this season, and the coins

* Scott and Weishan contributed the introductory sections that are initialed. Scott prepared the brief descriptions of the finds other than the coins. Weishan prepared the coin lists and the summary of coins circulating in the Shops, Appendix 1. Hanfmann provided the account of the excavation of the "Hellenistic Steps" prior to his death in 1986. Curtis Sandberg assembled the references and identified much of the comparative material.

found in the Colonnade paralleled the range of those from the Shops.¹ In 1962 Mitten explored the course of the road to the east at E 80.00–85.00/S 0–S 10.00, and the south walls of Shops E 13–15 were revealed on a line with those excavated to the west (*BASOR* 170, 38, 49–50, figs. 26–30). E 13–15 had suffered less damage and were found with more assemblages intact than was the case on the west side of the alignment.

A deep sounding to the Hellenistic Steps was sunk under E 14 and 15 (*infra*, “Sondages below the Floors”) in 1962. In 1963 the wall between E 14 and E 15 was removed and a seven meter length of the Steps exposed. G. M. A. Hanfmann dug under the west side of E 16 to uncover the southeast corner of the Steps (*BASOR* 174, 47–48, figs. 29–30). In this sondage evidence for an earlier phase of Shops was found (*Sardis* R3, 19).

With the discovery of the Synagogue in 1962, the focus of excavation moved to the north. In 1963 the north areas of E 17–19 and the entrance into the Synagogue between E 18 and 19 were excavated in the process of excavating the south wall of the Synagogue (*BASOR* 174, 45–47). In 1964 E 19 was cleared completely and E 12, with its rich glass finds, was also excavated (*BASOR* 177, 19–20, figs. 18, 20). The 1965 season saw a return to the west extremity of the alignment when Recep Meriç located the north-south street west of W 13 and established that another row of Shops extended beyond it to the west and possibly to the north (W 14–16, *BASOR* 186, 28–31).

As we have seen, during the first phase of excavation the Shops were uncovered in connection with the exploration of the Gymnasium, the Synagogue and the roads. In 1967, J. S. Crawford began the focused excavation and cleaning that formed the basis of this study and the physical reconstruction of the area, now open to tourism. Crawford excavated E 1 and E 4–11 in 1967 and re-explored E 16 where he found evidence for a second story (*BASOR* 191, 16–22, figs. 19–22). On the basis of his excavation Crawford reinterpreted the levels separated by brick and rubble as belonging to an upper and lower story separated by the fallen second story floor (Fig. 34). Crawford completed the excavation and study of E 1–19 in 1968 (*BASOR* 199, 44).

1. E.g. a copper alloy lamp, (M61.73a:3780, *BASOR* 166, 43–44, fig. 36) and an inscribed dagger sheath (M61.74:3782, *Sardis* M8 no. 8). A magnificent late Roman portrait head (S61.18:3398, *Sardis* R2 no. 92), which may have come from a series of statues lining the Colonnade, was found in the cemented debris that formed the base of a later Byzantine road.

In 1969 Crawford cleaned and studied Shops W 1–3 and W 7–11 (*ibid.*). With the completion of the excavation, the focus turned in 1972 and 1973 to final cleaning and restoration and to retaining the unexcavated area south of the Shops (*BASOR* 211, 29–30; 215, 44–46). This work was directed by Teoman Yalçinkaya with Crawford’s advice.² Additional information was gained about the ambulatory in front of the East Shops and architectural elements in the Colonnade.

JAS

Stratigraphy

The Byzantine Shops at Sardis all follow the same general pattern in their stratigraphy, with certain exceptions mentioned below. Levels at Sardis, with the exception of those for the 1958 season, when a standard, uniform level system had not yet been determined, are based on an arbitrary *100.00 marked at the top of the apse of the Synagogue.³ Most of the Byzantine Shops were buried under ca. 0.50 m. of basically sterile, light brown earth in which occasional Greek and Turkish relics from the Greco-Turkish War of 1922 occurred. This level slopes upward from north to south (Fig. 34).

At ca. *98.00 is a thick stratum of rooftiles, broken and whole, along with a burn layer ca. 0.10 m. thick. This is the collapsed second story roof of the Byzantine Shops. Finds between this level and ca. *97.30 can be attributed to the second stories of the Shops, although the confusion resulting from the collapse makes the original location within the second story uncertain.

At ca. *97.30–*97.20 is another stratum of charcoal, rooftiles and brick, in some cases with charred beams preserved. These supported the second story floors, which the inhabitants had overlaid with the bricks and tiles. From *97.20–*96.50 is the usual stratum from the first story. The objects in this deposit are reliably located in relationship to each other and to the walls of the Shop at the time the collapse occurred. In several of

2. Yalçinkaya’s contribution and the care with which he excavated and recorded objects and architectural pieces cannot be overemphasized. Much new information has been preserved in his clear and complete fieldbooks. It is due to his energy and persistence that the Shops were rebuilt and the conservation scheme of ramped platforms, designed by P. Zygas and E. D. Russell with G. M. A. Hanfmann, was implemented. Although it focuses on MC much useful information on restoration is provided in Ch. IV of *Sardis* R3 by Mehmet Bolgil who provided overall direction to the restoration at Sardis from 1967 to 1973.

3. For explanation of the datum system see S. Carter in *Sardis* R1, 10–11.

the Shops, however, one stepped down from the Colonnade level. Their first story floor levels go as low as *96.45. Objects with levels lower than this were buried in the earth floors of the Shops or found in the drain along the N wall of the Shops or in the pit over the Hellenistic Steps.

In the West Shops Levels I, II and III sometimes designate the deposits described above, Level I being the highest. No standard level had been determined at the time W 1 and W 2 were excavated.

The Coordinates

The walls and features in the East Shops are located in general conformity with the established grid system;⁴ where certain discrepancies occur, the author and the editors have carefully consulted the excavators' field books and located objects in relation to associated features. In the West Shops, which were principally excavated and recorded before the current system of coordinates was established, the recorded grid locations of certain structures and objects no longer correspond to the coordinates now established for the Shops. In lieu of exact coordinates, objects and features in the West Shops have been placed by direct reference to the excavators' fieldbooks. In both the East and the West Shops, objects which cannot be located with certainty are noted as such.

The problem in the West Shops was further compounded by the preparation of a series of plans of the Bath-Gymnasium Complex that mistakenly show the east wall of W 1 at E/W 0 (*Sardis* R 3, figs. 7, 9) when in fact it lies at E 1.44 (Figs. 6, 129). Some objects published in previous monographs, especially the glass and metal, were incorrectly assigned Shop locations on the basis of these plans and their recorded coordinates. For that reason discrepancies will be found among the publications.

MDW

Notes on the Descriptions of the Shops, the Plans, and the Finds

All wall lengths in the Shop descriptions are interior measurements. All wall heights are preserved heights

4. The NE corner of BSH was designated E/W and N/S 0. The N/S axis was established along the E face of the E wall of BSH in 1958 when it was ca. 26' 20" E of magnetic N; the E/W axis was perpendicular to it and approximately on a line with the S face of B, or the N wall of the Shops, *Sardis* R 1, 8-10.

unless otherwise indicated. The coordinates assigned to the Shops are the points at which the east and west walls of the Shops meet the north wall.

Measured plans were never made of all the Shops. To prepare the plans for this volume plans of the entire Complex at a scale of 1:50 were enlarged to approximately 1:25 and the detail of finds and features in association with the first floor were added in a schematic manner.⁵ Because of the various inconsistencies, exact, measured plans were not possible and those presented are intended to give an impression of the reconstructed furnishings and the assemblages of finds.

Short descriptions of the finds have been prepared by J. A. Scott. No attempt was made to reassess the conclusions presented in *Sardis* M6, M8 or R2; the entries for the glass, metal and sculpture are by and large summaries of the information in those volumes. The pottery and stone items were examined in the field and brief descriptions and preliminary comparanda assembled; these items will be the subject of a detailed monograph to be published in a subsequent volume of this series.⁶ It was not possible to determine the criteria for keeping pottery among the several excavators so the selection given will present the range of material found in association with the floors or with features but has no statistical basis and does not include the mass of material in the fill.

The lists of coins represent all the excavated coins that did not disintegrate and that could be identified. They include the items published by George Bates in *Sardis* M1 with careful contextual annotation and those published by T. V. Buttrey and A. Johnston in *Sardis* M7 with no context. The identifications are those of Bates, Buttrey, or Johnston. The coins excavated in late 1972 and 1973 were not included by Buttrey and have been identified by Clive Foss. Groups designated as hoards by Bates and those noted as concentrations by the excavators have been kept together; otherwise the

5. Andrew Rasanen did the preliminary research and plotted the finds on the state drawing. The plans were executed by Catherine Alexander following a scheme worked out by Kathryn Gleason.

6. Drawings of much of the pottery were prepared in the field by Kathryn Gleason. Inks of these and other object drawings were prepared by Timothy Barner and C. Alexander. Unfortunately no analyses of substances stored in the Shops or of residue in containers were made at the time of excavation. Analysis of such material that remains is underway at the Conservation Analytical Laboratory, Smithsonian Institution by Pamela Vandiver and Martha Goodway who have kindly provided preliminary results in Appendix 2.

coins are listed under each Shop by date from the earliest to the latest. A summary of circulation by mint appears in Appendix 1.⁷

JAS, MDW

The Southwest Corner of B

Several ancillary units extend to the west and south of the boundary walls of the Bath-Gymnasium Complex (Fig. 4). The pier at the southwest corner of the Complex, Pier 14, forms the northeast corner of W 13, which may have functioned as a Shop. To the east of it is W 12 (W 47.00–W 50.50), an entrance from the Colonnade into BW S Area which was made at a late period in the use of the Gymnasium. The north threshold is at the lowest course of Pier 14, which was roughly hacked back to accommodate the passage (Fig. 23; *Sardis* R3, 113). Although the excavators numbered the entrance as a Shop there is no evidence that it functioned as one. To the north of W 13 are two latrines which were in use at the same time as the Shops. The latrines and W 13 were accessible from a narrow north/south road with a cemented surface at *97.20. The road was entered from the Colonnade through a brick archway and extended north along the perimeter of the Complex (*Sardis* R3, 22–24; *BASOR* 186, 28–30). West of the road two units, W 14 and 15, lie on the same axis as the Shops and may be evidence that the alignment extended further west; the area has not been excavated beyond the west wall of W 15. North of these units is an alley running east-west and on the north side of it is another unit, W 16, which has not been completely excavated but enough is known to suggest that commercial or domestic activity extended along the road to the north.

JAS

W 13 Figs. 42, 593

EXCAVATIONS

1959 D. G. Mitten overburden to floor, *BASOR* 157, 33–34; pit below floor in SW corner, *infra* “Sondages below the Floors.” 1969 J. S. Crawford cleaned and studied, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 32. For evidence of glass manufacture, M6, p. 96.

7. The preliminary lists of coins were extracted by Andrew Rasanen and entered into a database by Lucinda Scanlon. Michael Weishan completed the work and set up a database to which the rest of the coins found at Sardis will eventually be added. It can be searched by mint, date, and emperor or issuer as well as by excavation no. and sector.

Ca. W 50.60–58.55. Floor at *96.39, stone slabs near door, packed earth.

N wall: L. ca. 6.57, W. ca. 0.70. Abuts Pier 14 (*Sardis* R3, 113) which extends ca. 2.00 into Shop.

E wall: L. ca. 4.75, W. ca. 0.75. Abuts Pier 14 (*ibid.* 113) which extends ca. 1.30 into Shop.

S wall: L. ca. 7.95, W. ca. 1.00. Two doors: W door W. ca. 1.62; E ca. 1.00, threshold extends into E wall.

W wall: L. ca. 6.70, W. ca. 0.75. Door W. ca. 1.30 lets out onto N-S lane to the W of the Complex.

W 13 is a rectangular unit, partially excavated. It may have been a shop, but its purpose remains obscure owing to the lack of finds. Whether or not it can even be considered a part of the Byzantine Shops is uncertain; W 13 is not joined to the other Shops and may in fact relate to units to the N along the W side of the Gymnasium complex. In spite of the uncertainties of plan and function, W 13 does provide some interesting information.

BONE

BI59.21:1888 Fig. 43 Pin or handle tapering to a knobbed head, upper part P., incised spirals and herringbone design on shaft; P.L. 0.075, diam. head 0.006.

W 53.56/S 1.50–5.25 *98.00–*96.75.

Cf. *Saracane* 1 no. 401.

COINS

C59.309 (M7 GR 368) Antiochus II, 261–246 B.C., AE13, uncertain mint; W 54.00/S 4.00 *97.00, above drains in fill.

C59.290 (M7 GR 347) Augustus, 27 B.C.–A.D. 14, AE18, Sebaste; W 55.00–57.00/S 3.50–4.40 *97.00–*96.50.

C59.310 (M7 R 93) Claudius Gothicus, 270–, posthumous coinage, Ant., uncertain mint; W 56.50/S 2.00 *96.90.

C59.345 (M7 R 147) Licinius I, 321–324, AE follis, Cyzicus; W 58.00–59.50/S 3.00–4.40 *97.50.

C59.304 (M7 R 231) Constantine I, 337–341, AE, uncertain mint; W 54.00–57.00/S 2.00–4.40 *97.00–*96.50.

C59.341 (M7 R 233) Constantine I, posthumous coinage, 341–346, AE, uncertain mint; W 54.00–57.00/S 2.00–4.40 *97.00–*96.50.

C59.299 (M7 R 390) Constantius II, 337–341, AE follis, Antioch; W 55.50/S 4.00 *96.75.

C59.303 (M7 R 372) Constantius II, 341–346, AE, Cyzicus; W 54.00–57.00/S 2.00–4.40 *97.00–*96.50.

C59.340 (M7 R 550) House of Constantine, 341–346, AE, uncertain mint; W 55.00–57.00/S 5.25–6.25 *97.30–*97.00.

C59.306 (M7 R 558) House of Constantine, 355–361, AE4, uncertain mint; W 54.00–57.00/S 2.00–4.40 *97.00–*96.50.

C59.307 (M7 R 363) Constantius II, 355–361, AE3, Nicomedia; W 54.00–57.00/S 2.00–4.40 *96.50–*96.00.

C59.305 (M7 R 614) Valens, 364–365, AE3, Constantinople; W 54.00–57.00/S 2.00–4.40 *97.00–*96.50.

C59.301 (M7 R 635) Valens, 364–375, AE3, Cyzicus; W 55.50/S 4.00 *96.75.

C59.308 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; W 54.00–57.00/S 2.00–4.40 *96.50–*96.00.

C59.300 (M7 R 656) Gratian, 378–383, AE3, Cyzicus; W 55.50/S 4.00 *96.75.

Uninv. 59 (M1 496) Justin II, 577/578, follis, Antioch; ca. W 52.75/S 4.45 *97.00–*96.75.

GLASS

Bowl

Uninv. 59 (M6 405) Ring base; greenish aquamarine; diam. 0.044.

W 52.00–54.00/S 2.50–4.40 *96.50–*95.50.

Cullet

Uninv. 59 (M6 734) Group of wasters: drippings and cullet. W 55.00–57.00/S 1.70–4.40 *98.00–*97.00.

Goblets

G59.68:2194 (M6 367) Fig. 44 Complete stem formed of 5 knobs, portions of foot and lower bowl P.; foot has concentric coil-like ribs; pale green; P.H. 0.044. W 54.00–57.00/N 1.00–3.00 *98.00–*97.00.

Uninv. 59 (M6 316) Small section of folded foot; blue. W 52.00–54.00/S 2.50–4.40 *96.50–*95.50.

Uninv. 59 (M6 315) Fragment of goblet (?) or vessel; light blue.

W 55.00–57.00/S 1.70–4.40 *98.50–*97.00.

METAL

Copper Alloy

M59.66:2115 (M8 229) Fig. 45 Spoon, small bowl, flat handle with profiled sides, widens to transition to 2nd spoon bowl, now missing; P.L. 0.085, W. 0.023. W 54.00–57.00/S 2.00–4.40 *97.50–*97.00.

M59.55:1883 (M8 218) Fig. 46 Strainer spoon, round holes in bowl equally spaced in 3 concentric circles with cross in center, handle in 2 pieces joined by 2 rivets, terminates in ovoid tab with suspension hole; L. 0.317, W. spoon 0.084. W 53.00–57.00/N 1.00–4.00 *97.50–*96.50.

POTTERY

Amphorae

Uninv. 59 Fig. 47 Tapered base with solid toe; pink-buff micaceous clay with large gritty inclusions concentrating toward the bottom; red slip on ext., hard calcined deposit on surface; max. P.H. 0.16.

W 52.00–54.00/S 2.50–4.40 *96.50–*95.50.

Uninv. 59 Fig. 48 As above, flat at bottom; ext. not slipped, drips of iron oxide over calcined deposit; int. lined with mastic; max. P.H. 0.15.

W 52.00–54.00/S 2.50–4.40 *96.50–*95.50.

Basin

P59.421:1970 Ca. 1/4 P., flat bottom, wide ledge rim, side sharply carinated on ext., rounded, ridged on int.; pink-buff micaceous clay, smoothed when wet but no slip; H. 0.115; est. diam. 0.34; Th. wall 0.007, bottom 0.004.

W 53.00–55.00/S 0–5.00 *97.20–*96.00.

Bowls

Uninv. 59 Fig. 49 Straight side from rim to sharp carination above rounded wall, ring foot; 2 bands of rouletting above and 2 below carination; micaceous clay turned gray from burning, self-slip on ext., none on int.; H. 0.07, diam. 0.09.

W 55.00–57.00/S 1.70–4.40 *98.50–*97.00.

For the shape cf. *Kenchreai* IV no. LBR 20b, *Agora* V no. K44, similar to Hayes, Çandarlı ware, form 3.

Uninv. 59 Rim fragment similar to above; rows of roughly incised dashes, scallops, wavy line on ext.; pink-buff micaceous clay, red slip.

W 53.00–57.00/S not recorded *97.50–*96.50.

Cooking ware

Uninv. 59 Fig. 50 Rim fragment; beaker-like, tempered cooking fabric fired gray; out-turned rim smoothed down at edge; very well made with smooth ext. surface and even grooving; P.H. 0.12, est. diam. 0.26.

W 53.00–55.00/S not recorded *97.20–*96.00.

W 11 Figs. 51, 52

EXCAVATIONS

1959 D. G. Mitten, G. M. A. Hanfmann *98.50 to *97.00. S wall threshold, ca. 1/2 S area to tile fall, *BASOR* 157, 32. 1969 J. S. Crawford W 44.62–45.62 N-S wall to floor, *BASOR* 199, 44. 1973 T. Yalçınkaya consolidated balks, outlined walls and restored, *BASOR* 215, 52.

W 40.69–45.54. Partially excavated from ca. W 44.00 to the W wall. S wall threshold at *97.00; packed earth and stone slab floor at *96.83.

N Wall: L. 4.85, W. 1.05, H. 2.12. Excavated to about 1/2 its L. from the W wall to W 44.00, the rest unexcavated. Large fieldstones with brick lacing courses. Large, ashlar pier at W 44.39–W 45.62 (*Sardis* R3, 113, Pier no. 15). W of pier is a rough fieldstone and spoils extension, L. 1.19, W. 1.09, of poorer quality which connects the N and W walls.

E Wall: L. 4.65, W. 0.66. There may be a door to W 10, because of a gap in the upper wall surface, but the gap could also be caused by the irregular collapse of the wall.

S Wall: L. 4.74, W. 0.90, H. 1.01. S face completely excavated, N face to ca. 44.00. Small fieldstone and spoils with 2 brick lacing courses of 3 bricks each.

W Wall: L. 4.69, W. 0.60, H. 1.56. Small fieldstones and spoils with brick lacing courses of 3 bricks; only 2 courses are preserved. Vertical drain (diam. 0.10) built into the wall at S 0.08.

Although half of W 11 is part of an unexcavated control area, enough material was found to make the identification of a dye shop reasonably certain. One large and one small marble mortar were found close together at W 45.00/S 1.41 *97.18 and *96.81. The levels suggest that they were in the upper story. The moderate quantity of window glass found in W 11 presumably came from a second story window. Also among the finds were a coarse redware basin and a pottery strainer or colander, which possibly was used for the recovery of excess dye liquid from dyed yarn. Other finds, especially some fine redware sherds and glassware fragments, may indicate that part of W 11 also served as a residence. A bronze suspension device (M69.4:7920, Fig. 54) found at W 45.61/S 3.10 *97.34 seems associated with the residential finds.

ARCHITECTURAL PIECES

Uninv. 59 Fig. 51 Ionic column on base; white marble; P.H. 0.61, H. plinth 0.09, 0.49 x 0.51.
W 43.00–44.00/S 5.25–5.75 top at *97.40–*96.75.

COINS

C69.25 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint; W 45.90/S 0.67 *97.23.

C69.23 (M7 R 1070) Valentinian I–III, 410–455, AE4, uncertain mint; W 45.29/S 2.02 *97.93.

INSCRIPTIONS

IN59.18:1441 Fig. 53 Brick; 0.18 x 0.20 x 0.03; 2 lines broken on r.; H. letters 0.05–0.08.
Ca. W 43.77–43.93 N of N face of S wall *97.50.

METAL

M69.4:7920 (M8 594) Fig. 54 Six pieces of flat plates with perforated ends, 2 with hooks attached for lamp or censer; analyzed as low zinc brass; L. longest strip 0.10, W. 0.009, L. hook 0.074.
W 45.61/S 3.10 *97.37.

STONE

Mortars
Uninv. 69 Small, deep sides, wide foot; marble; H. 0.198,

diam. rim 0.087, base 0.149.
W 45.00/S 1.41 *97.18.

Uninv. 69 Bowl-shaped, curved sides, flat rim; marble, rough-finished on ext.
W 45.00/S 0.78 *96.81.

W 10 Figs. 55, 56

EXCAVATIONS

1959 D. G. Mitten overburden, S wall and area near S door threshold (W 32.00–34.00/S 5.25–6.56), *BASOR* 157, 32–33.
1969 J. S. Crawford studied and cleaned, *BASOR* 199, 44.
1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

W 32.48–40.03. Floor not exposed.

N Wall: L. 7.55, W. 0.96. Largely unexcavated; only part of upper surface and part of S face cleared. Fine mortared fieldstone with brick lacing courses three bricks thick. Large ashlar pier (W. 1.17, Pier no. 16, *Sardis* R3, 113) at W 37.77–W 38.94 has a round beam hole at *99.10.

E Wall: L. 4.73, W. 0.61, H. 0.80. Largely unexcavated; only upper surface face completely cleared. See W wall of W 9.

S Wall: L. 7.80, W. 0.89, H. 0.83. Largely unexcavated. Only upper surface and S face completely cleared. Mortared fieldstone and spoils. No brick P. Piers of marble spoils form doorjamb; marble threshold on E side (W. 1.32) with fittings for bivalve door; doorway on W side (W. 1.15). There may have been a window 0.92 W. just E of W wall at W 38.90–W 39.82.

W Wall: L. 4.65, W. 0.66. Unexcavated; visible portion consisted of large fieldstones and spoils with brick lacing courses. Doorway (W. 0.99) at S 0.91–S 1.90.

Interior: Large drain across rear of Shop. Vertical drain in NW corner encased in a curved, fieldstone sheath.

The interior of the Shop was left unexcavated for control purposes. A marble mortar was found in the Colonnade in front of the Shop (S59.35:1739, Fig. 59). If this mortar actually belonged to W 10, which may or may not be the case, it might suggest that W 10 was yet another dyeshop, but its function remains unknown.

COINS

C59.157–C59.159, *infra*, were found together at the threshold of the S wall door.

C59.157 (M7 R 178) Constantine I, 333–335, AE follis, Constantinople; W 32.00–34.00/S 4.40–6.50 *98.00–*97.00.

C59.156 (M7 R 301) Constantius II, 333–335, AE follis, Constantinople; found with above.

C59.176 (M7 R 361) Constantius II, 351–361, AE3, Nicomedia; W 38.00–42.00/S 5.25–6.50 ca. *98.00–*97.00.

C59.158 (M7 R 1044) Valentinian I-III, 364-378, AE3, uncertain mint; W 32.00-34.00/S 4.40-6.50 *98.00-*97.00.

C59.70 (M7 R 873) Eudoxia, 400-404, AE3, uncertain mint; W31.37-33.00/S 5.00 *97.75-*97.50.

C59.159 (M7 R 979) Valentinian III, 425-455, AE4, uncertain mint W 32.00-34.00/S 4.40-6.50 *98.00-*97.00.

C59.95 (M1 747) Phocas, 608/609, 3/4 follis, Constantinople; W 32.37-32.50/S 3.00-3.24 *97.70-*97.80, in niche with glass and pottery (2 lids *infra*).

METAL

Iron

M59.18:1396 (M8 153) Fig. 57 Chisel, shaft with rectangular section, working end hammered to flat, slightly splayed edge, other end pointed for insertion in handle; max. P.L. 0.123, max. W. edge 0.014.

W 31.35-36.85/S 3.40-4.40 *98.80-*97.80.

Cf. *Yassi Ada* I no. Fe 27.

POTTERY

Cooking ware

The pieces listed were found near the S wall threshold with C59.157-C59.159 *supra* and large quantities of window glass.

Uninv. 59 Fig. 58 Twisted handle or support (of frying pan?), knob reamed out; handmade, coarse tempered clay fired red, self-slip; L. 0.08.

W 37.00-42.50/S 5.25-6.50 *97.50-*96.75.

Cf. *Kenchreai* IV 145 RC 100, P588 is closest to this piece but is dated earlier.

Uninv. 59 Fragments of neck and lifting ledge-handle; tempered clay fired gray; L. handle 0.09, Th. wall 0.06.

Found with above.

As P58.339:714 in W 1, Fig. 157.

Lids

Uninv. 59 Fragment, missing knob, rounded edge, flat with concentric ridges, underside smooth; est. diam. 0.24; Th. 0.08-0.09.

W 38.50-39.37 *97.50-*96.75, in blocked niche or window in S wall with C59.25 *supra*.

As E 6, Fig. 255.

Uninv. 59 Ca. 1/3 P. flat, missing knob, edge pressed upward unevenly, ridged in center; made on rough stone tournette; est. diam. 0.17; Th. 0.07-0.014.

Found with above.

As E 14, Fig. 498.

STONE

S59.35:1739 Fig. 59 Mortar, concave spout and one lug handle P with incised X, flat rim, disc base; marble; H. 0.105, diam. 0.285; Th. wall 0.035 to 0.008 at bottom.

W 39.50/S 5.75 *97.00-*96.75, near threshold with cooking pot fragments and coins *supra*.

For similar mortars dated 7th-12th C., see *Saraçhane* I 236.

W 9 and W 8 Figs. 60-71

EXCAVATIONS

1959 D. G. Mitten overburden to floor, *BASOR* 157, 32-33.

1961 general repair work, *BASOR* 166, 62. 1969 J. S. Crawford studied and cleaned, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 32.

W 9

W 29.85-31.68. Floor at *96.88, tile in SE area, stone slabs along W wall.

N wall: L. 1.83, W. 0.94, H. 0.80. The S wall of BW South Area, primarily composed of an ashlar pier (*Sardis* R3, 113, Pier no. 17) in which is a square beam hole at *99.10; on either side are small sections of good quality mortared fieldstone with brick lacing courses and no loose brick or spoils.

E wall: L. 3.32, W. 0.49, H. 0.55. Sloppy, poorly P.; small fieldstones, spoils and brick. Door (W. 1.17) at SE corner; marble threshold with fittings for bivalve doors. Probably secondary construction to separate W 9 from W 8.

S wall: L. 2.20, W. 0.89, H. 0.74. Projections of reused marble blocks form the jambs of a door (W. 1.09); marble threshold with fittings for bivalve doors. The wall is mortared fieldstones, but the Shop is so narrow that the marble jambs form most of the wall.

W wall: L. 4.53, W. 0.61, H. 0.80. Small fieldstones with lacing courses of 4 bricks each; 2 courses P. Window at S 0.96-1.93; H. of sill 0.85. Brick arch over drain running across back of Shop.

Interior: Drain across rear of Shop made of large, circular terracotta pipes, as opposed to the rectangular-bottomed channel found in all the Shops excavated to the E. There is also a drain running N-S. The drains merge in the NW corner. In NW corner a vert. pipe encased in cement rests on a stone slab supported on each side by 5 bricks.

W 8

W 24.86-29.36. Floor in NE area paved with stone slabs at *96.86; floor at W 28.59-29.00 *96.85-*96.80, packed earth, some tile, some large schist slabs.

N wall: L. ca. 3.62, partition wall to niche with basin, W. 0.98, H. 1.31, S wall of BW South Area (*Sardis* R3, 113, between Pier nos. 17 and 18). Good mortared fieldstone, but only P. below the level of the first brick lacing course.

E wall: L. 4.54, W. 0.33-0.68, H. 1.16. An especially strange piece of construction with 4 very clear seams (probably blocked doors). Brick, spoils and fieldstone pier (Th. 0.66) at S 0-0.55. Brick and fieldstone S 0.55-1.03, Th. 0.33. Brick infill (Th. 0.66) at S 1.03-2.08. Sloppy brick and fieldstone infill (Th. 0.33) at S 2.08-3.41. From S 3.41-5.35 (including pier shared with S wall) good brick and fieldstone masonry (Th. 0.68). Meets pier at S wall. Shared with W 7 except for a bonded

stub wall projecting S (Th. 0.29) at S 0.55–1.22 which reinforces the basin.

S wall: L. 4.50, W. 0.86, H. 1.06. Fieldstone and spoils. More regular spoils used at the jambs of the doorway (W 1.08) at W 26.55–27.63; threshold of reused marble slabs, no fittings for bivalve doors.

W wall: See W 9, E wall.

Interior: Rectangular basin in NE corner ext. L. 1.42, W. 1.15, D. 0.80; int. L. 1.09, W. 0.88; 2 front slabs are reused Greek inscriptions (IN59.3–4, Fig. 68) which have Latin crosses upon orbs replacing and defacing most of their texts.⁸ The basin stands on a raised platform (L. 0.67, W. 1.43, H. 0.03); floor around it reinforced with marble slabs and buried column fragments. To S a square mortar with round basin wedged in place by bricks. Another column fragment, not built into the floor, lay parallel to the E wall, its S end abutting a 5 brick high feature. Bench along N wall abuts W wall, H. 0.15, L. 2.47, W. 0.30; covers a terracotta drain. The large drain crosses the Shop at the rear. Terracotta pipe passes through the E wall and empties into the basin in NE corner.

W 9 and W 8 form a unit. The pottery basin and pithoi found on the floor of W 9, as well the drain structure suggest it was also probably a dyeshop. Long and narrow, W 9 was much smaller than the standard shop; in fact, it seems to have been made as a secure storage room for W 8. It is clear from the threshold that both doors of W 9 could be closed, perhaps even locked. Most thresholds between interconnecting Shops lack the central hole for a vertical lock-pin; W 9's east door is the exception to this general rule. The occupants presumably wanted to prevent unauthorized entry into W 9.

Vessels were both set into and standing on the floor, which was made of stone slabs and tiles, a common practice at Sardis in Shops where spills might seep into a dirt floor (cf. E 6 *infra*). Finds included one terracotta lamp fragment, thirteen iron nails, thirty-three bones, an oyster shell, many pieces of broken glass vessels and window panes, and one complete glass bottle. The bottle and most of the coins were found in the upper story.

W 8 is the most interesting and best preserved of the Shops at the west end of the alignment. Its interior arrangement is similar to the other dyeshops, having the low platform built across the back wall with a vat located in the corner, an arrangement also found in W 3. The vat has a rounded inner chamber with a drain

hole in the bottom which was closed with a terracotta plug. The terracotta pipe which connects the vat with W 7 suggests that both Shops were at one time associated with the dyeing trade. Additional evidence for this usage of W 8 comes from its interconnection with W 9: i.e., the pithoi and other vessels found in W 9 strongly support the interpretation of both W 8 and W 9 as dyeshops.

W 8 was initially thought to be a baptistery, owing to the Latin crosses carved on the basin. This view is no longer tenable. Rather, the crosses were probably apotropaic, used to “convert” the pagan inscriptions and protect the shop generally.⁹ C. Foss has collected literature and instances of such “conversions” at Ephesus and at Sardis, especially in the Temple of Artemis. The practice was general in Asia Minor.¹⁰

Although other dyeshops most likely had Jewish occupants, e.g. E 6–E 8, the crosses on the basin in W 8 leave little doubt that its owner was a Christian. This shows that members of both religions were active in the dyer's trade at Sardis.

FINDS FROM W 9

COINS

C59.136 (M7 GR 255) Autonomous Imperial, ca. 100–120, AE18, Sardis; W 24.00–29.50/S 4.40–6.50 *98.00–*96.80, general sifting.

C59.128 (M7 R 519) Diocletian or Maximian, 295–299, AE fraction, uncertain mint; W 29.00–29.50/S 1.50–4.40 *98.00–*96.80.

C59.23 (M7 R 267) Crispus, 324, AE follis, Thessalonica; W 29.54–31.37/S and level not recorded.

C59.113 (M7 R 415) Constantian, 355–361, AE4, uncertain mint; W 29.50–31.37/S 4.80 *98.80–*97.90, from sifting.

C59.75 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint; W 30.00–31.37/S 3.00–4.50 *97.60–*97.25, from sifting.

C59.78 (M7 R 808) Arcadius, 383–392, AE4, Constantinople; W 30.00–31.37/S 3.00–4.50 *97.60–*97.25, general sifting.

C59.76 (M7 R 759) Theodosius I, 383–395, AE4, Cyzicus; W 30.00–31.37/S 3.00–4.50 *97.60–*97.25, from sifting.

8. *BASOR* 157, 32. The inscriptions, dating to the Roman Imperial era, are an honorary inscription reused as a grave stele mentioning a funerary *temenos* and sarcophagus and an inscription of unknown purpose mentioning an *Hadrianeion* (shrine or temple of Hadrian).

9. Despite G. M. A. Hanfmann's view that the water in the basin was “hallowed” (*SPRT*, 192), I do not believe the basin had any liturgical function.

10. Exorcism and demons at Sardis: *Sardis* M4, 49 and no. 128 with lit. See also Foss, *Ephesus*, 82.

C59.71 (M7 R 840) Arcadius, 393–395, AE3, Cyzicus; W 31.37–33.00/S 5.00 *97.75–*97.50.

C59.77 (M7 R 813) Arcadius, 395–408, AE3, Constantinople; W 30.00–31.37/S 3.00–4.50 *97.60–*97.25, from sifting.

C59.110 (M7 R 845) Arcadius, 402–408, AE3, Cyzicus; W 29.50–31.37/S 4.80 *98.80–*97.90, from sifting.

C59.109 (M7 R 862) Arcadius, 402–408, AE3, uncertain mint; W 29.50–31.37/S 4.80 *98.80–*97.90, from sifting.

C59.112 (M7 R 968) Theodosius II, 425–450, AE4, uncertain mint; W 29.50–31.37/S 4.80 *98.80–*97.90, from sifting.

C59.79, C59.80, C59.730 (M7 R 1071, 3 examples) Valentinian I–III, 425–455, AE4, uncertain mint; W 30.00–31.37/S 3.00–4.50 *97.60–*97.25, general sifting.

C59.219 (M1 213) Justinian I, 527–565, penta., Constantinople; ca. W 27.75–35.75/S 3.00 *97.75–*97.00.

C59.20 (M1 350) Justin II, 574/575, follis, Constantinople; W 30.50–32.40/S 0–4.40 *97.50–*97.00, sifting fill.

C59.19 (M1 479) Justin II, 576/577, follis, Cyzicus; W 30.20–32.00/S 0–4.50 ca. *97.50–*97.20, sifting fill.

C59.111 (M1 524) Tiberius II, 580/581, follis, Constantinople; W 30.20–32.30/S 0–4.80 *97.90–*96.80, from sifting.

C59.99 (M1 631) Maurice, 582–602, half follis, Thessalonica; W 31.18/S 0.04 *96.90 on marble floor slab.

C59.66 (M1 619) Maurice, 586/587, half follis, Thessalonica; W ca. 30.85/S 2.40 ca. *97.55.

Uninv. 59 (M1 589) Maurice, 587–591, half follis, Constantinople; W 30.20–32.30/S 0–4.80 *97.20, with storage vase.

C59.16 (M1 584) Maurice, 588/589, half follis, Constantinople; W 30.20–32.30/S 0–4.80 ca. *97.50–*97.00.

C59.127 (M1 796) Phocas, 603/604, half follis, Nicomedia; W 29.00–29.50/S 1.50–4.40 *98.00–*96.80, from sifting.

C59.126 (M1 767) Phocas, 603–610, half follis, Constantinople; W 29.00–29.50/S 1.50–4.40 *98.00–*96.80, from sifting.

GLASS

Large pieces of window glass were found at W 31.37–32.00/S 3.00–4.00 *98.00–*97.75 and a "terrific amount" of fragments esp. bowls of goblets (D. G. Mitten, 1959 fieldbook). Rims of colorless glass and a concentration of dark-green fragments (including G59.17:1263) were at W 29.54–31.35/S 0–3.00 *97.77–*97.00.

METAL

M59.6:1273 (M8 866) Finger ring, plain hoop with rectangular section; ext. diam. 0.026.
W 29.90/S 0–5.00 *97.77–*97.58.

POTTERY

Amphorae

P59.120:1409 Fig. 72 Knobbed foot; pink-buff clay, not lined; P.H. 0.072, max. P. diam. 0.10.
W 30.25–31.00/S 1.00–2.00 *97.90–*97.50.

P59.101:1376=IN59.29 Fig. 73 Neck-shoulder fragment; ext. gray from heat, int. red, slip mottled orange-gray; max. diam. 0.065, Th. 0.005–0.008.

Graffito: Fragmentary letters PO (?) incised just above shoulder in leather-hard clay before firing; H. letters 0.005–0.019. Below groove at neck a 2nd graffito, cross with A β (?) N suspended from horiz. bar, lightly scratched after firing; H. letters 0.01–0.025.

W 29.50–30.50/S 1.40–3.40 *97.95–*96.80.

Basins

Uninv. 59 Flat bottom, portion of wall P., int. ridged, underside has impressed bars, wider at the ends as though turned on a ridged tournette; diam. ca. 0.50.

W 31.37 in SW corner top at *97.00, base on the floor, Fig. 64.

Uninv. 59 Out-turned ledge rim fragment and straight wall; brick-like red clay, no slip; est. diam. 0.27; Th. 0.009.

W 30.00–31.37/S not recorded *97.38–*96.00.

Bowls

P59.88:1350 Fig. 74 Ca. 1/3 P., curved wall, out-turned rim, 2 ridges under lip, ring foot, ext. wall carinated, int. rounded; hole drilled after firing 0.06 below rim; red-orange clay, rough brick-like texture, thin red-orange slip; H. 0.007, diam. 0.26.

W 28.00–31.37/S 0–5.00 *97.90–*97.00.

Cf. E 8, Fig. 327.

P59.133:1454 Fig. 75 Ring foot of shallow bowl, coarse red micaceous clay, with inclusions and blowouts, double groove in center, slip on int., not ext; P.H. 0.042, diam. of foot 0.12.

W 31.70–34.00/S 0–5.00 ca. *97.75–*96.85.

Uninv. 59 Conical, smoothed rim slants inward, flange on ext. pulled from body; pink-buff micaceous clay, no slip; est. diam. 0.27.

W 30.25–31.37/S 4.00 *97.90–*97.25.

Cf. *Agora* V no. 113.

P59.57:1274 Fig. 76 Slightly curved tall ring foot and center of bowl P.; orange-purple slip on ext. and int.; P.H. 0.037, diam. of foot 0.08.

W 29.54–31.35/S 0 *97.77–*97.08.

Cooking ware

P59.100:1375 Fig. 77 Ca. 1/4 frying pan, straight, slightly slanted wall, out-turned ledge rim with 3 ridges below, flat bottom; tempered clay fired gray; H. 0.035, est. diam. 0.20.
W 30.35–31.37/S 5.90 *97.90–*97.00.

P63.382:5514 in E 16, Fig. 535 is very similar but fired red.

Cf. *Kenchreai* IV 143 no. RC 97.

Uninv. 59 As above but 2 ridges under rim on ext.; some charring; est. diam. 0.20, Th. 0.04–0.06.

W 30.25–31.37/S not recorded *97.50–*97.00.

Uninv. 59 Fig. 78 Fragment of dome-shaped lid (?); flange applied to rim leaving an airhole, provides a deep indentation to fit tightly over vessel rim; tempered clay fired red; H. 0.055, est. diam. 0.26.

W 29.50–30.50/S 1.40–3.40 *97.95–*96.00.

Uninv. 59 Fig. 79 Fragment of colander, preserving edges of 5 holes made while body green, punched from ext. to int. with hollow tool or reed; coarse gray clay, no temper; Th. wall 0.04–0.05, est. diam. holes 0.015; distance between holes varies 0.015–0.023.

W 29.00–30.50/S 3.40–5.00 *97.80–*97.00.

Uninv. 59 As above, 2 holes show ridge of clay where punched inward, 2 smoothed; pink buff clay with much mica, no temper; Th. wall 0.009–0.011; diam. holes ca. 0.09; distance between holes, 0.012–0.015.

W 29.00–30.50/S 3.40–5.00 *97.80–*97.00.

Jug

P59.184:1455 Fragments of jug or storage jar; buff clay, no slip.

W 31.37/S 3.50–4.00 *97.30–*97.10 in SW corner.

Pithoi

P59.584:2214 Fig. 80 Rim to below shoulder P.; base restored from fragments; rim slants out on ext., thickens to form flat top and continuation of wall on int., ext. sharp ridges on shoulder, double groove with wavy line above; roughly turned and smoothed showing coil lines on lower segment; diam. rim 0.41, base 0.42, Th. wall 0.015.

W 29.00–31.00/S not recorded *97.20. Similar pithoi found set into the floor in the SW corner and broken *in situ* on the floor in the NE corner with pipe segments and large basin fragments, Fig. 63.

Uninv. 59 Flat bottom and fragments of walls, ridged; surface finished with coarse cloth, imprint of stone tournette on underside; finger marks streaked across bottom while clay wet; diam. ca. 0.50.

Top at ca. *97.00 on floor in SW corner.

P59.121:1410 Wall fragment; ext. horiz. combed; red clay, large inclusions, no slip; max. dim. 0.082.

W 30.25–31.00/S 1.00–2.00 *97.90–*97.50.

P59.231:1598 Fig. 81 Lid, bevelled on underside for tight fit into vessel mouth, 5 holes bored after firing, center one interrupts graffito; impressions of straw or matting on underside; coarse, micaceous clay, some inclusions but no temper, traces of slip on top; est. diam. 0.28; Th. 0.023.

Graffito: ligature of OM traced in wet clay above center hole; H. letters 0.017.

W 31.37–34.00/S 5.25–6.50 *98.00–*97.00.

FINDS FROM W 8

ARCHITECTURAL PIECES

Columns

Uninv. 59 Complete shaft, profiled at narrower end; coarse-grained gray-white marble, rough finished; H. ca. 1.13, diam. top 0.25.

In SE corner, abutting a 5 brick high platform, Fig. 67.

Uninv. 59 Fragment of shaft; pink-white brecciated marble; max. P.H. 0.413, max. diam. 0.29.

On floor in center of Shop.

COINS

C59.225 (M7 R 80) Claudius Gothicus, 268–270, Ant., Rome; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.121 (M7 R 125) Valeria, 309–310, AE follis, Heraclea; W 25.75/S 2.60 *96.87, found with G59.25:1341, *infra*.

C59.120 (M7 R 408) Constantius II, 341–346, AE, uncertain mint; W 26.50–29.00/S 3.00 ca. *97.75–*97.00.

C59.232 (M7 R 1009) Valentinian I–III, 364–375, AE3, Nicomedia; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.230 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80.

C59.240 (M7 R 649) Gratian, 367–375, AE3, Constantinople; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, general sifting.

C59.131 (M7 R 800) Arcadius, 383, AE4, Heraclea; W 24.00–29.50/S 4.40–6.50 *98.00–*96.80, general sifting.

C59.231 (M7 R 670) Valentinian II, 383–392, AE4, Thessalonica; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.227 (M7 R 702) Valentinian II, 383–392, AE4, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.236, C59.408 (M7 R 780, 2 examples) Theodosius I, 383–395, AE4, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.135, C59.254 (M7 R 1056, 2 examples) Valentinian I–III, 383–395, AE4, uncertain mint; W 24.00–29.50/S 4.40–6.50 *98.00–*96.80, general sifting; W 27.00–29.00/S 2.50–6.25 *97.80–*96.80.

C59.241 (M7 R 813) Arcadius, 383–402, AE3, Constantinople; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, general sifting.

C59.234 (M7 R 793) Magnus Maximus, 387–388, AE4, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

C59.233 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.

- C59.252 (M7 R 930) Theodosius II, 402–408, AE3, Rome; W 27.00–29.00/S 2.50–6.25 *97.80–*96.80.
- C59.226 (M7 R 923) Honorius, 402–408, AE3, uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.
- C59.246 (M7 R 892) Honorius, 408–423, AE3, Constantinople; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, general sifting.
- C59.237 (M7 R 940) Theodosius II, 425–450, AE4, Constantinople; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, general sifting.
- C59.133 (M7 R 968) Theodosius II, 425–450, AE4, uncertain mint; W 24.00–29.50/S 4.40–6.50 *98.00–*96.00, general sifting.
- C59.249 (M7 R 977) Valentinian III, 425–455, AE4, Rome; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, general sifting.
- C59.242, C59.247 (M7 R 1081, 1080) Marcian, 450–457, AE4, uncertain mint; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, general sifting.
- C59.132 (M7 R 1107) Zeno, 474–491, AE4, Constantinople; W 24.00–29.50/S 4.40–6.50 *98.00–*96.80, general sifting.
- C59.183 (M1 684) Anastasius I–Maurice, 498–602, penta., Constantinople; W 26.00–28.00/S 3.00–4.00 *97.08–*96.75.
- C59.218 (M1 699) Anastasius I–Maurice, 498–602, penta., uncertain mint; ca. W 25.75–27.75/S 3.00 *97.75–*97.00.
- C59.116 (M1 309) Justin I or Justinian I, 518–538, half follis, Constantinople; W 26.50–29.00/S 3.00 ca. *97.75–*97.00.
- C59.239 (M1 207) Justinian I, 527–565, penta., Constantinople; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, sifting.
- C59.238 (M1 254) Justinian I, 538–565, penta., Cyzicus; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, sifting fill.
- C59.228 (M1 278) Justinian I, 547–565, deca., uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, sifting fill.
- C59.125 (M1 249) Justinian I, 548/549, half follis, Cyzicus; W 27.58/S 4.40 ca. *96.67–*96.60, floor.
- Uninv. 59 (M1 259) Justinian I, 551/552, half follis, Antioch; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, sifting fill.
- C59.220 (M1 270) Justinian I, 556/557, deca., uncertain mint; ca. W 25.75–27.75/S 3.00 *97.75–*97.00.
- C59.123 (M1 275) Justinian I, 561/562, deca., uncertain mint; W 25.00–29.00/S 3.00–4.40 *98.75–*96.80, sifting fill.
- C59.217 (M1 407) Justin II, 565–578, penta., Constantinople; ca. W 25.75–27.75/S 3.00 *97.75–*97.00.
- C59.52 (M1 517) Justin II, 565–578, penta., uncertain mint; W 25.50–27.50/S 0–4.50 *97.50–*96.90, sifting fill.
- C59.117 (M1 484) Justin II, 574/575, half follis, Cyzicus; W 26.50–29.00/S 3.00 ca. *97.75–*97.00.
- C59.118 (M1 486) Justin II, 574–578, half follis, Cyzicus; W 26.50–29.00/S 3.00 ca. *97.75–*97.00.
- C59.244 (M1 723) Tiberius II–Maurice, 578–602, deca., Constantinople; W 25.00–29.00/S 3.00–4.40 *97.75–*96.80, sifting.
- C59.229 (M1 601) Maurice, 583–602, deca., Constantinople; W 25.00–29.00/S 3.00–4.40 *98.79–*96.80, sifting.
- C59.93 (M1 642) Maurice, 594/595, follis, Nicomedia; ca. W 30.25/ca. S 2.50 ca. *96.91, on floor.
- C59.32 (M1 628) Maurice, 600/601, half follis, Thessalonica; W 28.95/S 0.15 *97.67.
- C59.119 (M1 773) Phocas, 602–610, deca., Constantinople; W 26.50–29.00/S 3.00 *97.75–*97.00.
- C59.122 (M1 935) Heraclius, 612–616, follis, Constantinople; W 25.35/S 3.75 ca. *97.50–*97.25.
- C59.245 (M1 950) Heraclius, 614/615, follis, Thessalonica; W 26.00–29.00/S 3.00–4.40 *97.75–*96.80, sifting.

GLASS

- G59.25:1341 (M6 569) Fig. 82 Miniature pear-shaped bottle; light aquamarine; H. 0.047, diam. 0.012. W 25.00–27.00/S 3.00 *97.95–*97.00, with coin of Valeria, C59.121 *supra*.

INSCRIPTIONS

- IN59.3 Fig. 68 (left) Below the bottoms of 2 wreaths and cut over the honorary inscription that accompanied them is a Latin cross on orb with a poorly-incised pagan funerary inscription in 5 lines, dated 4th–5th C. by Louis Robert (personal communication); marble slab; H. 0.815, W. 0.545, Th. 0.10. W 24.25–25.25/S ca. 1.00 *97.75–*97.00, *in situ*, the W slab on S wall of basin in NE corner of Shop, clamped to IN 59.4.
- IN59.4 Fig. 68 (right) Reused marble slab with cross as above cut over a Greek (post-Hadrianic) inscription used upside down; hole drilled through wall above cross; H. 0.82, W. 0.59, Th. 0.12–0.16. *In situ* clamped to the E side of IN59.3.
- Sardis* M4, 34. *SPRT* 165, 167, 192 (suggests the vat was used for water to be sanctified).
- IN59.13:1442 Fig. 69 Brick H. 0.12, W. 0.18; top surface P., fragmentary inscription in 3 lines, letters broken on both ends: VCE? AECΦO ?ΔY; H. letters 0.025–0.041. W 27.30/S ca. 3.90 *96.73 on tile floor in SW corner.

METAL

Copper Alloy

- M59.19:1399 (M8 692) Fig. 83 Buckle and plate, incised and punched circles on surface, tongue missing; max. L. 0.035, max. W. 0.024. W 27.40–26.60/S 1.42 *97.80–*97.48, upper story debris.

M59.14:1372 (M8 407) Fig. 84 Notched bit of key, P. with small round hole, ring (found separated) with flat section, narrow where passes through key; diam. ring 0.026.
W 26.00–29.00/S 3.50 *97.75–*96.75.

M61.18:3214 (M8 475) Fig. 85 Weight, biconical with flat surface; dot in center of each side, one face incised with symbol representing one *uncia*; max. diam. 0.018, Th. 0.015, Wt. 26.35 g.
Ca. W 25.00/S 0–5.00, on top of E wall.

POTTERY

Amphorae

P59.127:1447 Fig. 86 Neck with 2 handles attached ca. 0.02 below down-turned rim and above shoulder; fired pink on ext., gray core, no slip or lining; P.H. 0.225, diam. 0.16.
W 24.25–27.00/S 4.00 *98.00–*96.75.

Uninv. 59 Fig. 87 Handle joined at neck and shoulder, no scar for 2nd handle; ext. ridged above shoulder; rounded lip, ridge below; coarse brick-like clay with traces of red slip on ext., no coating on int.; max. P.H. 0.205, diam. mouth 0.05, max. P. diam. 0.255.
W 24.50–27.00/S 3.00–4.40 *97.75–*96.80.

Uninv. 59 Shoulder, no handle scar; coil built, overlaps of fabric can be seen in wall; clay not local, fired very hard; heavy calcined deposits on ext.; Th. wall 0.09–0.12.
W 24.25–27.00/S 4.00 *97.00–*96.75.
For shape cf. *Yassı Ada I* 157, CA type I.

Bowls

P59.237:1605 Fig. 88 Slanted wall, straight rim, concave bottom; coarse redware, some ridging on ext., slipped and smoothed on int.; H. 0.045, diam. 0.14.
W 24.00–25.40/S 0.55–3.00 *97.80–*97.00.

Uninv. 59 Rim fragment as above; est. diam 0.28.
W 25.75–27.50/S 3.00 *97.75–*96.75, with pithos fragment, *infra*.

Uninv. 59 As above; est. diam. 0.36.
W 26.00–30.00/S not recorded *97.40.

P59.128:1448 Fig. 89 Fragment of plain incurved rim; buff clay, worn red slip; P.H. 0.03, est. diam. 0.22.
W 24.25–27.00/S 4.00 *98.00–*96.75.
Cf. Hayes, 325–26, LRC form IA.

Uninv. 59 Fragment of upright rim, clay folded over on ext. and rouletted, ridge below.
W 25.00–30.00/S 0–5.00 *97.40.
Similar to Hayes 335, LRC form 3, type F no. 23.

Cooking ware

Uninv. 59 Rim fragment; fired red; est. diam. 0.21.
W 24.00–27.00/S 3.00–4.40 *97.75–*98.80.
Identical to E 9, Fig. 341.

Cup

P61.32A:3202 Fig. 90 Small, handleless, flattened rim, ridged

wall slants straight inward to flat base; coarse red clay, no slip; H. 0.055, diam. 0.09.
Found on top of W wall in cleaning.

Jugs

P59.109:1388 Fig. 91 Ovoid body, neck curved slightly outward, mouth not P., grooves at widest point and articulation of neck, heavy flat base, handle scar at bulge; reddish yellow clay with large inclusions, pink, very micaceous slip with gold sheen; P.H. 0.15, diam. of base 0.08.
W 29.41–30.30/S 3.00 *98.02–*97.17.

Uninv. 59 Fig. 92 Small, crookedly thrown, straight lip set off from neck, round body, heavy, flat base, convex on int., one handle scar on bulge; clay soaked and encrusted but white slip visible on lip; H. 0.12, max. diam. 0.085.
W 23.00–24.00/S ca. 1.58 ca. *97.10.
Similar to *Yassı Ada I* no. P30.

Uninv. 59 Fragment of lip; int. ridged; rim folded with flange on ext; est. diam. mouth 0.05, Th. 0.004.
W 24.00–25.40/S 0.55–3.00 *97.80–*97.00.

Pithos

Uninv. 59 Shoulder fragment; heavy, with large inclusions of quartz and other stones, coil made—overlaps visible on int., smoothed on ext., some traces of slip on int.; incised wavy line between grooves; Th. 0.015.
W 25.75–27.50/S 3.00 *97.75–*96.25.

Plate

P59.111:1394 Concave, rounded rim, ring foot; red clay, self-slip; H. 0.07, diam. 0.38.
W 29.50–30.50/S 1.40–3.40 *97.95–*96.80.
Cf. *Yassı Ada I* 167, no. P 6.

POTTERY LAMP

L59.4:1246 Fig. 93 Asia Minor type, solid, vertical handle in form of mask (of Dionysus?), vines with fruit trail from hair around rim to nozzle; ridge around pour hole extends around wick hole; pear-shaped base with impressed footprint; L. 0.085, H. 0.045.
W 28.95/S 0–5.00 *97.18.

STONE

S59.25:1439 (R2 113) Torso of Athena, neck to below waist P., aegis with gorgoneion and snakes on upper and lower rims; Hellenistic or not later than 1st C. A.D.; marble, r. side discolored as if from burning; H. 0.21.
W 32.00–36.00/S 3.80 *97.50.

W 7 Figs. 71, 94, 95

EXCAVATIONS

1958 D. G. Mitten, overburden to floor, *BASOR* 157, 32.
1969 J. S. Crawford studied and cleaned, *BASOR* 199, 44.
1973 J. S. Crawford, T. Yalçınkaya, *BASOR* 215, 52.

W 19.33–23.88. Floor at *96.80, packed earth, one marble slab.

N wall: L. 4.55, W. 1.00, H. 1.83. S wall of BW South Area (*Sardis* R3, 113). Good mortared fieldstone with brick lacing courses and no spoils. Surface retains some pink cement. Ashlar pier (W. 1.19, H. 1.85) in NW corner against which the W wall abuts (*ibid.* Pier no. 18). Bench or spur wall abuts at center.

E wall: L. 4.65, W. 0.73, H. 1.07. Very irregularly built. Almost entirely fieldstone with 3 brick lacing courses one brick thick. Schist slab arch over the large drain at the rear of the Shop. Th. 0.88 at S 0–1.15, followed by infill, probably a blocked door, at S 1.15–2.06. Th. 0.88 from S 2.06–5.36. Small drain runs through the wall, diam. 0.10.

S wall: L. 4.55, W. 0.81, H. 1.16. Ashlar pier at the E end, which corresponds in Th. to the S portion of that wall. Very sloppy infill (W. 0.93), mostly brick, but with some fieldstone. Door (W. 1.24) flanked by 2 irregular jambs constructed of marble spoils.

W wall: L. 4.35, see W 8 E wall.

Because W 7 was excavated relatively early in the series, many pottery objects were either just counted and discarded or numbered in later seasons. W 7's pottery is typical of the types found in many of the Byzantine Shops. Almost all of the catalogued pieces were found in the upper story: an uninventoried globular cooking pot (Fig. 102) and the rims and handles of two others (P59.81:1342, P59.115:1402, Figs. 103, 104) and two bowl fragments, P59.122:1414, P59.83:1344, Figs. 101, 105). The metal finds, except for a spoon whose level was high but not known with certainty, all came from the upper story.

The sparsity of finds from the lower story leads one to speculate that it had been deliberately emptied, although the second story remained occupied.

The function of W 7 is rather difficult to ascertain, because the finds were neither numerous nor indicative. Its excavator, D. G. Mitten, originally hypothesized an industrial use, because of the large amounts of "slag" and ash found in it.¹¹ The author believes that this material may have been dumped on top of W 7 subsequent to its destruction, and may have come from the lime burning and perhaps metalworking which took place in BE-C and BE-A. Periodically smelters or limekilns must be cleaned, and the West Shops may have been used as a dumping ground. In any case, there is absolutely no evidence for construction of limekilns, smelters or any other process of manufacture using fire within W 7.

The infilled door at S 0.55–1.03 in the E wall shows that W 7 was originally interconnected with W 3. Since W 8 and W 3 (in its original form) appear to have been dyeshops, W 7 may have shared this function. The small pipe (diam. 0.10) which runs through the E wall of W 7, similar to the drain in W 8, indicates that water from the Gymnasium was required for some process such as dyeing or dye manufacture.

Perhaps the best hypothesis is that the upper story of W 7 was residential, but the lower story was not being used commercially when it was destroyed.

BONE

BI59.1:1391 Fig. 96 Long tapered rectangular shaft, hole near wide end, groove cut ca. 1/3 from narrow end, perforated tang (a haft?); P.L. O.093, max. W. 0.013. W 19.00–23.00/S 2.00 *97.50–*97.10.

COINS

C59.100 (M7 GR 261) 200–220, ca. AE17, *Sardis*; W 20.60–21.98/S ca. 5.30–6.00 *98.00–*97.00, fill to S of S wall.

C59.22 (M7 GR 320) ca. 200, AE18, *Thyatira*; W 20.00–22.00/S unrecorded ca. *97.50–*97.00, sieved fill.

C59.115, C59.44 (M7 R 93, 2 examples) *Claudius Gothicus*, posthumous coinage, 270–, Ant., uncertain mint; W 19.00–21.98/S 5.25–6.50 *97.90–*97.00, sifting; W 23.00–23.50/S 0–5.00 ca. *97.50–*97.00.

C59.50 (M7 R 187) *Constantine I*, 325–326, AE follis, *Nicomedia*; W 20.30/S 0–5.00 *97.30–*97.00.

C59.101 (M7 R 275) *Constantine II*, 326, AE follis, *Heraclea*; W 20.60–21.98/S ca. 5.30–6.00 *98.00–*97.00, fill.

C59.38 (M7 R 464) *Constans*, 337–341, AE follis, uncertain mint; W 19.00–21.00/S 0–5.00 ca. *97.50–*97.00, general sifting.

C59.81 (M7 R 392) *Constantius II*, 341–346, AE, *Antioch*; W 21.25/S 2.90 *97.10, sifting.

C59.18 (M7 R 639) *Valens*, 363–375, AE3, uncertain mint; W 20.00–22.00/S unrecorded ca. *97.50–*97.00, sieved fill.

C59.48 (M7 R 806) *Arcadius*, 383–392, AE2, *Constantinople*; W 22.00–23.60/S ca. 3.00 *97.50–*97.00.

C59.65, C59.10, C58.326 (M7 R 680, 3 examples) *Valentinian II*, 383–392, AE4, *Constantinople*; W 19.00–21.50/S unrecorded *97.70–*97.00, general sifting; W 20.00–22.00/S unrecorded ca. *98.37–*97.50, sieved fill; recorded in W 7 at level III.

C59.67 (M7 R 783) *Theodosius I*, 393–395, AE, uncertain mint; W 19.00–21.50/S 0–5.00 *97.94–*97.00.

11. *BASOR* 157, 32.

C59.26 (M7 R 736) Theodosius I, 393–395, AE3, Constantinople; W 23.00–24.00/S 0–5.00 ca. *97.70–*97.40, in sieved fill.

C59.87 (M7 R 843) Arcadius, 395–408, AE4, Cyzicus; ca. W 21.50/S 3.00 *97.10–*97.00.

C59.83 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; W 21.25/S 2.90 *97.10, sifting.

C59.12, C59.57 (M7 R 863, 865) Arcadius, 402–408, AE3, uncertain mint; W 23.20/S 4.00 *97.90; W 19.00–22.00/S unrecorded *97.60–*97.00, sifting.

C59.82 (M7 R 950) Theodosius II, 402–408, AE3, Cyzicus; W 21.25/S 2.90 *97.10, sifting.

C59.105 (M7 R 1068) Valentinian I–III, 408–423, AE3, uncertain mint; W 22.00–23.50/S 2.20–2.80 *97.00–*96.80, from sifting.

C59.47 (M7 R 876) Honorius, 410–423, AE3, Rome; W 22.00–23.60/S ca. 3.00 *97.50–*97.00.

C59.84, C59.107 (M7 R 968, 2 examples) Theodosius II, 425–450, AE4, uncertain mint; W 23.50/S 2.20–2.80 *97.00–*96.80; W 21.25/S 2.90 *97.10, sifting.

C59.64 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; W 19.00–21.50/S not recorded *97.70–*97.00, sifting.

C59.184, C59.49 (M7 R 973, 974) Valentinian III, 425–455, AE4, Rome; W 13.00/S 2.50 *98.00–*97.40; W 20.00–22.00/S 0–5.00 ca. *97.50–*97.00, sieved fill.

C59.104 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; W 22.00–23.50/S 2.20–2.80 *97.00–*96.80.

C59.39 (M7 R 1094) Leo, 457–474, AE4, Constantinople; W 19.00–21.00/S 0–5.00 *97.50–*97.00, sifting.

C59.68, C59.92, C58.263 (M7 R 1102, 3 examples) Leo, 457–474, AE4, uncertain mint; W 21.00–22.00/S 0–5.00 ca. *97.50–*97.25; W 21.50–22.00/S 2.45–3.10 *97.00; recorded in W 7 fill at level I.

C59.207 (M1 704) Anastasius I–Maurice, 498–602, penta., uncertain mint; W 22.00–23.50/S 2.20–2.80 *97.00–*96.80.

C59.90 (M1 64) Justin I, 518–527, penta., Constantinople; W 22.50–23.00/S 2.45–3.10 *97.00.

C59.45 (M1 495) Justin II, 570/571, follis, Antioch; ca. W 23.00/S 0–4.50 *97.00.

C29.24 (M1 348) Justin II, 573/524, follis, Constantinople; W 23.00–24.00/S 0–4.50 *97.70–*97.40, sifting fill.

C59.25 (M1 562) Maurice, 591/592, follis, Constantinople; W 23.00–24.00/S 0–4.50 *97.70–*97.40, sifting.

C59.34 (M1 815) Phocas, 606/607, follis, Antioch; W 23.13/S 1.40 *97.30.

C59.102, C59.206 (M1 909, 942) Heraclius, 615/616, folles, Constantinople; W 22.00–23.50/S 2.20–2.80 *97.00–*96.80, sifting; W 22.00–23.50/S 2.20–2.80 *97.00–*96.80.

GLASS

G59.22:1340 (M6 445) Flat base (of cup?), sloping foot, convex wall of lower body; translucent blue-green; P.H. 0.019, diam. 0.04; W 22.23/S 0.67 *97.60.

G59.28:1374 (M6 568) Fragments of 2 tube-like bottles, waisted at center, pale green, H. 0.065, diam. 0.012; W 22.00–24.00/S 5.25–6.25 *97.80–*97.00.

METAL

Copper Alloy

Finger rings

M59.22A:1452 (M8 854) Fig. 97 Open hoop, ends are crudely shaped in the form of small heads (?); broken tangs held a setting (pierced bead?); ext. diam. 0.022. W 21.50–23.50/S 2.00–4.00 *97.25–*97.00, with M59.22B:1452 *infra*.

M59.22B:1452 (M8 857) Fig. 97 Plain closed hoop with semi-circular section; ext. diam. 0.023, W. hoop 0.003, Th. 0.003. Found with above.

Flask lid

M59.11:1355 (M8 539) Cylindrical; H. 0.025, diam. top 0.046. W 21.20/S not recorded *97.37. As M67.27:7475 in E 4, Fig. 214.

Spoon

M59.5:1253 (M8 225) Fig. 98 Trough-shaped bowl narrowing to tip, bead and reel at transition to thin handle with ovoid finial; L. 0.195, max. W. bowl 0.022, Th. handle 0.003. W 23.00/S 3.70 *0.20 below surface.

Iron

M59.21:1411 (M8 166) Figs. 99, 100 Hand saw, straight back slopes to pointed tip, straight serrated edge with small teeth; at back is a flat rectangular tang surrounded by an iron ring held in place by rivets; max. P.L. 0.37, W. blade 0.053. W 20.00–23.50/S 0–5.00 *97.60–*97.00.

POTTERY

Bowls

Uninv. 59 Fragment of rim and wall of deep bowl, ridged on ext., smoothed on int., out-turned lip set with ridge around rim; coarse pink-buff micaceous clay, no slip; est. diam. 0.20, Th. 0.005. W 22.00–23.00/S ca. 2.00 *97.70–*97.00.

Uninv. 59 Rouletted rim fragment, slants down and outward; micaceous pink-buff clay, red slip; est. diam. 0.28, Th. 0.003. W 21.50–23.50/S 5.00 *97.75–*97.00. Cf. Hayes, 332, 335, LRC form 3:H, fig. 68.

Uninv. 59 Ca. 2/3 rim P. of shallow bowl; slanted rim as above but with ridge below; clay as above, no slip on ext., int. wet-smoothed to form self-slip; est. diam. 0.03, Th. 0.005.
W 22.00–23.58/S 2.00 *97.70–*97.00.

P59.122:1414 Fig. 101 Curved wall, rouletted rim of deep bowl; gray from burning; P.H. 0.03, Th. 0.005.
W 20.00–23.50/S 2.00 *97.60–*97.00.

P59.83:1344 Fig. 105 Rim fragment; gray ware; P.H. 0.025, diam. 0.06.

Ca. W 21.50–23.50/S not recorded *97.90–*97.50.
As P59.88:1350 in W 9, Fig. 74.

Cooking ware

Uninv. 59 Fig. 102 Globular, fragments of rim, shoulder, one handle P., attached under rim and at shoulder with single press mark, rim curves out and upward; tempered clay fired gray; P.H. 0.095, est. diam. 0.20.

W 19.00–21.50/S not recorded *97.94–*97.00, found with one-handed jug *infra*.

Cf. *Yassi Ada* I no. P60; Aker no. 67 from Ephesus.

P59.81:1342 Fig. 103 As above, handle and out-turned rim; fired red with traces of slip; P.H. 0.025, est. diam. 0.09.
Ca. W 21.50–23.50/S not recorded *97.90–*97.50.

P59.115:1402 Fig. 104 Handle joined directly to rounded rim, to body fragment with finger indentations; very micaceous tempered clay, smoothed with self slip on int., fired gray; P.H. 0.06, est. diam. 0.14.

W 21.50–23.50/in SW corner *97.75–*97.00.

Aker, no. 26. Cf. *Yassi Ada* I no. P 56.

Crucible

P72.9:8211 (M8 958) Fig. 109 Four joining pieces of plain rim and rounded wall, ext. ridged; tempered with quartz; int. covered with black slag containing gold particles, crust composed mainly of lead with a trace of iron and silicate slag or scum (from observations by A. P. Lins); max. P.H. 0.045, est. diam. 0.07.

W 24.00/S 6.50 *96.80, in the Colonnade.

Jugs

P59.82:1343 Fig. 106 Rim and neck fragment P.; plain redware, ext. folded rim; P.H. 0.033, diam. 0.06.

Ca. W 21.50–23.50/S not recorded *97.90–*97.50.

Uninv. 59 Fragment of trefoil lip; coarse pink-buff clay, no slip.

Found with above.

Cf. *Yassi Ada* I nos. P 17–18.

Lids

Uninv. 59 Fig. 107 Dome-shaped with flat knob on which it could stand if used as a bowl, ext. ridged, int. smooth; pink-buff micaceous clay, no slip; H. 0.06, rim diam. 0.11.

W 20.00–23.50/S not recorded *97.60–*97.00.

Cf. *Agora* V no. K88, mid-3rd C.

Uninv. 59 Convex top, wide rim; diam. 0.063.

W 21.00–23.50/S 2.00–4.00 *97.75–*97.00.

As P62.367:4688 in E 13, Fig. 450.

Uninv. 59 As above.

W 21.00–22.00/S ca. 4.00 *97.75–*97.00.

Uninv. 59 Flat, slightly raised rounded rim, scars of strap handle on either side of center; est. diam. 0.17, Th. 0.01–0.012.

W 19.00–23.00/S 0–5.00 *97.70–97.40.

P59.85:1346 Two large joining fragments of flat pithos lid; horiz. handle attached with 3 finger impressions on either side; underside ridged where bonded to lid; light red clay, surface obscured by calcareous deposits; L. handle 0.165, Th. 0.016.

W 21.50–23.50/S 0–5.00 *97.90–*97.50.

For a similar handle on the wall of a pithos, *Kenchreai* IV no. RC 87.

T59.4:1333 Pithos lid, ca. 1/3 P., 2 rows of gouges at rim poked into the wet clay; clay as above; formed on rough stone, some pebbles pressed into the fabric; P.L. 0.214, est. diam. 0.36, Th. 0.02.

W 22.50–24.00/S ca. 0.17, top at *97.72, bottom at *97.52.

Pithoi

Uninv. 59 Rim fragment with ledge protruding below, incised wavy line on body; large quartz inclusions, surface smoothed, much has spalled off; est. diam. 0.69, Th. rim ca. 0.02, wall 0.012.

W 19.00–W 21.50/S ca. 2.35 *97.90–*97.00.

P59.80:1332 Rim and shoulder fragment; wavy line on rim, dots between grooves beneath rim; P.H. 0.09, diam. 0.40.

W 19.00–21.50/S 0–5.00 ca. *97.94–*97.00.

Cf. P59.584:2214 in W 9, Fig. 80.

Sherd from closed vessel

P59.107:1385 Fig. 108 Shoulder fragment, coarse fabric with no slip or lining; max. dim. 0.065, Th. ca. 0.004.

Graffito: ϕ with forked bar, τ joined by cross-bar, λ scratched after firing just above wheel marks; H. letters 0.012–0.024.

W 21.00–22.00/S ca. 4.00 *97.75–*97.00.

STONE

S59.24:1438 Round, flat tray with curved wall, in-turned rim; int. smoothly finished marble, ext. rough-chiseled; diam. ca. 0.74, H. 0.05.

W 18.00–19.65/S 3.00–4.00 ca. *97.00–*96.90, in 2nd story deposit.

W 3 Figs. 110–114

EXCAVATIONS

1958 T. H. Canfield, D. P. Hansen, G. M. A. Hanfmann NE corner and E half of Shop, overburden to floor, "Room 6" in Colonnade, *BASOR* 154, 16. 1959 D. G. Mitten remainder,

overburden to floor, *BASOR* 157, 32. 1969 J. S. Crawford studied and cleaned, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52. Reconstructed as two units, W 6 and W 3.

W 9.05–18.60. Floor at *96.70, packed earth with marble slabs in NW corner.

N wall: L. 9.55, W. 1.54, H. 1.48. S wall of BSH (*Sardis* R3, 108). Mortared fieldstones between 2 large ashlar piers (ibid. Piers 53 and 52a). E pier L. 2.70, H. 1.20, W. 1.40; W pier L. 1.41, H. 2.16, W. ca. 1.30.

E wall: L. 4.64, W. 0.89, H. 1.93. Large, fairly regular courses of fieldstones and spoils with flat stones used as leveling courses. One brick lacing course one brick Th. P. Arch of schist slabs over the large drain. Pipe from W 2 continues through wall. Niche (0.64 by 0.62) in N part of wall with hole for vertical pipe in N part of niche.

S wall: L. 9.55, W. 0.94, H. 1.00. Almost entirely reused marble blocks and spoils. Only exception is section of fieldstones and bricks, W. 1.15 (W 10.56–11.71) possibly a blocked up window. Door (W. 1.42) located midway between the stub wall (L. 1.25 W. 0.25) and the W wall at W 15.71–17.12. Two piers of reused marble blocks at the doorjamb.

W wall: L. 4.55, W. 0.73, H. 1.07. Much cruder than the other walls of the Shop. The courses are irregular and occasional bricks are used to level upper surfaces of stones.

Interior: A brick tank (L. 1.06, W. 0.70, D. 0.80), the int. lined with marble held with iron clamps, stands on a low marble platform in NW corner. It contained the lower fragment of a large, conical mortar with a tap hole at the bottom. Two benches, one along the N wall (L. ca. 8.00, W. 0.36, H. 0.24), the other along the S wall (L. 3.72, W. 0.39, H. 0.40). Drain pipe built into the N bench, 0.19 in diam. Platform beside stub wall, L. 1.59, W. 1.04. A gray marble column fragment lay in the large drain across rear of Shop. Another, smaller drain runs diagonally across the Shop NW-SE into the large drain.

Enclosure in the Colonnade: (formerly called Room 6) A water channel comes out under the blocked opening ("blocked window" on Fig. 110) and crosses the ambulatory (traced 2.80 into S balk); channel walls lined with cemented brick and rubble, floored with tiles, covered with stone slabs; W. 0.025–0.30, H. 0.20 D. 0.25.

The function of W 3 seems to have changed during the Shop's existence. The original building structure strongly suggests that it was designed as a dyeshop, given the diagonal drain running NW-SE (as in E 3), the platforms normally required for supporting the containers used in dye production, and the large mortar in the NW corner, similar in size to that in E 6. All of these features are typical of dyeshops at Sardis and elsewhere (*infra*, Ch. IV "Athrabis").

However, it seems that the large mortar was broken *before* the early 7th C. destruction, as no fragments except the base were recovered. This would indicate

that the mortar was already out of use during the Shop's last phase. Nor was the diagonal drain in use during this final stage. In addition, the objects recovered from W 3 do not have a particularly industrial character. Three ring bases of glass bowls (G58.22:408, G58.23:409, G58.27:387B) and a bottle neck (G58.68:865) all came from the lower story level. All the metal finds, a spoon (M59.40:1650), finger ring (M59.36:1601, Fig. 122), buckle (M59.45:1682, Fig. 119), steelyard hook (M58.34:378), stopper (M73.4:8249, Figs. 112, 113), key ring (M59.35:1600, Fig. 121), and a spade (M58.112:505) can be attributed to the upper story.

A fragment of a small marble mortar was in the lower story and fragments of a marble tray (S59.27:1588) came from the upper.

Given the nature of the finds, it seems that during its last period of occupation W 3 was used as a restaurant. Excavation evidence amply supports this interpretation; in fact so many food bones, coarse red and black ware pottery vessel fragments and glassware in the form of goblets and flasks were found that W 3 earned the nickname of "the kitchen." The benches formerly used to support containers in dye production could have easily accommodated the patrons of a restaurant. Only the spade is difficult to reconcile with this proposed identification of the Shop.

COINS

C59.138 (M7 GR 62) Pergamon and Sardis, AE20, 27 B.C.–A.D. 14; W 17.60/S 2.60 *98.20, just below surface.

C59.258 (M7 R 548) House of Constantine, 335–341, AE follis, uncertain mint; ca. W 13.75/S 2.76 *97.80–*97.70.

C59.146 (M7 R 417) Constans, 336–337, AE follis, Thessalonica; W 16.00–18.00/S 4.40 *98.00–*97.00.

C58.328 (M7 R 227) Constantine I posthumous coinage, 341–346, AE, Antioch; W 9.05–18.60/S 0–5.00 *unrecorded.

C59.163 (M7 R 361) Constantius II, 351–361, AE3, Nicomedia; W 12.00–18.00/S 1.00 *97.50–*97.27.

C58.322 (M7 R 319) Constantius II, 355–361, AE4, Sirmium; W 9.05–18.60/S 0–5.00 *unrecorded.

C59.426 (M7 R 509) Julian, 355–361, AE4, uncertain mint; W 14.00–15.00/S 2.00 *97.50–*97.00, above floor.

C59.257 (M7 R 639) Valens, 363–375, AE3, uncertain mint; W 14.00–15.00/S 4.00–4.45 *98.00–*97.75.

C58.330 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint; W 9.05–18.60/S 0–5.00 *unrecorded.

- C59.148 (M7 R 623) Valens, 367–375, AE3, Constantinople; W 16.00–18.00/S 4.40 *98.00–*97.00.
- C59.264 (M7 R 653) Gratian, 378–383, AE3, Nicomedia; W 14.75–15.25/S ca. 1.00 *97.10–*96.90.
- C59.265 (M7 R 755) Theodosius I, 383, AE4, Cyzicus; W 14.75–15.25/S ca. 1.00 *97.10–*96.90.
- C59.9 (M7 R 808) Arcadius, 383–392, AE4, Constantinople; in tank in NW corner at *97.20.
- C58.325 (M7 R 779) Theodosius I, 383–392, AE2, uncertain mint; W 9.05–18.60/S 0–5.00 *unrecorded.
- C58.329, C58.327 (M7 R 702, 2 examples) Valentinian II, 383–392, AE4, uncertain mint; W 9.05–18.60/S 0–5.00 *unrecorded.
- C58.323, C58.324, C59.266 (M7 R 759, 3 examples) Theodosius I, 383–395, AE4, Cyzicus; 2 at W 9.05–18.60/S 0–5.00 *unrecorded; W 14.75–15.25/S ca. 1.00 *97.10–*96.90.
- C59.164, C58.261, C59.165, C59.149 (M7 R 1056, 4 examples) Valentinian I–III, 383–395, AE4, uncertain mint; W 12.00–18.00/S 1.00 *97.50–*97.27; W 9.05–18.60/S 0–5.00 *unrecorded; W 16.00–18.00/S 3.00–4.50 *97.50–*97.00; W 16.00–18.00/S 4.40 *98.00–*97.00.
- C59.161 (M7 R 894) Honorius, 393–395, AE2, Nicomedia; W 12.00–18.00/S 1.00 *97.50–*97.27.
- C69.21 (unpubl.) Theodosius I, 393–395, Constantinople; W 11.95/S 1.92 *unrecorded.
- C59.155 (M7 R 881) Honorius, 395–402, AE3, Heraclea; W 12.00–13.00/S 1.00 *97.75–*97.50.
- C59.152 (M7 R 841) Arcadius, 395–408, AE3, Cyzicus; W 15.00/S 0.50–1.00 *98.00–*97.75.
- C59.361 (M7 R 919) Honorius, 395–408, AE3, uncertain mint; W 12.00–13.00/S 3.00–4.40 *98.00–*97.00.
- C59.153 (M7 R 861) Arcadius, 395–408, AE3, uncertain mint; W 9.05–18.60/S 0–5.00 *unrecorded.
- C58.360, C59.140 (M7 R 1059, 2 examples) Valentinian I–III, 395–408, AE3, uncertain mint; W 9.05–18.60/S 0–5.00 *unrecorded; W 15.00–17.00/S 3.00 *98.00–*97.60.
- C59.185 (M7 R 1060) Valentinian I–III, 395–408, AE4, uncertain mint; ca. W 13.00/S 2.50 *98.00–*97.40.
- C59.256 (M7 R 923) Honorius, 402–408, AE3, uncertain mint; W 14.00–15.00/S 4.00–4.45 *98.00–*97.75.
- C59.421 (M7 R 964) Theodosius II, 408–423, AE3, uncertain mint; W 15.00/S 0.50–1.00 *98.00–*97.75.
- C59.177, C59.440, C59.147 (M7 R 1063, 3 examples) Valentinian I–III, 402–408, AE3, uncertain mint; W 15.50–18.00/S 2.50–4.40 *97.00–*96.75; W 14.00–15.50/S 1.00–4.40 *97.00–*96.80; W 16.00–18.00/S 4.40 *98.00–*97.00.
- C59.205 (M7 R 986) Valentinian I–III, 410–455, AE4, Rome; W 12.50–13.50/S 1.20 *98.00–*97.60.
- C59.154 (M7 R 1112) Theodosius II–Anastasius I, 425–518, AE4, uncertain mint; W 12.00–13.00/S 1.00 *97.75–*97.50.
- C59.175 (M7 R 1097) Leo, 457–474, AE4, uncertain mint; W 12.00–14.00/S 3.50 *98.75–*97.00.
- C59.425 (M7 R 1100) Leo, 457–474, AE4, uncertain mint; W 12.00–18.00/S 1.00 *97.50–*97.27.
- C59.193 (M1 50) Justin I, 518–527, follis, Constantinople; W 15.00–16.50/S 1.40–4.00 *97.00–*96.80.
- C58.259 (M1 331) Justin I or Justinian I, 518–538, penta., uncertain mint; W 8.75–12.25/S 0–4.50 ca. *97.30–*96.70.
- C58.260 (M1 162) Justinian I, 527–565, penta., Constantinople; W 9.30–12.25/S 0–4.50 ca. *97.30–*96.70.
- C58.23 (M1 277) Justinian I, 557–565, decia., uncertain mint; W 8.75–12.00/S 0–4.50 ca. *97.70–*96.70.
- C58.224 (M1 509) Justin II, 565–578, half follis, uncertain mint; W 9.00–12.25/S 0–2.00 ca. *98.00–*96.00.
- C59.259 (M1 488) Justin II, 565–578, penta., Cyzicus; W 11.50–14.00/S 3.00–4.40 *98.00–*97.50.
- C58.84 (M1 339) Justin II, 570/571, follis, Constantinople; ca. W 11.50–12.25/S ca. 2.30 ca. *97.00.
- C59.267 (M1 353) Justin II, 575/576, follis, Constantinople; W 12.00–13.00/S 3.00–4.00 *98.00–*97.00.
- C58.33 (M1 355) Justin II, 576/577, follis, Constantinople; W 9.30–12.25/S 0–4.50 *97.70–*96.70.
- C59.268 (M1 551) Maurice, 583/584, follis, Constantinople; W 12.00–13.00/S 3.00–4.40 *98.00–*97.00.
- C59.160 (M1 620) Maurice, 586–588, half follis, Thessalonica; W 12.00–13.00/S 1.00 *97.50–*97.27.
- C59.153 (M1 774) Phocas, 602–610, decia., Constantinople; W 12.00–13.00/S 1.00 *97.75–*97.50.
- C58.34 (M1 788) Phocas, 603–610, follis, Nicomedia; W 9.25–12.25/S 0–4.50 ca. *97.80–*97.30.
- C58.7 (M1 850) Heraclius, 612/613, follis, Constantinople; ca. W 9.50/S ca. 0.50 ca. *96.90.
- C58.35, C59.186 (M1 921, 925) Heraclius, 612–616, folles, Constantinople; W 9.25–12.25/S 0–4.50 *97.80–*96.00; ca. W 12.50/S 2.50 *98.00–*97.40.
- C59.162 (M1 975) Heraclius, 612–616, follis, Nicomedia; W 12.00–18.00/S 1.00 *97.50–*97.27.

GLASS

Bottles

G58.68:865 (M6 608) Neck, applied spiral thread; diam. 0.02;

found with 2 non-joining fragments of single handle; L. 0.025, 0.033.

W 9.05–18.60/S 0–5.00 ca. *97.30–*97.20, in fill.

Ring bases (probably from bowls)

G58.22:408 (M6 402) Diam. 0.05.

W 9.05–18.60/S 0–5.00 *98.00–*97.30.

G58.23:409 (M6 403) Diam. 0.04.

W 9.05–18.60/S 0–5.00 *98.00–*97.30.

G58.27:387B (M6 404) Bright "bottle green," diam. 0.05.

W 9.05–18.60/S 0–5.00 ca. *97.30–*97.20.

METAL

Copper Alloy

Buckles

M58.36:392 (M8 702) Figs. 116, 117 Flat oval plate with punched dots attached to oval buckle, round in section; analyzed as low zinc brass; max. L. 3.60, W. 3.30.

W 8.75–12.00/S 0–2.50 *97.37, at a high level but parallel examples are dated 4th–5th C.

M58.33:390 (M8 696) Fig. 118 Rectangular with rounded end having 3 openings in mask-like configuration; possibly a belt end; max. P.L. 0.033, W. 0.017.

Found with above.

M59.45:1682 (M8 695) Fig. 119 Shield-shaped plate with 3 holes below tongue hole as above; max. P.L. 2.00, W. 1.90.

W 15.00–18.00/S 3.00–4.50 *97.50–*97.00.

Hasp

M58.35:377 (M8 412) Fig. 120 Solid circular tab at one end, ring with cotter pin at other, incised zigzag pattern on top of flat bar; L. 0.075, max. W. 0.011.

W 11.29–12.00/S 0–2.00 *97.43.

Rings

M59.35:1600 (M8 925) Fig. 121 Ring or key ring, thick center band decorated with traced lines tapers to flat bar; ext. diam. 0.028, max. W. band 0.01, W. bar 0.003.

W 16.00–18.00/S 4.40 *98.00–*97.80.

M59.36:1601 (M8 821) Fig. 122 Finger ring, flat oval bezel in one piece with hoop; ext. diam. 0.021.

W 16.00–18.00/S 4.40 *98.00–*97.00, in fill.

Spoon

M59.40:1650 (M8 226) "Apothecary" spoon, trough-shaped bowl, bead molding on handle; max. L. 0.202, max. W. bowl 0.016.

W 18.00/S 3.50–4.00 *97.00.

Almost identical to M59.5:1253 in W 7, Fig. 98.

Steelyard hook

M58.34:378 (M8 445) S-shaped with square section, pyramidal stop at one end, other end flattened and tightly curved into a double loop; max. L. 0.08, max. W. 0.06.

W 11.29–15.00/S 0–3.00 ca. *98.00–*97.30.

Stopper

M73.4:8249 (M8 574) Figs. 112, 113 Hollow cylinder with broad flat rim, hinged lid with upright ring, lead plug fitted into the cylinder; max. H. 0.081, ext. diam. cylinder 0.05, H. plug 0.022, top diam. plug 0.045, bottom diam. 0.036. W 18.80/S 1.22 *96.75, in pipe 0.08 above the floor of the upper basin in NW corner.

Iron

In addition to the catalogued piece, an axe or adze (L. 0.14, W. 0.07) was found at S 1.30 *97.60 and 2 axe heads at W 12.00–15.00/S 1.00 *97.75–*97.50. A great deal of iron slag and ash was noted at S 3.00–4.40 *98.00–*97.00 above the bench on the S spur wall.

M58.112:505 (M8 117) Spade, only blade P.; max. P.L. 0.24, max. W. 0.195.

W 9.05–18.60/S 0–5.00 *97.10 with a piece of iron plate, possibly a cooking grill.

POTTERY

Bowls

P59.104:1380 Fig. 123 Rim fragment, rounded edge, ridge and flange below; P.H. 0.03, diam. 0.26.

W 19.00–21.58/S 3.00 ca. *97.79–*97.78.

Similar to, but with more pronounced ridge in center, Hayes, 330–31, LRC form 3; cf. *Agora* V no. M350, late 6th C.

P59.89:1353 Fragment of straight wall with flat rim; wavy incised pattern on upper surface; coarse body, no slip; P.H. 0.03, diam. 0.24.

W 19.00–21.50/S 2.35 ca. *97.90–*97.00.

Cooking ware

P59.90:1354 Fig. 124 Cylindrical stand; ridged wall turns inward at bottom, rests on finished edge, flares outward at top to support rounded cooking pot; holes on either side cut through wall after firing; untempered micaceous clay with some inclusions, fired light red with gray core; H. 0.10, diam. top 0.15, base 0.16.

W 19.00–21.50/S 2.35 *97.90–*97.00.

Cups

P59.105:1381 Foot fragment of handleless cup, very high spiral turn on int. bottom; P.H. 0.017, diam. base 0.04, Th. 0.004.

W 19.00–21.50/S 3.00 ca. *97.75–*97.00.

Another example found at W 12.00–14.00/S 3.50 *97.75–*97.00.

As P62.213:4488 in E 13, Fig. 443. A complete example of the same type was found at W 19.00–21.50/S 0–5.00 *97.94–*97.00.

Drain cover (?)

P59.236:1604 A low vertical wall at ca. r. angle to flat bottom pieced with evenly-spaced holes; catalogued as a colander but probably a drain cover; H. 0.06, est. diam. 0.35.

W 16.00–18.00/S 4.40 *98.00–*97.00.

Lids

Uninv. 59 Two lids, convex, with wide rims.

W 12.00–16.00/S 0–5.00 *97.58–*97.27.

As P62.367:4688 in E 13, Fig. 450.

Plate

Uninv. 59 Rim; orange-red, well-adhering red slip; est. diam. 0.23.

W 19.00–21.50/S 0–5.00 *97.94–*97.00, found with cup P59.105:1381 *supra*.

STONE

Grinding stone

Uninv. 59 One-half P., round hole drilled through center; diam. 0.40, W. 0.20, Th. 0.14.

0.75 E of basin in NW corner with a flat quern (L. 0.20, W. 0.13, D. 0.10)

Mortars

S59.6:1358 Rim and round handle with incised lattice; blue-gray marble; est. diam. 0.10.

W 19.00–21.50/S 3.50 ca. *97.70–*97.25.

Cf. *Saraçhane* 1 238 no. 116.

Uninv. 59 One-fourth rim and knob handle; marble; est. diam. ca. 0.15.

W 12.80/S 0.40 *97.70.

As S58.30:716 in W 1.

Uninv. 59 Large, coarse-grained white marble. Found at *97.30 in SE corner.

Tray

S59.27:1588 Round marble tray with inturned rim; H. of rim 0.06, diam. 0.73.

W 12.75–13.70/S 0.80–1.50 *97.00–*96.80.

As S59.24:1438 in W 7.

TERRACOTTA

Weights or counters

Uninv. 59 Twenty-four examples, handmade, bell-shaped, hole reamed through top, micaceous clay fired buff to gray; 8 found together at W 11.00–13.50/S 1.30 *98.00–*97.50 (one catalogued as T59.3:1272; H 0.021, Fig. 125); 9 at W 12.00–13.00/S 3.50 *97.75–*97.00; 3 at W 12.00–14.00/S 3.50 *97.75–*97.00. Examples with and without the hole were ubiquitous throughout the Shops.

W 2 and W 1 Figs. 126–140

EXCAVATIONS

1958 T. H. Canfield, D. P. Hansen, G. M. A. Hanfmann overburden to floor, enclosure in Colonnade, *BASOR* 154, 16. 1969 J. S. Crawford studied and cleaned, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52.

W 2

W 3.56–8.16. Floor at *96.70, tiles.

N wall: L. ca. 4.60, the back of the S apse wall of BSH (*Sardis* R3, 104), max. H. from BSH floor ca. 13 m. Fieldstones without spoils. A large ashlar pier (H. 1.54) at W 6.69–7.71 rests on a foundation course of large ashlar blocks (*ibid.* 108, Pier 53, fig. 307). Plaster adheres to the inner face at W 6.00–7.00.

E wall: L. 4.53, W. 0.70, H. 0.98. Spoils and fieldstones with 3 brick lacing courses of 3 bricks each. Niche 0.89 x 0.49. Distance from N wall to seam of brick niche infill, 0.85. W. of infill 0.68, of door 0.84. Distance from door to S wall 1.00.

S wall: L. ca. 4.60, W. 0.84, H. 1.91. Spoils and fieldstones with reused marble blocks in piers of doorjamb. W. door 1.26. Large piers of reused marble blocks at the quoins: E pier 0.94 x 0.84 (shared with W 1), W pier 0.80 x 1.00.

W wall: L. 4.64, W. 0.89, H. 0.98. Fieldstones with 2 brick lacing courses of one brick each at the upper levels only. Stone arch built of carefully cemented river stones over drain by N wall (*BASOR* 154, 17). Niche in S portion, W. 0.87, D. 0.63, trapezoidal, narrower at the back. Floor of niche at *97.60, containing iron nails, ash, and a coin of Maurice (C58.215, *infra*). A drain pipe (diam. 0.13) laid horizontally slightly above the level of the floor interconnects with W 3.

Interior: The downspout in the NE corner leads into the large drain across the back of the Shop. A channel (W. 0.25) ran ca. 0.27 beneath the S door sill across the room and entered the large drain. A hearth (H. 0.36) made of 5 course brick walls against the S wall near the W end contained ash deposits. In the SE corner 2 rows of 4 bricks (0.32²), with a center brick on each end, enclose 5 stones (L. 1.32, W. 0.95); the SE corner was 2 bricks high; this too was coated with ash. 10 coins of Heraclius (Hoard FF, *infra*) were sealed between 2 bricks. An arch of schist slabs covers the large drain.

Enclosure in the Colonnade: Area was originally called SW 5 or Room 5; *BASOR* 154, 17 refers to this area as a “flimsy porch-like construction of re-used tiles and bricks.”

E wall: int. L. 1.65, W. 0.55, max. H. 1.10.

S wall: ext. L. 4.65, int. L. 4.20, max. P.H. 0.70 near corner, rest H. 0.20–0.50.

W wall: L. ca. 0.76, max. P.H. 1.10 (ca. *97.30).

Interior: ca. 0.50 above floor a water pipe (diam. 0.22) through wall, 1.10 from SW corner; wall below faced with large bricks.

W 1

E 1.44–W 2.86. Floor at *96.70, packed earth.

N wall: L. 4.30, the back of the S apse wall of BSH (*Sardis* R3, 105), max. H. from BSH floor ca. 13 m., Th. 2.50–3.10. A large, ashlar pier (*ibid.* 108, Pier 80, fig. 307) surrounded by fieldstone with good, concrete-like mortar and brick lacing courses. Entire superstructure rests on ashlar foundations.

E wall: L. 4.48, W. 0.34–0.63, H. 0.98. Fieldstones and spoils. Thick piers of reused marble blocks at corners. N pier 0.63 x 1.04; S pier 0.65 x 0.76. Section between piers is 3.70 long.

S wall: L. 4.19, W. 0.66, H. 0.98. Fieldstones and spoils, 3 piers made of reused marble blocks. The E pier projects into

the SE corner; the others are door jambs. Door at W corner, W. 0.76; crudely-worked threshold block with no cuttings.

W wall: L. 4.46, W. 0.70, H. 0.98. Fieldstone and rubble masonry from S wall to door. Secondary door (W. 0.83), rubble threshold. Brick infill (L. 0.49), forming the back of niche in W 2, N of which is mixed fieldstones, brick and spoils.¹²

Interior: Rubble stub wall projects N from E jamb of S doorway, a table or counter (?). A fragment of a marble latrine seat on low platform or bench allowed access to the large drain across rear of Shop.

W 2 and W 1 interconnect to form a single unit, which was most likely used as a restaurant. The food was cooked in W 2, and patrons could sit on the brick structure in the colonnade. The two Shops produced numerous finds; many however are impossible to locate specifically within the Shops because they were discovered before the present grid and level system had been adopted. Glass goblets, animal bones, shells and charcoal confirm the function of W 2 and W 1.¹³

From the drain at the back of W 2 came a table support (S58.8:605, Fig. 136) in the shape of Attis, similar to one found in E 19. N. Ramage dated the piece to the second century A.D., but cautions that any date between the first to third century A.D. is possible.¹⁴

The most important find in W 1 was an ampulla decorated on either side with a cross embellished with circles (P58.428:397, Figs. 155, 156). The level of its discovery would place it in the upper story, and as the upper story was often used for living quarters, the ampulla may indicate that the inhabitants were Christians.

A find thus far unique in the Byzantine Shops is a terracotta bread stamp from W 2 (P58.290:542, Fig. 154).

FINDS FROM W 2

COINS

C58.119 (M7 GR 228) Autonomous, 133 B.C.–A.D. 14, AE15, Sardis; W 3.50–8.50/S 0–5.00 *unrecorded.

12. The author does not believe the construction differences mentioned in *BASOR* 154, 17 actually represent two periods of building. Throughout the Shops schist slabs are used for the arches over the drain running along the N wall, as schist is easily cut into regular slabs which can be laid over a wooden centering during construction. The arches would naturally have to be finished before the upper part of the walls, but this is simply the construction sequence, not evidence for “Roman” and “Byzantine” Shops.

13. *BASOR* 154, 18.

14. *Sardis* R2, 150–151, no. 224, fig. 389.

C58.178 (M7 GR 261) Autonomous Imperial, 200–220, ca. AE17, Sardis; W 4.00–6.00/S 0–5.00 *97.44–*96.49.

C58.147 (M7 R 118) Maximian Herculus, 296, AE fraction, Antioch; W 7.00–8.00/S 0–3.00 ca. *97.20–*96.50.

C58.176 (M7 R 168) Constantine I, 313–316, AE follis, Thessalonica; W 6.00/S 2.00 *unrecorded.

C58.148 (M7 R 133) Licinius I, 314, AE follis, Rome; W 7.00–8.00/S 0–3.00 ca. *97.20–*96.50.

C58.171 (M7 R 200) Constantine I, 335–337, AE follis, Antioch; W 6.00/S 4.00 *97.44–*96.49.

C58.302 (M7 R 237) Helena, 337–341, AE, uncertain mint; W 3.56–8.16/S 0–5.00 *97.30–*97.20.

C58.13 (M7 R 467) Constans, 341–346, AE, uncertain mint; W 9.30–10.40/S 0–2.50 *unrecorded.

C58.253 (M7 R 232) Constantine I, 341–346, posthumous coinage, AE, uncertain mint; W 6.00–8.00/S 1.50–4.00 *97.30–*97.20.

C58.167 (M7 R 392) Constantius II, 341–346, AE, Antioch; W 6.00/S 4.00 *97.44–*96.49.

C58.177 (M7 R 533) House of Constantine, 341–346, AE, Constantinople; W 6.00/S 2.00 *unrecorded.

C58.145 (M7 R 550) House of Constantine, 341–346, AE, uncertain mint; W 3.56–8.16/S 0–5.00 *97.30–*97.20.

C58.141 (M7 R 436) Constans, 346–350, AE2, Heraclea; W 3.56–8.16/S 0–5.00 *97.30–*97.20.

C58.378 (M7 R 556) House of Constantine, 346–361, AE3, uncertain mint; W 4.00–6.00/S 0–5.00 *97.44–*96.49, in fill.

C58.175 (M7 R 480) Constantius Gallus, 351–354, AE3, Constantinople; W 6.00/S 2.00 *unrecorded.

C58.252 (M7 R 381) Constantius II, 351–361, AE3, Cyzicus; W 6.00–8.00/S 1.50–4.00 *97.30–*97.20.

C58.123 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint; W 3.56–8.16/S 0–5.00 *unrecorded.

C58.12 (M7 R 314) Constantius II, 352–360, AE3, Aquileia; W 3.56–8.16/S 0–5.00 *unrecorded.

C58.165 (M7 R 364) Constantius II, 355–361, AE4, Nicomedia; W 7.00–8.00/S 0–3.00 *97.20–*96.60.

C58.170 (M7 R 324) Constantius II, 355–361, AE4, Thessalonica; W 6.00/S 4.00 *97.20–*96.50, in fill.

C58.166, C58.129 (M7 R 415, 2 examples) Constantius II, 355–361, AE4, uncertain mint; W 7.00–8.00/S 0–3.00 *97.20–*96.60; W 3.70–8.50/S 0–3.00 *unrecorded.

C58.164 (M7 R 509) Julian, 355–361, AE4, uncertain mint; W 7.00–8.00/S 0–3.00 *97.20–*96.60.

- C58.183 (M7 R 617) Valens, 364–365, AE3, Constantinople; W 4.00–6.00/S not recorded *97.44–*96.49.
- C58.128 (M7 R 639) Valens, 364–375, AE3, uncertain mint; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.283 (M7 R 591) Valentinian I, 364–375, AE3, uncertain mint; W 3.56–8.16/S 0–5.00 *96.20, W drain.
- C58.124 (M7 R 1048) Valentinian I–III, 378–392, AE4, uncertain mint; W 3.56–8.16/S 0–5.00 *unrecorded.
- C58.149 (M7 R 716) Theodosius I, 383, AE2, Heraclea; W 7.00–8.00/S 0–3.00 *97.20–*96.60.
- C58.144 (M7 R 808) Arcadius, 383–392, AE4, Constantinople; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.333 (M7 R 718) Theodosius I, 383–392, AE2, Heraclea; W 3.56–8.16/S 0–5.00 *97.30–*97.20.
- C58.254 (M7 R 1054) Valentinian I–III, 383–392, AE4, uncertain mint; W 6.00–8.00/S 1.50–4.00 *97.30–*97.20.
- C58.125 (M7 R 702) Valentinian II, 383–392, AE4, uncertain mint; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.151, C58.143 (M7 R 837, 2 examples) Arcadius, 383–395, AE4, Cyzicus; W 7.00–8.00/S 0–3.00 *97.20–*96.60; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.235 (M7 R 858) Arcadius, 383–395, AE4, uncertain mint; W 3.56–8.16/S 0–5.00 *97.20–*96.60, in fill.
- C58.146 (M7 R 1023) Valentinian I–III, 383–395, AE4, Cyzicus; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.131 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.232 (M7 R 887) Honorius, 393–408, AE2, Constantinople; W 3.56–8.16/S 0–5.00 *unrecorded.
- C58.163, C68.168 (M7 R 813, 2 examples) Arcadius, 395–408, AE3, Constantinople; W 7.00–8.00/S 0–3.00 *97.20–*96.60; W 6.00/S 4.00 *97.44–*96.49.
- C58.152, C58.172 (M7 R 841, 2 examples) Arcadius, 395–408, AE3, Cyzicus; W 7.00–8.00/S 0–3.00 *unrecorded; W 6.00/S 4.00 *97.44–*96.49.
- C58.153 (M7 R 861) Arcadius, 395–408, AE3, uncertain mint; W 7.00–8.00/S 0–3.00 *97.20–*96.60.
- C58.133, C58.130 (M7 R 1059, 2 examples) Valentinian I–III, 395–408, AE3, uncertain mint; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.142 (M7 R 830) Arcadius, 402–408, AE3, Nicomedia; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.366 (M7 R 923) Honorius, 402–408, AE3, uncertain mint; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.162 (M7 R 927) Honorius, 408–423, AE3, uncertain mint; W 7.00–8.00/S 0–3.00 *97.20–*96.60.
- C58.132 (M7 R 940) Theodosius II, 425–450, AE4, Constantinople; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.368 (M7 R 1072) Valentinian I–III, 425–455, AE, uncertain mint; W 7.00–8.00/S 0–3.00 *97.20–*96.60.
- C58.374, C58.370 (M7 R 1094, 2 examples) Leo, 457–474, AE4, Constantinople; W 3.70–8.50/S 0–3.00 *unrecorded.
- C58.367 (M7 R 1103) Leo, 457–474, AE4, uncertain mint; W 3.56–8.16/S 0–5.00 *97.20–*96.60.
- C58.120 (M1 6) Anastasius I, 498–518, half follis, Constantinople; W 3.50–8.50/S 0–5.00 *97.60–*96.60.
- Uninv. 58 (M1 701) Anastasius I–Maurice, 498–602, penta., uncertain mint; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- Uninv. 58 (M1 709) Justinian I–Maurice, 527–602, deca., uncertain mint; W 3.70–8.50/S 0–3.00 ca. *97.60–*96.60.
- C58.154 (M1 265) Justinian I, 539/540, deca., uncertain mint; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.173 (M1 245) Justinian I, 542/543, follis, Cyzicus; W 5.00/S 4.50 *96.60.
- C58.122 (M1 333) Justin II, 565/566, follis, Constantinople; W 3.50–8.50/S 0–5.00 *97.60–*96.60.
- C58.180 (M1 410) Justin II, 565–578, penta., Constantinople; W 3.50–8.50/S 0–5.00 *97.44–*96.49.
- C58.303 (M1 368) Justin II, 569/570, half follis, Constantinople; W 3.50–8.50/S 0–1.20 *96.20, in drain.
- C58.126 (M1 483) Justin II, 574/575, half follis, Cyzicus; W 3.70–8.50/S 0–3.00 ca. *97.60–*96.60.
- C58.300 (M1 1013) Maurice–Heraclius, 582/583–610/611, follis, Cyzicus; W 3.50–8.50/S 0–1.20 ca. *96.20, in drain.
- C58.233 (M1 648) Maurice, 583/584, follis, Cyzicus; W 3.50–8.50/S 0–5.00 ca. *97.60–*96.60, in fill.
- C58.215 (M1 594) Maurice, 583–602, half follis, Constantinople; W 8.40–9.00/S 3.20–3.70 ca. *97.60, on floor of niche.
- C58.155 (M1 579) Maurice, 585/586, half follis, Constantinople; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.251 (M1 657) Maurice, 587/588, half follis, Cyzicus; W 6.00–8.00/S 1.00–4.00 ca. *96.40.
- C58.135 (M1 662) Maurice, 593/594, follis, Antioch; W 8.00/S 0–1.00 ca. *94.90–*94.70, with S58.8:605 *infra*.
- C58.179 (M1 664) Maurice, 598/599, follis, Antioch; W 4.00–6.00/S 0–5.00 *97.44–*96.49, in fill.
- C58.156 (M1 726) Phocas, 602/603, follis, Constantinople; W 7.00–8.00/S 0–3.00 *97.30–*96.60.

- C58.234 (M1 783) Phocas, 606/607, follis, Nicomedia; W 3.75–8.50/S 0–4.50 ca. *97.60–*96.60, in fill.
- C58.304, C58.160 (M1 828, 829) Heraclius, 610/611, folles, Constantinople; W 3.50–8.50/0–4.50 ca. *96.20, in drain; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.159 (M1 947) Heraclius, 610/611, half follis, Constantinople; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.158 (M1 834) Heraclius, 610–612, follis, Constantinople; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.139 (M1 841) Heraclius, 610–613, follis, Constantinople; W 7.00–8.00/S 0–3.00 ca. *96.00–*95.50.
- C58.137 (M1 830) Heraclius, 611/612, follis, Constantinople; W 3.50–8.50/S 0–4.50 ca. *97.60–*95.90.
- C58.161, C58.8, C58.299 (M1 849, 853, 859) Heraclius, 612/613, folles, Constantinople; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90; W 9.50/S 0.50 ca. *96.90; W 3.50–8.50/S 0–1.20 *unrecorded.
- C58.157 (M1 994) Heraclius, 612/613, follis, uncertain mint; W 7.00–8.00/S 0–3.00 ca. *96.40–*95.90.
- C58.136 (M1 920) Heraclius, 612–616, follis, Constantinople; W 3.50–8.50/S 0–4.50 ca. *95.00–*94.50.
- C58.181, 306 (M1 974, 976) Heraclius, 612–616, folles, Nicomedia; W 4.00–6.00/S 0–4.50 *97.44–*96.49, in fill; W 3.50–8.50/S 0–1.20 ca. *96.20, in drain.
- C58.169 (M1 1005) Heraclius, 612–616, follis, uncertain mint; W 4.00–6.00/S 0–4.50 *97.44–*96.49, in fill.
- C58.305, C58.182 (M1 967, 969) Heraclius, 613/614, folles, Nicomedia; W 3.50–8.50/S 0–1.20 ca. *96.20, in drain; W 4.00–6.00/S 0–4.50 *97.44–*96.49, in fill.
- C58.250, C58.134, C58.140 (M1 900, 902, 906) Heraclius, 614/615, folles, Constantinople; W 6.00–8.00/S 1.00–4.00 ca. *96.40; W 8.00/S 0–1.00 ca. *94.90–*94.70, with S58.8:605 *infra*; W 7.00–8.00/S 0–3.00 *96.40–*95.90.
- C58.138 (M1 951) Heraclius, 614/615, follis, Thessalonica; W 3.50–8.50/S 0–4.50 ca. *95.00–*94.50.
- C58.301 (M1 912) Heraclius, 615/616, follis, Constantinople; W 3.50–8.50/S 0–1.20 *96.20, in drain.
- C58.249 (M1 943) Heraclius, 615–624, follis, Constantinople; W 6.00–8.00/S 1.00–4.00 ca. *96.40.
- Hoard FF, as designated by G. Bates (M1 p. 154), was found at W 4.00/S 4.20 ca. *96.60, sealed between the upper and lower tiles of the construction in the SE corner. It consists of 10 coins:
- C58.206, C58.205, C58.204 (M1 840, 862, 864) Heraclius, 612/613, folles, Constantinople.
- C58.201 (M1 960) Heraclius, 612/613, follis, Nicomedia.

- C58.207 (M1 895) Heraclius, 612–614, follis, Constantinople.
- C58.203, C58.209 (M1 903, 907) Heraclius, 614/615, folles, Constantinople.
- C58.200 (M1 917) Heraclius, 615/616, follis, Constantinople.
- C58.202 (M1 944) Heraclius, 615–624, follis, Constantinople.
- Hoard G, as designated by G. Bates (M1 p. 151), was found in the enclosure outside of W 2, formerly called W 5 or Room 5, at W 4.00–6.70 ca. *96.20 (in corner of area) and comprised the 6 coins below and one of Theodosius (?):
- C58.335 (M1 54) Justin I, 518–527, follis, Constantinople.
- C58.334 (M1 322) Justin I–Justinian I, 518–538, penta., Constantinople.
- C58.336 (M1 732) Phocas, 605/606, follis, Constantinople.
- C58.338 (M1 786) Phocas, 607/608, follis, Nicomedia.
- C58.337 (M1 790) Phocas, 603–610, follis, Nicomedia.
- C58.339 (M1 809) Phocas, 608/609, follis, Cyzicus.

GLASS

In addition to the objects listed below, a great quantity of glass was found, especially window panes and goblets (*Sardis* M8, p. 81).

G58.15:466 (M6 560) Miniature bottle, sloping body, concave base, cylindrical neck, infolded rim; pale green; H. 0.057, diam. base 0.03.

W 3.56–8.16/S 0–5.00 *unrecorded.

G58.34:528 (M6 310) Goblet, part bowl, stem, foot P.; pale green; H. 0.035. diam. foot 0.05.

W 8.00, in drain with a 2nd goblet foot.

G58.38:538 (M6 260) Lamp handle and rim, pale green; H. 0.04, est. diam. rim 0.14.

W 7.00–8.00/S 0–3.00 *95.80, in drain.

Cf. E 1, Fig. 173.

Seal 58.1:986 (M6 218) Stamp, man above (astride?) 2 deer; greenish; probably 2–3rd C.; max. dim. 0.017.

In doorway.

G58.95:1048 (M6 593) Vessel fragment, flaring wall, in-folded rim; pale green; est. diam. 0.115.

W 3.56–8.16/S of S wall *96.50.

METAL

Copper Alloy

M58.59:861 (M8 698) Fig. 141 Buckle linked to a flat plate with stylized eagle heads at the corners, overall pattern of deeply cut circles, perhaps inlaid; analyzed as low zinc brass; max. L. 0.083, W. 0.047.

Upper fill near door between enclosure and Shop.

M58.60:877 (M8 473) Fig. 142 Weight, flat disk with raised edge; diam. 0.022, Wt. 13.00 g. (slightly under 3 *nomismata*). Inscribed on one side: NI on either side of central circle. W 6.00–8.00/S 1.00–4.00, 2 m. below brick arch W 7.50.

Iron

Knives

M58.71:581 (M8 188) Fig. 143 Straight back and edge, collar, tang with rectangular section; tip and end of tang missing; max. P.L. 0.079, max. W. 0.016, W. tang 0.006. W 5.00/S 4.50 *97.30–*96.60, in fill. As M58.83:692a in W 1 *infra*.

M58.118:498 (M8 194) Fig. 144 Broad chopping blade, slightly convex back, rectangular tang; max. P.L. 0.16, max. W. blade 0.042, W. tang 0.014. W 3.56–8.16/S 0–5.00, 2.00–2.50 below surface with an iron spit (L. 0.30), an adze (?) and a quantity of bones.

POTTERY

Amphorae

P58.291:543 Fig. 148 Neck and vertical band handle of wide-mouth amphora or jug; P.H. 0.18, diam. 0.16. W 3.56–8.16/S 0–5.00, 2.00–2.50 below top of N wall.

P58.468:760 Fig. 149 Stubby, slightly concave toe and attached wall; heavy, brick-like clay; calcined accretions on ext. and int. but no slip or mastic; P.H. 0.126, max. P. diam. 0.17. W 3.56–8.16/S 0–5.00, ca. *97.20–ca. *96.45.

P58.293:545 Toe, rounded with ridge; P.H. 0.05, max. P. diam. 0.07. W 3.56–8.16/S 0–5.00, 2.00–2.50 below top of N wall.

Basin

P58.363:652 Fragments, coarse brick-like clay, no slip; incised overlapping loops on ext.; max. P. dim. 0.13. W 9.30–10.40/S 0–5.00 *unrecorded.

Bowl

P58.365:654 Rim fragment, sharp carination, rouletted rim with rounded edge; est. diam. 0.26. W 9.30–10.40/S 0–2.50 *unrecorded.

Cooking ware

P58.429:694A Fig. 150 Fragment of cooking pot with small, vertical handle joined under ledge rim; tempered, blackened clay; P.H. 0.062; est. diam. 0.12, W. of handle 0.022. W 10.00/S 2.00 *unrecorded.

Cups

P58.265:461 Fig. 151 Small handleless cup, flat foot pinched before firing, string cut, wall turns inward to plain rim; ext. ridged, int. smooth; well-levigated clay with no inclusions; H. 0.065, diam. 0.10. W 6.00–8.00/S 6.00–8.00, ca. 2.30–2.50 below top of N wall. As E 6, Figs. 313–315.

P58.311:508 As above. W 9.50–10.40/S 0–1.50 *97.20–*96.60.

Jar

P58.275:447 Fragment, large, plain, medium-walled; coarse buff ware, rounded vertical loop handle. W 9.50–10.40/S 0–3.00 *unrecorded.

Lid

P58.292:544 Concave with knob recessed below rim; clear impressions of matting on underside; H. 0.035, max. P. dim. 0.105. W 3.56–8.16/S 0–5.00, 2.00–2.50 below top of N wall. As E 16, Fig. 537.

Plate

P58.272:444 Fig. 152 Fragment of vertical, ridged rim with deep wall; red slip; P.H. 0.02, diam. 0.16. W 9.50–10.40/S 0–3.00 *unrecorded.

POTTERY LAMPS

L58.25:534 Fig. 153 Mold-made, round, plain, concave disk (partly broken), relief dots on rim, heart-shaped nozzle (end broken), raised, open handle, H. 0.04, max. P.L. 0.085. W 8.00/S 1.00 ca. *95.87 “on first story floor” with two Asia Minor type rim fragments with vine pattern, L58.23:532, L58.24:533. Cf. *Kenchreai* V no. 379.

L58.26:549 Complete, Asia Minor type, relief rays on rim, round nozzle; max. H. 0.033; L. 0.065. In drain center of Shop, *96.09. Cf. *ibid.* no. 389. As L68.2:7603 in E 2, Fig. 185.

L58.36:798 As above, leaf-shaped handle; pink-buff clay; H. 0.035, W. 0.034. W 6.00–8.00/S 1.50–4.00 ca. *96.37.

L58.44:982 As above, shell-shaped oil hole cover; L. 0.04, W. 0.032. In drain below first story floor.

STONE

S58.8:605 (R2 224) Fig. 136 Furniture support, male figure (Attis?) leaning against pillar, white marble, 2nd C.; H.0.52, of torso 0.24, base H. 0.055, P.W. 0.17, D. 0.19. Largest piece at W 7.00–8.00/S 0 *95.80, in drain at back of Shop. *BASOR* 154, 32. Cf. S63.58:5765 in E 19, *infra*.

S58.52:983 Weight (?), cone-shaped, flat ends, horiz. hole drilled through small end; H. 0.022, max. diam. 0.011. Drain below first story floor.

TERRACOTTAS

P58.290:542 Fig. 154 Stamp, round head on cylindrical shaft; 4-square grid with round hollow drilled in each corner,

cut with difficulty after firing; coarse tempered clay, red-orange; P.H. 0.037, max. diam. 0.065.

W 3.56–8.16/S 0–5.00, 2.00–2.50 below top of S wall.

Uninv. 58 Sixteen weights or counters; handmade disks with pulled point; uniform H. ca. 0.03, diam. ca. 0.047.

W 6.00–8.00/S 1.50–4.00, 6 at ca. *97.20-ca. *96.45.

Cf. T59.3:1272 in W 3, Fig. 125.

FINDS FROM W 1

COINS

The coins were recorded before the grid and level systems were developed during the first season of excavation. The following were found within the Shop coordinates at unrecorded levels:

C58.30 (M7 R 175) Constantine I, 326–327, AE follis, Constantinople.

C58.239 (M7 R 638) Valens, 364–375, AE3, uncertain mint.

C58.290 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint.

C58.363 (M7 R 1063) Valentinian I–III, 402–408, AE3, uncertain mint.

C58.291 (M7 R 926) Honorius, 408–423, AE3, uncertain mint.

C58.240 (M7 R 1067) Valentinian I–III, 408–423, AE3, uncertain mint.

C58.288 (M7 R 986) Valentinian I–III, 410–455, AE4, Rome.

C58.289 (M7 R 1070) Valentinian I–III, 410–455, AE4, uncertain mint.

C58.385 (M7 R 1087) Marcian, 450–457, AE4, uncertain mint.

C58.31 (M7 R 1102) Leo, 457–474, AE4, uncertain mint.

The following have specific loci:

C58.214 (M1 75) Justin I, 518–527, penta., Nicomedia; ca. W 3.50/ca. S 1.70 *97.00, in niche in W wall.

C58.216 (M1 490) Justin II, 565–578, penta., Cyzicus; W 1.00–3.00/S 0–4.70 *97.35–*96.95.

C58.217 (M1 945) Heraclius, 615–624, follis, Constantinople; W 1.00–3.00/S 0–4.70 *97.35–*96.95.

The following were in the fill above floor level recorded at ca. E 1.50–W 3.20/S 0–4.70 ca. *97.70–*96.60:

C58.241 (M1 9) Anastasius I, 498–518, half follis, Constantinople.

C58.244 (M1 312) Justin I or Justinian I, 518–565, penta., Constantinople.

C58.223, C58.243, C58.26 (M1 103, 107, 112) Justinian I, 527–538, folles, Constantinople.

C58.245 (M1 133) Justinian I, 527–538, half follis, Constantinople.

C58.308 (M1 202) Justinian I, 527–565, penta., Constantinople.

The following were at the same locus, E 1.50–W 3.20/S 0–4.70 *97.30–*96.60, in fill:

Uninv. 58 (M1 708) Justinian I–Maurice, 527–602, deca., uncertain mint.

C58.187 (M1 118) Justinian I, 541/542, follis, Constantinople.

C58.188 (M1 272) Justinian I, 558/559, deca., uncertain mint.

C58.25 (M1 397) Justin II, 565–578, penta., Constantinople.

C58.237, C58.246 (M1 518, 519) Justin II, 565–578, penta., uncertain mint.

C58.236 (M1 434) Justin II, 568/569, half follis, Thessalonica.

C58.190 (M1 448) Justin II, 569/570, follis, Nicomedia.

C58.189 (M1 352) Justin II, 575/576, follis, Constantinople.

C58.191 (M1 535) Tiberius II, 579, half follis, Thessalonica.

C58.192 (M1 578) Maurice, 584/585, half follis, Constantinople.

C58.298 (M1 665) Maurice, 586/587, half follis, Antioch.

C58.194 (M1 581) Maurice, 587/588, half follis, Constantinople.

C58.193 (M1 558) Maurice, 590/591, follis, Constantinople.

C58.242 (M1 566) Maurice, 591–601, follis, Constantinople.

C58.195 (M1 728) Phocas, 602/603, follis, Constantinople.

C58.297 (M1 814) Phocas, 605/606, follis, Antioch.

C58.24 (M1 808) Phocas, 607/608, follis, Cyzicus.

C58.238, C58.296, C58.294 (M1 838, 845, 847) Heraclius, 612/613, folles, Constantinople.

C58.28 (M1 924) Heraclius, 612–616, follis, Constantinople.

C58.27 (M1 904) Heraclius, 614/615, follis, Constantinople.

C58.29 (M1 998) Heraclius, 614/615, follis, uncertain mint.

C58.295 (M1 918) Heraclius, 615/616, follis, Constantinople.

GLASS

G58.46:611 (M6 311) Goblet, lower portion of bowl and concave stem P.; light aquamarine; P.H. ca. 0.05, diam. base ca. 0.05.

E 2.00–W 1.00/S 2.00–4.00 *96.40 with window glass *infra* and other goblet fragments (G58.45:587, G58.44:586).

G58.47:612 (M6 654) Short neck and ribbed body fragment of bottle (?); light aquamarine.

E 1.44-W 2.86/S 0-5.00 *97.30-96.60.

G58.17A-B:469, G58.18:470 (M6 681) Fig. 174 Fragments of window glass; light aquamarine and green, L. of largest piece 0.32.

W 3.25/S 0-3.00, first story level.

Hanfmann, "Glass," 52, fig. 1, left.

METAL

Copper Alloy

Finger rings

M58.31:396 (M8 831) Fig. 145 Large, nearly round bezel, faintly incised illegible design, made in one piece with hoop; ext. diam. 0.0235, diam. bezel 0.015.

E 1.44-W 2.86/S 0-5.00, first story level.

M58.55:792 (M8 841) Fig. 146 Maltese cross as bezel, in center of each cross arm is an incised line, in one piece with hoop; ext. diam. 2.10, W. cross 0.90.

E 1.44-W 2.86/S 0-5.00 *unrecorded.

Iron

M58.83:692A (M8 187) Fig. 147 Knife, straight back and edge narrowing to sharp point, short collar, narrow tang with square section; max. P.L. 0.11, max. W. 0.022.

W 1.00-2.00/S 2.00 *96.40.

POTTERY

P58.338:713 Amphora neck with rounded grooved handle P.; pink-buff micaceous clay, surface smoothed, no slip; diam. 0.06.

E 1.44-W 2.86/S 0-5.00 *97.35-96.95.

As E 5, Fig. 246.

P58.428:397 Figs. 155, 156 Mold-made ampulla, wide, plain neck, horiz. punched handles, oval body; relief cross, incised circles at each end and in cross-arms, surrounded by wreath or rope on each side; H. 0.073, max. W. 0.04.

E 1.00/S 2.00 ca. *97.50, in fill ca. 1 m. below surface near E wall.

SPRT, 166; Hanfmann, "Donkey," 421 n. 4.

P58.425:690A Fig. 158 Out-turned rim fragment of cooking pot, stepped ridging on shoulder P.; tempered, very heavy incrustation; est. diam. rim 0.26.

E 1.44-W 2.86/S 0-5.00, lower story floor.

P58.339:714 Fig. 157 Cooking pot, 2 horiz. handles, wall, high rim with outward slant P.; tempered, very heavy incrustation; P.H. 0.11, max. P. diam. 0.22.

E 1.44-W 2.86/S 0-5.00 *97.35-96.95.

P58.449:718 Rim of heavy storage jar, wavy line under ridge; diam. 0.36.

W 1.00-3.00/S 0-5.00 *97.35-96.95.

P58.257:491 Fig. 159 Rim and part of shoulder of thin-walled jar or jug; fine micaceous slip on ext., int. plain; P.H. 0.089, diam. 0.07.

Graffito: A with horiz. and vert. lines, a second sign to r. Incomplete.

E 1.44-W 2.86/S ca. 5.00-7.00 *not recorded.

STONE

S58.30:716 Mortar with flat base, flat rim, 4 plain round handles; white marble; H. ca. 0.29, int. diam. 0.07.

W 1.00-3.00/S 0-5.00 *97.35-96.95.

TERRACOTTA

9 handmade disks with pulled point, 3 of them pierced before firing, identified as "gaming pieces"; probably counters or weights; H. 1.40-2.50; diam. 0.028-0.040.

Found within the Shop but locus not recorded.

Cf. T59.3:1272 in W 3, Fig. 125.

E 1 and E 2 Figs. 35, 160-171

EXCAVATIONS

E 1: 1967 J. S. Crawford, overburden to floor, *BASOR* 191, 17. E 2: 1968 J. S. Crawford, overburden to floor, *BASOR* 199, 44. For discussion as a restaurant, *SPRT* 165.

E 1

E 6.53-12.40. Floor at *96.92, tile with areas of packed earth. *N wall*: L. 5.87, W. 0.84, P.H. 2.10. S wall of BE-A, mortared fieldstone (no broken brick) between ashlar piers (*Sardis* R3, Pier nos. 81-83, dating back to a late reconstruction phase, p. 96, figs. 9, 238).

E wall: L. 4.40, W. 0.72, H. 0.97. Doorway: first phase W. 2.02; second phase W. 1.60. Large fieldstone with brick lacing courses (brick 0.31 x 0.33 x 0.35).

S wall: L. 5.87, W. 0.56, H. 0.74. L. of wall to alcove wall 1.55, window in center, W. ca. 0.75. W. of doorway 1.29. W. of infilled door 0.75, E 11.00/S 5.00. Ext. face reused marble spolia, int. face almost all brick. The blocking of the doorway is small mortared fieldstones. Ext. face of wall projects 0.11 from face of pier. Brick size 0.315 x 0.35.

W wall: L. 4.16, W. 0.37-0.89, H. 0.91. Large fieldstone rubble with 0.33 x 0.34 brick, except at NW corner pier (0.84 x 0.46 x 1.02) which is almost entirely large fieldstones. Pier at SW corner of well-cut reused marble blocks projects 0.31 (0.72 x 0.88 x 1.04). Window abuts pier, W. ca. 0.75. Wall changes to 0.37 W. at S 0.83 and changes back at S 2.37.

Partition walls: Spur from W wall: L. 0.46, W. 0.52, H. 0.91; all brick. N-S forming alcove in SW corner: L. 2.70, W. 0.22-0.46, H. 1.14; lower portion (H. 0.72) small fieldstones and brick; upper portion (H. 0.42) all brick (0.31 x 0.45).

Interior: Bench along N wall: L. 1.21, W. 0.575, H. 0.32; 2 top courses brick; 3 courses of small fieldstone below. Washing area contained and floored by marble slabs in NE corner at

drain, L. 1.32, W. 0.85. Bench next to washing area along N wall L. ca. 1.00. Bench on E side of N-S partition wall, L. 1.77, W. 0.39, H. 0.31; upper courses brick; lower courses small fieldstones.

E 2

E 13.12–17.76. Floor at *96.81, tile with areas of packed earth.

N wall: L. 4.64, W. 0.92, H. 2.11. S wall of BE-A (*Sardis* R3, 96), entirely reused marble blocks, except for brick and fieldstone infill at join of W wall to N wall, E 10.95–13.05, possibly an earlier doorway. Some of the springing of a brick arch over this infill is at E 13.05–13.55. Signs inscribed on the ashlar blocks, including an axe or hammer and a theta, pre-date the Shop.

E wall: L. 4.02, W. 0.89, H. 0.82. Small fieldstones with brick at ends to straighten edges. Arch of stone, mostly schist slabs, across drain in N part of E wall; D. arch 1.18.

S wall: L. 4.54, W. 0.89, H. 1.24; W. of doorway 1.36. Ashlar and rubble pier in SW corner all the way to the door, 1.77 x 1.09 x 0.90. Rest of wall (1.53) mostly brick with large fieldstone in lower courses.

W wall: See E 1, E wall.

Interior: L-shaped bench along N wall and W wall to door: L. of N bench, 4.64; L. of W bench, 1.60; W. of both 5.75, H. uniform 0.32. Two top courses brick. Three courses of small fieldstones below.

E 1 has windows in the west and south walls near the southwest corner pier. The windows are as wide as doors, so that patrons could have been served through them. A column base found outside the window could have served as a seat. The windows open off the alcove in the southwest corner in which food may have been prepared.¹⁵

There are two counters or benches in E 1, one just east of the north-south partition wall, the other on the north wall between E 7.19–8.40. The low height suggests that they are benches rather than tables. Another bench runs along the west and north walls of E 2, stopping at the washing place in the northeast corner.¹⁶

Both E 1 and E 2 have washing areas in the northeast corner, connecting with the drain below which runs parallel to the back wall of all the Shops. The washing place in E 1 is made of blue and white veined marble slabs; one laid flat, the others forming a rim around it.

The one in E 2 is actually a marble mortar, with a hole in its bottom, set in cement.

In E 1 a few fragments of white stucco painted with black lines appeared on the collapsed inside face of the west wall, indicating that at some time the inside walls were frescoed. In E 2 some white stucco still adheres to the northwest corner, although no painted design remains.

The finds suggest to the author that these two connected Shops formed a restaurant. The pottery consisted of 95% coarse red and black ware sherds with about 5% fine redware. The shapes of the coarse redware included amphorae; the coarse black ware cooking pots had everted rims, bulbous bodies with rounded bottoms and horizontal handles at the shoulders. The fine redware consisted of carinated bowls and plates including P67.2:7284, Figs. 175–178. All vessels had been broken in the Shops' collapse. Large quantities of charred wood may have come from furniture as well as the beams of the second story, since both short and long iron nails were found.

Most interesting, however, is the large quantity of bones. These were examined by John Henderson, who identified twenty sheep or goat bones, of which the highest percentages were mandibles and long bones: in other words, lamb chops and shish kebab. Bovine or horse bones numbered 28, of which 16 or 57.1% were rib bones. There were three pig bones and occasional mollusk shells, both whelks and mussels. How exactly the food was cooked remains unclear, since no oven or brazier was found. A hypothesis is that charcoal could have been burned in the coarse black ware pots and wood spits placed across their rims.

Finds were abundant in the second story deposit of E 1, including the large, white marble mortar (S67.2:7297, Fig. 180), a glass goblet, lamps (Figs. 172–173) and salvers. A. von Saldern identified window glass from the upper levels of these Shops, suggesting there might have been glazed second story windows (*Sardis* M6, p. 92). A beautiful fine redware plate, the design on which imitates contemporary silver models (P67.2:7284, Figs. 175–178) was also found there. Sherds of at least two coarse red amphorae were found in the second story of E 2.

Two assemblages of Byzantine coins denoted hoards W (24 coins, 2 identifiable) and CC (6 coins) by G. E. Bates were found at *96.92 in the southeast corner of E 1. Over twenty identifiable Byzantine coins were found in the second story levels. It seems clear that most of the

15. Cf. Deiss, 96.

16. Compare the bench outside a wineshop in the Via dell'Abbondanza (Reg. II. iv.1) in Pompeii. R. Carrington, *Pompeii* (Oxford 1936) pl. XII.

cash was upstairs, as was also true of E 2. Hoard F containing 168 bronze coins was found in the center of E 2 at *97.12.

The metal objects from the upper story of E 2 were a smith's or carpenter's punch (M68.7:7657), a hasp, a tripod base with lions' paws from a lampstand (M68.4:7624, Fig. 182), a disc (M68.2A-C:7611), a chain (M68.3:7612) and hook.

There was a pottery lamp in E 2's second story (L68.2:7603, Fig. 185). A graffito on an amphora sherd found in E 2 shows a Latin cross followed by the name Kyriak(ou) (P68.12:7614, Fig. 183). This and the plate with a Greek cross suggest that the two Shops were owned and patronized by Christians, and that Kyriakos may have been the owner's name. The pig bones and shellfish argue against Jewish patronage.

Representations of tavern scenes are frequent in Roman and Early Byzantine Art. A relief from Isola Sacra shows the interior of a wineshop with two customers seated at a table and a dog fawning for handouts.¹⁷ One customer reaches for a vessel offered by a barmaid. To the left are a stove and rack of vessels similar to those in the *thermopolium* (*popina*) at Ostia.¹⁸ The relief is Hadrianic, but suggests the atmosphere of E 1-E 2 (as restored in Fig. 35).

FINDS FROM E 1

COINS

C67.102 (M7 GR 198) Autonomous, after 133 B.C., AE5.7, Sardinia; E 8.00–9.00/S 2.00–3.00 *97.31.

C67.8 (M7 GR 255) Autonomous Imperial, ca. 100–120, AE18, Sardinia; E 8.30/S 1.20 *97.40.

C67.16 (M7 R 145) Licinius I, 321–324, AE follis, Nicomedia; E 6.10–6.20/S 3.20–3.30 *96.81.

C67.61 (M7 R 175) Constantine I, 326–327, AE follis, Constantinople; E 8.00/S 1.00–1.50 *97.87.

C67.27 (M7 R 484) Constantius Gallus, 351–354, AE2, Cyzicus; E 9.91/S 0.73 *97.45.

C68.239, C67.73 (M7 R 414, 2 examples) Constantius II, 351–361, AE3, uncertain mint; E 10.62/S 3.00–4.00 *96.92, on floor; E 8.00–9.00/S 2.00–3.00 *97.31.

17. Marble relief from Tomb 90 on Isola Sacra. Probably Hadrianic. Meiggs² pl. XXVI; Calza, *Necropoli* 203. See also the mosaics from Antioch, Ch. IV *infra*.

18. Cf. Meiggs², 428, pl. XXIX.

C67.222 (M7 R 609) Valens, 364–367, AE3, Heraclea; E 9.50–9.70/S 1.50–1.70 *96.62.

C68.116 (M7 R 1031) Valentinian I–III, 364–378, AE3, Antioch; E 12.77/S 1.90 *97.22.

C68.151 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; E 12.25–15.00/S 0–4.00 *97.12.

C73.121 (unpubl.) Valentinian I, 367–375, AE3, Alexandria; E 12.30/S 1.20 *96.40.

C67.154 (M7 R 1048) Valentinian I–III, 378–392, AE4, uncertain mint; E 9.00–9.30/S 3.10–3.15 *96.83.

C67.59 (M7 R 686) Valentinian II, 383–392, AE4, Nicomedia; E 8.00/S 1.00–1.50 *97.87.

C68.236 (M7 R 765) Theodosius I, 383–395, AE4, Antioch; E 10.90/S 3.35 *96.92, on floor.

C67.166 (M7 R 813) Arcadius, 395–408, AE3, Constantinople; E 9.00–9.50/S 4.63–4.67 *97.25–*97.23.

C67.161 (M7 R 1001) Valentinian I–III, 395–408, AE3, Constantinople; E 9.50–9.70/S 4.10–4.20 *97.15.

C67.87 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 9.00–9.50/S 1.44 *97.25.

C67.160 (M7 R 816) Arcadius, 402–408, AE3, Constantinople; E 8.50–8.70/S 3.90–4.00 *97.95.

C67.112 (M7 R 906) Honorius, 402–408, AE3, Cyzicus; E 8.00–8.20/S 2.00–2.10 *97.35.

C67.154 (M7 R 1063) Valentinian I–III, 402–408, AE3, uncertain mint; E 9.00–9.30/S 3.10–3.15 *96.83.

C67.157, C67.225 (M7 R 1068, 2 examples) Valentinian I–III, 408–423, AE3, uncertain mint; E 6.40–6.50/S 4.10–4.15 *97.03; E 6.50–6.60/S 0.20–0.30 *96.71.

C67.342, C67.370 (M7 R 1070, 2 examples) Valentinian I–III, 410–455, AE4, uncertain mint; E 9.83/S 0.32 *97.25; E 10.42/S 2.03 *97.24.

C67.91 (M7 R 956) Theodosius II, 425–450, AE4, Antioch; E 8.50–9.50/S 1.50–2.00 *97.31.

C67.109, C67.154 (M7 R 1071, 2 examples) Valentinian I–III, 425–455, AE4, uncertain mint; E 9.00/S 2.53–3.00 *97.31; E 9.00–9.30/S 3.10–3.15 *96.83.

Uninv. 68 (M1 44) Anastasius I, 498–518, penta., Nicomedia; E 10.60/S 3.07 *96.92.

Uninv. 68 (M1 45) Anastasius I, 498–518, penta., uncertain mint; E 10.62/S 3.00–4.00 *96.92.

Uninv. 67 (M1 58) Justin I, 518–527, half follis, Constantinople; E 6.00–6.20/S 3.65–3.70 *97.03.

C73.130 (unpubl.) Justin I or Justinian I, 518–538, penta., uncertain mint; E 12.10/S 3.00 *96.40.

Uninv. 67 (M1 212) Justinian I, 527–565, penta., Constantinople; E 9.00–9.30/S 3.10–3.15 *96.83.

Uninv. 67 (M1 296) Justinian I, 527–565, penta., unknown mint; E 10.51/S 0.64 *97.37.

Uninv. 67 (M1 494) Justin II, 565/566, follis, Antioch; E 10.20/S 3.00 *96.26.

Uninv. 67 (M1 332) Justin II, 565/566, follis, Constantinople; E 10.19/S 2.62 *97.23.

Uninv. 68 (M1 714) Justin II–Maurice, 571/572 or 588/589, half follis, Thessalonica; E 12.16/S 2.70 *96.98.

Uninv. 67 (M1 646) Maurice, 582–602, decia., Nicomedia; E 7.40–7.60/S 1.92–1.95 *96.00.

Uninv. 67 (M1 658) Maurice, 590/591, half follis, Cyzicus; E 8.00–8.20/S 2.00–2.10 *97.35.

Uninv. 67 (M1 661) Maurice, 592/593, follis, Antioch; E 10.93/S 1.01 *97.45.

Uninv. 67 (M1 643) Maurice, 594/595, follis, Nicomedia; E 10.09/S 1.23 *97.15.

Uninv. 67 (M1 663) Maurice, 595/596, follis, Antioch; E 11.61/S 4.09 *97.13.

Uninv. 67 (M1 812) Phocas, 602–610, half follis, Cyzicus; E 6.30–6.40/S 3.00–3.20 *97.35.

Uninv. 67 (M1 804) Phocas, 607/608, follis, Cyzicus; E 8.00–8.20/S 4.40–4.45 *97.05.

Uninv. 67 (M1 923) Heraclius, 612–616, follis, Constantinople; E 7.40–7.50/S 0.10 *97.15, on bench on N wall.

Uninv. 67 (M1 1002) Heraclius, 612–616, follis, uncertain mint; E 10.96/S 4.00 *96.65.

Uninv. 67 (M1 986) Heraclius, 612/613, follis, Cyzicus; E 10.99/S 3.13 *97.10.

Uninv. 68 (M1 868) Heraclius, 613/614, follis, Constantinople; E 6.50–6.60/S 0.20–0.30 *96.71.

Uninv. 67 (M1 871) Heraclius, 613/614, follis, Constantinople; E 8.70–8.75/S 3.30–3.35 *97.05.

Uninv. 67 (M1 948) Heraclius, 613/614, half follis, Constantinople; E 8.00/S 1.00–1.50 *96.57.

Uninv. 67 (M1 970) Heraclius, 613/614, follis, Nicomedia; E 6.95–7.00/S 0.70–0.80 *96.75.

Uninv. 68 (M1 1072) Constans II, 652/653, follis, Constantinople; E 11.76/S 3.24 *97.33.

Hoard W, as designated by G. Bates (*Sardis* M1, 151), comprised the 2 coins listed below and 22 illegible small bronze coins. Found at E 10.62/S 3.00–4.00 *96.82.

Uninv. 68 (M1 389) Justin II, 565–578, penta., Constantinople.

Uninv. 68 (M1 520) Justinian I or Justin II, 538–578, penta., Cyzicus.

Hoard CC, as designated by G. Bates (*Sardis* M1, 154), comprised the 6 listed coins at E 11.30/S 3.45 *96.92:

Uninv. 68 (M1 762) Phocas, 603–610, half follis, Constantinople.

Uninv. 68 (M1 985) Heraclius, 612/613, follis, Cyzicus.

Uninv. 68 (M1 990) Heraclius, 612/613, follis, Cyzicus.

Uninv. 68 (M1 908) Heraclius, 615/616, follis, Constantinople.

Uninv. 68 (M1 931) Heraclius, 612–616, follis, Constantinople.

Uninv. 68 (M1 933) Heraclius, 612–616, follis, Constantinople.

GLASS

Bottle (?)

Uninv. 67 (M6 628) Slightly curved body fragment with applied thread; light aquamarine; P.H. 0.06, Th. 0.001.

E 6.00–8.00/S 0–3.00 *97.05.

Goblet

Uninv. 67 (M6 345) Stem with knob, light aquamarine or green.

E 6.00–8.00/S 3.00–6.00 *97.05.

Cf. G59.68:2194 in W 13, Fig. 44.

Lamps

Uninv. 67 (M6 250) Fig. 172 Handle with attached portion of wall that curves outward at lower join, light aquamarine or pale green; H. 0.05.

E 7.00–10.00/S 0–4.00 *97.30–*97.20.

G68.2:7686 (M6 235) Deep bowl, 2/3 P., flat bottom, flaring wall, 3 handles, light aquamarine; P.H. 0.035, est. diam. base 0.06.

E 12.00–13.50/S 0–4.00 *97.12–*96.80.

Uninv. 67 (M6 280) Fig. 173 Base with stem or thorn-like extension, light aquamarine; P.H. 0.055.

E 10.00–12.50/S 0–5.00 *97.25–*97.00.

Uninv. 67 (M6 291) Lower portion of beaker-shaped lamp; “bottle” olive green; P.H. 0.045.

E 5.00/S 0.80–0.90 *99.60.

Salvers

Uninv. 67 (M6 378) One-third of rim, pale green; max. dim. 0.092, est. diam. 0.13.

E 10.00–12.50/S 0–5.00 *97.25–*97.00.

Similar to E 13, Fig. 401.

Uninv. 67 (M6 379) One-sixth of rim; light aquamarine; max. dim. 0.07, est. diam. 0.15.

E 7.00–9.00/S 0–4.00 *98.75–*98.00.

As above.

Window glass

Uninv. 67 (M6 683, 684) Fig. 174 Fragments; concentrated at E 7.00–10.00/S 0–6.00 *97.87, E 8.50–10.00/S 0–6.00 *97.30.

POTTERY

The excavation records list 6 coarse redware amphorae with knobbed feet, 2 coarse redware bowls with combed decoration, 2 fine redware bowls, and 2 black cooking pots.

Uninv. 67 Rim fragment of bowl with steep sides, grooved and rouletted ledge rim turned out and down; orange clay with few inclusions, bright orange slip—not local; max. diam. ca. 0.05.

E 10.00–12.00/S 0–5.00 *97.25–*97.00.

Rim is close to Hayes, 124, form 74, fig. 21.

Uninv. 67 Bottom of vessel chipped to an even circle perhaps for use as a lid or stopper; diam. 0.05; Th. 0.0003.

E 6.00–8.00/S 0–3.00 *97.05–*97.00.

Cf. *Yassı Ada I* 160–161.

Uninv. 67 Flat lid formed on rough tournette; scars of strap handle on either side of center; est. diam. 0.163, Th. 0.07.

E 5.00–8.00/S 0–3.00 *97.05–*97.01.

P67.2:7284 Figs. 175–178 Plate, light red body with a darker slip; central Greek cross on reserved ground encircled by incised circles and vertical curves; H. 0.035; diam. 0.13.

E 6.00–10.00/S 0–2.00 *97.35.

BASOR 191, 17; 199, 44. *SPRT* 165, 166, fig. 282. Hayes, 409–10, pl. 23a.

SEAL

C68.15 (M1 1235) Lead seal of Andrew, Stratelates; ca. 550–650, dated ca. 610–616; cruciform monogram on obv. and rev.; max. P. diam. ca. 0.028.

E 8.90/S 0.67 *96.73.

STONE

S62.3:4136 (M8 954) Fig. 179 Half of 2 piece mold for a cast spoon having a deep bowl and handle ending in duck's head; slate; max. P.L. 0.143, max. P.W. 0.09; L. spoon 0.10.

E 8.00/S 8.00 *97.60, on mosaic sidewalk.

S67.2:7297 Fig. 180 Mortar with spout and 2 handles, 2/3 P., may have had 3rd handle, flat base; marble; H. 0.185; diam. rim 0.49, base 0.20.

E 6.80–7.00/S 0.59–0.80 *97.75.

TERRACOTTA

P62.5:4135 Fragment of drain cover; vertical rim profiled to fit tightly into a pipe; holes evenly spaced, poked through before firing; brick-like clay heavily encrusted with calcareous material; P.H. 0.075, est. diam. 0.36.

E 5.00–7.00/S 5.00–10.00 *97.50–*96.70, in fill above mosaic sidewalk in the Colonnade.

FINDS FROM E 2

COINS

C68.131 (M7 GR 399) An unidentifiable Hellenistic coin with large flan; E 16.10/S 2.55 *96.90.

C68.141A (M7 GR 215) Autonomous, after 133 B.C., ca. AE15, Sardis; E 16.19/S 0.02 *97.02, with C68.141C *infra*.

C68.149A (M7 GR 261) Autonomous Imperial, 200–220, ca. AE17, Sardis; E 12.25–15.00/S 0–4.00 *97.12.

C68.141C (M7 R 89) Claudius Gothicus, 268–270, Ant., Cyzicus; E 16.19/S 0.02 *97.02.

C68.141B (M7 R 231) Constantine I, 337–341, posthumous coinage, AE, uncertain mint; E 16.19/S 0.02 *97.02.

C68.150 (M7 R 313) Constantius II, 355–360, AE3, Rome; E 14.00–15.00/S 0–0.50 *97.00.

C68.136 (M7 R 572) Valentinian I, 364–365, AE3, Constantinople; E 15.31/S 1.15 *96.94.

C68.116 (M7 R 1031) Valentinian I–III, 364–378, AE3, Antioch; E 12.77/S 1.90 *97.22.

C68.150 (M7 R 1048) Valentinian I–III, 378–392, AE4, uncertain mint; E 14.00–15.00/S 0–0.50 *97.00.

C68.140 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 13.50–14.42/S 1.51 *96.73.

C68.148 (M7 R 1012) Valentinian I–III, 383–395, AE4, Nicomedia; E 12.25–15.00/S 0–4.00 *97.12.

C68.236 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 10.90/S 3.35 *96.92, on floor.

C68.151 (M7 R 783) Theodosius I, 393–395, AE, uncertain mint; E 12.25–15.00/S 0–4.00 *97.12.

C68.140 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 13.50–14.42/S 1.51 *96.73.

C68.140 (M7 R 1061) Valentinian I–III, 395–408, AE4, uncertain mint; E 13.50–14.42/S 1.51 *96.73.

C68.151B (M7 R 921) Honorius, 395–423, AE4, uncertain mint; E 12.25–15.00/S 0–4.00 *97.12.

C68.137 (M7 R 1015) Valentinian I–III, 402–408, AE3, Nicomedia; E 16.87/S 0.11 *97.02.

C67.147 (M7 R 925) Honorius, 402–423, AE3, uncertain mint; E 14.82/S 1.62 *96.68.

C68.138 (M7 R 927) Honorius, 408–423, AE3, uncertain mint; E 14.11/S 2.37 *97.14.

C68.151 (M7 R 1067) Valentinian I–III, 408–423, AE3, uncertain mint; E 12.25–15.00/S 0–4.00 *97.12.

C68.149 (M7 R 1068) Valentinian I–III, 408–423, AE3, uncertain mint; E 12.25–15.00/S 0–4.00 *97.12.

C68.133 (M7 R 1070) Valentinian I–III, 410–455, AE4, uncertain mint; E 14.56/S 0.89 *98.00.

C68.109 (M7 R 968) Theodosius II, 425–450, AE4, uncertain mint; E 13.34/S 1.90–2.50 *96.57.

C68.115 (M7 R 1029) Valentinian I–III, 425–455, AE4, Cyzicus; E 15.25/S 0.49 *97.37.

C68.143 (M7 R 1098) Leo, 457–474, AE4, uncertain mint; E 13.85/S 0.53 *97.12.

Uninv. 68 (M1 110) Justinian I, 527–538, follis, Constantinople; E 13.50–14.42/S 1.51 *96.73.

Uninv. 68 (M1 217) Justinian I, 563/564, half follis, Thessalonica; E 13.34/S 1.90–2.50 *96.57.

Uninv. 68 (M1 399) Justin II, 565–578, penta., Constantinople; E 14.00–15.00/S 0–0.50 *97.00.

Uninv. 68 (M1 400) Justin II, 565–578, penta., Constantinople; E 13.57/S 2.80 *97.13.

Uninv. 68 (M1 480) Justin II, 576/577, follis, Cyzicus; E 15.67/S 0.20 *96.95.

Uninv. 68 (M1 543) Tiberius II, 579–582, half follis, Nicomedia; E 15.90/S 1.30 *96.80.

Uninv. 68 (M1 671) Maurice, 583–602, half follis, uncertain mint; E 13.79/S 0.90 *97.16.

Uninv. 68 (M1 556) Maurice, 587/588, follis, Constantinople; E 14.07/S 3.95 *97.06.

Uninv. 68 (M1 729) Phocas, 602–604, follis, Constantinople; E 17.64/S 2.96 *96.75, found with M1 739 and 785.

Uninv. 68 (M1 778) Phocas, 602–604, half follis, Thessalonica; E 13.31/S 0.51 *96.62.

Uninv. 68 (M1 744) Phocas, 603–610, follis, Constantinople; E 13.90/S 2.24 *97.05.

Uninv. 68 (M1 794) Phocas, 603–610, follis, Nicomedia; E 14.82/S 1.62 *96.68.

Uninv. 68 (M1 782) Phocas, 606/607, follis, Nicomedia; E 13.50–14.42/S 1.51 *96.73.

Uninv. 68 (M1 785) Phocas, 606/607, follis, Nicomedia; E 17.64/S 2.96 *96.75.

Uninv. 68 (M1 818) Phocas, 606/607, follis, uncertain mint; E 16.97/S 2.36 *96.93, found with M1 806 *infra*.

Uninv. 68 (M1 739) Phocas, 607/608, follis, Constantinople; E 17.64/S 2.96 *96.75.

Uninv. 68 (M1 806) Phocas, 607/608, follis, Cyzicus; E 16.97/S 2.36 *96.93.

Uninv. 68 (M1 743) Phocas, 608/609, follis, Constantinople; E 16.88/S 0.22 *97.02.

Hoard F, as designated by G. Bates (*Sardis* M1, 151), comprised the coins listed below, 148 illegible minimi, and 10 illegible bronze coins found at E 12.25–15.00/S 0–4.00 *97.12. Bates believed it to be a hoard that was dispersed when the second story collapsed.

Uninv. 68 (M1 46) Anastasius I, 498–518, penta., uncertain mint.

Uninv. 68 (M1 688) Anastasius I–Maurice, 498–602, penta., Nicomedia.

Uninv. 68 (M1 79) Justin I, 518–527, penta., Nicomedia.

Uninv. 68 (M1 426) Justin II, 565/566, half follis, Thessalonica.

Uninv. 68 (M1 440) Justin II, 571/572, half follis, Thessalonica.

Uninv. 68 (M1 493) Justin II, 565–578, penta., Cyzicus.

Uninv. 68 (M1 511) Justin II, 565–578, penta., uncertain mint.

Uninv. 68 (M1 540) Tiberius II, 581/582, follis, Nicomedia.

Uninv. 68 (M1 582) Maurice, 587/588, half follis, Constantinople.

Uninv. 68 (M1 737) Phocas, 606/607, follis, Constantinople.

Hoard EE, as designated by G. Bates (*Sardis* M1, p. 154), comprised the following coins found at E 12.20/S 1.05 *96.81.

Uninv. 68 (M1 816) Phocas, 606/607, follis, Antioch.

Uninv. 68 (M1 979, 987) Heraclius, 610–611, folles, Cyzicus.

Uninv. 68 (M1 653) Heraclius, 610/611, follis, Nicodemia.

Uninv. 68 (M1 837) Heraclius, 612/613, follis, Constantinople.

Uninv. 68 (M1 854, 861) Heraclius, 612/613, folles, Constantinople.

Uninv. 68 (M1 877, 889) Heraclius, 613/614, folles, Constantinople.

Uninv. 68 (M1 898) Heraclius, 614/615, follis, Constantinople.

Uninv. 68 (M1 936, 939) Heraclius, 612–616, folles, Constantinople.

Uninv. 68 (M1 1001) Heraclius, 612–616, follis, uncertain mint.

METAL

In addition to the items described below 32 iron nails, a sickle blade ring, and a door socket were found.

Copper Alloy

M68.3:7612 (M8 945) Chain, 13 figure-eight links with hook on one end; max. P.L. 0.26.

E 14.23/S 3.60 *97.28.

Cf. *Saraçhane* I 243, no. 247.

M61.74:3782 (M8 8) Dagger sheath, 2 pieces; front piece tapers to rounded end, edges flanged to fit back; dotted inscription near top YIENON POY X; max. L. front 0.249, W. 0.083–0.035, max. P.L. back 0.15.

Found at *96.75 on Colonnade floor in front of Shop.

BASOR 166, 44.

Uninv. 68 (M8 413) Hasp from box or casket; max. P.L. ca. 0.188.

E 15.95/S 2.43 *96.94.

M61.26:3353 (M8 395) Fig. 181 Small key for box or casket with finger ring at one end, shank with toothed bit at right angles to stem; max. L. 0.03, ext. diam. ring 0.02.

E 16.00–17.00/S 9.00 *96.50, in Colonnade near threshold.

BASOR 166, 44; see also *Sardis: Twenty-seven Years* 43.

Cf. *Agora* V no. L 77 from an early 5th century deposit.

M68.4:7624 (M8 617) Fig. 182 Lampstand, tripod base with 3 lion-paw feet; max. H. 0.036, max. diam. 0.068.

E 16.20/S 1.38 *96.62.

M68.2A-C:7611 (M8 922, 936–7) Three fragments: a disk with 4 pierced tabs cut away and twisted at right angles to it, diam. 0.02; disk with 3 incised circles around central dot, diam. 0.045; lion's paw, probably from a lampstand, diam. 0.029.

E 16.72/S 3.09 *96.76, found together.

Iron

M68.7:7657 (M8 148) Punch, tapered rod with flat top and round section; max. P.L. 9.00, diam. 0.70–2.00.

E 14.00–16.00/S 2.00–4.00 *97.00.

Cf. *Yassi Ada* I 249, no. Fe 33.

POTTERY

In addition to the pots described below, the excavation records show 4 amphorae were found in E 2, one red with knobbed foot, 2 with pointed feet, one white-slipped; one fine and 2 coarse redware bowls, and one coarse black ware cooking pot.

P68.12:7614=IN68.8 Fig. 183 Body sherd of closed vessel, red clay mottled gray where burnt, some inclusions, no slip on ext. or int.; max. dim. 0.055; Th. 0.004–0.006.

Graffiti: Latin cross followed by Kyria[k], another letter to r., read as Kyriakou; scratched on ext. after firing; H. letters 0.005–0.007, cross 0.01.

E 16.00–18.00/S 0–2.00 *97.12–*96.80.

SPRT 166.

Uninv. 68 Fig. 184 Jug, scar for one handle, tall neck, round body, smooth sides, concave base with button on underside; large inclusions and blowouts, self slip; ext. discolored with dribbles of substance containing iron oxide; P.H. 0.264, max. diam. of body 0.195.

E 13.10/S 2.88 *96.63.

POTTERY LAMP

L68.2:7603 Fig. 185 Mold-made "Asia Minor type," rays around small discus, small vertical handle, foot print stamp on underside; H. 0.043, L. 0.085.

E 13.42/S 0.14 *97.50.

Cf. *Kenchreai* V no. 389.

SCULPTURE

S68.1:7604 See E 2A. The top fragment of the trunk and leaves was found in E 2 at E 17.00/S 2.84 *97.33.

STONE

Uninv. 68 Fig. 164 Basin with steep sides, horiz. rim, no handles; hole in bottom; marble; D. ca. 0.34, int. diam. 0.395. Set in cement in washing place in NE corner.

E 2A Figs. 186–191

EXCAVATIONS

1968 J. S. Crawford overburden to floor, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52. For identification as residence preceded by dye shop, *SPRT* 165.

E 18.68–22.97. Floor at *96.08, packed earth and tile.

N wall: L. 4.29, W. 0.30–0.92, H. 2.17. S wall of BE-B (*Sardis* R3, 96), mortared fieldstone infill resting on ashlar foundation on either side of ashlar pier at E 19.88–21.15. Brick lacing courses in upper portions from E 17.00–19.88.

E wall: L. 4.33, W. 0.94, H. 1.20. Small fieldstone with brick lacing courses (brick 0.28 x 0.28 x 0.04). Plaster on inside face of wall preserved in NE corner.

S wall: L. 4.38, W. 0.92, H. 0.63–1.57. Distance to door from W wall, 1.33; from E wall, 1.51. W. of doorway 1.59.

SW corner almost completely destroyed; one course of large fieldstones preserved.

W wall: See E 2, E wall. Niche in S end in a blocked doorway may have held a vat as in W 8, L. 1.31, W. 0.48.

Interior: Two water channels, below the packed earth and tile floor, ran from the niche in the SW corner. Channel 1 (L. 2.21, W. 0.22) ran toward the large drain at the rear of the Shop. Channel 2 (L. 0.95, W. 0.45), edged with brick, ran more directly eastward. A roughly dressed stone slab (L. 1.35, W. 0.59, H. 0.16) on a brick foundation projects at r. angle from the E wall.

E 2A is in a poor state of preservation. The S wall as preserved is too low to posit any windows. A patch of plaster, white with a black line 0.01 wide, was found fallen from an upper story wall at E 18.28/S 0.86 *97.08. From the second story debris above the preserved top of the W wall came a rare piece of sculpture in blue-green and white marble (S68.1:7604, Figs. 191, 197).

The blue-green vein was worked as a tree with heavily drilled laurel leaves accompanied by the Delphic tripod and snake. In the white vein was a human figure; the left foot, possibly of Apollo, is preserved.

Metal finds include a copper alloy buckle (Fig. 192), flask lid and key. Four thin iron plates, too corroded to identify, were also found, as well as 19 iron nails, a stone pestle (S62.8:4159, Fig. 196), seven animal bones, one coarse red amphora (Fig. 193) and several slipped plates including P68.58:7677 (Fig. 194).

There were two hoards of coins, Z and DD, in the first story deposit. George Bates hypothesized that the hoards were actually part of a single, intentional coin collection (*Sardis* M1, p. 154).

The Shop was a probably a residence in its last phase, owing to the fact that neither commercial pottery nor a large quantity of bones, both indications of a restaurant, were discovered. In fact, the pottery sherds were almost entirely domestic in nature. That E 2A had been a dye shop in an earlier phase can be inferred from the niche in the SW corner with drain channels. These channels had been filled in with packed earth during the last phase. The niche is big enough to have held a vat the size of those found in W 8.¹⁹

COINS

C68.161 (M7 GR 231) Autonomous, 133 B.C. to A.D. 14, AE21, Sardis; E 18.43/S 1.32 *96.81, same level as hoard DD.

C68.156 (M7 R 40) Gallienus, 260–268, Ant., Rome; E 21.75/S 0.79 *97.72.

C68.162 (M7 R 94) Claudius Gothicus, 270–, posthumous coinage, Ant., uncertain mint; E 18.00–18.10/S 2.60–2.80 *96.63.

C68.164 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; E 21.15/S 4.25 *96.87.

C67.173 (M7 R 858) Arcadius, 383–395, AE4, uncertain mint; E 20.00–21.00/S 0–1.00 *96.50.

C68.163 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 18.46/S 3.43 *96.77.

C67.173 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; E 20.00–21.00/S 0–1.00 *96.50.

C73.100 (unpubl.) Obscure, late 4th C.; E 22.50/S 3.40 *96.50.

C68.169 (M7 R 1099) Leo, 457–474, AE4, uncertain mint; E 22.04/S 1.41 *96.51.

Uninv. 68 (M1 478) Justin II, 576/577, follis, Cyzicus; E 20.28/S 2.73 *97.04.

Uninv. 68 (M1 554) Maurice, 585/586, follis, Constantinople; E 22.66/S 0.11 *97.38.

Uninv. 68 (M1 758) Phocas, 603–610, half follis, Constantinople; E 18.00–18.10/S 2.60–2.80 *96.68.

Uninv. 68 (M1 843) Heraclius, 610–613, follis, Constantinople; E 18.00–18.10/S 2.60–2.80 *96.63.

Uninv. 68 (M1 968) Heraclius, 613/614, follis, Nicomedia; E 19.01/S 3.37 *96.71.

Hoard Z, as designated by G. Bates (*Sardis* M1, p. 154), was composed of the 5 coins listed below and one disintegrated piece found at E 21.96/S 1.95 *96.54.

C68.160 (M7 R 936) Theodosius II, 402–408, AE3, Constantinople.

Uninv. 68 (M1 514) Justin II, 565–578, penta., uncertain mint.

Uninv. 68 (M1 564) Maurice, 594/595, follis, Constantinople.

Uninv. 68 (M1 627) Maurice, 595/596, half follis, Thessalonica.

Uninv. 68 (M1 748) Phocas, 602–604, half follis, Constantinople.

Hoard DD (ibid.) comprised 3 coins found at E 18.70/S 3.47 *96.81.

C68.159 (M7 R 93) Claudius Gothicus, 270–, Ant., uncertain mint.

C68.159 (M7 R 249) Urbs Roma, 336–337, AE follis, Cyzicus.

Uninv. 68 (M1 784) Phocas, 606/607, follis, Nicomedia.

METAL

Copper Alloy

Uninv. 68 (M8 700) Fig. 192 Belt buckle, shield-shaped plate with incised leaf and vine-like border; 2 vertical loops at corners, 3 protruding loops on back; H. with loops 0.032, W. 0.023.

E 20.17/S 0.18 *98.08.

Similar buckles were found at Anemurium with coins and pottery suggesting a date there as late as 600–650, Russell, "*Instrumenta*" type 12, no. 7, fig. 24.

Uninv. 68 (M8 396) Small key with finger-ring for box or casket, 10 tubular teeth in bit, incisions on stem; L. stem 0.085, diam. ring 0.024.

E 18.86/S 0.63 *96.00.

Cf. Vikar, *Security* 3, fig. 4.

19. Singer, 117, fig. 87. W. of press 1.40. See also Drachman, 74, 92, 158. For dyers' vats cf. W 8 (rectangular) and E 6 (round). For attestation of the cloth and dyeing trades in historical sources, see *Sardis* M4, 18–20; Magie, 47–48.

Uninv. 68 (M8 543) Cylindrical flask lid of hammered sheet metal joined with toothed seam, flat top similarly joined, cotter pin on top with chain link attached to the loop.
E 21.81/S 2.63 *97.03.

POTTERY

Amphora

Uninv. 68 Fig. 193 Section of shoulder, neck and one handle P.; coarse, brick-like clay body, cream slip; max. P.H. 0.085, est. diam. 0.06, max. P. diam 0.178.
Graffito: λρΓ . . . γ(?) scratched after firing just below neck; H. letters 0.007–0.012.
E 18.00–20.00/S 5.50–8.00 *98.00–*96.75.

Plates

P68.58:7677 Fig. 194 Ca. 1/4 P., inverted rim, rounded lip, ring foot; very micaceous pink-buff clay with few inclusions, well-adhering thin self-slip; incised triple wavy line in center; H. 0.06, diam. rim 0.28, foot 0.10.
E 20.00–22.00/S 0–2.00 *97.02–*96.75.

Uninv. 68 Fig. 195 Rim turned up and in, set off with groove, flat ring foot; coarse, brick-like clay, thin slip on int. and ext; H. 0.045, diam. 0.205.
E 20.00–22.00/S 0–2.00 *97.02–*96.75.

SCULPTURE

S68.1:7604 (Figs. 191, 197) Laurel tree with heavily drilled and incised leaves, in front is the base of a lion-footed Delphic tripod, snake, and l. foot of Apollo (?); bichrome marble, the blue-green vein used for tree, snake and tripod, white for the human figure; 3rd C. or later; H. 0.445, D. 0.092.
Trunk and tripod, E 18.12/S 1.57 *96.08; the leafy top, which joins, was found fallen over the wall in E 2 at E 17.00/S 2.84 *97.33.

STONE

S62.8:4159 Fig. 196 Elbow-shaped pestle, basalt; handle rough or broken, working end worn very smooth; L. 0.125, diam. working end 0.08.
E 20.50/S 5.50 *96.75, on sidewalk next to S wall.

E 3 Figs. 19, 198–206

EXCAVATIONS

1968 J. S. Crawford overburden to floor, *BASOR* 199, 44.
1973 J. S. Crawford and T. Yalçinkaya cleaned and restored, *BASOR* 215, 52.

E 23.91–28.26. Floor at *96.98, blue-veined marble slabs with packed earth areas.

N wall: L. 4.35, W. 1.15, H. 2.01. S wall of BE-B, brick and fieldstone infill between ashlar piers. Central pier at E 24.88–26.07 (*Sardis* R3, 96, Pier no. 86 dating to a late reconstruction phase, figs. 273, 284, 286) initially extended to E 27.22. A door, blocked with brick in the last phase of use, was cut

through to BE-B at E 26.06–26.98 *97.02 (top of threshold), W. 0.90, threshold worn, cavetto molding (ibid.).

E wall: L. 4.04, W. 0.92, H. 0.91. Large fieldstones with some architectural spoils, brick lacing courses (0.31 x 0.33 x 0.35 brick).

S wall: L. 4.39, W. 0.82, H. 1.26. W. door 1.61. Distance from W wall to door 1.75, from E wall to door 1.04. Ashlar pier in SW corner 0.96 by 1.03 by 0.95. To the H. of ca. 0.90 the wall is constructed of reused marble blocks, a half column drum and large fieldstones, above which is a brick layer (bricks 0.31 x 0.33 x 0.35) in very poor condition, perhaps the remains of a lacing course.

W wall: L. 3.75; see E 2A, E wall. Plaster preserved in NE corner.

Interior: L-shaped bench in NW corner: L. 2.87, W. 0.33 on N side; L. 1.48, W. 0.54, H. 0.26 on W side. Bench on N end of E wall: L. 1.08, W. 0.44, H. 0.26. Bench on S end of E wall: L. 0.89, W. 0.42, H. 0.26. Column shaft fragment (H. 0.625) stood upright in floor at E 27.17/S 1.69, top at *97.56 (ca. 0.10 above floor level), distance from E wall 0.78; this might have been the base for a wooden upright support for the upper story or mezzanine.

E 3 is somewhat better preserved than E 2A. The floor is laid with colorful marble slabs and reused wall revetments (Th. 0.03). A Latin cross with a looped rho top is carved on a reused marble block in the south, exposed face of the south wall (E 24.50/S 5.35 *97.50, Fig. 201).²⁰

Finds included a small composite capital (BS 73.23), pieces of a marble tray and several skoutlosis fragments.

A copper alloy cauldron was found in front of the Shop on the Colonnade floor (Fig. 202). While its use might have been connected with the function of E 3, it is equally possible the cauldron belonged to one of the adjacent Shops. Two iron rods are probably from the door assembly.

Faunal remains included two sheep or goat jawbones, two bird bones (chicken?), one pig's tooth and a cockle-shell.

The worn threshold of the blocked up door in the north wall (which was later re-opened by squatters in BE-B) shows that in an earlier phase the doorway had been an entrance to the Bath-Gymnasium complex. The seats along the walls and the unusually durable floor may indicate E 3 once formed a vestibule of BE-B.

20. A similar form of the cross with rho top occurs on a wooden panel icon from Bawit, now in the Louvre. D. T. Rice dates it to the 6th C., 29, fig. 16. A. Grabar dates it to the "6th-7th C.," 401, fig. 204. The form also occurs on sarcophagi at Ravenna dated by G. Bovini to the 4th and 5th C., *Ravenna* (New York 1971) 177, figs. 114, 115.

Later, the door was blocked, and at the time of the Shop's destruction E 3 was an independent unit.

The finds give no clear evidence as to the exact function of the Shop. However, their generally domestic character might suggest use as a residence.

ARCHITECTURAL FRAGMENTS

Uninv. 68 A section of entablature from MC.
E 24.77/S 3.23 *97.22.

Uninv. 68 Composite capital; H. 0.16, diam. top 0.18, bottom 0.12.
E 26.54/S 2.09 *97.23.

The following pieces present in the restored Shop (Fig. 19) were found in the street outside E 3:

BS 73.23 Composite capital fragment, white marble; H. 0.18, L. 0.73, W. 0.44.
E 24.00/S 13.45 *96.50.

BS 73.26 Column shaft in 3 fragments, XP incised near top; pink and white brecciated marble; restored L. 2.40, diam. 0.32.
E 27.00/S 13.50 *96.00; E 26.90/S 11.00 *97.00, fallen in front of the pedestal, *infra*.

BS 73.25 Pedestal fragment, white marble; H. 0.84, W 0.49.
E 26.90/S 11.00 *97.00.

COINS

C68.176 (M7 R 131) Licinius, 319, AE follis, Arles; E 27.33/S 3.19 *97.23.

C68.178 (M7 R 348) Constantius II, 351–361, AE3, Constantinople; E 23.81/S 3.28 *97.10.

C67.321 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; E 28.13/S 1.49 *97.22.

C68.11 (M7 R 1087) Marcian, 450–457, AE4, uncertain mint; E 27.06/S 1.86 *97.01.

Uninv. 68 (M1 415, 420) Justin II, 565–578, penta., Constantinople; E 27.43/S 1.18 *96.98; E 27.06/S 1.86 *97.06.

Uninv. 68 (M1 1067) Constans II, 641–648, follis, Constantinople; E 26.76/S 1.16 *96.98.

METAL

In addition to the finds listed below 44 iron nails, 2 lumps of lead, 2 iron rods, an iron knife, and 3 copper alloy chain links were found.

Uninv. 73 (M8 516) Fig. 202 Copper alloy cauldron; straight sides slope inward, out-turned ledge rim, no handles, bottom missing, possibly deliberately cut out; hammered sheet metal; max. P.H. 0.20, diam. rim 0.333, W. rim 0.0037.
E 29.90/S 9.90 *96.45. Four similar cauldrons were found

outside of Shops, cf. esp. M62.52A:4456 in front of E 15, Figs. 507, 510.

POTTERY

None of the pottery was catalogued or saved. The fieldbook lists the following: 4 coarse red and 2 white-slipped amphorae, a combed ware bowl, one fine and 3 coarse redware bowls, a coarse redware basin, a coarse black ware cooking pot, and a coarse red unguentarium.

E 4 Figs. 207–210

EXCAVATIONS

1967 J. S. Crawford overburden to floor, completed in 1968, *BASOR* 191, 17; 199, 44. 1973 J. S. Crawford and T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

E 28.46–33.12. Floor at *96.30, packed earth.

N wall: L. 4.56, W. 0.85–1.44, H. 3.11. S wall of BE-B, fieldstone and ashlar corner pier of central bath block (*Sardis* R3, 96, Pier no. 86) at E 29.78–33.71.

E wall: L. 3.84, W. 0.71, H. 2.31. Niche: L. 0.86, W. 0.53, L. from S wall 1.05, from N wall 1.92. W. spread footings 0.23. Large fieldstones with brick lacing courses 3 bricks Th. (brick 0.29 x 0.114 x 0.045). Burned timber in the wall at S 1.44–1.47 *97.05.

S wall: L. 4.46, W. 0.61. H. 1.62. W. of E door 1.03. W. of W door 1.19. W. of spread footing 0.38. Piers at corners: W pier L. 0.93, W. 1.04, H. 1.06; E pier L. 0.99, W. 0.83, H. 1.62. Central pier between doors: L. 0.52, W. 0.56, H. 1.00. Reused marble blocks in piers project 0.35 x 0.07 into room on inside face. Wall to W door, large fieldstone with spoils, occasional brick to even surfaces. Central pier rough cut marble spoils with some fieldstone filling.

W wall: See E 3, E wall. Niche (L. 0.88, W. 0.47) 1.48 from S wall, 1.26 from N wall.

Interior: Bench along N wall: L. 3.36, W. 0.81, H. 0.36. NE corner platform for staircase: upper part L. 0.86, W. 1.91, H. 0.25; lower part, L. 1.06, W. 1.20, H. 0.64; total H. 0.89.

E 4 is better preserved than E 3, as are all the rest of the East Shops. E 4 had no first story windows, but finds of window glass at the proper levels make a second story window likely. E 4 is the first Shop in the eastern alignment for which we have remains of a stairway, located in the northeast corner.

The finds are inconclusive as to the use of E 4; perhaps it was a residence or even a wine shop. Among the metal finds were a copper alloy bowl (M67.14:7380) and three jugs: one large, handleless storage jug (M67.5:7299) and two jugs or flasks with handles (M67.29:7475, M67.15:7381 Figs. 211–214), one with its lid preserved in place and a second lid (M67.7:7313). These suggest wine or another beverage was stored and served.

Other finds included glass cullet and four little coarse pottery cups resembling crucibles (Figs. 218, 219). In the south west corner, a coarse red ware basin containing a jug and a large spout or funnel was found on the floor (Fig. 222). Stone pieces included several pointed, oval *skoutolosis* pieces made of green brecciated marble and a standing marble mortar (Fig. 222). Faunal remains consisted of two bones and two mussel shells.

BONE

BI68.2:7658 Fig. 215 Flute or handle with irregular cross-section, two flat sides and one curved side, incised X's and bars or Roman numerals on flattest side; P.L. 0.117, diam. 0.01–0.017, H. marks 0.012.
E 32.36/S 3.53 *96.63.
Catalogued as a flute but cf. *Saraçhane* I no. 388, handle.

COINS

C68.185 (M7 GR 401) Unidentifiable, 1st C. B.C.–1st C. A.D.; E 28.67/S 2.77 *96.78.

C68.184 (M7 GR 406) Unidentifiable, 1st–2nd C.; E 30.79/S 1.56 *96.85.

C68.203 (M7 GR 291) Marcus Aurelius Caesar, after 140, AE18, Sardis; E 32.00–33.00/S 2.00–3.00 *97.30.

C68.199 (M7 GR 165) Marcus Aurelius Caesar, 139–161, AE16, Magnesia ad Sipylum; E 32.00–33.00/S 2.00–5.00 *96.40–*96.30 to floor level.

C68.213A (M7 GR 296) Julia Domna, 212–217, AE22, Sardis; E 32.00–33.00/S 2.00–3.00 *96.51.

C68.12 (M7 GR 329) 253–260, AE30, Tralles; E 32.00–33.00/S 2.00–3.00 *97.30.

C67.25 (M7 R 93) Claudius Gothicus, 270–, posthumous coinage, Ant., uncertain mint; E 29.79/S 2.13 *97.04.

C68.185 (M7 R 135) Licinius, 313–314, AE follis, Heraclea; E 28.67/S 2.77 *96.78.

C68.193 (M7 R 192) Constantine I, 321–324, AE follis, Cyzicus; E 31.00–33.00/S 3.00–4.00 *96.86.

C68.208 (M7 R 263) Constantinopolis, 330–337, AE follis, uncertain mint; E 32.00–33.00/S 2.00–3.00 *97.30.

C67.249 (M7 R 459) Constans, 341–346, AE, Antioch; E 29.70–29.75/S 2.93–2.95 *97.08.

C67.284 (M7 R 336) Constantius II, 341–346, AE, Constantinople; E 30.13–30.15/S 3.08–3.10 *97.13.

C68.213 (M7 R 408) Constantius II, 341–346, AE, uncertain mint; E 32.00–33.00/S 2.00–3.00 *96.51.

C67.314 (M7 R 557) House of Constantine, 346–361, AE2 or 3, uncertain mint; E 30.27–30.29/S 3.83–3.85 *97.15.

C67.26 (M7 R 474) Constantius Gallus, 351–354, AE2, Heraclea; E 28.87/S 0.17 *97.18.

C68.209 (M7 R 322) Constantius II, 351–354, AE3, Thessalonica; E 32.00–33.00/S 2.00–3.00 *96.51.

C68.208 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint; E 32.00–33.00/S 2.00–3.00 *97.30.

C68.196 (M7 R 385) Constantius II, 355–361, AE4, Cyzicus; E 31.00–33.00/S 3.00–4.00 *96.86.

C68.196 (M7 R 1044) Valentinian I–III, 364–378, AE4, uncertain mint; E 31.00–33.00/S 3.00–4.00 *96.86.

C67.17 (M7 R 724) Theodosius I, 379–383, AE3, Constantinople; E 32.50–32.55/S 0.52–0.55 *97.90.

C68.193 (M7 R 667) Valentinian II, 383–387, AE4, Aquileia; E 31.00–33.00/S 3.00–4.00 *96.86.

C68.204 (M7 R 680) Valentinian II, 383–392, AE4, Constantinople; E 32.00–33.00/S 2.00–3.00 *97.30.

C68.196 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 31.00–33.00/S 3.00–4.00 *96.86.

C68.208 (M7 R 1055) Valentinian I–III, 383–404, AE2–4, uncertain mint; E 32.00–33.00/S 2.00–3.00 *97.30.

C67.244 (M7 R 919) Honorius, 395–408, AE3, uncertain mint; E 32.55–32.60/S 1.70–1.75 *97.57.

C68.198 (M7 R 1026) Valentinian I–III, 395–408, AE3, Cyzicus; E 32.00–33.00/S 2.00–5.00 *96.40–*96.30.

C68.213 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 32.00–33.00/S 2.00–3.00 *96.51.

C68.208 (M7 R 1062, 1063) Valentinian I–III, 402–408, AE3, uncertain mint; E 32.00–33.00/S 2.00–3.00 *97.30.

C68.213B (M7 R 1067) Valentinian I–III, 408–423, AE3, uncertain mint; E 32.00–33.00/S 2.00–3.00 *96.51.

C68.208 (M7 R 968) Theodosius II, 425–450, AE4, uncertain mint; E 32.00–33.00/S 2.00–3.00 *97.30;

C68.196 (M7 970) Theodosius II, 425–450, AE, uncertain mint; E 31.00–33.00/S 3.00–4.00 *96.86.

C68.196A (M7 R 1110) Zeno, 474–491, AE4, Constantinople; E 31.00–33.00/S 3.00–4.00 *96.86.

Uninv. 68 (M1 10, 13) Anastasius I, 498–518, penta., Constantinople; E 31.00–33.00/S 3.00–4.00 *97.70–*96.70, same locus at *96.86.

Uninv. 67 (M1 53) Justin I, 518–527, follis, Constantinople; E 30.45–30.48/S 1.91 *97.09.

Uninv. 68 (M1 593) Maurice, 583–602, half follis, Constantinople; E 30.79/S 2.58 *96.83.

Uninv. 68 (M1 727) Phocas, 602/603, follis, Constantinople; E 30.79/S 1.56 *96.85.

Uninv. 68 (M1 777) Phocas, 602–604, half follis, Thessalonica; E 32.00–33.00/S 2.00–5.50 *96.40–*96.30.

Uninv. 68 (M1 753) Phocas, 603–610, half follis, Constantinople; E 30.00–33.00/S 0–4.00 *96.86.

Uninv. 67, 68 (M1 757, 766) Phocas, 603–610, half folles, Constantinople; E 28.90–29.88/S 0.08–0.10 *97.04; E 30.00–33.00/S 0–4.00 *96.86.

Uninv. 67 (M1 793) Phocas, 603–610, follis, Nicomedia; E 28.62–28.65/S 2.63–2.65 *97.42.

Uninv. 67 (M1 802) Phocas, 604/605, follis, Nicomedia; E 28.13/S 2.13–2.15 *97.22.

Uninv. 68 (M1 821) Phocas, 606/607, follis, uncertain mint; E 29.69/S 1.14 *96.75.

Uninv. 68 (M1 807) Phocas, 607/608, follis, Cyzicus; E 29.69/S 1.14 *96.75.

Uninv. 67 (M1 832) Heraclius, 611/612, follis, Constantinople; E 28.56/S 2.31 *97.49.

Uninv. 68 (M1 894) Heraclius, 612–614, follis, Constantinople; E 29.86/S 0.87 *96.80.

Uninv. 68 (M1 922, 929) Heraclius, 612–616, folles, Constantinople; E 30.26/S 2.89 *96.74; E 29.60/S 1.94 *98.85.

Uninv. 68 (M1 941) Heraclius, 615/616, follis, Constantinople; E 32.63/S 3.69 *96.84.

Uninv. 68 (M1 1069) Constans II, 641–648, follis, Constantinople; E 28.47/S 0.56 *97.30.

Hoard GG, as designated by G. Bates (*Sardis* M1, p. 154), comprised 3 coins found stuck together at E 32.36/S 1.28 *97.02:

Uninv. 68 (M1 857) Heraclius, 612/613, follis, Constantinople.

Uninv. 68 (M1 901) Heraclius, 614/615, follis, Constantinople.

Uninv. 68 (M1 914) Heraclius, 615/616, follis, Constantinople.

Hoard HH, (*ibid*) comprised the 4 coins listed below found at E 32.36/S 1.24 *96.26:

Uninv. 68 (M1 866) Heraclius, 612/613, follis, Constantinople.

Uninv. 68 (M1 869, 870) Heraclius, 613/614, folles, Constantinople.

Uninv. 68 (M1 926) Heraclius, 612–616, follis, Constantinople.

GLASS

Bowl (?)

Uninv. 67 (M6 401) Fig. 216 Ring base, “bottle” green; diam. 0.052.

E 33.60/S 0–5.00 *98.00–*97.00.

Cullet

Uninv. 67 (M6 721) Dark green appearing black in reflected

light, ceramic remains adhere to this piece, found with plain cullet.

E 29.00–33.00/S 1.00–4.00 *98.05.

Goblet or lamp

Uninv. 67 (M6 369) Stem, 1 1/2 knobs P., light aquamarine; P.H. 0.02, diam. 0.018.

E 29.00–33.00/S 0–6.00 *97.90–*97.10.

Lamps

Uninv. 67 (M6 239) Two rim fragments of bowl lamp; pattern-molded with ribs turning to upper r.; est. diam. 0.13.

E 29.00–30.00/S 0–4.00 *98.00–*97.20, found with above.

Uninv. 67 (M6 266) Fig. 217 Handle, unusually large, part of vessel wall P., light aquamarine; H. 0.083, diam. handle 0.01, Th. wall 0.001.

E 34.00–35.50/S 0–4.00 *97.20–*96.00.

Window glass

Uninv. 67 (M6 685) Fragment found with others at E 30.50–33.00/S 0–5.00 *98.20–*97.20, 2nd story level.

METAL

Copper and Copper Alloy

Balance

Uninv. 67 (M8 454) Horiz. beam tapered at both ends with movable suspension device attached to the center, broken; max. P.L. 0.15, Th. 0.30.

E 29.79/S 2.13 *97.04, found with C67.25, *supra*.

For a complete example see M62.20:4211 in E 14, Fig. 468.

Bowl

M67.14:7380 (M8 496) Straight sides, flat base, lip formed by folding metal outward and pressing it toward side (to smooth edge after breaking?); max. P.H. 0.75, max. P. diam. 0.16.

E 29.57/S 2.05 *97.05.

BASOR 191, 17 n. 9.

Jugs

M67.15:7381 (M8 526) Figs. 211, 213 Trefoil-mouth, concave neck with raised rim around the center, cylindrical body with straight sides; iron handle attached beneath mouth and just below shoulder; hammered sheet metal in 2 pieces joined by horiz. toothed seams; max. H. 0.24, diam. base 0.16.

E 28.65/S 3.42 *97.47–*97.40, upper story debris.

Ibid.; *SPRT*, 165. Cf. M67.16:7382 in E 6, Fig. 285.

M67.29:7475 (M8 528) Figs. 212, 214 Similar to above but neck tapers to round mouth; lid P.; analyzed as unalloyed copper; H. 0.21, diam. rim ca. 0.40, base 0.11, H. lid ca. 0.27, diam. 0.45.

E 29.75/S 0.89–0.95 *97.29.

BASOR 191, 17 n. 9; *SPRT*, 165. Similar to *Yassı Ada* I no. M F 5.

M67.5:7299 (M8 523) Very misshapen, orig. cylindrical body and neck with straight rim, horiz. shoulder with shallow in-

cised lines and triangles; P.H. 0.30, H. neck 0.06, diam. base 0.34.

E 29.54/S 3.16 *96.97.

BASOR 191, 17, there called a brazier; *SPRT*, 165.

Lid

M67.7:7313 (M8 536) For jug, as above, with loop and chain fragment; analyzed as unalloyed copper; max. H. 0.62, diam. top 0.53.

E 30.50–30.55/S 1.86–1.90 *97.22.

BASOR 191, 17 and n. 9 as “bell.”

M68.13:7756 (M8 911) Flat band, one end a tightly rolled spiral; L. 0.055, diam. spiral 0.020.

E 33.54/S 5.56 *96.87, in front of Shop.

Iron

Objects included 30 nails, 2 doorpost rings, 4 lumps.

POTTERY

In addition to the pieces described below, records show that 2 redware amphorae, a cooking pot, and a pithos were found near the E wall at E 33.00/S 2.60 *96.48.

Basin

Uninv. 68 Fig. 222 Flat-bottomed basin, flat everted rim, incised wavy lines.

E 28.53–29.20/S 3.53 *96.86, on floor in SW corner containing a jug, *infra*, and a spout or funnel, next to a tall, stone mortar *infra*.

Bowl

Uninv. 67 With ring foot, ext. carination at rim, smoothly rounded int., upright rim set off with grooves and ridging, ring foot; coarse pink-buff fabric, roughly made; max. diam. 0.25.

E 28.00–30.00/S 0–7.00 *98.06–*97.16.

Cf. E 5, Fig. 250; E 12, Fig. 418.

Cups

Uninv. 67 Fig. 218 Small, handleless, flat string-cut bottom; wall curves inward toward rim, no lip; ext. ridged, int. smooth; well levigated pink-buff micaceous clay body with no inclusions; H. 0.055, diam. 0.06.

E 29.13–29.16/S 1.60–1.69 *97.57.

Uninv. 67 Fig. 219 As above but ext. not ridged, top of rim smoothed flat, foot more definitely set off so could be grasped with pinchers; blackened by heating; H. 0.06, diam. 0.085.

E 30.00–36.00/S 0–6.00 *98.15–*97.40.

Uninv. 67 Identical to above.

E 31.00–33.10/S 0–4.00 *98.00–*97.00.

Jugs

Uninv. 68 Fig. 220 Neck, ridged on ext., rises straight from shoulder to wide mouth, round body smooth on ext. and int.,

flat bottom; one pulled handle attached at lip and shoulder; coarse pink-buff clay with crushed schist and limestone temper, uniform cream slip over ext.; H. 0.18, ext. diam. mouth 0.102; max. diam. body 0.142.

E 28.55/S 4.50 *96.86 found in basin *supra*.

Similar to *Agora V* nos. N1, N11.

Uninv. 68 Ca. 1/2 P., ovoid, ridged body, out-turned, flat rim, one handle P. joins at rim and shoulder, flat bottom; red clay body, self slip; H. ca. 0.12.

E 30.00–32.00/S 0–4.00 *96.86.

Pithos

Uninv. 67 Fragment of out-turned rim and shoulder; 2 rows of gouged dots below rim, under them a raised basket pattern, groove divides it from a wavy line with gouged dots; pink-buff micaceous clay, int. and ext. smoothed with self-slip.

E 28.00–30.00/S 0–5.00 *98.06–*97.15.

Sherd from closed vessel

P68.46:7661 Fig. 221 Wall fragment; red brick-like clay body with little mica, self-slip on int. and ext.; max. dim. 0.08, Th. 0.009.

Stamped before firing: OHC, fragmentary, broken at l.; H. letters 0.003–0.007.

E 30.00–33.00/S 0–4.00 *96.86.

STONE

Uninv. 68 Fig. 222 Standing mortar with hollow grinding bowl in top; marble; H. 0.505, diam. top int. 0.27, ext. 0.355.

E 28.53–29.20/S 3.53 *96.86.

E 5 Figs. 223–229.

EXCAVATIONS

1967 J. S. Crawford overburden through 2nd story, *BASOR* 191, 17–20 “Shop of the Lion”; completed 1968, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52. For discussion as a residence, *SPRT* 165.

E 33.92–38.84. Floor at *96.56, schist slabs and packed earth. *N wall*: L. 4.51, W. 1.19, H. 3.80. S wall of passage S of Syn apse (Seager, “Building History,” 427, fig. 2), large fieldstones with marble spoils. One 3-brick lacing course. Much stone hacked out, probably to make a storage area.

E wall: L. 3.80, W. 0.71, H. 2.31. Spread footings 0.10. Large fieldstones, one 3-brick lacing course. Above, more fieldstone with a course of schist slabs at top; 2 putlog holes.

S wall: L. 4.46, W. 0.68, H. 2.18. W. of door 1.21. Distance from door to E wall 1.59, from door to W wall 1.36. Spread footings 0.40. Pier (0.51 x 0.30) at E corner projects into room. E section: reused marble blocks and some fieldstones, no brick. Cubbyhole niche in E pier. W section: fieldstone with one 3-brick lacing course. There is a makeshift attempt to connect the S wall to the W wall by a cutback masonry pier. It is cut away where it would normally project into the room, and a curved, uneven surface results.

W wall: L. 4.13, W. 0.71, H. 2.31. Bottom section large fieldstones with part of a ca. 3rd C. Corinthian capital. Above this is a brick lacing course one brick thick, rather than the usual 3, another section of fieldstones, with piece of the same Corinthian capital, a 3-brick lacing course, interrupted by the brick niche infill of E 4. The top layer consists of fieldstones and a 3-brick lacing course. One putlog hole P. This face of the wall is so different from E 4's that it may have been secondary construction to separate E 4 from E 5.

Interior: Retaining wall at main drain: L. 4.51, W. 0.51. Shelf along E section of S wall 1.15 x 0.59 x 0.51. Brick platform for stairway containing toilet in NE corner 1.15 x 1.01 x 0.91. A schist slab arch is over the drain at the back of the Shop. Stone bases E of doorway near N and S walls could have supported wooden uprights for second story.

E 5 is the richest Shop excavated. The metal finds from the second story of E 5 consisted of an iron pounder (M69.1:7917, Figs. 237, 240), an iron dagger (Fig. 239), and a remarkable brass lamp in the shape of a lion (M67.4:7291, Figs. 232, 233). The brass lion-lamp is one of the most attractive and interesting pieces found at Sardis. The lion walks to the right and the shell in his mouth held the wick. The lamp has two suspension loops and a bracket on the lion's left flank. The author believes on the basis of comparisons to marble and bronze statuettes, terracottas, coins and a silver group in the Museum of Fine Arts, Boston (1972.45), that the lion once carried a statuette of Cybele on its back.²¹

From the lower story came an iron sword (M68.23:7889, Figs. 237, 242), and a copper alloy steelyard with lead weight (M69.3:7919, Figs. 235-237), a clasp (M68.25:7901A-C, Fig. 234), a bowl (M68.14:7757, Fig. 231) and a jug with an iron handle. Outside the Shop were found two cauldrons (Fig. 225) and a large, handleless jug.

The most beautiful pottery flask (P68.165:7872, Figs. 255-257) found in the Shops came from the lower story. It has relief decoration showing a Latin cross on one side, flanked by two rabbits eating leaves with crosses on them. The other side shows two geese eating a cluster of grapes. The leaves and grapes probably symbolize the wafer and wine of the Eucharist, while the rabbits and the geese personify the virtues of humility and vigilance, respectively. A second, more modest flask (P68.174:7885, Figs. 258, 259) decorated with a pattern of concentric circles was in the upper story. A

fragment of an ampulla decorated with a cross was also found, imbedded in the earth floor.

Other pottery finds from the second story included three coarse red amphorae with knobbed feet, a white slipped amphora, an amphora lid, a flask and basin fragments. From the lower story came a buffware bowl with pouring lip (P67.7:7298, Fig. 249), a combed ware bowl and basin, a coarse redware tray, cup, pithos, lid and combed jug (P68.175:7886, Fig. 261), two coarse black cooking pots and an amphora (P68.183:7902, Fig. 244).

In E 5, three Byzantine coins were found in the second story and three in the first. The Byzantine silver hexagram (M1 827) found in E 5 appears to be intrusive.

An inscription crudely carved on a marble plaque (IN68.14, Fig. 230) reads "kyrie boetheson ton. . . ." or "Lord help. . . ." Similar invocations, generally common in this era, occur among the graffiti in the niche in the outside face of the NW corner of the apse of the Synagogue.²²

The personal nature of some of the finds suggest this Shop also served as the residence of its owner, certainly a Christian. That he may have been a dyer is implied by the steelyard, basins, and other vessels. This premise would be much strengthened if the handleless jug and two cauldrons in front of E 5 are really associated with this Shop and not E 6, which, judging from the finds, definitely was a dyeshop.

The residue in bowl P67.7:7298 (*infra*) seems to be associated with melting gold or electrum (see Appendix 2). While this might be evidence of jewelry making, other confirmation of this activity is lacking.

ARCHITECTURAL FRAGMENT

BS 73.20A-C Column shaft, complete in 3 fragments; pink and white brecciated marble; restored L. 2.79, diam. 0.37. E 38.00/S 6.50 *97.50, in the Colonnade.

COINS

C67.323, C68.300 (M7 R 93, 94) Claudius Gothicus, 270-posthumous coinage, Ant., uncertain mint; E 38.02/S 2.93 *97.46; E 37.16/S 3.35 *97.80.

C68.282 (M7 R 205) Constantine I, 330-336, AE follis, uncertain mint; E 35.36/S 3.71 *96.12.

21. *BASOR* 191, 17-18; Crawford, "Lamp" with lit. For lamp in form of panther, S. Boucher, *Bronzes romaines figurés du Musée des Beaux-Arts de Lyon* (Lyon 1973) no. 295.

22. Cf. the graffiti written on the plaster of a blocked passage at the NW corner of the Syn. *Sardis* M4, p. 41, n. 109, fig. 10; *AASOR* 43, 67-68.

C67.247 (M7 R 434) Constans, 341–346, AE, Heraclea; E 34.15/S 3.78 *97.59.

C68.288 (M7 R 557) House of Constantine, 346–361, AE2 or 3, uncertain mint; E 35.00–36.00/S 0–3.00 *96.10.

C68.269 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint; E 34.15/S 1.59 *96.41.

C68.298 (M7 R 590) Valentinian I, 364–375, AE3, uncertain mint; E 37.01/S 3.53 *96.51.

C67.313 (M7 R 995) Valentinian I–III, 364–378, AE3, Constantinople; E 36.33–36.35/S 0.47 *97.07.

C68.306 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; E 37.00–37.50/S 1.11–2.00 *96.03.

C68.303 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 36.96/S 3.18 *96.12.

C68.262 (M7 R 1063) Valentinian I–III, 402–408, AE3, uncertain mint; E 33.80–39.10/S 1.00–1.50 *96.47.

C68.262 (M7 R 927) Honorius, 408–423, AE3, uncertain mint; E 33.80–39.10/S 1.00–1.50 *96.47.

C67.245 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; E 34.26–34.30/S 3.00–3.17 *97.47.

C68.262 (M7 R 1087, 1088) Marcian, 450–457, AE4, uncertain mint; E 33.80–39.10/S 1.00–1.50 *96.47.

C68.233, C68.270 (M7 R 1100, 1101) Leo, 457–474, AE4, uncertain mint; E 35.70/S 4.70 *96.85; E 33.80–35.00/S 0–1.00 *96.40.

C68.281, C67.346 (M7 R 1105, 1107) Zeno, 474–491, AE4, Constantinople; E 35.00–36.00/S 0–2.00 *96.46–*96.36; E 37.93/S 1.17 *97.22.

Uninv. 67 (M1 26) Anastasius I, 481–518, nummus, Constantinople; E 36.00–36.24/S 0 *97.02, in bowl P67.7:7298 in wall.

Uninv. 68 (M1 307) Justin I or Justinian I, 518–538, follis, Constantinople; E 34.17/S 3.25 *95.44.

Uninv. 67 (M1 716) Justin II–Maurice, 565–602, half follis, uncertain mint; E 36.67/S 4.02 *97.46.

Uninv. 68 (M1 996) Heraclius, 612–614, follis, uncertain mint; E 35.15/S 3.90 *96.77.

Uninv. 68 (M1 879) Heraclius, 613/614, follis, Constantinople; E 34.68/S 1.95 *96.48.

Uninv. 68 (M1 827) Heraclius, 626–641, silver hexagram, Constantinople; E 36.25/S 4.06 *96.90.

Uninv. 67 (M1 1098) Constans II, 659–664, follis, Constantinople; E 35.85/S 1.53–1.55 *97.24.

GLASS

Uninv. 59 (M6 516) Neck of bottle, with globular body; relatively thick glass, light aquamarine; P.H. ca. 0.045. E 35.00–40.00/S 4.00 *98.50–*97.00.

Uninv. 67 (M6 717) Cullet, from crucible; dark green, appearing black. E 35.00–38.00/S 0–4.00 *98.23–*97.50.

Uninv. 67 (M6 594) Vessel, possibly bowl, 1/6 P., slightly flaring wall, folded rim; light aquamarine; P.H. 0.045, est. diam. 0.09, Th. 0.001. E 34.00–36.00/S 3.00–5.00 *97.20–*97.00.

INSCRIPTION

IN68.14 Fig. 230 KYPIE BOHØHCON TØN; 2 lines on white polished marble plaque, crudely carved, with dots in spaces within letters, possibly reused revetment slab; L. 0.18, H. 0.21, Th. 0.0015, H. of letters 0.025. E 36.30/S 0.77 *96.89.

METAL

Copper Alloy

M68.14:7757 (M8 492) Fig. 231 Bowl, flat base, slightly convex sides made of single sheet of metal joined with toothed seam, rim folded inward and flattened; H. 0.115, diam. rim 0.14, diam. base 0.13. E 35.07/S 3.90 *96.77.

Uninv. 73 Buckle, plain round plate attached by 2 flanges to round buckle. E 35.20/S 0 *98.20.

Cf. M58.36:392 in W 3, Figs. 116, 117.

Uninv. 73 (M8 517) Fig. 225 Cauldron, misshapen, originally similar to E 3, Fig. 202; apparently raised from a single sheet of metal; H. ca. 0.24, diam. base 0.35–0.40, diam. rim 0.52–0.57. E 38.20/S 6.96 *96.50, on Colonnade floor.

Uninv. 73 (M8 518) Fig. 225 Cauldron, low disk base and rim from straight sided vessel, probably not from the same piece; max. P.W. base ca. 0.195, diam. disk 0.115. Found with above and jug *infra*.

M68.25:7901 (M8 416) Fig. 234 Clasp, for small box or casket (?), in 4 hinged segments, upper surface incised with lines and crosses; max. P.L. 0.156, L. 0.124, W. 0.007–0.0075. E 37.00–38.34/S 0–5.00 *96.50–*96.10.

Uninv. 73 (M8 524) Jug, badly dented and corroded; max. P.H. 0.23, diam. rim ca. 0.12, diam. base 0.37. E 37.73/S 7.06 *96.50, found on Colonnade floor with cauldrons, *supra*.

Very similar to M67.15:7381 in E 4, Figs. 211, 213.

Uninv. 67 (M8 532) As above, iron handle P.; max. P.H. 0.239, max. diam. 0.0179, diam. base 0.132. E 35.95/S 2.24 *96.64.

M67.4:7291 (M8 618) Figs. 232, 233 Lamp in shape of lion walking r.; deeply incised mane, eyes, toes; wide open mouth holds shell for spout, lid over pour hole on top of head; in front of lid is loop for suspension with corresponding hole in tail; tail connected to proper r. leg by bar; crude patches fill hole in back, horiz. mount on l. flank; analyzed as brass; max. L. 0.164, H. 0.083, W. 0.04.

E 36.45–36.50/S 0.91 *97.19, from upper story.

BASOR 191, 18, fig. 19; SPRT 165, fig. 245; Crawford, "Lamp"; E. Gazda, G. M. A. Hanfmann, "Ancient Bronzes: Decline, Survival, Revival," in S. Doeringer, et al., *Art and Technology: A Symposium on Classical Bronzes* (Cambridge, Mass. 1970) 245–270.

M69.3:7919A–C=IN69.17 (M8 437) Figs. 235, 236 Steelyard with weight, chain, 6 hooks, beam with 2 suspension hooks, graduated on 2 sides with incised lines, dots, and dotted letters; L. beam 0.39, W. 0.013–0.009, Th. 0.005, P.H. weight 0.071, diam. base ca. 0.07.

E 37.65/S 1.77 *96.75.

Cf. M73.1:8224 in E 3, Fig. 13; M62.14:4204 also with dotted letters, in E 14, Fig. 476. For steelyard with inscription cf. *Yassi Ada* I no. B I; *Anat. Civ.* II no. C103.

Iron

M68.22:7843 (M8 130) Fig. 238 Axe blade, flat with wide splayed edge, 1/2 socket missing; max. P.L. 0.119, W. edge 0.084.

E 33.80–35.80/S 0–5.00 *96.44–*96.20.

Cf. *Yassi Ada* I no. Fe 10, a double axe with similar blade.

Uninv. 68 (M8 4) Fig. 239 Dagger, flat tapering blade with sloping shoulders, probably rectangular haft with flat section; max. P.L. 0.16, W. at shoulders 0.025, W. tang 0.013.

E 36.50–38.50/S 0–2.50 *97.30–*96.50.

M69.1:7917 (M8 169) Fig. 240 Pounder (?), wide, heavy head, flat underside narrows to a tang for insertion (in a handle?); max. P. L. 0.188, max. W. 0.045.

E 37.73/S 3.60 *96.75.

Uninv. 68 (M8 170) Fig. 241 Pounder (?), trapezoidal head, tang longer than above; P.L. 0.02, max. W. 0.049.

E 33.60/S 0–5.00 *98.00–*97.00.

M69.2:7918 (M8 125) Sickle, curved tapering blade, one end straight (a tang?), fragmentary; max. P.L. 0.255, max. W. 0.04.

E 37.73/S 3.60 *96.56.

M68.23:7889 (M8 5) Fig. 242 Sword, complete in 6 joining pieces; long, narrow, flat blade tapers to a point, haft with flat section; traces of charred wood adhered to surface; max. P.L. 0.765, max. W. 0.054, W. haft 0.021.

E 38.30/S 3.50 *96.75.

SPRT, 165; cf. sword in E 14, Fig. 487.

POTTERY

Amphorae

Uninv. 67 Fig. 243 Piriform with knobbed foot, one handle,

complete but for top of neck; orange body, unslipped ext. shows turn marks but no ridging, int. lined with mastic; P.H. 0.48, max. diam. 0.229.

E 36.80–37.10/S 0–0.35 *97.01.

Cf. *Yassi Ada* I no. P 75.

Uninv. 68 Fig. 245 Piriform, scar for one handle (missing), complete but for top of neck and end of toe; ext. ridged, int. smooth; charred substance at int. of neck; pink-buff body with much mica, some limestone inclusions and blowouts; cream slip turned gray with heat, cloth or sponge marks can be seen over the ridges; P.H. 0.35, max. diam. of body 0.175.

E 34.40/S 2.24 *96.91.

P68.183:7902 Fig. 244 Neck and shoulder with handle P.; buff clay body, orange slip; P.H. 0.115, diam. at shoulder 0.173.

Graffito: on shoulder N K above, K below 2 incised lines; H. upper letters 0.015, H. lower letter 0.027.

E 37.00–38.34/S 0–5.00 *96.50–*96.00.

Uninv. 68 Fig. 246 Ca. 2/3 of body with handle P.; wide mouth with everted rim and ridge below; ridged on ext. and int. below shoulder; gray-buff, no slip or coating; H. 0.386, max. diam. 0.308.

Graffito: on shoulder, crudely executed monogram beginning with Π (not drawn).

E 33.80–35.80/S 0–5.00 *96.47–*96.20, with other vessels filled with white ash.

Ampulla

Uninv. 68 Mold-made, only center part P., cross with loops in corners, had dots on the arms (only 4 P.); pink micaceous clay, worn slip; P.H. ca. 0.045.

E 37.82/S 2.00–12.00 *96.31, below floor level.

Basins

Uninv. 67 Fig. 247 Flat bottom, straight sides, out-turned, rounded rim with 6 deep grooves, on ext. wall 5 grooves above four wavy lines. Made on stone tournette, cream slip on ext., 5 grooves above 4 combed wavy lines; H. 0.107, diam. bottom 0.216.

E 35.00–36.00/S 0–2.00 *97.20.

Uninv. 67 As above, wavy line over grooves on ext; H. 0.098, diam. bottom 0.203.

E 37.00–38.00/S 3.00–4.00 *97.10–*97.00.

Uninv. 67 As above; H. 0.124, diam. bottom 0.206.

E 37.00–38.00/S 3.00–4.00 *99.00–*97.10.

Uninv. 67 Fragment ca. 1/4 wall, out-turned rounded rim; brick-like clay, soaked, many blowouts; H. 0.132, est. diam. 0.30.

E 36.00/S 0.35 *97.61.

Bowls

P67.6:7294 Fig. 248 Sharply ridged straight wall slants outward, turns inward sharply to flat bottom, smoothed rim, ring

foot; red micaceous clay with slip on int. and ext.; H. 0.04, diam. 0.12.

E 34.00–35.40/S 0–4.00 *97.20–*96.00.

P67.7:7298 Fig. 249 Out-turned convex rim, curved sides, flat bottom; wide channel formed in rim by removing inner lip, but no protruding spout, flat bottom; buff unslipped clay body with many dark inclusions; contains glassy slag (showing some deterioration) that overlies powdery red residue (see Appendix 2, BS TS 6 and 7); H. 0.09, diam. 0.25.

E 36.00–36.24/S 0 *97.00, in niche in S wall, contained coin of Anastasius I (M1 26) *supra*.

Cf. a mid 1st C. mortar from Athens, *Agora V* no. M10. An identical bowl (P58.519:952) found at HoB has a proper spout, suggesting that this one was misformed and possibly used as a crucible for that reason.

Uninv. 67 Fig. 250 Shallow curved sides, ring foot, upright rim with 2 carinations below; ridged on ext., smooth on int.; unslipped red clay body; H. 0.28, est. diam. 0.14.

E 33.90–36.00/S 0–6.00 *97.66–*96.50, with body of jar or amphora, Fig. 229.

Uninv. 67 Fig. 251 As above but larger; slip on int., not discernible on ext.; stained with mottled rose-blue-yellow, residue is bubbled in some spots; H. 0.075, diam. 0.263.

E 36.80–37.10/S 0–5.00 *97.01.

Uninv. 68 Fragment of ca. 3/4 bowl as above, foot missing; residue of powder constituted primarily of sulfur and iron adheres tightly to int.; swirl lines show it had been stirred or swizzled before pouring (see Appendix 2, BS TS 2).

E 33.80–36.50/S 0–5.00 *96.46–*96.14.

Uninv. 67 Fig. 252 Ca. 1/4 P., almost straight, slanted sides, plain, inturned rim, low ring foot; very micaceous clay with few inclusions, red slip on int., some blowouts on ext.; H. 0.074, diam. 0.29.

E 36.80–37.10/S 0–0.35 *97.01.

Cf. Hayes, LRC Form 3 no. 32.

Uninv. 68 Fig. 253 Shallow, curved wall, ring foot, up-turned rim with groove around top; red body, slipped on int.; ext. surface obscured by repair, may have been unslipped; H. 0.07, diam. 0.27.

E 37.00–38.34/S 0–5.00 *96.50–*96.00.

Ibid.

Uninv. 67 Fragment with horiz. ledge rim; red slip; est. diam. 0.16.

E 35.00–36.00/S 0–3.00 *97.40–*97.00.

Cup

Uninv. 68 Fig. 254 Handleless, flat, string-cut bottom; wall curves inward toward rim, no lip; ext. ridged, int. smooth; pink-buff micaceous body, well levigated with no inclusions, no slip; H. 0.035, diam. 0.06.

E 36.50/S 0–2.50 *97.00–*96.50.

Flasks

P68.174:7885 Figs. 258, 259 Two handles; straight neck

with flange just above handle joins; rounded, profiled sides with grooves around concavity with button in center; back is flatter but otherwise the same; micaceous pink-buff clay body, no slip; H. 0.235, diam. body 0.14, D. sides 0.065.

E 36.83/S 3.30 *97.22.

SPRT 166.

P68.165:7872 Figs. 255–257 Mold-made, short neck with 2 handles attached below lip; completely restored from joining fragments but for lip and filled area in cross and at base of neck; sides round, slightly convex, decorated with medallions. Side A: a large cross with hares on either side reaching up to eat branches, framed with rinceaux. Side B: two facing geese with beaks raised to eat a single bunch of grapes, framed with zig-zags; pink clay with fine red slip; P.H. 0.24, diam. body 0.19, D. sides 0.055.

E 37.00–37.50/S 1.71 *96.63.

BASOR 199, 44, fig. 37; *Letters*, 250, fig. 185. *SPRT* 165f., fig. 244; Hanfmann, "Donkey" 423 (there incorrectly given as from W 1); *Sardis: Twenty-seven Years* 76, fig. 51.

Jugs

P68.176:7887 Fig. 260 Nicely thrown, ovoid body, narrow neck, flaring mouth ridged on ext. above sharp flange, flat bottom with no cut marks; 6 grooves below neck, ridge around lower body below handle; pulled handle finished with ridge in center joins neck below flange and body below shoulder; fine pink-buff micaceous clay, probably local, micaceous slip with gold sheen; H. 0.205, max. diam. body 0.15.

E 38.30/S 3.50 *96.80.

P68.175:7886 Fig. 261 Neck flares to rimless rounded lip, crookedly thrown, flat bottom; one plain, pulled handle attached 0.015 below lip and at max. diam of body; 2 wavy lines unevenly incised around neck, one at midpoint; pink-buff micaceous clay with limestone inclusions, soaked and abraded; H. 0.165, max. diam. body 0.12.

E 37.80/S 2.10 *96.75.

Uninv. 67 Concave base of jug or other closed vessel, cone of clay in center of ext., slight swirl on int.; diam. base. 0.103.

E 35.00–36.00/S 0–3.00 *97.40–*97.00.

Cf. *Yassi Ada* I no. P27, compared to an unpubl. 7th C. example from Emporio on Chios.

Lid

Uninv. 67 Fig. 262 Concave with recessed knob, slightly concave ledge rim, designed to fit into wide mouth of vessel; pink-buff micaceous body with some large (ca. 5 mm.) blowouts, no slip; turned, knob made from same piece of clay, imprints of straw on underside; H. 0.045, diam. 0.173.

E 35.00–36.00/S 0–3.00 *97.40–*97.00.

Cf. Hayes, "Sarāḫane" 206–207, no. 31.

POTTERY LAMPS

L67.5:7295 Fig. 263 Mold-made, rectangular with 4 nozzles; raised, flat discus, central pour hole; pattern of incised

circles; 3 pierced vertical loops for suspension; pink-buff micaceous clay, red slip; L. 0.11, H. 0.055.
E 34.00-35.50/S 0-4.00 *97.20-96.00.

L67.6:7296 Fig. 264 Mold-made, pear-shaped body, no discus, large pour hole, horiz. ridged handle; L. 0.08, H. 0.035.
E 34.00-35.50/S 0-4.00 *97.20-96.00.

L68.19:7891 Fig. 265 Mold-made, round, solid crescent shaped handle, top slightly concave; recessed central pour hole with rim, 2 ridges around it, a 3rd forms a channel to nozzle which is punched into top surface, small hole on either side; concave base with incised circumferential line; buff clay, self-slip; L. 0.077, H. 0.045.
E 37.73/S 3.60 *96.56.

Uninv. 73 As above, 1/2 P.
E 35.20/S 0 *98.20

STONE

S68.37:7890 Fig. 266 Round mortar with flat rim and base, 3 knob handles, round spout with pour channel; H. 0.065, diam. int. rim 0.10, diam. base 0.07.
E 37.30/S 2.87 *96.80.

E 6 and E 7 Figs. 32, 33, 267-280

EXCAVATIONS

E 6: 1967 J. S. Crawford overburden to floor, *BASOR* 191, 18-20 "Shop of the Authepsa." 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52. E 7: 1967 J. S. Crawford, overburden to floor, *BASOR* 191, 20-21 "Shop of the Fıncal." 1973 J. S. Crawford, T. Yalçınkaya, final excavation and cleaning. Discussed as paint/dye Shop *SPRT*, 164.

E 6

E 39.44-43.80. Floor at *96.58, fitted marble slabs.
N wall: L. 4.35, W. 1.19, H. 2.70. S wall of Syn MH (Seager, "Building History," 427) large fieldstones with 2 brick lacing courses of 4 bricks each.
E wall: L. 4.00, W. 0.73, H. 1.59. Doorway: W. 0.93, distance to S wall 0.90, to N wall 2.15. From N wall to doorway lowest courses are small fieldstones. Above these are brick lacing courses and more fieldstone. Two putlog holes 1.22 above floor level. From doorway to S wall construction similar, but with repair to SE corner where arch and steps join wall.
S wall: L. 4.45, W. 0.87, H. 1.43. Ashlar pier (L. 1.11, W. 1.77, H. 1.43) projects into SW corner of Shop 0.35 x 0.31 and is shared with SE corner of E 5. Large fieldstones at base of wall; decreasing stone size in upper portions. Brick used throughout, but not regularly coursed. Putlog holes. Console with reused volute in SW pier; removed and taken to Expedition Compound.
W wall: L. 3.80, W. 0.90, H. 1.39. The best constructed wall in the Byzantine Shops, perhaps to support extra weight in

upper story. Lower courses large fieldstones. One brick lacing course, 3 bricks thick. Facing cement scored with point of trowel, perhaps to receive plaster for frescoes belonging to an earlier phase. Three putlog holes preserved 0.81 above floor, 0.12 x 0.12 x 0.12. Strongly bonded to S wall pier.

Interior: Brick staircase, L. 1.97, H. of steps 0.11, constructed over brick relieving arch, which has a storage area beneath, in SE corner. There are 2 columns; the W one (diam. 0.27) with Doric capital, a duplicate of which serves as a base (0.362 x 0.362 x 0.14). Distance of W column from N wall 2.27, from W wall 1.14. E column (diam. 0.21) has neither base or capital. Distance of E column from N wall 2.27, from E wall 1.78. Bench (0.64 x 1.36) on W wall has fieldstone base with slabs on top. U-shaped tile structure in NW corner. Toilet seat in NE corner (0.47 x 0.52); a brick vertical support on either side of drain could have supported a seat or vessels while being drained.

E 7

E 44.35-50.08. Floor at *96.20, packed earth, stone slabs between S and W doors.

N wall: L. 4.62, W. 1.10, H. 2.03. Niche: L. 2.53, W. 0.57, H. 0.96, H. from floor level 1.08, distance from W wall 0.46, from E wall 1.65. S wall of Syn MH (Seager, "Building History" 427) large fieldstones with 2 4-brick lacing courses. Some plaster P.

E wall: L. 3.83, W. 0.79, H. 1.62. Small fieldstones with brick lacing courses. Infilled door (W. 0.78) primarily brick; distance from infill to N wall 0.57, to S wall 2.48.

S wall: L. 4.61, W. 0.92, H. 1.92. S doorway: W. 1.55, distance to W wall, 0.90, to E wall, 1.83. Stub of wall at SE corner made of fieldstone and brick. Pier at E side of door: L. 0.63, W. 0.87, H. 1.51. Niche: L. 0.89, W. 0.41, Th. of back wall 0.42. The 2 lower courses consist of finely cut marble spoils. Upper part brick and small fieldstones and leans slightly E. E of the pier is a window, which was later blocked and turned into a niche and reduced in W. by infills. The infill on the W is of brick (W. 0.21); the one on the E is mortared fieldstones (W. 0.17). Int. niche plastered.
W wall: See E 6, E wall.

Interior: The floor, unlike the nonabsorbent, wear-resistant marble slabs found in E 6, is comprised of packed earth except where reinforced by a large, rectangular stone slab laid diagonally between the S and W doors. Fragments of stucco, vermilion on a white background, were found in the SW corner.

Shops E 6, E 7, and, probably, E 8 formed a unit. E 6 has no entrance except through E 7, and there is a door (blocked in the last phase) from E 7 to E 8. The objects discovered in E 6, and as well as those found in the other two Shops, indicate that the Shops were engaged in the manufacture of dyes, paints or both. The large number of cups and the *authepsa* might have been used in a hot drink business run on the side, or may simply

have been for the use of the workmen.²³ In contrast with most of the other Shops, coins in E 6 were few.

Although the archaeological evidence yields no precise information about the owner or workers of E 6, the Shop was probably a Jewish one, owing to its interconnections with E 7, where two menorahs were carved on the inside of the W door jamb of the S door (Fig. 279) and two graffiti mentioning "Jacob" were found (see P67.16:7339, Fig. 311, P67.18:7341, Fig. 312). The branch and graffito ("Agumiou") on a closed vessel fragment (P67.17:7340, Fig. 291) found in E 6 are enigmatic.²⁴

The discovery of window glass and the leading necessary to hold it in place suggests a window in the second story of E 6; there are no windows preserved in the first story. The over 50 pounds of window glass found in the upper story at *97.48–*96.90 may indicate cooperation with E 12 and E 13, which specialized in glassware.²⁵

A thick layer of red-orange material (perhaps stored in sacks now decayed) was found in the upper story deposit of E 6. It may have been paint or a mordant used in dyeing.²⁶ The columns in the lower story were probably needed to support the unusually heavy weight of this material.

A great quantity of coarse redware utilitarian pottery was found in the lower story of E 6: at least thirty-one cups, three bowls, five lids, two pithoi, an amphora, a jug or amphora (P67.17:7340, Fig. 291), a basin, and a jug. From the lower story also came a number of metal implements which could be associated with dyeing and dye production, including an iron trowel (Fig. 274) left in a putlog hole, a hammer-adze, a knife on the floor, a strainer (M67.38:7587, Figs. 276, 286) on its side against the west wall, and a bowl filled with ash in the northeast corner (Fig. 269). A censer (M67.39:7588, Fig. 275) which had probably hung from a beam was found at the foot of the stairs. A lock plate, a lock and key and a flask lid (M67.18–20:7397–9, Fig. 288), all made of iron, were found together at the foot of the stairs and probably came from a burned chest or cabinet which may have been decorated by a thin metal plate with two pins for attachment. The plate was found broken in three pieces just west of the door to E 7 and may, on the other hand, have been attached to the door itself. A

total of forty-five iron nails was found, of which twenty were large-headed (probably from furniture) and twenty-five small-headed (probably architectural).

Against the north wall of E 6 a very large marble mortar was discovered. It had cracked during the destruction of the Shops, but has since been repaired and remains in the center of the Shop. In it were lumps of sulfur. There were four smaller marble mortars, two of which were made from fragments of small columns (S67.9:7320, S67.11:7337, S67.6A-B:7316, Figs. 298–300) and two pestles, (S67.7–8:7318–19, Figs. 301, 302). Near the stairway was a piece of Egyptian blue frit. Terracotta pipes placed on end were used to store materials; one of these was full of sulfur, another contained the same red-orange material found in the upper story. A handsome bronze brooch with inlaid decoration was hidden in a chink in the W wall (J73.2:8222, Fig. 283).

The finds from the upper story of E 7 were discovered in a stratum of red-orange material similar to that in E 6. Two lumps of sulfur were found in the lower story. There were two basalt mortars with pouring lips and one pestle (S67.13:7351, S67.15:7374, Figs. 280, 309, 310, 316) in the rear center of the first story deposit and three white marble mortars and a bowl. Two steelyards and weights were found in the lower story along the E wall (M67.31:7481, Fig. 306). A small balance was found in fragments and a similar one was found outside the Shop in the Colonnade between E 7 and E 8.

Metal finds from the upper story of E 7 included two iron locks, three campstool frames (Fig. 307), a copper alloy finial (M67.8:7317, Fig. 305),²⁷ and a steelyard and weight (M67.26:7472).

E 7's function seems to have been paint and dye production. The steelyards suggest materials were being weighed there. The large number of coarse red cups is similar to E 6. As in E 6, coins were comparatively few.

The two Shops, E 6 and E 7, seem to have been owned by a Jew named Jacob.²⁸ The name occurs in two graffiti from E 7, both on amphora fragments (P67.16:7339, P67.18:7341, Figs. 311, 312). Two menorahs carved on the interior of the S wall near the W jamb of the door give evidence that the occupants were Jewish. It is impossible to say positively whether or not

23. *BASOR* 191, 19.

24. *Ibid.* 20.

25. *Sardis* M6, 92; *BASOR* 191, 20.

26. Rosenfeld 182–184. See *supra* Ch. II.

27. *BASOR* 191, 20–21.

28. *Ibid.* See *infra* nn. 40, 41. The Greek inscriptions from the Syn. will be published by J. Kroll in a forthcoming volume in this series.

this Jacob is identical with the owner of E 14 *infra*, who styles himself "the Elder" and "of the Synagogue."²⁹

FINDS FROM E 6

COINS

C67.425 (M7 GR 399) Hellenistic, unidentifiable; E 40.49/S 1.53 *96.90.

C67.424 (M7 R 745) Theodosius I, 383–392, AE4, Nicomedia; E 40.23/S 1.31 *96.97.

C67.423 (M7 R 759) Theodosius I, 383–395, AE4, Cyzicus; E 42.63/S 1.03 *96.97.

C67.468 (M7 R 783) Theodosius I, 393–395, AE, uncertain mint; E 39.90/S 3.01 *96.58, on floor.

C67.427 (M7 R 1013) Valentinian I–III, 395–408, AE3, Nicomedia; E 41.53/S 0.84 *97.15.

Uninv. 67 (M1 703) Anastasius I–Maurice, 498–602, penta., uncertain mint; E 40.27/S 2.83 *97.02.

Uninv. 67 (M1 1008) Justinian I–Heraclius, 552–614, half follis, Thessalonica; E 41.17/S 0.86 *96.51.

Uninv. 67 (M1 639) Maurice, 590/591, follis, Nicomedia; E 42.67/S 0.55 *96.46.

Uninv. 67 (M1 949) Heraclius, 615/616, half follis, Constantinople; E 39.87/S 0.37 *96.44.

GLASS

Uninv. 67 Blue frit, mixture of ground quartz and blue glass (see Appendix 2, BS TS 1 and 2) which retains the form of a ridged ceramic container; sharp demarcation to a darker shade in the int. where split, possibly due to heat from burning in the Shop; piece of iron embedded in one side; max. dim. ca. 0.14.

Found at bottom of stair, locus not recorded.

Many boxes (ca. 0.40 x 0.20 x 0.20) of window glass were found; one fragment is published in *Sardis* M6, no. 686, pl. 16, cf. Fig. 174.

E 41.00–44.00/S 0–4.00 *97.81–*97.31.

METAL

Copper and Copper Alloy

M67.36:7585 (M8 520) Figs. 281, 282 Authepsa, ovoid body, tall slightly concave neck, possibly originally spouted; grill on underside for hot coals; within the vessel is a tall tubular chimney; high arched handle; hammered sheet metal analyzed as unalloyed copper with cast handle of leaded tin bronze; H. 0.375, max. diam. 0.18, diam. chimney 0.043.

E 39.47/S 2.01 *97.08, upper floor debris.

BASOR 191, 20.

29. *BASOR* 191, 21.

Uninv. 67 (M8 491) Nearly hemispherical bowl, slightly rounded bottom, nearly straight sides, everted ledge rim slightly bent up at edge; max. P.H. 0.10, ext. diam. rim ca. 0.225.

E 42.59/S 0–0.10 *96.39.

J73.2:8222 (M8 685) Fig. 283 Circular brooch with green and blue glass paste inlay, originally gilded, hinge and part of clasp P.; diam. 0.035, diam. center compartment 0.0125, H. rim 0.008.

E 41.40/S 4.40 *97.55, in niche in W wall.

BASOR 215, 52. A similar piece was found in a wall of E 9, J73.1:8221, Fig. 338. Cf. J79.1:8939 found at MMS/S *BASOR* 249, 8, fig. 10.

M67.39:7588 (M8 582) Fig. 275 Censer, cylindrical bowl, 3 feet, wide everted rim with 3 suspension loops; analyzed as leaded tin bronze; max. H. 0.06, diam. rim 0.08.

E 39.80/S 2.91 *96.58.

BASOR 191, 20; *Sardis: Twenty-seven Years* 43, fig. 54. Cf. *Malcove Col.* no. 116, an almost identical censer suspended on long profiled links similar to those found with the Sardis piece.

M67.16:7382 (M8 525) Fig. 285 Jug, cylindrical body, sloping shoulder, ridge around concave neck, disc base; iron handle attached to shoulder and to iron band around neck; H. 0.325, diam. body 0.228.

E 39.63/S 3.08–3.42 *97.77.

M67.28:7474 (M8 616) Fig. 284 Lampstand, circular saucer (misshapen) with tapered spike, profiled shaft, base missing; max. P.H. 0.285, diam. saucer ca. 0.095.

E 41.21/S 3.02 *97.79–*97.69.

Cf. M63.5A-D:5353 in E 19, Figs. 584, 585.

M67.37:7586 (M8 511) Fig. 273 Part of fluted pan with flaring sides, one long flat handle made in one piece with rim, lead ring foot with copper alloy covering; H. 0.11, diam. rim 0.30.

E 41.42/S 1.84 *97.68.

M67.38:7587 (M8 217) Figs. 276, 286 Strainer, shallow pan, triangular perforations, ledge rim, flat handle with rounded end; analyzed as low zinc brass; H. pan 0.055, diam. rim 0.16.

E 39.41–39.53/S 1.59–1.75 *96.86.

Iron

Uninv. 67 (M8 138) Hammer-adze; adze slopes sharply down from socket to thin, splayed edge; hammer end apparently round in section; max. P.L. 0.21, W. adze blade 0.035, diam. hammer head 0.028.

E 43.71/S 1.60 *96.86.

Cf. E 11, Fig. 362. For a more complete example, *Yassi Ada I* no. Fe 19.

M67.17:7383 (M8 614) Fig. 289 Candelabrum, long thin shaft, 3 curved legs; copper alloy base and candle holder; max. P.H. 1.439, W. base 0.059.

E 42.82/S 1.57 *96.99.

Cf. M62.53:4472 in E 15, Fig. 511.

Uninv. 67 (M8 191) Knife, straight back and edge, long triangular tang; max. P.L. 0.198, max. W. 0.023.

E 42.00/S 3.03 *96.58, on the floor.

Cf. M64.23:6188 and an uninv. example in E 12, Figs. 409, 410.

M67.20:7399 (M8 553) Fig. 288 Flask lid, top only P. and possibly the stump of a handle; diam. ca. 0.095, Th. 0.02, W. handle 0.015.

E 40.00-41.00/S 3.09 *96.84, in fill at foot of stairs, with locks, *infra* and other fragments in Fig. 288.

M67.18:7397 (M8 360, 402) Fig. 288 Rectangular lock made of 2 plates fitted together, 4 rivet holes at the corners, vertical key hole with round top, ring attached; lock: H. 0.065, W. 0.075; found with key, rectangular bit pierced by 2 slots; max. P.L. 0.074.

Found with above.

M67.19:7398 (M8 387) Fig. 288 Round lock plate, remains of nails in 2 holes, vertical keyhole, horiz. slot below it; diam. 0.058.

Found with above.

Uninv. 67 (M8 109) Fig. 274 Trowel, triangular flat blade set at right angles to curved handle; max. P.L. blade 0.13, max. W. blade 0.065, W. handle 0.035.

E 41.00/S 3.80 *96.84, in putlog hole.

Lead

Uninv. 67 (M6 p. 92) Fig. 287 Leading strip fragment for securing window glass; flat with edges bent at opposite r. angles to form a Z profile; Th. ca. 0.003.

Found with window glass *supra*.

POTTERY

Bowls

(2 additional bowls were found but not recorded.)

Uninv. 67 Fig. 290 Shallow with double molding below upturned rim, ring foot; coarse clay slipped on ext. and int., slip bubbled on int., unevenly carved and ridged on ext. as though finished when leather-hard; H. 0.057, diam. 0.255.

E 39.50-44.00/S 0-4.00 *97.50-96.90.

Shape as E 5, Fig. 251.

Cups

(Of the 31 small coarse redware cups found, 2 were saved.)

Uninv. 67 Small, handleless, rounded side, plain rim, flat string-cut bottom; ext. smooth; wheel ridges and central spiral show on int.; orange-buff clay, no inclusions, red slip on int. and ext.

E 39.50-44.00/S 0-4.00 *97.90-97.50.

Uninv. 67 As above, ext. ridged and smoothed to a self-slip, int. smooth; dented when green; H. ca. 0.40, diam 0.06.

E 39.50-44.00/S 0-4.00 *97.50-96.00.

Cf. E 5, E 7, Figs. 254, 313-315.

Closed vessels

P67.17:7340 Fig. 291 Six joining fragments of shoulder;

fabric tempered as cooking ware with many blowouts on ext., no slip; max. P.H. 0.062.

Graffiti: ATYMIOS scratched after firing just below neck, ca. 1/4 circumference to the l. a branch or monogram, broken on l.; H. letters 0.014, branch 0.05.

E 39.50-44.00/S 0-4.00 *97.50-96.90, from upper story.

BASOR 191, 20; SPRT 166.

Uninv. 67 Fig. 292 One-handled jug with squat, "bag-shaped" body, concave base smoothed to form a ring foot; local micaceous clay with temper, close to cooking pot fabric; covered with calcareous and ashy deposits; P.H. 0.183, max. diam. 0.155.

E 39.55/S 3.20 *96.58, near censer M67.39:7588 *supra*.

Lids

Uninv. 67 Fig. 293 Domed with slanted walls, flat knob; turned and smoothed on ext.; coarse fabric containing much mica, tempered with crushed schist and limestone (some 2-3 mm.), close to cooking ware; charred on ext. and int. H. 0.07, diam. 0.084.

E 39.50-44.00/S 0-4.00 *97.50-96.40.

Cf. *Agora* V no. K 107, 3rd C.; *Kenchreai* IV nos. RC 101 b-c, "cooking pot cover," 1st C.

Uninv. 67 Fig. 294 As above but much finer clay with several large inclusions; smoothed with self slip on int. and ext.; turned on the knob and string cut from wheel or tournette; charred on one side; H. 0.048, diam. 0.16.

E 39.50-44.00/S 0-4.00 *97.50-96.90.

Uninv. 67 Fig. 295 Flat, thickens at edge, concave knob with side smoothed downward; red-orange micaceous clay, smoothed top, rough on underside; H. 0.038, diam. 0.171.

E 39.50-44.00/S 0-4.00 *97.50-96.90.

Uninv. 67 Fig. 296 As above but smaller, knob has shallower concavity with ridge and button in center; turn marks on top, impression of straw mat on underside; H. 0.038, diam. 0.18.

E 39.50-44.00/S 0-4.00 *97.50-96.90.

Uninv. 67 Fig. 297 As above but larger, 4 concentric ridges on ext. near rim; H. 0.054, diam. 0.281.

E 39.50-44.00/S 0-4.00 *97.50-96.90.

STONE

Mortars

S67.9:7320 Fig. 300 Shaft of column, square base, secondary groove near top which is hollowed to make the working surface; gray veined marble, H. 0.19, W. base ca. 0.11, diam. top of column 0.085.

E 39.50-44.00/S 0-3.00 *97.20-96.90.

Uninv. 67 Fig. 268 Cylindrical, sides taper to molded base; marble; contains yellow residue (sulfur?); H. 0.61, ext. diam. top 0.55, diam. bowl 0.45.

Standing on floor in the middle of W wall covered with square tile.

Uninv. 67 Fig. 271 Square top, rough-chiseled rounded sides, hemispherical basin with hole in bottom; gray marble, edge smoothed; max. H. 0.57, W. 0.62, diam. basin 0.83, D. basin 0.53.

Found on floor near N wall.

S67.6A:7316 Fig. 298 Round, flat bottom, with groove on one side, 3 large knob handles; marble, int. worn very smooth; H. 0.10, ext. diam. rim 0.225, diam. base 0.145.

E 39.68/S 1.82 *96.97, near the pestle S67.6B:7316 *infra*.

Cf. *Yassı Ada* I no. MF 54.

S67.11:7337 Fig. 299 Round, uneven bottom, rounded spout, 3 large knob handles, flat wide rim; marble; H. 0.105, ext. diam. rim 0.286, diam. base 0.15.

E 41.00–42.00/S 0–1.00 *96.98.

Pestles

S67.6B:7316 Elbow-shaped, long end broken, short used as oval working surface; marble; max. P.L. 0.084, L. short end 0.06; max. dim. work surface 0.044.

E 42.00/S 1.82 *96.86, near mortar S67.6A:7316 *supra*.

S67.7:7318 Fig. 301 Shaped like a leg and foot; stone, possibly dolomite with large mica inclusions, entire surface smoothed but not polished; H. 0.255, W. "foot" 0.15, diam. top 0.102.

E 42.00/S 3.03 *96.58.

S67.8:7319 Fig. 302 Spherical, top and bottom flat and very smooth with depression in center; basalt; H. 0.07, diam. top and bottom 0.09, max. diam. 0.115.

E 39.50–40.00/S 0–1.00 *96.98.

FINDS FROM E 7

ARCHITECTURAL FRAGMENTS

Uninv. 67 Spout in form of lion's head, deep, roughly incised features, eyes to base of muzzle P.; marble; 4th–5th C.; max. W. ca. 0.19.

E 48.45/S 3.95 *97.24.

COINS

C67.486 (M7 R 550) House of Constantine, 341–346, AE, uncertain mint; E 49.00/S 2.64 *96.61.

C68.232 (M7 R 380) Constantius II, 351–354, AE2, Cyzicus; E 48.95/S 2.90 *95.77, below floor.

C67.480 (M7 R 558) House of Constantine, 355–361, AE4, uncertain mint; E 48.05/S 1.62 *97.81.

C67.484 (M7 R 1047) Valentinian I–III, 378–383, AE3, uncertain mint; E 45.95/S 3.48 *97.69.

C67.481 (M7 R 779) Theodosius I, 383–392, AE2, uncertain mint; E 44.43/S 1.57 *97.55.

Uninv. 67 (M1 346) Justin II, 573/574, follis, Constantinople; E 44.37/S 2.63 *97.95.

Uninv. 67 (M1 583) Maurice, 588/589, half follis, Constantinople; E 44.50/S 1.80 *97.11.

Uninv. 67 (M1 780) Phocas, 602/603, follis, Nicomedia; E 46.28/S 0.73 *96.12.

Uninv. 67 (M1 860) Heraclius, 612/613, follis, Constantinople; E 46.28/S 0.73 *96.12.

GLASS

Uninv. 67 (M6 687) Fragment of window pane.

E 49.73/S 3.25 *97.32.

METAL

Copper Alloy

Balances

Uninv. 67 (M8 453) Beam partially P. with broken suspension device; L. 0.184.

E 44.00–44.20/S 5.35 *96.92, in the Colonnade between E 7 and E 8.

Cf. M62.20:4211 in E 14, Fig. 468; for a complete example M8 448, pl. 29.

Uninv. 67 (M8 452) As above, very fragmentary; max P.L. 0.124.

E 44.50–49.00/S not recorded *96.90–*96.60.

Censer

M67.32:7482 (M8 580) Figs. 303, 304 Cast hexagonal bowl, everted ledge rim, 3 suspension loops, 3 cast feet; analyzed as low zinc brass; H. 0.067, diam. 0.085.

E 47.71/S 3.72 *97.83, with chain and hook attached.

Finial

M67.8:7317 (M8 431) Fig. 305 Biconical knob on flared base in one piece with solid rectangular shaft, probably from furniture; max. P.H. 0.12., Th. shaft 0.012.

E 49.00/S 2.95 *97.88.

BASOR 191, 21.

Steelyards

M67.26:7472 (M8 440) Part of beam with incised graduations, conical stop at long end. Side 1: vertical lines at 9 mm. intervals, 3 dots between. Side 2: vertical lines 5–6 mm. apart, dots may be letters. Side 3: obscure—some graduations 2–3 mm. apart, some dots visible; max. P.L. 0.71, diam. stop 0.03, Th. 0.01.

E 49.00–50.00/S 3.20 *97.24, upper story debris.

M67.31:7481 (M8 438) Fig. 306 Beam with incised graduations. Side 1: long vertical lines ca. 0.032 apart, 2 shorter lines between, 3 dots above every 3rd line. Side 2, obscure: vertical lines 0.015–0.017 apart with dots forming letters (illeg.); L. beam 0.478.

E 49.22–49.91/S 1.38–2.10 *96.22, found with fragments of another beam, hooks, lead weight with copper alloy casing (M8 439).

Cf. M69.3:7919A–C in E 5, Figs. 235, 236.

Iron

In addition to the items described below, a socket for a door post (est. diam. 0.086) was found in the W wall doorway at E 43.95/S 2.05 *97.21, also an iron bracket (restored L. ca. 0.040) in the N wall niche.

Campstool frames

Uninv. 67 (M8 426-428) Fig. 307 Fragmentary parts of 3 frames, with round rods; L. 0.625, W. 0.44.
E 44.50-46.00/S 1.05-3.03 *97.10.
As M63.49:5730 in E 16, Fig. 525.

Locks

Uninv. 67 (M8 361) Rectangular, heavily corroded and broken; max. P.H. 0.096, max. P.W. 0.11.
E 44.50/S 0-3.00 *97.60-*97.20.
As M67.18:7397 in E 6, Fig. 288.

Uninv. 67 (M8 362) As above.
E 44.00-49.00/S 0-4.00 *97.20-*96.90.

POTTERY**Amphorae**

P67.16:7339 Fig. 311 Lower neck, joining body fragments, two-handles P.; micaceous pink-buff clay, ext. smoothed and slipped but many stone inclusions protrude, surface very abraded and showing evidence of having been soaked; int. ridged; P.H. 0.282, max. diam. body 0.14.
Graffito: IAKWB on shoulder almost centered between handles; scratched after firing; max. H. letters 0.015.
E 47.00-50.00/S 0-4.00 *97.88-*97.20.
BASOR 191, 21; SPRT 166.

P67.18:7341=IN67.33 Fig. 312 Shoulder fragment, coarse fabric, red slip on ext., not int.; P.H. 0.075, max. dim. 0.097.
Graffito: IAKW fragmentary, broken at r., scratched after firing just below neck; H. letters 0.02.
E 44.00-49.00/S 0-4.00 *97.20-*96.90.
BASOR 191, 21; SPRT 166.

IN67.26 Thick sherd, self slip applied with sponge; H 0.102, W 0.087.
Graffito: S . . . , fragmentary, broken on r., incised after firing 0.037 below neck.
E 44.00-49.00/S 0-2.00 *97.60-*97.40.

IN67.25 Two joining fragments of shoulder showing turn of neck; ridged; H. 0.082, W. 0.091.
Graffito: Retrograde N just below neck incised before firing with stick or straw; H. letter 0.025.
E 44.00-46.00/S 0-2.00 *97.60-*97.40.

Cups

Uninv. 67 Fig. 313 Handleless, flat string cut bottom; wall curves inward to plain rim; ext. ridged; int. smooth; pink-buff clay, well-levigated, no inclusions; charcoal deposits on ext., black deposit on int. which may be residue from use as crucible; H. 0.055, diam. 0.095.

E 48.00-49.00/S 0-0.20 *97.10.
Cf. P58.265:461 in W 2, Fig. 151.

Uninv. 67 As above, heavier wall, coarser body with some inclusions.
E 48.00-49.00/S 0-0.20 *96.60.

Uninv. 67 Fig. 314 As above, but bottom set off so could be grasped with pinchers, ext. smooth, slight button in bottom of int.; pink-buff micaceous body, many small inclusions; H. 0.055, diam. 0.087.
E 48.00-49.00/S 0-0.20 *96.60.
Very similar to E 5, Fig. 254.

Uninv. 67 Fig. 315 As above but sides evenly curved; H. 0.05, diam. 0.088.
E 46.23/S 1.52 *97.57.

POTTERY LAMPS

Uninv. 67 Wide, flat discus with 7 holes around central pour hole, solid vertical handle; L. 0.105, W. 0.075.
Locus not recorded.

Uninv. 73 Round "Asia Minor" type, 3 rows of raised dots on top, ridge surrounding center hole forms channel to nozzle, solid handle.
E 43.00/S 4.80 *97.10, in S wall.
Cf. *Yassı Ada* I no. L 12.

STONE

In addition to the items described below, 2 cylindrical standing marble mortars were found near the S wall on the floor (Fig. 280) and a flat stone tray with simple incurved side was found at *97.80-*97.20. These are in the restored Shop (Fig. 270). A round marble bowl with rough finished sides and a flat foot was found at E 44.56/S 3.72 (Fig. 308).

Mortars

S67.13:7351 Figs. 280, 310, 316 Round, flat bottom, flat rim, 3 rectangular handles; deeply channeled heavy spout, top flat and extends to side of rim; there is no hole through the wall to the spout; basalt, 2 specific use-worn areas near wall, int. very smooth, ext. rough-finished; H. ca. 0.10, diam. ext. rim 0.42, diam. base 0.32.
E 45.27/S 0.70 *96.12, on floor with pestle *infra* and catalogued together.

S67.15:7353 Figs. 280, 309 As above, but raised split leaf decorates spout, small hole through wall to spout, hole in bottom; H. 0.13, diam. ext. rim 0.40, diam. base 0.25.
E 49.37/S 2.72 *96.12, on floor.

S67.18:7363 As above, but undecorated, spout not grooved and no access hole (unfinished?); H. 0.125, diam. ext. rim 0.465, diam. base ca. 0.39.
E 45.95/S 0.80 *96.12, on floor.

Pestle

S67.13:7351 Figs. 280, 310 Elbow shaped; basalt, small end

rough-finished, larger end smooth; working end polished very smooth; L. 0.16, diam. working surface 0.105.

E 47.27/S 0.70 *96.12, on floor with mortar S67.13 *supra* and catalogued together.

E 8 Figs. 317–325.

EXCAVATIONS

1967 J. S. Crawford overburden to floor, *BASOR* 191, 21 “Shop of the Frescoes.” 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52. For discussion of use and ownership, *SPRT*, 164–165.

E 50.82–55.56. Floor at *96.27, packed earth.

N wall: L. 4.64, W. 1.14, H. 2.20. S wall of Syn MH (Seager, “Building History,” 427). Covered by plaster with frescoes over much of its length.

E wall: L. 4.20, W. 0.60, H. 1.78. W. of infill 0.88; niche in NE corner 1.87 x 0.47, drain in center 0.12 x 0.12. Spread footing 0.24. Small fieldstones with brick lacing courses of 3 bricks.

S wall: L. 4.67, W. 0.76, H. 1.57. Spread footings 0.46. Niche in SW corner (0.30 x 0.34, not P. to full H.) formed by 4 bricks. W wall to door (W. 1.24) constructed of marble spoils finely cut except on bonding edges. Pier at E jamb made of finely cut spoils and fieldstone. E of this pier was another door, blocked up in the last phase to make a window (W. 0.88). Infill is small fieldstones topped with brick. Pier beyond window at SE corner finely cut spoils. S wall projects 0.14.

W wall: L. 4.04, W. 0.79, H. 1.57. Spread footings 0.14. See E 7 E wall. Niche in infilled door (0.34 x 0.34 x 0.29) is an equilateral triangle composed of 3 bricks. Small area of fresco P. in NW corner.

Interior: A white marble column (L. 1.83, diam. 0.30), broken in center, 0.61 from E wall, 2.40 from W wall; rectangular hole just below top 0.08 x 0.10. A table (0.42 x 0.73) composed of 4 drain pipes set upright with tiles laid across them stood against the E jamb inside the front door.

E 8, constructed in the same durable manner as E 6 and E 7, was originally connected to E 7 by a doorway in its west wall. In the last phase the door was blocked and the Shops separated. As in E 6, the second story floor was reinforced.

The walls of E 8 were frescoed and substantial portions remained on the back wall at the time of excavation. A Greek inscription (IN67.41, Fig. 324) painted in vermilion on white plaster was found on the floor as it had fallen from the west wall and had shattered into more than eighty fragments. Rejoining the pieces has proved a difficult task, and as yet no reading can be made. The letters are of two sizes; in one instance both sizes occur in the same fragment.

The north wall was divided into three sections, separated by vertical vermilion lines, and bordered at the

bottom by a horizontal black line. This lower line steps up in the NE corner, perhaps to avoid the area around the drain there. For convenience, the three parts of the fresco on the north wall (WP67.1) will be termed A, B, and C, beginning with the west panel. A fragment of the painted frame remains on the west wall, indicating that the scheme continued around the room.

In panel A (Figs. 319, 320) a vase-like motif tilted at approximately 45 degree angles is in each lower corner, resting on the black ground line. The vase in the west corner is the more elaborate. Emerging from it are two voluted tendrils on either side of a central stalk. From this stalk project two leaves on stems, while the stalk itself terminates in a round flower. The vase is decorated with dots and wavy ornamental patterns. All of this decoration is in black paint. The decoration in the lower east corner of this panel is basically the same, but not as complete. The central stalk and voluted tendrils recur, but the stalk does not terminate in a flower. The dot motif also reappears, but only on one side of the tendrils. The ornament on the vase is also different. Instead of a wavy line with dots, a zig-zag pattern appears with dots and a circle in the corner. In the upper center portion of the panel (as preserved) is a falling flower, with a black stem and a red bloom.

In panel B (Fig 320), the decoration is more difficult to make out, because the surface was damaged by leaching. There are at least two vertical, light yellow stripes forming an indistinct central design. L. J. Majewski suggests that the design imitated a marble revetment scheme.³⁰ Frescoes imitating revetments are found elsewhere at Sardis, notably in Bath CG.³¹ These are comparable to frescoes imitating revetments in the lower story hemicycle shops of Trajan's Markets in Rome, the “Stoa in the Olive Grove” at Pergamon, and also in the Thermopolium at Ostia.³²

The area of Panel C (Fig. 321) is slightly smaller than that of the other two panels. The lower portions are well-preserved, but only two pendant concentric arcs (probably once part of a circular garland or basket motif) with a scale pattern between are preserved in the

30. Remarks by L. Majewski at Sardis in 1967. His publication of the mosaics and frescoes from Sardis is forthcoming.

31. *Sardis* R1, 136ff., esp. 163–164. For more recently excavated wall painting see now Hanfmann, *SPRT* 207–209, figs. 296–297 (painted tombs); *BASOR Sup* 23, 68–73, figs. 16–17 (rooms at MMS decorated in imitation of *opus sectile*).

32. Trajan's Markets: *ARE* I, 172, pl. 86; Thermopolium at Ostia: Calza 79; Pergamon: see *infra* Ch. IV.

badly leached upper portion.³³ In the lower west corner, there is a “basket” of flowers, which seems to have been drawn with a compass using the juncture of the red and black bands at the corner as the center point, Fig. 320. The “basket” is divided into three concentric bands. The band nearest the corner contains interlaced arcs with dots in the spaces. The second band contains curvilinear tendrils. The third band contains a scale pattern. Emerging from the “basket” are six stems, three of which have pointed leaves at the bottom. One of the stems is straight; the others waver. Spike-petaled flowers terminate two of the stems.

Just inside the east jamb of the door of E 8 four vertical drain tiles were found upright, supporting flat tiles to form a counter. Fragments of a large, white marble tray were found nearby on the floor and may have been set on the counter, possibly to be used as a money changing surface.

E 8 contained more coins than any other Shop, almost 400. The coins were concentrated in several groupings on or close to the floor level, the largest of which was located next to a “plaster” lined trench filled with gravel in the southeast corner. Of the identifiable bronze coins found in this Shop only three were Byzantine.

As in E 6 and E 7, a thick layer of red-orange material was discovered in the upper story deposit and yellow material in the lower, implying that E 8 was involved in the same trade as E 6 and E 7. The blocked doorway between E 7 and E 8 may simply have been an effort to separate areas with different functions: production and payment. The large number of coins is additional evidence that E 8 may have been a sort of “business office” for the other two Shops. If this is correct, it would be logical to assume that E 8 had the same Jewish owner, Jacob, as E 6 and E 7. However, given the absence of tell-tale graffiti, this assumption cannot be confirmed. Perhaps a future reading of the painted inscription, if it can be restored, will clarify the question.

COINS

C67.623 (M7 GR 6) Lysimachos, ca. 323–218 B.C., AE14, Thrace; E 53.00–54.00/S 2.00–4.00 *96.28.

C67.514 (M7 GR 174) 212–250, AE19, Philadelphia; E 54.49/S 3.41 *96.89.

33. J. A. Scott called my attention to compass drawn arcs in Tomb 79.1, which has baskets and garlands of flowers, *BASOR* 249, 22–24, figs. 27–28.

C67.509 (M7 R 35) Gallienus, 260–268, Ant., Rome; E 52.47/S 0.87 *97.18.

C67.571 (unpubl.) Constantine I, 313–317, uncertain mint; E 50.00–55.00/S 2.00–4.00 *96.28.

C67.505 (M7 R 145) Licinius I, 321–324, AE follis, Nicomedia; E 54.22/S 1.27 *97.15.

C67.519 (M7 R 538) House of Constantine, 335–341, AE follis, Cyzicus; E 55.27/S 3.19 *96.15.

C67.532 (unpubl.) Constantine I, posthumous coinage, 337–341, uncertain mint; E 50.00–55.00/S 0–4.00 *96.28.

C67.625 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint; E 53.00–54.00/S 2.00–4.00 *96.28.

C67.508, 510 (M7 R 634, 635) Valens, 364–375, AE3, Cyzicus; E 54.20/S 0.96 *97.28, E 52.30/S 0.74 *97.11.

C67.507 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; E 52.15/S 1.26 *97.08.

C67.624 (M7 R 624) Valens, 367–375, AE3, Constantinople; E 53.00–54.00/S 2.00–4.00 *96.28.

C67.607 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 50.00–55.00/S 0–4.00 *96.28.

C67.573 (M7 R 779) Theodosius I, 383–392, AE2, uncertain mint; E 53.15/S 0.68 *96.28.

C67.626 (M7 R 808) Arcadius, 383–392, AE4, Constantinople; E 53.00–54.00/S 2.00–4.00 *96.28.

C67.719 (M7 R 1063) Valentinian I–III, 402–408, AE3, uncertain mint; E 51.52/S 1.09 *96.17.

C67.504, 516 (M7 R 926, 927) Honorius, 408–423, AE3, uncertain mint; E 54.52/S 1.27 *97.15, E 54.91/S 1.32 *97.08.

C67.524 (unpubl.) Theodosius II, 425–450, uncertain mint; E 50.00–55.00/S 0–4.00 *96.28.

C67.576 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; E 54.90–55.20/S 1.90–2.40 *96.27, on floor.

Uninv. 68 (M1 679) Anastasius I–Maurice, 498–602, penta., Constantinople; E 50.50/S 2.00–4.00 *96.28.

Uninv. 68 (M1 263) Justinian I, 538/39, half follis, Carthage; E 53.77/S 4.40 *97.12, in window.

Uninv. 68 (M1 398) Justin II, 565–578, penta., Constantinople; E 54.00–55.00/S 2.00–4.00 *96.28.

The following coins were found at E 52.00–55.00/S 2.00–4.00 *96.28.

C67.582 (M7 R 111) Diocletian, 295–296, AE fraction, uncertain mint.

C67.587 (M7 R 299) Constantius II, 330–333, AE follis, Heraclea.

- C67.587 (M7 R 189) Constantine I, 330–335, AE follis, Nicomedia.
- C67.609 (M7 R 548) House of Constantine, 335–341, AE follis, uncertain mint.
- C67.585 (M7 R 233) Constantine I, 341–346, posthumous coinage, AE, uncertain mint.
- C67.586 (M7 R 328) Constantius II, 341–346, AE, Heraclea.
- C67.586 (M7 R 467) Constans, 341–346, AE, uncertain mint.
- C67.589 (M7 R 557) House of Constantine, 346–361, AE2 or 3, uncertain mint.
- C67.589 (M7 R 412) Constantius II, 346–361, AE2 or 3, uncertain mint.
- C67.589 (M7 R 381, 2 examples) Constantius II, 351–361, AE3, Cyzicus.
- C67.589 (M7 R 329) Constantius II, 351–354, AE3, uncertain mint.
- C67.589 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint.
- C67.589 (M7 R 414) Constantius II, 351–361, AE3, uncertain mint.
- C67.589 (M7 R 488) Constantius Gallus, 351–354, AE2 or 3, uncertain mint.
- C67.589A (M7 R 473) Constantius Gallus, 351–354, AE3, Thessalonica.
- C67.591 (M7 R 385) Constantius II, 355–361, AE4, Cyzicus.
- C67.593 (M7 R 345) Constantius II, 355–361, AE3, Constantinople.
- C67.591 (M7 R 325) Constantius II, 355–361, AE4, Thessalonica.
- C67.591 (M7 R 558) House of Constantine, 355–361, AE4, uncertain mint.
- C67.591 (M7 R 591) Valentinian I, 364–375, AE3, uncertain mint.
- C67.594 (M7 R 744) Theodosius I, 383–392, AE4, Nicomedia.
- C67.584 (M7 R 1054) Valentinian I–III, 383–392, AE4, uncertain mint.
- C67.592 (M7 R 903) Honorius, 395–408, AE3, Cyzicus.
- C67.590 (M7 R 967) Theodosius II, 425–450, AE4, uncertain mint.
- Concentration of 16 coins found at E 53.00–55.00/S 0.93 *96.28, 3 of which were identifiable:
- C67.575 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint.
- C67.575 (M7 R 918) Honorius, 393–395, AE4, uncertain mint.
- C67.575 (unpubl.) Valentinian I–III, 395–408, uncertain mint.
- Concentration of 16 coins found at E 50.50–51.00/S 2.00–4.00 *96.28:
- C67.603 (M7 R 189) Constantine I, 330–335, AE follis, Nicomedia.
- C67.605 (M7 R 526) House of Constantine, 335–341, AE follis, Rome.
- C67.604 (M7 R 441) Constans, 337–341, AE follis, Constantinople.
- C67.602 (M7 R 381) Constantius II, 351–361, AE3, Cyzicus.
- C67.601 (M7 R 350) Constantius II, 355–361, AE4, Constantinople.
- C67.601 (M7 R 331) Constantius II, 355–361, AE4, Heraclea.
- C67.601 (M7 R 497) Julian, 355–361, AE4, Constantinople.
- C67.600, 599 (M7 R 590, 591) Valentinian I, 364–375, AE3, uncertain mint.
- C67.596 (M7 R 592) Valentinian I, 364–375, AE, uncertain mint.
- C67.600 (M7 R 638) Valens, 364–375, AE3, uncertain mint.
- C67.600 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint.
- C67.606, 599 (M7 R 1043, 1044) Valentinian I–III, 364–378, AE3, uncertain mint.
- C67.597 (M7 R 1007) Valentinian I–III, 408–423, AE3, Constantinople.
- C67.598 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint.
- Concentration of 40 coins in NW corner at E 50.65/S 1.61 *96.28 of which 10 were identifiable:
- C67.42 (M7 GR 54) Royal coinage, ca. 159–133 B.C., AE17, Pergamon.
- C67.570 (M7 R 332) Constantius II, 337–341, AE follis, Constantinople.
- C67.570 (M7 R 335) Constantius II, 341–346, AE, Constantinople.
- C67.570 (M7 R 408) Constantius II, 341–346, AE, uncertain mint.
- C67.570 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint.
- C67.570 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint.

C67.570 (M7 R 780) Theodosius I, 383–395, AE2, uncertain mint.

C67.570 (M7 R 919) Honorius, 395–408, AE3, uncertain mint.

C67.570 (M7 R 903) Honorius, 395–408, AE3, Cyzicus.

C67.570 (M7 R 906) Honorius, 402–408, AE3, Cyzicus.

Concentration of 32 coins at E 54.70–55.40/S 1.20–1.90 *96.28 of which 31 disintegrated or were illegible, 1 identifiable:

C67.546 (M7 GR 215) Autonomous, after 133 B.C., AE15–16, Sardis.

Concentration of 79 coins at E 54.00–55.00/S 2.00–4.00 *96.28 of which 38 were illegible, 24 disintegrated and 17 are identifiable:

C67.612 (M7 R 145) Licinius I, 321–324, AE follis, Nicomedia.

C67.614 (M7 R 189) Constantine I, 330–335, AE follis, Nicomedia.

C67.614 (M7 R 307) Constantius II, 330–334, AE follis, Cyzicus.

C67.614 (M7 R 277) Constantine II, 333–336, AE follis, Heraclea.

C67.619 (M7 R 529) House of Constantine, 335–341, AE follis, Heraclea.

C67.613 (M7 R 231) Constantine I, posthumous coinage, 337–341, AE, uncertain mint.

C67.615 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint.

C67.616 (M7 R 415) Constantius II, 355–361, AE4, uncertain mint.

C67.618 (M7 R 591) Valentinian I, 364–375, AE3, uncertain mint.

C67.617 (M7 R 636) Valens, 364–375, AE3, Alexandria.

C67.616 (M7 R 1043) Valentinian I–III, 364–378, AE3, uncertain mint.

C67.621 (M7 R 774) Theodosius I, 379–392, AE4, uncertain mint.

C67.621 (M7 R 755) Theodosius I, 383, AE4, Cyzicus.

C67.620 (M7 R 841) Arcadius, 395–408, AE3, Cyzicus.

C67.622 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint.

C67.619 (M7 R 906) Honorius, 402–408, AE3, Cyzicus.

C67.611 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint.

Concentration of 88 coins in the SE corner next to a “plaster”

lined trench filled with gravel at E 55.21–55.25/S 2.95 *96.24, of which 67 were identifiable:

C67.537A (M7 R 166) Constantine I, 320–321, AE follis, Siscia.

C67.537 (M7 R 172) Constantine I, 327–329, AE follis, Heraclea.

C67.534 (M7 R 173) Constantine I, 330–333, AE follis, Alexandria.

C67.536 (M7 R 242) Urbs Roma, 333–336, AE follis, Heraclea.

C67.534 (M7 R 199) Constantine I, 335, AE follis, Antioch.

C67.533 (M7 R 293, 2 examples) Constantine II, 335–337, AE follis, Antioch.

Uninv. 67 (M7 R 167) Constantine I, 335–336, AE follis, Siscia.

C67.588 (M7 R 207) Constantine I, 335–337, AE follis, uncertain mint.

C67.536 (M7 R 261) Constantinopolis, 335–336, AE follis, Cyzicus.

C67.533 (M7 R 264) Constantinopolis, 335–341, AE follis, uncertain mint.

C67.533 (M7 R 538) House of Constantine, 335–341, AE follis, Cyzicus.

C67.588 (M7 R 548) House of Constantine, 335–341, AE follis, uncertain mint.

C67.533 (M7 R 180) Constantine I, 336–337, AE follis, Constantinople.

C67.588 (M7 R 196) Constantine I, 336–337, AE follis, Cyzicus.

C67.533 (M7 R 190) Constantine I, 336–337, AE follis, Nicomedia.

C67.533 (M7 R 248) Urbs Roma, 336–337, AE follis, Nicomedia.

C67.533 (M7 R 308) Constantius II, 336–337, AE follis, Cyzicus.

C67.533 (M7 R 419) Constans, 336–337, AE follis, Constantinople.

C67.533 (M7 R 366) Constantius II, 337–339, AE follis, Cyzicus.

C67.533A (M7 R 401) Constantius II, 337–341, AE follis, Alexandria.

C67.570 (M7 R 332) Constantius II, 337–341, AE follis, Constantinople.

C67.533, 588 (M7 R 406, 548) Constantius II, 337–341, AE folles, uncertain mint.

C67.533 (M7 R 451, 2 examples) Constans, 337–339, AE folles, Cyzicus.

C67.588 (M7 R 450) Constans, 337–339, AE follis, Cyzicus.

C67.533B (M7 R 461) Constans, 337–341, AE follis, Alexandria.

C67.588 (M7 R 464) Constans, 337–341, AE follis, uncertain mint.

C67.583 (M7 R 220) Constantine I, 337–339, AE, Cyzicus.

C67.583 (M7 R 209) Constantine I, 337–341, posthumous coinage, AE, Heraclea.

C67.583 (M7 R 214) Constantine I, 337–341, posthumous coinage, AE, Nicomedia.

C67.531 (M7 R 216) Constantine I, 341–346, posthumous coinage, AE, Nicomedia.

C67.535 (M7 R 552) House of Constantine, 341–346, AE, uncertain mint.

C67.544 (M7 R 552) House of Constantine, 341–46 or 383, AE, uncertain mint.

C67.531 (M7 R 233) Constantine I, 341–346, posthumous coinage, AE follis, uncertain mint.

C67.583 (M7 R 231) Constantine I, 341–346, posthumous coinage, AE, uncertain mint.

C67.535 (M7 R 392) Constantius II, 341–346, AE, Antioch.

C67.570 (M7 R 335) Constantius II, 341–346, AE, Constantinople.

C67.535 (M7 R 368) Constantius II, 341–346, AE, Cyzicus.

C67.535, 570 (M7 R 408, 2 examples) Constantius II, 341–346, AE, uncertain mint.

C67.535 (M7 R 463) Constans, 341–346, AE, Alexandria.

C67.535 (M7 R 442) Constans, 341–346, AE, Constantinople.

C67.535 (M7 R 456) Constans, 341–346, AE, Cyzicus.

C67.535 (M7 R 434) Constans, 341–346, AE, Heraclea.

C67.535 (M7 R 467) Constans, 341–346, AE, uncertain mint.

C67.501, 530 (M7 R 381, 2 examples) Constantius II, 351–361, AE3, Cyzicus.

C67.528, 538, 570 (M7 R 413, 3 examples) Constantius II, 351–361, AE3, uncertain mint.

C67.529 (M7 R 483) Constantius Gallus, 351–354, AE2, Cyzicus.

C67.538 (M7 R 415) Constantius II, 356–361, AE4, uncertain mint.

C67.527 (M7 R 575) Valentinian I, 364–365, AE3, Constantinople.

C67.570 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint.

C67.526 (M7 R 774) Theodosius I, 379–392, AE4, uncertain mint.

C67.570 (M7 R 780) Theodosius I, 383–395, AE4, uncertain mint.

C67.570 (M7 R 903) Honorius, 395–408, AE3, Cyzicus.

C67.570 (M7 R 919) Honorius, 395–408, AE3, uncertain mint.

C67.570 (M7 R 906) Honorius, 402–408, AE3, Cyzicus.

C67.525 (M7 R 923) Honorius, 402–408, AE3, uncertain mint.

C67.545 (M7 R 1027) Valentinian I–III, 402–408, AE3, Cyzicus.

C67.523 (M7 R 1068) Valentinian I–III, 408–423, AE3, uncertain mint.

C67.523A (M7 R 986) Valentinian I–III, 410–455, AE4, Rome.

INSCRIPTIONS

IN67.41=WP67.1 Fig. 324 Vermilion dipinto on white plaster from W wall of Shop; 47 large and numerous small fragments, not reconstructed; 2 different letter sizes which occur together on the same fragment, the smaller above the larger letters.

E 45.00–46.00/S 0–5.00 *97.50, *in situ* as fallen.

METAL

Copper Alloy

Uninv. 67 (M8 493) Bowl, dented but apparently hemispherical with slightly concave base; max. P.H. 0.06, diam. base ca. 0.027.

E 50.00/S 3.20 *97.24.

POTTERY

Pottery finds for which detailed descriptions are unavailable include coarse redware—6 amphorae, an unguentarium, 3 bowls, a dish—a pithos and lid, a combed ware bowl and a fine redware plate.

Uninv. 67 Fig. 326 Fragment of amphora neck with small pulled handle, divided at end and pressed onto vessel; P.H. 0.09, max. diam. 0.08.

E 50.00–55.00/S 0–4.00 *96.70–*96.20.

Cf. E 5, Fig. 245, E 16, Fig. 532, complete amphorae with scar for such a handle. Handle applied as *Agora V* 108, M 255, pl. 41.

Uninv. 67 Large shallow bowl, upright rim with molding and sharp carinations on ext., smooth on int., ring foot unevenly cut away from wall and damaged before firing; coarse red body, slipped on ext. and int.; max. diam. 0.256.

E 50.00-55.00/S 0-4.00 *96.70-*96.20.

Cf. E 5, Fig. 250.

Uninv. 67 Fig. 327 Similar bowl found with above; H. 0.08, diam. 0.254.

POTTERY LAMPS

L67.17:7350 Fig. 328 Handle, hollow, mold-made; head (Bacchus?) framed by vine and grapes; H. 0.03, W. 0.03.

E 53.67/S 1.17 *97.28.

Similar to the complete example in W 8, L59.4:1246, Fig. 93.

L67.19:7374 Fragment, solid handle and part of discus P., relief shows upper part of lion (?) in discus, vines on rim; P.L. 0.038.

E 50.00-55.00/S 0-4.00 *97.60-*97.20.

STONE

Uninv. 67 Fragments of large tray; curved side, flat bottom set off from side, white marble; H. 0.07, diam. 0.70.

E 51.00-52.00/S 1.50-2.50, on the floor.

It is cemented in the N wall niche in the restoration of E 7.

E 9 Figs. 329-337

EXCAVATIONS

1967 J. S. Crawford overburden to floor, *BASOR* 191, 22, associated with E 10 and 11. 1973 J. S. Crawford, T. Yalçınkaya cleaning and restoration, *BASOR* 215, 52. For discussion of E 9-E 11 as a hardware store with parts of 127 bronze and iron locks in addition to tools, *SPRT* 165.

E 56.06-61.00. Floor at *96.46, packed earth with stone slabs in NE corner.

N wall: L. 4.56, W. 2.19, H. 1.94. S wall of Syn MH (Seager, "Building History," 427) large fieldstones with one lacing course of 4 bricks P.

E wall: L. 3.70, W. 0.69, H. 1.15. W. of doorway 1.00. Small fieldstones with one brick lacing course except 0.62 of large fieldstones at joint to S wall.

S wall: L. 4.44, W. 0.72, H. 1.13. W. of doorway 1.44. Niche 0.21 x 0.98; spread footings 0.22. Pier W of door finely cut marble spoils, size of blocks relatively standard L. 0.87, W. 0.72, H. 1.10. Pier E of door (L. 0.89, W. 0.90, H. 1.10) finely cut, marble spoils on faces, but the bonding sides are rough. Infill (W. 0.99) in E section almost completely brick, but with a few small fieldstones.

W wall: L. 3.71, W. 0.62, H. 1.80. Niche 0.71 x 0.46. See E 8, E wall; backs for niches are one-brick thick.

Interior: Table similar to that in E 8 near S door, constructed of 4 vertical drain pipes with tiles used as a top. A stairway

rises in the NE corner, supported by large pipes placed horizontally and used as storage areas. Just to the E of the stairway was a toilet. Stone paved platform slants towards drain under stairway.

The walls were frescoed as in E 8. All that remained on the wall were patches of undecorated white plaster, but several fragments found in the fill had red paint on a white background and one had a vermilion rosebud.

A marble mortar lay beside the stairs. Although it was empty, three lumps of yellow material were found nearby. There was a small lead bowl near the doorway in the E wall. Concealed in a chink in the W wall was an inlaid bronze brooch similar in type to that found in E 6 (J73.1:8221, Fig. 338). A marble plaque with an incised design showed two fish, one hooked.

Metal finds were so numerous that E 9-E 11 quickly earned the nickname of "the hardware store." From the second story deposit came a handle and a lead bowl containing glass fragments found near the south wall close to the door. From the first story came a pounder, a handle, a cosmetic spoon, a vessel lid, and a censer (M67.35:7584, Fig. 339). From either E 9 or E 10 at second story level came a bell and three flask lids.

The mortar and yellow material are reminiscent of E 6-E 8, but the metal finds, and especially the interconnection with E 10-E 11, which clearly sold hardware, especially locks, suggest E 9 had a related function. It is harder to explain the twenty-three amphorae, most of which came from the upper story deposit. One could suppose that the upper story might have been rented out for storage to another party.

A broken roof tile (T67.8:7376, Fig. 343) was found at floor level of the first story. It is inscribed with the letters "... etc" below a Greek cross with curved bars at the ends. This might be taken as an indication of the religion of the Shop's occupants, except that craftsmen very frequently inscribed tiles at the time of manufacture with anything they pleased. This is definitely the case here, since the marks were obviously made with a finger when the clay was damp. If the tile was laid in the floor with its inscribed face down, no one would ever have seen it.

ARCHITECTURAL FRAGMENTS

BS 73.12 Double column fragment, white marble; L. 0.70, base 0.34.

E 57.00/S 6.50 *96.50, in front of Shop.

BS 73.13 Composite capital fragment, white marble; H. 0.27, W. 0.28, L. 0.40.
E 57.80/S 7.70 *97.00.

COINS

C67.685 (M7 R 413) Constantius II, 351–361, AE3, uncertain mint; E 60.81/S 3.90 *96.34.

C67.720 (M7 R 502) Julian, 355–361, AE4, Cyzicus; E 60.81/S 3.90 *96.64.

C67.685 (M7 R 1088) Marcian, 450–457, AE4, uncertain mint; E 60.81/S 3.90 *96.34.

Uninv. 67 (M1 122) Justinian I, 545/546, follis, Constantinople; E 55.45/S 3.14 *97.56.

Uninv. 67 (M1 461) Justin II, 565–578, follis, Nicomedia; E 59.31/S 2.99 *96.30.

Uninv. 67 (M1 338) Justin II, 570/571, follis, Constantinople; E 59.31/S 2.99 *96.30.

Uninv. 67 (M1 710) Justin II-Maurice, 571/572 or 588/589, half follis, Constantinople; E 58.77/S 3.72 *96.41.

Uninv. 67 (M1 443) Justin II, 574/575, half follis, Thessalonica; E 54.92/S 1.55 *96.79.

Uninv. 67 (M1 570) Maurice, 582/583, half follis, Constantinople; E 54.00–55.00/S 2.00–4.00 *96.08.

Uninv. 67 (M1 567) Maurice, 583–601, follis, Constantinople; E 59.31/S 2.99 *96.30.

Uninv. 67 (M1 795) Phocas, 603–610, follis, Nicomedia; E 55.46/S 3.31 *96.68.

Hoard C, as designated by G. Bates, consisted of 6 coins at E 57.30/S 3.71 *96.55, of which one coin was identifiable. (Mistakenly listed as found in 1963 in *Sardis* M1, 151.)

Uninv. 67 (M1 24) Anastasius I, 491–518, nummus, Constantinople.

METAL

Copper and Copper Alloy

Uninv. 67 (M8 94) Bell, hemispherical; cast in one piece; max. P.H. 0.039, diam. base 0.03.

E 60.00/S 2.20 *96.89, with another fragmentary bell.

J73.1:8221 (M8 684) Fig. 338 Brooch; circular copper alloy frame with glass paste inlays: center square amber, circles amber to brown, arcs light green, triangles deep blue to purple; diam. 0.052, H. rim 0.008.

E 56.06/S 4.40 *97.15, hidden in niche in W wall.

BASOR 215, 52, fig. 21, mistakenly located in E 8. Cf. J73.2: 8222 in E 6, Fig. 283, and a similar brooch, J79.1:8439, found at MMS/S, *BASOR* 249, 8, fig. 10.

M67.35:7584 (M8 585) Fig. 339 Censer, hemispherical bowl, slight carination below straight rim, 3 high, ridged feet, one

chain loop P.; bowl hammered sheet metal, feet solid cast; H. 0.055, diam. 0.078, H. feet 0.02.

E 56.19/S 0–0.80 *96.39.

Cf. an almost identical censer in Istanbul with inscribed rim, *Anat. Civ. III* 173 no. C53.

Uninv. 67 (M8 549) Flask or vessel lid, low cylindrical sides, flat top, no trace of handle; max. P.H. 0.075, diam. ca. 0.135, Th. 0.001.

E 57.90/S 3.71 *96.57.

Uninv. 67 (M8 540–542) Three cylindrical flask lids: hammered sheet metal joined with toothed seam: 540 max. P.H. 0.043, diam. ca. 0.038; 541 max. P.H. 0.05, diam. 0.048; 542 analyzed as unalloyed copper, H. 0.033, diam. 0.055.

E 61.00/S 2.20 *96.89.

Similar to lid of M67.29:7475, Figs. 212, 214.

Uninv. 67 (M8 637) Cosmetic spoon, shell shaped bowl, molded handle; analyzed as unalloyed copper; max. P.L. 0.024, diam. bowl 0.006.

E 55.00–58.00/S 0–4.00 *96.30.

Iron

Uninv. 67 (M8 556) Handle, S-curved with round section, flattened at lower end for attachment to vessel, upper end split for attachment to lip; bits of charcoal adhering; H. 0.155, Th. 0.024.

E 55.00–58.00/S 0–4.00 *96.80–*96.00.

Uninv. 73 (M8 408) Key with ring; max. L. 0.048, diam. ring 0.033.

E 57.50/S 2.50 *96.40.

Uninv. 67 (M8 171) Pounder, trapezoidal head; long, tapered, rectangular tang; max. P.L. 0.208, W. base 0.047.

E 55.20–58.00/S 0–2.50 *96.40–*96.20.

Cf. M69.1:7917 and an uninv. example in E 5, Figs. 240, 241.

Lead

M67.30:7476 (M8 505) Fig. 340 Bowl, concave base, flaring sides with slight carination below everted rim, 4 triangular lugs attached to rim; found filled with glass fragments; H. 0.04, diam. ca. 0.11–0.14.

E 61.00/S 2.20 *96.89, near doorway in E wall.

POTTERY

In addition to the pieces described below finds included a combed ware pithos, 2 white-slipped and 21 coarse redware amphorae, 2 fine redware plates and a coarse redware basin and bowl. A wide-mouth storage jar was found near the E wall door with the cooking pot *infra* (Fig. 337).

Uninv. 67 Fig. 341 Ca. 2/3 globular cooking pot, 2 handles attached under rim, smooth join to shoulder, rim smoothed down and outward at edge; upper part ridged on ext. and int.; gritty cooking pot fabric fired red; P.H. 0.183; max. P. diam. 0.206; diam. mouth 0.13; Th. wall 0.004.

E 60.25/S 3.03 *96.28.

Aker no. 29, compared to similar pots found in the Hanghäuser at Ephesus.

P67.84:7478 Fig. 342 Sherd ridged on int., smoothed ext. with very micaceous self-slip applied with a sponge; max. dim. 0.08; Th. 0.005-0.006.

Dipinto: branch, after firing; H. 0.04.

E 55.00-58.00/S 1.00-4.00 *96.80-*96.00.

STONE

Uninv. 67 Fragment of fluted column and base, hollowed for use as a mortar.

E 58.00/S 0.40 *96.90.

Uninv. 67 Fig. 333 Round, shallow mortar; 2 rounded handles set off from rim, divided into 4 wedges by grooves, rounded spout with pour channel through rim; marble; diam. ca. 0.35.

E 59.60/S 1.50, on slanted platform near stair.

Uninv. 67 Plaque with incised dolphins, one hooked on a line; marble, possibly reused revetment.

E 60.42/S 1.42 *97.28.

TILE

T67.8:7376 Fig. 343 Two joining fragments of floor tile; finger-drawn cross with equal length arms with cross bars, 2 zig-zag lines on r., ins. . . . ETE; decorated before firing, rough bottom with many embedded stones; L. 0.345, P.W. 0.205, Th. 0.035-0.055.

E 60.25/S 1.02 *96.54, at floor level.

E 10 and E 11 Figs. 344-350

EXCAVATIONS

E 10: 1967 J. S. Crawford overburden to floor, *BASOR* 191, 22. 1968 J. S. Crawford cleaned and recorded, *BASOR* 199, 44. 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52. *E 11:* 1967, 1968 J. S. Crawford overburden to floor, *BASOR* 191, 22 and 199, 44. 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52. For discussion of the complex as a hardware store, see *SPRT* 162-165, *Sardis: Twenty-Seven Years*, 43.

E 10

E 61.38-67.77. Floor at *96.02, packed earth, stone slabs over drain (objects noted as on or near floor were recorded at *96.20).

N wall: L. 6.65, W. 1.20, H. 2.04. Niche cut out of E arch 1.25 x 0.51 found full of pottery. S wall of Syn MH (Seager, "Building History," 427), small fieldstones with brick lacing courses above semi-circular arches of 2 concentric brick courses, fieldstone in the lunette.

E wall: L. 3.64, W. 0.14, H. 0.71. W. of doorway 1.45. A late phase partition wall one brick thick, probably a low divider rather than a true wall (H 0.60), not bonded to the N or S wall. *S wall:* L. 6.49, W. ca. 0.75, H. 1.50. Spread footings 0.18. W. of W doorway 1.04, of middle doorway 1.55, of E door-

way 1.31. W pier (0.725 x 0.94 x 0.624) between W and middle doors coincides with face of W wall, built of marble spoils below one-brick lacing course and large fieldstones. Second pier (1.44 x 0.91 x 0.71) between middle and E doors, similar construction but less well P.

W wall: See E 9, E wall. Spread footings 1.12. Pier at junction of S and W walls 0.70 x 0.69 x 1.52. Small niche, L. ca. 0.60, H. ca. 0.10.

Interior: Enclosure by central door 0.89 x 1.03 made of vertical drain pipes and brick. Toilet in NE corner. Raised, brick platform abuts pier in S wall. On it was a large pile of charcoal, possibly once a cabinet; definitely not a forge, which would have required thick, brick walls. Near door in E wall were several upright stone slabs around the mouth of a large pithos set into the floor.

E 11

E 67.94-71.11. Floor at *96.05, packed earth and slabs over a drain (objects noted as on or near floor were recorded at *96.20).

N wall: L. 3.17, W. 1.17, H. 2.09. S wall of Syn MH (Seager "Building History," 427) small fieldstones with 2 brick lacing courses P.

E wall: L. 3.64, W. 0.82, H. 1.20. Spread footings 0.08. H. of ledge from floor, 0.69. Irregular construction. Lower courses fieldstone. Arch (W. 0.59) of schist slabs over drain. Drain offsets cause wall to be thicker up to 0.69 from floor level. Brick lacing courses at joint of offset to wall and throughout upper levels.

S wall: L. 3.05, W. ca. 0.62, H. 1.50. Door W. 1.19, distance to W wall, 0.62, to E wall, 1.32. W pier fieldstone with 3 upper courses of brick. The 5 lower courses of E pier finely-cut, reused marble blocks, one 3-brick thick lacing course P. above.

W wall: See E 10, E wall.

Interior: In the SE corner 6 pipe sections built into a brick platform for storage, found filled with locks, lock face plates and other lock parts, Figs. 344, 348. Just N were 4 pipes arranged in ascending order of size possibly a stairway support (see E 9 *supra*); their poor state of P. makes this only supposition.

The evidence suggests that E 10 may have been a hardware store that specialized in the sale and perhaps repair of locks. There was an unusual preponderance of face plates among the 127 lock pieces from E 9-E 11, without the corresponding lock mechanisms. It seems possible that the pottery crucibles (Figs. 370-371) might have been used to melt or heat metals used in lock assembly or repair. A blowpipe might have been used to raise the temperature of a small fire to the necessary heat level. No evidence for casting or forging exists.

The most important metal find, unique thus far at Sardis, was the elaborate iron window grille (Fig. 347) which had fallen forward onto the Colonnade floor.

A large number of coins came from E 10, including three hoards from the lower story: Hoard J (28 coins total), Hoard S (28 coins total), and Hoard AA (12 coins total).

E 11 must be considered as part of E 10, since it was separated by only a low, brick partition wall, one brick thick. The Shop had its own door to the Colonnade as well as an interconnecting door to E 10. As in E 10, a varied stock of hardware was found in the Shop: a censer lid (Fig. 355), three simple buckles (one in Fig. 354), and a bowl (all from the upper story); a billhook (Fig. 363), cultivating fork (Fig. 364), hammer-adzes (Fig. 362), smith's set, pan scraper, ladle (Fig. 365), and fifty-five lock parts (all from the first story floor).

A unique find was a piece of pumice. A small, purple and white veined marble bowl (S68.30:7821, Fig. 379) was the only catalogued stone find.

The relatively small size of E 11 and the large number of finds suggests that the Shop was a storeroom for E 10, perhaps with an additional common access between the upper stories of the two Shops.

A pair of reliefs in the Vatican (Galleria Lapidaria), from a tomb discovered in the early nineteenth century in the Villa Negroni-Massimo, provide an illustrative comparison. The work is identified by its inscription as the tomb of the cutler Lucius Cornelius Atimetus, and was intended for him, his freedwoman Epaphra, and his other freedmen and women and their posterity. One relief (Fig. 37) shows the actual production of implements with hammer and forge. The other (Fig. 38) shows a retail shop, where a salesman offers a knife to a customer. The two figures stand before a tall cabinet and display rack, from which hang daggers, knives, pounders, sickles, pruning hooks, triangular tailor's cutters and sets of knives in cases. Though the reliefs are dated by E. Simon to the middle Flavian period, therefore antedating the Byzantine Shops by centuries, the reliefs give an idea of what the interior of Shops E 9–E 11 might have looked like. It is also tempting to suppose that the two scenes represented separate locations, one for the production of goods, the other for sales. The fear of fire in a heavily populated commercial center would be a very good reason to exile forges, kilns and other manufacturing processes involving fire to the outskirts or suburbs of a city.³⁴

FINDS FROM E 10

COINS

C67.714 (M7 GR 399) Unidentifiable, Hellenistic; E 62.10/S 3.02 *96.48.

C67.684 (M7 GR 310) Gordian III, 238–242, AE24, Sardis; E 62.54/S 2.11 *96.73.

C67.656 (M7 R 345) Constantius II, 355–361, AE3, Constantinople; E 66.80/S 1.78 *97.02.

C67.735 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 65.79/S 1.60–3.21 *96.46.

C67.744 (M7 R 901) Honorius, 393–395, AE3, Cyzicus; E 66.11/S 2.65 *96.15.

C67.747 (M7 R 747) Theodosius I, 393–395, AE2, Nicomedia; E 65.61/S 1.69 *95.78.

C67.675 (M7 R 851) Arcadius, 395–408, AE3, Antioch; E 65.41/S 3.62 *97.25.

C67.747 (M7 R 813) Arcadius, 395–408, AE3, Constantinople; E 65.61/S 1.69 *95.78.

C67.739, C67.743 (M7 R 861, 2 examples) Arcadius, 395–408, AE3, uncertain mint; E 65.42/S 0.63 *96.29; E 62.61/S 2.67 *96.91.

C67.742 (M7 R 1013) Valentinian I–III, 395–408, AE3, Nicomedia; E 62.61/S 2.77 *95.91.

C67.735 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 65.79/S 1.60–3.21 *96.46.

C67.650 (M7 R 870) Eudoxia, 400–404, AE3, Cyzicus; E 61.60/S 1.61 *97.87.

C67.722A (M7 R 986) Valentinian I–III, 410–455, AE4, Rome; E 61.00–63.00/S 3.50–4.00 *96.44.

Uninv. 67 (M1 52) Justin I, 518–527, follis, Constantinople; E 64.78/S 2.30 *96.20.

Uninv. 67 (M1 62) Justin I, 518–527, penta., Constantinople; E 65.42/S 0.63 *96.29.

Uninv. 67 (M1 319, 324) Justin or Justinian I, 518–538, penta., Constantinople; E 61.55–61.65/S 2.30–2.60 *96.30, found together with 25 other small coins.

Uninv. 67 (M1 109) Justinian I, 527–538, follis, Constantinople; E 62.10/S 3.02 *96.48.

Uninv. 67 (M1 227, 228) Justinian I, 550/551, folles, Nicomedia; E 62.74/S 2.65 *96.30; E 64.49/S 3.99 *96.73.

34. E. Simon in Helbig/Speier, 305–306, no. 400, inv. no. 9277. See also a terracotta plaque from a cutler's tomb on Isola Sacra. Meiggs², 470, pl. 28, with lit. The tomb dates to the reign of Hadrian

or Antoninus Pius. For a blacksmith's funerary relief from Aquileia showing a lock and other implements, see Rostovtzeff I, pl. 30, 4, with lit.

Uninv. 67 (M1 392) Justin II, 565–578, penta., Constantinople; E 66.43/S 1.05 *94.26.

Uninv. 67 (M1 462) Justin II, 565–578, follis, Nicomedia; E 65.85/S 0.66 *96.21.

Uninv. 67 (M1 515) Justin II, 565–578, penta., uncertain mint; E 65.79/S 1.60–3.21 *96.46.

Uninv. 67 (M1 718) Justin II-Maurice, 565–602, half follis, uncertain mint; E 66.52/S 2.58 *96.00.

Uninv. 67 (M1 341) Justin II, 570/571, follis, Constantinople; E 63.12/S 2.59 *96.54.

Uninv. 67 (M1 602) Maurice, 583–602, deca., Constantinople; E 61.92/S 2.13 *96.73.

Uninv. 67 (M1 653) Maurice, 584–601, follis, Cyzicus; E 65.89/S 2.53 *96.20.

Uninv. 67 (M1 618) Maurice, 586/587, half follis, Thessalonica; E 65.79/S 1.60–3.21 *96.46.

Uninv. 67 (M1 650) Maurice, 588/589, follis, Cyzicus; E 67.52/S 2.39 *96.26, found with M1 848 *infra*.

Uninv. 63 (M1 655) Maurice, 601/602, follis, Cyzicus; E 66.00–67.00/S 0.50 *98.00.

Uninv. 67 (M1 733) Phocas, 605/606, follis, Constantinople; E 63.49/S 1.85 *96.23.

Uninv. 67 (M1 848) Heraclius, 612/613, follis, Constantinople; E 67.52/S 2.39 *96.26, found with M1 650 *supra*.

Hoard J, as designated by G. Bates (*Sardis* M1, p. 152), consisted of 28 coins found at E 64.00–64.30/S 4.14 *96.66, of which 3 were identifiable:

Uninv. 67 (M1 114) Justinian I, 538/539, follis, Constantinople.

Uninv. 67 (M1 225) Justinian I, 539/540, follis, Nicomedia.

Uninv. 67 (M1 429) Justin II, 569/570, half follis, Thessalonica.

Hoard S, as designated by G. Bates (*ibid.* p. 153), consisted of 28 coins found at E 62.50–63.00/S 2.65 *96.30, of which 2 were identifiable:

Uninv. 67 (M1 315) Justin I–Justinian I, 518–538, penta., Constantinople.

Uninv. 67 (M1 527) Tiberius II, 579–582, half follis, Constantinople.

Hoard AA, as designated by G. Bates (*ibid.* p. 154), consisted of 12 coins found at E 60.81/S 3.90 *96.31, of which 3 were identifiable:

Uninv. 67 (M1 634) Maurice, 587/588, follis, Nicomedia.

Uninv. 67 (M1 636) Maurice, 588/589, follis, Nicomedia.

Uninv. 67 (M1 561) Maurice, 591/592, follis, Constantinople.

METAL

Copper Alloy

Uninv. 67 (M8 545) Flask lid, as E 4, Figs. 212, 214. E 66.47/S 2.70 *96.21.

Uninv. 67 (M8 365, 366) Figs. 351, 352 Two locks, cylindrical cases show lathe marks, removable cap on each end, on one end slot and round opening that does not correspond to known key shapes which in turn correspond to openings in the mechanism; iron mechanisms; L. 0.075, diam. 0.0475. E 66.45/S 2.70 *96.25.

M67.13:7375 (M8 385) Fig. 353 Circular lock plate with toothed edges, incised concentric circles, 2 slots and 4 attachment holes; diam. 0.06. E 65.50/S 3.38 *97.94.

M67.27:7473 (M8 935) Panpipes, remains of 3 straight pipes P. out of 6 excavated; joined by narrow raised bands around each pipe, no holes or stops visible; marks from disintegrated cloth on surfaces when excavated; max. P.L. 0.08, diam. one pipe 0.01, Th. 0.0005. E 66.17/S 2.59 *96.21. *BASOR* 191, 22.

Iron

Handle

Uninv. 67 Fig. 359 Lifting handle with lead to attach it to a heavy lid or stone; max. H. 0.051, diam. handle 0.042. E 60.00–65.00/S 0–1.00 *97.40

Pick-axes

M72.5:8196 (M8 140) Flat blade, splayed at edge, tapered point, central socket; max. P.L. 0.229, H. at socket 0.05. E 65.40–65.65/S 4.50–4.80 *96.99.

M72.6:8197 (M8 141) Fig. 360 Similar to above; max. P.L. 0.32.

E 63.82/S 4.50–4.80 *97.08.

Shovels

M72.7:8198 (M8 114) Fig. 361 Nearly rectangular blade with rounded corners, slight taper to edge, large open hammered socket; max. P.L. 0.397, max. W. blade 0.0202.

E 64.90–67.00/S 4.50–6.10 *96.90. Two similar shovels (M8 115, 116) were found together outside the Shop with other hardware at E 60.00–66.00/S 4.00–6.00.

Sledgehammer

Uninv. 67 (M8 144) Socketed head with square section at each end; max. P.L. 0.21, W. at socket 0.053. E 64.90–67.00/S not recorded *97.60–*96.00.

Window grille

Uninv. 68 (M8 263) Fig. 347 Two long parallel bars crossed at r. angles by 3 shorter bars, 2 short iron points riveted to the

bars at each of the 6 junctions project into the openings; H. 0.725, W. 0.47–0.50.
E 62.50/S 5.60 *96.95, in front of Shop. Leading was found near the grille but was from another window. The grille was not glazed.

POTTERY

Pottery recorded but not described below included coarse redware—2 amphorae, 2 bowls, one with decoration on the rim, a cup—2 pithoi, one set into the floor; a white-slipped pithos; and a black cooking pot.

Uninv. 67 Fig. 369 Basin with out-turned rim, straight sides, ext. 2 sets of 6 grooves, int. ridged; coarse, brick-like clay, blackened slip remains in grooves; H. 0.156, diam. 0.391. E 62.00–65.00/S 0–0.40 *96.89.

Uninv. 67 Fig. 370 Beaker-shaped crucible, wall slants slightly outward, rim smoothed inward, flat bottom; hard, gritty clay fired dark gray; sides bulged outward and cracked from heat; dull slag residue flowed over lip and down side; clear slag of a copper, zinc, tin alloy bubbled up on side and in crack of int.; H. 0.096, diam. 0.090. E 66.45/S 2.70 *96.20.
See Appendix 2, BS TS 3.

Uninv. 67 Fig. 371 As above, but not misshapen; residue of brown powder on upper part of int. with spots of bright yellow, the color of sulfur; glassy slag dribbled over rim covers ca. 1/4 wall surface and overlies the deposit on the ext. not on the int.; H. 0.094, diam. 0.092.
Found with above.
Cf. P67.36:7384 in E 11 found at *97.18.
See Appendix 2, BS TS 4 and 5.

P67.83:7477 Fig. 372 Flask, completely flat back, rounded front with concentric ridges, button in center; part of neck and handles missing; pink-buff micaceous clay with many inclusions and blowouts on the surface, fine red slip on ext., flat side shows impressions of matting; P.H. 0.188, diam. body 0.15, D. sides 0.105. E 65.60/S 2.82 *96.20.

Uninv. 67 Body fragment of pithos; thick coarse fabric with smoothed self-slip; Th. 0.012.
Graffito: M neatly scratched after firing, broken at r., may be part of another letter on lower r.
E 60.00–61.00/S 0–1.00 *96.44.

STONE

S68.24:7799 Fig. 378 Miniature capital in one piece with fragment of cylindrical shaft, low relief, abraded foliate pattern with 2 deep holes; possibly a furniture support; gray and white veined marble; P.H. 0.138, diam. column 0.065. E 65.00–71.00/S 0–5.00 *97.20.

FINDS FROM E 11

COINS

C67.676 (M7 R 412) Constantius II, 346–361, AE2 or 3, uncertain mint; E 68.91/S 2.75 *96.85.

C68.247 (M7 R 347) Constantius II, 351–361, AE3, Constantinople; E 68.00–71.00/S 3.00–4.00 *96.20–*96.05.

C67.48 (M7 R 790) Flaccilla, 383–386, AE2, Alexandria; E 69.36/S 1.93 *96.84.

C68.249 (M7 R 1062) Valentinian I–III, 402–408, AE3, uncertain mint; E 68.00–71.00/S 3.00–4.00 *96.20–*96.05.

Uninv. 67 (M1 572) Maurice, 582/583, half follis, Constantinople; E 69.78/S 1.21 *96.84.

Uninv. 68 (M1 555) Maurice, 586/587, follis, Constantinople; E 70.63/S 1.13 *96.05.

Uninv. 64 (M1 891) Heraclius, 612–614, follis, Constantinople; E 70.00/S 2.60 *98.00.

METAL

*Copper Alloy**Buckles*

Uninv. 67 (M8 707, 708) Two buckles, U-shaped bar with loops at the ends that fit over ends of a straight bar, tongue attached to curved bar; 707: H. 0.036, W. 0.024; 708: H. 0.033, W. 0.021, tongue missing. E 70.00–71.00/S 0–4.00 *97.20.

Uninv. 67 (M8 710) Fig. 354 As above, ogival with narrow bar to which tongue (missing) was attached; H. 0.03, W. 0.024. E 70.00–71.00/S 0–4.00 *97.20.

Cf. *Saracane* I no. 554, found with 9th C. coins; Russell, "Instrumenta," type 9, fig. 6, nos. 4–5, probably early 7th C.

Censer lid

Uninv. 67 Fig. 355 Conical with pierced knobbed top; H. 0.006, diam 0.070. E 70.66/S 2.50 *97.24.

Lock

Uninv. 68 (M8 358) Fig. 358 Rectangular, keyhole below center, vertical slot above rear l. edge; rivet hole in each corner; incised lines across corners; H. 0.038, W. 0.041, H. rim 0.013. E 70.00–71.00/S 2.20–2.80 *96.30, from tiles in storage area. Three similar plates recorded from E 9–E 11.

Lock plates

M68.10:7716 (M8 381) Fig. 356 Rectangular, raised border strips attached by rivets; sides decorated with variant of egg and dart, "eggs" hollowed to hold inlay (missing); vertical slots at l. and r. edges, remains of round attachment holes in upper and lower l. corners, in center a horizontal keyhole

flanked by attached strips in the form of columns with triangular finials; incised circles with holes punched through centers decorate face; max. P.W. 0.107, max. P.H. 0.07. Locus as above.

Uninv. 67 (M8 382) Fig. 357 Rectangular, plain raised border strip around edges attached with rivets, circular attachment hole in each corner, horizontal oblong keyhole flanked by columns as M68.10:7716 *supra*; H. 0.048, W. 0.06. Locus as above.

Uninv. 67 (M8 383) Similar to above but undecorated, vertical slot at r. and l. edge, horiz. oblong keyhole in center; H. 0.07, W. 0.089. Locus as above.

Iron

In addition to the objects listed below, a trapezoidal chunk of iron, H. 0.140, W. top 0.10, bottom 0.195 was found near the lock parts and was thought to be an anvil (*BASOR* 191, 22). Three circular rings for a door assembly were found at E 68.00-71.00/S 0-3.00 *97.20.

Billhooks

Uninv. 67 (M8 122) Fig. 363 Curved blade, pointed end, straight shaft with hammered open socket; max. P.L. 0.344. E 67.94-71.11/S 2.50-3.00 *96.20, with another section of curved blade (M8 123; max. P.L. 0.16).

Cultivating fork

Uninv. 67 (M8 126) Fig. 364 Two curved prongs bent at r. angles joined to form a flat handle with rectangular section; max. P.L. 0.125. E 70.00-71.00/S 2.50-3.00 *96.20. *BASOR* 191, 22.

Hammer-adzes

Uninv. 67 (M8 136) Fig. 362 High curvature in profile; thin, curved adze blade slopes down from a fairly wide socket, rounded pounding head; max. P.L. 0.23, W. at socket 0.037. E 67.94-71.11/S 0-3.00 *96.20. *BASOR* 191, 22. Cf. *Yassi Ada* I no. Fe 19.

Uninv. 67 (M8 137) Nearly flat in profile, straight adze edge, hammer square to rectangular in section, narrow socket; max. P.L. 0.233, W. at socket 0.055. Found with above.

Ladle

Uninv. 67 (M8 221) Fig. 365 Plain circular bowl, flat handle in one piece with it; P.L. 0.17, diam. bowl 0.105. E 70.00-71.00/S 0-4.00 *97.20. *BASOR* 191, 22.

Locks

Uninv. 68 (M8 368-378) Fig. 368 Eleven cylindrical padlocks, heavily corroded and fragmentary but similar to the copper alloy examples in E 10 *supra*; M8 372 has a copper

alloy ring on the back; range in size from L. 0.019 to 0.058, diam. 0.042 to 0.10.

E 70.00-71.00/S 2.20-2.80 *96.30, from pipes in storage area. Fragments of 3 more locks and 3 caps or plates were also found in this Shop.

Uninv. 68 (M8 346-357) Fig. 366 Twelve rectangular padlocks, probably with lever mechanism; all fragmentary and corroded, most with only the front plate whole or partly P.; M8 348, 351 and perhaps 354 show remains of chains or shackles; range in size from H. 0.046-0.007, W. 0.06-0.096. Locus as above.

Pan scraper

Uninv. 67 (M8 213) Wide flat blade, originally almost square, narrow handle with square to rectangular section; max. P.L. 0.295. E 68.00-71.00/S 0-3.00 *97.20.

Punch

Uninv. 67 (M8 159) Fig. 367 Short, straight shaft pointed at end, broad flat triangular blade; max. P.L. 0.10, W. blade 0.053. E 67.94-71.11/S 2.50-3.00 *96.20, with 2 other punches. *BASOR* 191, 22.

Smith's set

Uninv. 68 (M8 146) Round section, top flattened where pounded, other end narrowed to a slightly splayed edge; max. P.L. 0.20, W. edge 0.034. E 67.94-71.11/S 2.50-3.00 *96.20. For chisels from contemporary context, see *Yassi Ada* I nos. Fe 23-28.

Lead

Uninv. 68 (M8 506) Bowl, flat base, straight, slightly flaring sides, everted rim folded outward and down; H. 0.052, diam. base 0.09. E 71.00-74.00/S 0-2.50 *97.25-*96.40.

POTTERY

In addition to the pieces described below, the finds included: 7 amphorae, 6 cups, 2 pithoi with lids, 2 bowls and a basin of coarse redware; a gray ware amphora, plate and bowl; a combed redware basin and pithos; a coarse black ware amphora, plate and 4 cooking pots.

Bowls

P68.126:7797 Fig. 373 Unevenly turned, ring foot with groove around ext., upright rim with 2 carinations below; not tempered, slipped on ext. and int.; residue of iron oxide and yellow substance that may be sulfur; H. 0.045; max. diam. 0.25. E 69.10/S 1.12 *96.85.

P68.127:7798 Fig. 374 Similar to above, 3 joining fragments with incised concentric circles on int.; P.H. 0.05, diam. 0.20. E 65.00-71.00/S 0-5.00 *96.20.

P68.138:7820 Fig. 375 Fragments of fine redware shallow bowl or plate, very wide horiz. rim with incised lines and band of rouletting; est. H. 0.03–0.04, est. diam. 0.22.
E 68.00–71.00/S 3.00–4.00 *96.20–*96.05.

Crucible

P67.36:7384 Fig. 376 Beaker-shaped, identical to those found in E 10; residue cleaned without sampling, some glassy slag with green tinge, red on rim remains, iron stain on either side (where gripped by tongs?); H. 0.095, diam. rim 0.010, base 0.055.
E 70.66/S 2.50 *97.18.

Jug

Uninv. 67 Fig. 377 Neck flares outward to wide mouth, rim smoothed inward, handle (mostly missing) attached below rim and just above widest point of oval body; pink-buff micaceous clay free of inclusions, self-slip; very abraded surface shows imprint of charred fabric; H. 0.16, max. diam. of body 0.099.
E 70.40/S 3.09 *96.75.
Similar to *Yassı Ada* I no. P29.

STONE

S68.30:7821 Fig. 379 Rim fragment of bowl, plain out-turned rim; translucent purple and white veined marble, int. highly polished; H. 0.035, est. diam. 0.10, Th. 0.045.
E 68.00–71.00/S 3.00–4.00 *96.20–*96.05.

E 12 and E 13 Figs. 380–392

EXCAVATIONS

E 12: 1962 D. G. Mitten ca. E 75.00–77.23, overburden to floor in association with E 13. 1963 D. G. Mitten niche in N wall and ca. 2 m. along N wall, overburden to floor in association with Syn S wall, *BASOR* 174, 45. 1964 D. G. Mitten overburden to floor, *BASOR* 177, 17–20 “glass shop west of Sabbatios’ shop.” 1973 J. S. Crawford, T. Yalçinkaya cleaned and restored, *BASOR* 215, 52. For discussion as glass shop with 350 pieces of window panes, *SPRT* 165.

E 13: 1962 D. G. Mitten overburden to floor, *BASOR* 170, 51. 1973 J. S. Crawford and T. Yalçinkaya cleaned and restored, *BASOR* 215, 52.

E 12

E 71.93–77.23. Floor at *96.38–*96.35, tiles.
N wall: L. 5.30, W. 1.17, H. 2.00. S wall of Syn MH (Seager, “Building History,” 427). Niche D. 0.80–0.60, W. 1.05, H. from floor 0.70 (int. H. not recorded and not necessarily as restored). Three structural brick arches in wall fabric, which otherwise is constructed of mortared fieldstones.
E wall: L. 3.64. L. of N portion of wall to door, 1.50, H. 0.32, W. 0.18, 4 courses of brick only one brick thick. L. of S portion 1.12, H. 1.05, W. 0.33, fieldstones and spoils. W. of doorway 0.87.
S wall: L. 5.30, W. 1.35. W. of pier 1.33. Door in SW corner,

W. 1.35. Blocked up door in SE corner, W. 1.05, filled with brick and fieldstones. Quoins of piers are reused marble blocks. *W wall*: See E wall, E 11. Drain arch made of schist slabs: W. 1.20, H. 0.56. One brick lacing course P. at *97.00, the rest of the wall is fieldstones and spoils.

Interior: Staircase (W. 0.80, L. 1.55) in SE corner. Bottom 2 steps schist and reused marble slabs over brick; upper 3 steps each composed of 3 courses of brick. Cupboard at upper level of steps *97.40 at S 1.35–2.15; bottom of cabinet *97.05. “Closet” in stairway, L. 0.67, W. 0.80, was filled with fragments of glassware. “Counter” by door in SW corner built of rubble, L. 0.75, W. 0.37, H. 0.53 *96.80. Mortar set into floor in SE corner.

E 13

E 77.56–81.76. Floor at *96.40, probably packed earth.
N wall: L. ca. 4.20, W. 1.25, H. ca. 2.00. S wall of Syn-MH. Mortared fieldstone with brick lacing courses. A brick arch, top of extrados at *97.30, W. 0.61 is built into wall fabric.
E wall: L. ca. 3.60 Fieldstone and spoils. Removed in excavation of Hellenistic Steps, *infra* “Sondages below the Floors.”
S wall: L. ca. 4.50, W. ca. 1.00, H. unknown. Doorway in middle of wall W. ca. 1.40. Marble threshold at *96.54, pillar segment provided step down to floor. Niche E of door (W. 1.00, D. 0.15) formed when window blocked. Reused marble block masonry jambs. Rest of wall mortared fieldstone and spoils.

W wall: L. ca. 3.49, W. ca. 0.33, H. ca. 1.05. Doorway W. 0.87–1.64. N portion composed of 4 courses of brick H. 0.32, W. 0.18. S portion composed of fieldstone and spoils.
Interior: Two one-brick thick spur walls (H. 0.40, L. 0.66, W. 0.15 on W, L. 0.40, W. 0.15 on E, 0.75 apart against N wall, 2 pipe segments standing 0.22–0.23 from N wall, 2.20 from NE corner. A U-shaped brick base supported a toilet seat in the NE corner where it exits into the drain.

More substantially constructed than E 11, E 12 was interconnected with E 13 and definitely independent of E 9–11. Finds in E 12 consisted almost exclusively of glass: it would be reasonable, therefore, to posit the sale of both glass vessels and window panes. A. von Saldern has identified some of these objects: seven or eight globular vessels, bottles (Fig. 381), numerous glass lamps, goblets, concave vessel bases, and most numerous of all, 350 window panes.³⁵

Aside from the glass, the most important finds were a flat bottomed jar with a graffito, the name IOANNOY (P64.147:6189, Fig. 422), and a marble slab decorated with an incised menorah (S64.55:6587A–B, Fig. 386) found in the upper story deposit, which would tend to confirm Jewish ownership. A glass stamp decorated

35. *Sardis* M6, p. 92.

with a menorah was found in Pa-S (G67.5:7401) and provides additional evidence for Jewish makers and sellers of glass at Sardis.³⁶

A quantity of nails found within the niche in the north wall suggests to the author that a wooden cabinet was built into it. It may have had shelves on which objects were laid—an axe (M63.45:5642, Fig. 408), spearhead (?) and knife were found in the niche with a pottery lid, a lamp (L63.48:5644, Fig. 424), a ring (M63.46:5643, Fig. 406), 19 nails and other iron fragments.

The glass fragments found in E 13 numbered ca. 4000: 90% vessels, 10% window panes (Figs. 396–405). Von Saldern identified two lamps, over 350 goblets, a salver, rods, vessel base rims, a cup (or bowl), cylindrical bottles, many conical-necked bottles (tapering both up and down), and one bottle with a wide funnel neck. A number of glass vessels was found in the southwest corner of the lower story deposit.

Two important graffiti were found in the upper story deposit of E 13. The names *Sabbatios* and *Theoktistos*, in the genitive case, were inscribed on coarse ware vessels (P62.371:4692, P62.394:4735; Figs. 428, 429). According to L. Robert (*NIS* 58, pl. 11; *BASOR* 170, 51), both these names are Jewish. This evidence corroborates the theory of Jewish ownership based on the discovery of the menorah plaque in E 12.

A pottery colander, perhaps used in dyeing (P62.366:4687, Fig. 446), an amphora and a jug (P62.365:4686, P62.214:4489, Figs. 441, 448) came from the lower story, as did uncatalogued basins and jars containing yellow material. A layer of orange material (perhaps the same as that discovered in E 6 and E 7) was found in the upper story.

A metal handle attachment (M62.74:4733), balance and chisel came from the upper story. The lower story yielded three lock fragments and an ornamental attachment (M62.62:4555, Figs. 414, 415). A hoe (M67.34:4295, Fig. 417) was found in the drain at the back of the Shop.

A puzzling bronze object was found in the lower story deposit at *96.40 (M62.90:4929, Fig. 412). Not only was the form of the object puzzling, but its decoration, a Maltese cross, seems out of place in a supposedly Jewish Shop. Formerly identified as a censor or robe holder, its similarity to a weighing device from the Yassi Ada shipwreck suggests both its use and explanation of its pres-

ence in a Shop occupied by Jews; it was an object of everyday use. The occurrence of an object with a Christian symbol in a Jewish context is not entirely unique. A lamp with a Chi-Rho incised on the handle was found in a Jewish catacomb at Beth She'arim.³⁷ N. Avigad suggested to the author in conversation that such a quotidian object as a lamp would not arouse either interest or antagonism in the user, and could therefore fit unobtrusively in almost any context. The same was probably true of our bronze object.

The fact that E 13 was connected with E 12, and that numerous glass fragments were found in both Shops, would seem to suggest that the two Shops formed a single unit which sold glass objects. However, the pottery, weighing devices and layer of red-orange material in the upper story and yellow material in the vats and basins in the lower story would suggest a dye shop. It is possible that the Shop had both functions, or cooperated with the dye shops in the area.

FINDS FROM E 12

ARCHITECTURAL FRAGMENTS

Column fragments

BS 73.6 Green brecciated marble; L. 0.45, diam. 0.40.

E 75.00/S 7.00 *97.90.

BS 73.19 Pink and white brecciated marble; L. 1.60, diam. 0.34.

E 76.00/S 7.20 *97.70, in front of Shop.

Capital

BS 73.9 Pergamene, white marble; L. 0.33, W. 0.37, H. 0.27.

E 72.00/S 6.70 *97.20, in front of Shop.

COINS

C67.857 (M7 R 241) Urbs Roma, 330–333, AE follis, Heraclia; E 74.50/S 1.77 *96.49.

C67.865 (M7 R 233) Constantine I, 341–346, posthumous coinage, AE, uncertain mint; E 76.80/S 1.30 *95.36.

C67.872 (M7 R 321) Constantius II, 341–346, AE, Thessalonica; E 76.40/S 1.40 *94.31.

C67.858 (M7 R 381) Constantius II, 351–361, AE3, Cyzicus; E 76.60/S 1.42 *95.34.

C67.856 (M7 R 415) Constantius II, 355–361, AE4, uncertain mint; E 74.50/S 1.77 *96.49.

C67.854 (M7 R 766) Theodosius I, 383–395, AE4, Antioch; E 77.00/S 1.14 *96.38.

36. *Ibid.* 674; *BASOR* 191, 28, fig. 20.

37. *Beth She'arim* III 188, no. 23, pl. 70, 23.

Uninv. 67 (M7 R 1012) Valentinian I–III, 383–395, AE4, Nicomedia; E 77.00/S 1.14 *96.38.

C64.753, C65.337 (M7 R 1056, 2 examples) Valentinian I–III, 383–395, AE4, uncertain mint; E 71.00–75.00/S 0–4.00 *96.50; E 72.00–74.00/S 0–2.00 *96.60–*96.40, found when cleaning floor.

C73.48 (unpubl.) Arcadius, 393–395, AE3, E 72.00/S 4.60 *97.20.

C64.754 (M7 R 955) Theodosius II, 425–450, AE4, Cyzicus; E 71.00–75.00/S 0–4.00 *96.50.

C64.765 (M7 R 1071) Valentinian I–III, 425–455, AE4, uncertain mint; E 71.00–75.00/S 0–4.00 *96.50, found when cleaning floor.

C64.770 (M7 R 1088) Marcian, 450–457, AE4, uncertain mint; locus as above.

C64.755 (M7 R 1097) Leo, 457–474, AE4, uncertain mint; locus as above.

Uninv. 64 (M1 35) Anastasius I, 491–518, nummus, Constantinople; locus as above.

C62.353 (M1 3) Anastasius I, 498–518, follis, Constantinople; E 75.70/S 0.10–1.00 *96.75.

Uninv. 62 (M1 89) Anastasius I or Justin I, 498–527, follis, Constantinople; E 72.00/S 3.00 *96.60.

C73.64 (unpubl.) Justin I, 518–527, follis, uncertain mint; E 76.50/S 4.40 *97.20.

Uninv. 62 (M1 101) Justinian I, 527–538, follis, Constantinople; ca. E 76.00/S 1.00 *97.00–*96.75.

Uninv. 64 (M1 132) Justinian I, 527–538, half follis, Constantinople; E 74.00–75.00/S 0–3.00 *97.25–*96.40.

Uninv. 62 (M1 222) Justinian I, 527–538, penta., Thessalonica; E 75.80–80.30/S 0–4.00 *96.60–*96.40.

Uninv. 62 (M1 256) Justinian I, ca. 533–537, follis, Antioch; E 75.00/S 0–1.00 *96.75, fill on disrupted wall.

Uninv. 67, 65 (M1 157, 158) Justinian I, 538–565, dec., Constantinople; E 76.60/S 1.42 *95.34; E 72.00–74.00/S 0–1.50 ca. *96.50.

Uninv. 62 (M1 508) Justin II, 565–578, half follis, uncertain mint; E 72.00/S 3.00 *96.60.

Uninv. 64 (M1 1009) Justin II–Heraclius, 565–ca. 616, follis, Nicomedia; E 70.00–71.00/S 0–3.50 *97.50–*96.50.

C64.160 (M1 545) Tiberius II, 578–582, half follis, Rome; E 70.00–71.00/S 0–3.50 *97.50–*96.50.

Uninv. 64 (M1 825) Tiberius II–Phocas, 579–610, follis, uncertain mint; E 70.00–71.00/S 0–3.50 *97.50–*96.50.

Uninv. 64 (M1 550) Maurice, 582/583, follis, Constantinople;

E 70.00–71.00/S 0–3.50 *97.50–*96.50.

Uninv. 64 (M1 560) Maurice, 590/591, follis, Constantinople; E 71.00–75.00/S 0–4.00 *96.50, found when cleaning floor.

C73.51 (unpubl.) Phocas (?) and Leontia, 602–603, half follis, Cyzicus; E 75.50/S 3.10 *96.10.

Uninv. 65 (M1 822) Phocas, 602–610, follis, uncertain mint; E 71.00–75.00/S 0–3.50 ca. *96.50, found when cleaning floor.

Uninv. 64 (M1 730) Phocas, 603/604, follis, Constantinople; E 71.00–72.00/S 0–1.00 *96.50, in burned fill.

Uninv. 62 (M1 752) Phocas, 603–610, half follis, Constantinople; E 76.00/S 2.00 *96.30, in yellow fill.

Uninv. 67 (M1 791) Phocas, 603–610, follis, Nicomedia; E 74.12/S 1.27 *95.79.

Uninv. 64 (M1 819) Phocas, 606/607, follis, uncertain mint; E 72.00–74.00/S 2.00–3.00 *97.00–*96.50.

Uninv. 64 (M1 740) Phocas 607/608, follis, Constantinople; E 71.00–75.00/S 0–4.00 *96.50, found when cleaning floor.

Uninv. 64 (M1 800) Phocas, 608/609, half follis, Nicomedia; E 74.00–75.00/S 0–3.00 *97.25–*96.40.

Uninv. 64 (M1 842) Heraclius, 610–613, follis, Constantinople; E 74.00/S 2.50 *96.75.

Uninv. 64 (M1 993) Heraclius, 611–613, follis, uncertain mint; E 74.00/S 2.50 *96.75.

Uninv. 64 (M1 980) Heraclius, 611/612, follis, Cyzicus; E 75.00/S 3.00 *96.75, in orange earth.

C64.154 (M1 858, 863) Heraclius, 612/613, folles, Constantinople; E 74.00/S 2.50 *96.75.

Uninv. 64 (M1 932) Heraclius, 612–616, follis, Constantinople; E 72.00–74.00/S 2.00–3.00 *97.00–*96.50.

Uninv. 64 (M1 1007) Heraclius, 612–616, follis, uncertain mint; E 70.00–71.00/S 0–3.50 *97.50–*96.50.

C65.77, Uninv. 64 (M1 867, 875) Heraclius, 613/614, folles, Constantinople; E 73.00–74.00/S 0–1.50 *96.60–*96.40; E 74.00/S 2.50 *96.75.

GLASS

Bottles

Uninv. 64 (M6 484) Figs. 381, 393 Fragments from ca. 8 spherical or nearly spherical bottles, necks conical or cylindrical with funnel mouth, light aquamarine and pale green; P.H. bodies ca. 0.08, necks 0.035–0.09.
E 74.00/S 0–1.00 *96.50, next to back wall just above floor (Fig. 381); may have been in a big ridged jar found with them, *BASOR* 177, 20.

G68.3:7736 (M6 488) Fig. 394 Cylindrical, concave base (no pontil mark), pronounced shoulder, conical neck; light aquamarine; est. H. ca. 0.20, diam. base 0.07.

E 71.50–72.50/S 4.50–5.50 *96.00.

Uninv. 64 (M6 632) Fig. 395 Neck fragment, blue thread, may have been applied in a zig-zag pattern; pale green fabric; max. diam. 0.04.

E 73.00–74.00/S 1.00–2.50 *97.50–*96.50.

Uninv. 64 (M6 528) Concave base of cylindrical bottle or beaker, light aquamarine (?); P.H. 0.023, diam. 0.048.

E 70.00–75.00/S 1.00–3.00 *98.25–*98.00.

Goblet

Uninv. 64 (M6 368) Fragments of 7 multi-knobbed stems as G59.68:2194 in W 13, Fig. 44.

E 73.00–74.00/S 1.00–2.50 *97.50–*96.50.

Window pane fragments

Fragments of what A. von Saldern estimated to be 350 window panes were found at *98.25–*98.00 with vessel and lamp fragments; 2 examples are catalogued (cf. Fig. 174):

Uninv. 64 (M6 680) Clear with green tint; Th. 0.003.

E 70.00–75.00/S 1.00–3.00 *98.25–*98.00.

Uninv. 64 (M6 688) Aquamarine.

E 70.00–75.00/S 1.00–3.00 *98.25–*98.00.

METAL

Copper Alloy

M63.46:5643 (M8 716) Fig. 406 Ring with fragment of iron tongue looped around one side; ext. diam. ring 0.048, L. tongue 0.065.

E 72.00–73.10/N 0–0.75 *98.00–*97.50, in cupboard in N wall with M63.45:5642 and L63.48:5644 *infra*.

M68.8:7691 (M8 219) Fig. 407 Strainer spoon, round, almost flat bowl, round holes, handle in one piece with edge of bowl; diam. bowl 0.09, W. handle at stump 0.025, Th. handle 0.01.

E 70.90/S 5.40 *98.45, in front of Shop.

Iron

Axe

M63.45:5642 (M8 131) Fig. 408 Trapezoidal blade, broken; max. P.L. 0.098, W. 0.07.

E 72.00–73.10/N 0–0.75 *98.00–*97.50, in cupboard in N wall with M63.46:5643 *supra*, a knife, a spearhead (?), a lid, 19 nails and other iron fragments.

Knives

M64.23:6188 (M8 189) Fig. 409 Straight edge and back, rectangular tang; max. P.L. 0.097, max. W. 0.017, W. tang 0.011.

E 73.00–74.00/S 1.00–2.50 *97.50–*96.50, with two rectangular lock plates, copper alloy hooks, wire and chain links.

Uninv. 64 (M8 192) Fig. 410 Straight back, rectangular haft, convex edge; max. P.L. 0.332, max. W. blade 0.055.

E 71.00–74.00/S 0–2.50 *97.25–*96.40.

Lead

Uninv. 64 (M8 506) Bowl, flat base, slightly flaring sides, everted rim folded out and down; diam. base 0.09, diam. rim ca. 0.12, H. 0.05.

E 71.00–74.00/S 0–2.50 *97.25–*96.40, mistakenly listed in M8 as from E 11.

POTTERY

Uninv. 67 Fig. 418 Bowl, ring foot, straight, slanted wall; coarse micaceous clay, smoothed int.; H. 0.055, diam. 0.162.

E 70.00–71.00/S 2.50–3.50 *97.00.

Cf. Hayes, LRC form 3, type F.

P62.431:4818 Fig. 419 Shallow bowl, upright rim, sharp carination below set off by groove, flat bottom recessed from side; on int. ridging surrounding incised triple wavy line; micaceous pink-buff clay with few inclusions, covered with calcareous accretion but seems to have self-slip; H. 0.065, diam. 0.292.

E 70.00–73.00/S 0–3.00 *96.60, on floor.

Cf. Hayes "Sarāḡhane" 208 no. 59.

Uninv. 64 Two fragments of large, open vessel, straight wall, ledge rim, with holes drilled in wall after firing ca. 0.04 apart.

E 71.00–72.00/S 1.00–2.50 *97.25–*96.50.

P64.177:6222 Fig. 420 Flask, round-body, flat back, convex front with small plain medallion in center, vertical grooved loop handles, tall neck ribbed above handle join; buff-orange clay, surface gray from burning; H. 0.40, max. diam. 0.21.

E 73.00–74.00/S 3.00 *96.50, near S wall on floor.

P62.488:4913 Fig. 423 Jug, round body, one handle, concave base with button in center; 9 rows incised ripples at neck, below 2 sets of 2 rows, above 3 grooves; cooking pot fabric with temper (3–5 mm.), ext. nicely smoothed but no slip; traces of heating but no real charring on ext.; H. 0.195, max. diam. of body 0.167.

E 74.00/S 1.50 *96.60.

Similar to *Yassi Ada* I no. P 17 but rounder at bottom.

P64.128:6158 Fig. 421 Plate, ring foot, turned under rim, ridged on ext. and finished with indented swirl; well-adhering red slip visible through calcareous deposit; portions of rim missing; H. 0.04, diam. 0.143.

E 70.00–75.00/S 1.00–3.00 *98.25–*98.00, with window glass.

P64.147:6189 Fig. 422 Storage jar P. from mid-neck to entire base, wide mouth, no handle scars; flat bottom with impression of stone tournette; ridged on ext. and int.; micaceous clay gray from heat over most of surface; P.H. 0.265, max. diam. of body 0.231.

Graffito: [I]OANNOY, broken at r. and l., scratched on upper part of body after firing; H. letters 0.025–0.038.

E 73.00–75.00/S 0–3.00 *97.24–*96.50.

BASOR 177, 20; *SPRT*, 166.

POTTERY LAMPS

L63.48:5644 Fig. 424 Horiz. grooved handle, rays on rim

converge in "tree" on nozzle, plain, slightly concave discus with single pour hole; buff slip; H. 0.035, L. 0.077.

E 73.10-72.00/N 0.75, in niche in N wall with M63.46:5643 and M63.45:5642 *supra*.

L64.31:6185 Fig. 425 Ca. 2/3 P., concave discus with relief lion couchant (missing head and neck), double framing ring—outer ends in spiral on either side of nozzle, inner opens to form narrow channel on nozzle—rinceaux with leaves and berry clusters on rim; ring foot, bottom depressed with relief outline of footprint; charred at nozzle, clay gray from heat, no trace of slip; H. 0.025, L. 0.075.

E 74.00/S 3.00 *96.70.

L64.33:6187 Fig. 426 Concave discus with rosette around single hole, double framing ring surrounds nozzle with tongues on either side, tendril with 3 lobes or berries extends from each side of solid vertical handle; flat bottom, concentric rings frame footprint; H. 0.025, L. 0.07.

Found with above.

Cf. *Agora* VII no. 350.

L64.32:6186 Fig. 427 As above but 3 rows of raised dots on shoulder; pink-buff micaceous clay stained with yellow deposit; top half only P.; L. 0.075.

E 71.00-72.00/S 1.00-2.50 *97.25-96.50.

Cf. *Ibid.* no. 349.

STONE

In addition to the finds listed below, a small marble mortar was set into the floor in the SE corner (Fig. 382).

S64.29:6183 "Elbow" pestle, oval grinding surface; coarse gray marble, all surfaces smoothed; L. 0.15, max. diam. grinding surface 0.049.

E 73.00/S 3.00 *96.00.

S64.55:6587A-B Fig. 386 Two fragments of flat marble slab with incised menorah; surface polished, back rough; max. H. 0.148, est. span outer groove 0.27, Th. 0.025; both fragments broken on all sides; G.M.A. Hanfmann noted that although Th. and treatment with multiple claw chisel are the same, one has a larger, flatter carved channel so 2 carved slabs may be represented.

E 70.00-75.00/S 0-5.00 *98.00.

BASOR 177, 20; *SPRT*, 166.

TERRACOTTA

T64.23:6182 Fig. 411 Die cube with nos. 1-6 indicated by round holes; 0.016 x 0.015.

E 74.00-78.00/S 2.50-3.50 *96.75-96.50.

FINDS FROM E 13

ARCHITECTURAL FRAGMENTS

Columns

BS 73.4 Pink and white brecciated marble; L. 0.66, diam. 0.35.

E 80.80/S 6.60 *97.20, Colonnade in front of Shop.

BS 73.8 Five pieces, pink and white brecciated marble; L. 2.76, diam. 0.41 (restored).

E 80.80/S 6.60 *97.20, in front of Shop.

COINS

C67.859 (M7 R 759) Theodosius I, 383-395, AE4, Cyzicus; E 78.00/S 2.05-2.10 *96.34.

Uninv. 62 (M1 101) Justinian I, 527-538, follis, Constantinople; E 76.00/S 1.00 *97.00-96.75 (with 2 Roman coins, one of Julia Domna).

Uninv. 67 (M1 188, 195, 201) Justinian I, 527-565, penta., Constantinople; E 76.00-80.20/S 0-4.50 *96.60-96.40; E 78.00/S 2.05-2.10 *96.34; E 76.00-80.20/S 0-4.50 *96.60-96.40.

Uninv. 67 (M1 250) Justinian I, 538-ca. 547, decia., Cyzicus; E 77.60/S 1.32 *94.78.

Uninv. 62 (M1 142) Justinian I, 548/549, decia., Constantinople; E 77.00-80.00/S 1.00-3.00 *96.70-96.30, sifting.

Uninv. 67 (M1 260) Justinian I, 554/555, half follis, Antioch; E 77.60/S 1.32 *94.78.

Uninv. 62 (M1 144) Justinian I, 566/577, decia., Constantinople; E 77.50/S 4.50-5.00 *96.30, under threshold.

Uninv. 62 (M1 371) Justin II, 572/573, half follis, Constantinople; E 77.00-80.00/S 0.10-3.00 *96.70-96.30, sifting.

Uninv. 62 (M1 525) Tiberius II, 579-582, follis, Constantinople; E 75.90-80.30/S 0.10-4.00 *96.60-96.40.

Uninv. 62 (M1 956) Heraclius, 611/612, follis, Nicomedia; E 79.00/S 2.00-3.00 *96.70-96.30.

C62.366 (M1 984) Heraclius, 612/613, follis, Cyzicus; E 79.00/S 2.50 *96.40.

Uninv. 62 (M1 934) Heraclius, 612-616, follis, Constantinople; E 77.50/S 4.50-5.00 *96.30, cleaning under threshold.

Uninv. 62 (M1 966) Heraclius, 613/614, follis, Nicomedia; E 75.90-80.30/S 0.10-4.50 *96.60-96.40.

C73.62 (unpubl.) Illegible, penta., 5th-6th C., E 80.50/S 3.30 *97.65.

GLASS

Bottles

Uninv. 63 (M6 643) Fig. 396 Fragment with pattern-molded ribbed decoration on rounded shoulder, ovoid body, neck tapering upward, separated by a diaphragm; pale green; P.H. 0.08, est. H. ca. 0.20, diam. lower neck 0.035, Th. 0.002. E 79.00-81.00/S unrecorded *unrecorded.

G62.11:4487 (M6 519) Fig. 397 Shoulder and neck with rounded shoulder, diaphragm with circular opening (diam. 0.005) separates neck from body; light aquamarine; P.H. 0.11, diam. neck 0.038-0.045, Th. 0.002-0.003.

E 77.00/S 2.80 *96.60–*96.50.

Uninv. 62 (M6 520) As above, 1/2 lower neck with diaphragm P., aquamarine; P.H. 0.05.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

Uninv. 63 (M6 521) As above, pale green; P.H. 0.06, diam. opening in diaphragm 0.003.

E 77.56–81.76/S unrecorded *unrecorded, found with M6 643 *supra*.

Uninv. 67 (M6 523) As above, P.H. 0.04, diam. 0.036, of opening in diaphragm 0.007.

E 75.00–78.00/S 0–2.00 *95.36, in drain.

BASOR 191, 29.

Uninv. 62 (M6 522) As above but with double-walled diaphragm; aquamarine; P.H. 0.04.

E 76.00–E 77.00/S 2.80 *96.60–*96.50, yellow fill.

Uninv. 62 (M6 499) Conical neck fragment, tapering upward, pale green; P.H. 0.0945, Th. 0.0015–0.002.

E 75.00–76.00/S 2.00–9.00 *96.70–*96.20; a quantity of similar necks (M6 495) at E 75.00–80.00/S 0–3.50 *96.50 to floor.

Uninv. 62 (M6 549) Fig. 398 Pushed-up base of tube-shaped miniature, aquamarine; P.H. 0.018, diam. 0.027.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

BASOR 170, 50.

Uninv. 62 (M6 557) Concave base of above, blue; est. diam. 0.023.

E 75.00–76.00/S 2.00–9.00 *96.70–*96.20.

Uninv. 62 (M6 561) Lower body with pushed-up base of pear-shaped or conical miniature, pale green; diam. base 0.035.

E 75.00–76.00/S 2.00–9.00 *96.70–*96.20.

Uninv. 62 (M6 502) Fig. 399 Wide funnel neck, aquamarine; P.H. 0.06, diam. rim 0.035.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

Uninv. 62 (M6 538) Base, concave but relatively flat; pale green; diam. ca. 0.10, Th. to 0.009.

E 75.00–76.00/S 2.00–5.00 *96.70–*96.20.

As bulbous bottles M6 509–516 in E 5.

Goblets

The pieces listed are examples of over 150 goblets from the NW area:

Uninv. 62 (M6 300) Concave stem, flat foot P.; P.H. 0.02, diam. foot 0.05.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10, with at least 20 similar stems, mainly of aquamarine and clear glass, over a dozen knobbed stems (*infra*) and pin-like stems (*infra*; *Sardis* M6, p. 55).

Uninv. 64 (M6 323) Fig. 400 As above, pale green, weathered; P.H. 0.03, diam. foot 0.04–0.049.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

Uninv. 62 (M6 347, 348) Stems with knobs or a bulge.

E 75.00–80.00/S 0–3.50 *96.50; E 75.00–76.00/S 2.00–9.00 *96.70–*96.20.

Cf. G59.68:2194 in W 13, Fig. 44.

Uninv. 62 (M6 371) Thin, pin-like stem, sloping foot.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10, with 20 sherds of this type goblet.

Lamps

Uninv. 63 (M6 242) One-fifth folded rim with flaring wall, one handle P. of undecorated bowl–lamp with 3 handles; yellow tint; P.H. 0.05, est. diam. 0.12.

E 75.00–80.00/S 0–3.00 *unrecorded, with goblet, lamp, footed cup fragments mixed with Roman Imperial glass (*Sardis* M6, p. 47).

Cf. G62.5:4163 in E 14, Fig. 463.

Uninv. 62 (M6 277) Thorn-like bases from cup-shaped lamps; P.H. 0.033–0.043.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

As E 1, Fig. 172.

Ring Base

Uninv. 62 (M6 454) Portions of 2, folded edges; light aquamarine; diam. 0.07, Th. 0.002–0.005.

E 75.00–76.00/S 2.00–9.00 *96.70–*96.20.

Rod

Uninv. 62 (M6 677) Fig. 402 Lower portion, 2 rods joined together; end roughly knocked off at manufacture; greenish; P.H. 0.045, W. 0.017.

E 77.00–80.00/S 1.00–3.00 *96.70–*96.30.

Salver

Uninv. 62 (M6 377) Fig. 401 Plain, flaring rim, 1/4 P., aquamarine; est. diam. 0.13, Th. ca. 0.001.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10.

Cf. E 16, Fig. 529.

Vessels

Uninv. 62 (M6 576) Fig. 403 Two plain rims from slightly conical vessels or vessel necks, aquamarine; est. diam. 0.055 and 0.08, Th. 0.002.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10.

Uninv. 62 (M6 577) Fig. 404 As above, poorly made; est. diam. 0.05, Th. 0.0025.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10.

Uninv. 62 (M6 595) Fig. 405 Conical wall, 1/3 heavy folded rim P., aquamarine; P.H. 0.04, est. diam. 0.07, max. Th. 0.003.

E 75.00–80.00/S 0–3.50 *96.50 to floor.

Uninv. 62 (M6 596) As above, 3/4 P.; est. diam. 0.06, Th. 0.0035.

E 76.00–79.00/S 2.50–3.50 *96.40–*96.10.

Uninv. 62 (M6 597) As above, 1/2 P.; est. diam. 0.075, Th. 0.0035.
E 75.00-76.00/S 2.00-9.00 *96.70-96.20.

Uninv. 62 (M6 629) Slightly curved wall section with 2 applied threads crossing one over the other; max. diam. 0.05, Th. 0.0015-0.002.
E 76.00-79.00/S 2.50-3.50 *96.40.

METAL

Copper Alloy

Uninv. 62 (M8 456) Balance; max. P.L. 0.14, max. Th. 0.035.
E 80.00-84.00/S 0-4.00 *98.00-96.60.
Cf. M62.20:4211 in E 14, Fig. 468.

M62.90:4929 (M8 587) Fig. 412 In 2 parts: upper piece flat, curved, Greek cross on top, ends round in section with loop openings through which fit loops of 2nd piece; lower piece horse-shoe shaped round rod with hook on either side, attached so the lower part swings freely; H. 0.21, max. W. 0.13.
E 77.00/S 3.50 *96.40, just inside door.

SPRT, 166. Identified by Waldbaum as a censer or robe holder but similar device without cross or side hooks but with 2 suspension chains with hooks was found at Pergamon, W. Radt, "Pergamon Vorbericht 1974," *TürkArkDerg*, 23 (1976) 95, identified as a hand scale. Similar to the suspension apparatus on a steelyard, also without the side hooks, *Yassı Ada* I no. B lc, pp. 212-215. Cf. also M73.1:8244 *infra*.

M62.74:4733 (M8 566) Handle attachment, flat leaf-shaped plate in one piece with vertical loop; max. P.H. 0.065, W. plate 0.025, W. loop 0.006, Th. 0.004.
E 75.00-80.00/S 0-5.00 *97.00.

Uninv. (M8 386) Circular lock plate, edges cut in a decorative pattern, 4 round attachment holes, horiz. and vert. oblong slots above and below center; diam. 0.065, H. vertical slot 0.013, W. slot 0.007, Th. ca. 0.0025.
E 77.00-79.50/S 1.50-3.50 *96.70-96.60.
As M67.13:7375 in E 10, Fig. 353, but plain surface.

M62.62:4555 (M8 907) Figs. 414, 415 Pendant (?), square, stylized leaf with small loop on back projects from each corner; flat cast; raised ring in center possibly held inlay; L. 0.045, W. 0.045, Th. 0.002.
E 77.75/S 3.12 *96.40.

Uninv. 62 (M8 853) Fig. 416 Finger ring, thickened ends of hoop have thin prongs for mounting a pierced gem or glass bead; diam. 0.025, Th. 0.003.
E 75.00/S 3.50 *96.50-96.25.

M73.1:8224 (M8 435) Fig. 413 Steelyard, beam, 2 chains with weighing hooks suspended from U-shaped bar, 3 suspension hooks, lead weight covered with copper alloy case on sliding S-shaped hook; long end of beam graduated by incised lines on 3 sides; L. beam 0.178; diam. weight 0.05.
E 75.80/S 3.40 *97.10, by S end of W wall. Mistakenly listed under E 2 in M8.
Cf. *Yassı Ada* I 219-230, esp. nos. B2 and B5.

Iron

Uninv. 62 (M8 152) Chisel, long shaft with round section, rectangular near edge; max. P.L. 0.348, W. blade 0.024.
E 80.00-85.00/S 1.00-4.00 *97.32-96.80.

M67.34:4295 (M8 107) Fig. 417 Hoe; nearly rectangular blade in one piece with S-shaped handle, hammered open socket; max. P.H. 0.215, max. W. blade 0.135.
E 75.00-78.00/S 0-2.00 *95.36, in drain at back of Shop.

M62.81:4864 (M8 367) Cylindrical lock, several O-shaped chain links attached to loop at one end; L. 0.095, diam. 0.054.
E 79.00-80.00/S 3.50 *96.70-96.40.
Cf. E 10, Figs. 351, 352.

M62.84:4915 (M8 359) Front plate of rectangular lock; H. 0.11, W. 0.095.
E 77.00-80.00/S 1.00-3.00 *96.70-96.30.
As E 11, Fig. 366.

POTTERY

Amphorae

P62.371:4692 Fig. 428 Neck and shoulder P., vertical handle; pink-red micaceous fabric, no slip or lining; P.H. 0.17, diam. 0.055.

Graffiti: ΘΕΟΚΤΙΠΟΥ as recorded and drawn, corrected by L. Robert to read Theokistos in the genitive; neatly incised after firing on smoothed shoulder above turn marks, letters evenly spaced, to the r. a cross. H. letters 0.09, cross 0.07. On opposite side very unevenly scratched, ΜΕΑΡΟΥ (?); H. letters 0.013-0.022.
E 75.00-80.00/S 0-3.50 *98.00-97.00.
BASOR 170, 49-51; Robert, *NIS* 57, pl. 11; *SPRT* 166.

P62.394:4735 Fig. 429 Shoulder, 1/2 neck, one handle P.; buff, int. ribbed; P.H. 0.125.

Graffito: ΣΑΒΒΑ ΤΙΟΥ in two lines, neatly incised after firing; L. Robert believed it was by same hand as ΙΑΚΟΒ on P62.23:4180=IN62.14 in E 14, Fig. 483; H. letters 0.006-0.015.
E 75.00-80.00/S 0-5.00 *97.00.
BASOR 170, 51, fig. 29; Robert, *NIS* 57; *SPRT* 166.

P62.365:4686 Fig. 441 Two handles, wide mouth, everted rim, sharply bulging body below handles; 3 grooves below lip and at bulge, otherwise ext. smoothed with self-slip, no coating on int., gray from burning; H. 0.425, max. diam. 0.31.
E 72.00/S 3.21 *96.70.

Uninv. 62 Fig. 430 Two handles twisted into place at either side of neck, slightly flaring mouth, everted, smoothed rim, ridged below handle, body contracts below center, rounded bottom; many coarse inclusions and surface blowouts, self slip on ext. and int.; H. 0.50, max. diam. of body 0.278.
Dipinto: red paint on shoulder appears to be intentional cursive, O Y.
E 76.00-77.00/S 2.80 *96.60, in yellow fill.
Cf. *Yassı Ada* I no. CA 2.

P62.364:4685 Fig. 442 Two handles, neck missing, ovoid body, ring foot, very unevenly thrown; clay contains no mica

or iron oxide (Munsell 10 YR 7/4 "very pale brown" at scraped surface on neck); P.H. 0.44, max. diam. body 0.24. E 77.50/S 1.50 *96.70-96.60, in yellow fill over fallen tiles.

Basins

P62.89:4297 Fig. 445 Flat base, almost straight sides, wide rim slants down; unevenly fired, self-slip; H. 0.22, diam. 0.46. E 80.00-81.00/S 1.00 *96.85-96.50.

Uninv. 67 Bottom and 1/2 wall; marks show flat bottom turned on stone; ext. smoothed, pink slip; int. ridged, surface abraded and obscured by many deposits; P.H. 0.135, diam. 0.24.

E 70.00-76.00/S 2.50-3.50 *97.00.

Uninv. 67 As above, out-turned rim, straight sides; brick-like coarse fabric, ext. plain, calcined deposits may cover slip; H. 0.255.

E 70.00-75.00/S 0-3.50 *96.70-96.20.

Uninv. 67 Fig. 444 As above but larger and sides slant slightly outward, ridge around inner circumference of rim, ca. 1/4 P.; wall thickens at base; ext. self-slip, applied slip on int.; residue of red pigment; H. 0.245, est. diam. of bottom 0.33.

E 70.00-75.00/S 0-3.50 *96.70-96.20.

Cooking ware

P62.366:4687 Figs. 383, 446 Complete globular, 2 handles attached, turned up rim, made into a strainer by neatly drilled holes (diam 0.08) evenly spaced ca. 0.015 apart in the lower part after firing; H. 0.178, diam. 0.17.

E 77.50/S 1.00 *96.24, found with lid, P62.367:4688 *infra*, between stub walls against N wall (Fig. 383).

Aker no. 27. Cf. C. Williams "A Byzantine Well Deposit from Anemurium," *AnatSt* 27 (1977) 180, no. 11; Hayes "Saraghane" 214, no. 108.

P62.369:4690 Fig. 447 Wall fragment, spout attached to ext. below rim, wall cut through leaving crack and uneven ridge on int.; tempered fabric fired gray, smoothed on ext. and int., charred on underside; P.H. 0.085, Th. 0.004-0.006.

E 75.00-77.00/S 0-4.00 *96.70-96.25.

Cup

P62.213:4488 Fig. 443 Plain, straight rim, rounded side with 3 carinations, flat, string-cut bottom; pink-buff micaceous clay, no slip, roughly made with gouges in bottom before firing, charring on ext., carbonized residue on int.; H. 0.06, diam. 0.083.

E 76.50/S 3.00 *96.75-96.50, by W door jamb.

Jugs

P62.214:4489 Fig. 448 One handle, globular body, ring foot, ridging on ext. of neck; handle joins ca. 0.01 below lip and at widest point of body; pink-buff micaceous clay with few inclusions; random markings with black slip on ext.; H. 0.20, max. diam. of body 0.13.

E 76.00/S 2.80 *96.70.

P62.402:4749 Fig. 449 Neck and shoulder fragments, 3 rows of crescent-shaped depressions below neck; micaceous clay, gray from heat, no slip; P.H. 0.065, diam. mouth 0.06.

E 75.00-77.00/S 0-4.00 *96.70-96.25.

Lids

Uninv. 62 Wide rim slanting downwards extending beyond the vessel mouth, rounded sides, concave top; turned, surface smoothed; pink-buff micaceous clay, small inclusions and blowouts; charring with grassy impressions on surface; H. 0.037, diam. 0.13.

E 77.00-80.00/S 1.00-3.00 *96.30.

P62.367:4688 Figs. 383, 450 Identical to above and burnt in same manner, shape of top slightly irregular; H. 0.038, diam. 0.13.

E 77.50/S 1.00 *96.25, found inverted in the mouth of P62.366:4687 *supra* (Fig. 383).

Sherds of closed vessels

P62.397:4738 Fig. 431 Grooved on ext., ribbed on int.; many inclusions and blowouts, no slip or coating on ext. or int.; max. dim. 0.105, Th. 0.005-0.007.

Graffito: Fragmentary ω . . . (? broken on r. and bottom) scratched after firing.

E 75.00-80.00/S 0-3.00 *98.00-97.00.

P62.486:4911 Fig. 432 Shoulder fragment with handle scar; ext. lightly grooved, int. ridged, no slip or coating; max. dim. 0.087, Th. 0.003.

Graffito: P scratched after firing; H. letter 0.013.

E 75.00-80.00/S 0-3.50 *96.50 on floor.

P62.398:4739 Fig. 433 Fragment of neck and shoulder, thin raised band at base of neck; P.H. 0.05, Th. 0.004-0.007.

Graffito: tops of 4 or 5 letters at lower break.

E 75.00-80.00/S 0-3.00 *97.00.

P62.487:4912 Fig. 434 Shoulder fragment; cream slip on ext.; max. dim. 0.091, Th. 0.008; fragmentary monogram with PA (?) . . . ; H. letters ca. 0.03.

E 75.00-80.00/S 0-3.50 *96.50, on floor.

P62.395:4736 Fig. 435 Shoulder fragment; red fabric, self-slip on int. and ext.; max. dim. 0.075, Th. 0.004-0.005.

Graffito: Ligature KP (broken at r.) incised before firing (partly covered with slip); H. letters 0.016-0.030.

E 75.00-80.00/S 0-3.50 *98.00-97.00.

P62.396:4737 Fig. 436 Shoulder fragment, pink-buff micaceous clay, smooth self-slip on int. and ext.; max. dim. 0.095, Th. 0.04.

Graffito: A with double bent bar incised after firing just below neck; below, a much lighter . . . E K P O . . . (incomplete on both sides); H. alpha 0.42.

E 75.00-80.00/S 0-3.50 *98.00-97.00.

P62.425:4812A Fig. 437 Very shallow grooves, soft micaceous slip on ext., ribbed, not lined on int.; max. dim. 0.06.

Graffito: . . . YA (?) . . . (incomplete on both sides), incision

filled with slip thus made before firing; H. letters ca. 0.005–0.016.

E 75.00–80.00/S 0–3.50 *98.00–*97.00, with P62.45:4812B and C.

P62.425:4812B Fig. 438 Max. dim. 0.06, Th. 0.006.

Graffito: Δ ligature of TP (?) Δ or Λ , there may be another letter to the r.; H. letters ca. 0.012–0.018.

E 75.00–80.00/S 0–3.50 *98.00–*97.00, with P62.425:4812A and C.

P62.425:4812C Fig. 439 Grooving on ext., smooth on int.; max. dim. 0.06, Th. 0.005.

Graffito: H A Δ Θ (?) on shoulder just below rise of the neck; H. letters 0.01–0.018.

E 75.00–80.00/S 0–3.50 *98.00–*97.00, with P62.428:4812A and B.

P62.393:4734 Fig. 440 Ridged, slip or coating on ext. or int., many small inclusions; P.H. 0.09.

Graffito: Elaborate marking of curves and angles, may not represent letters, very lightly scratched after firing; max. H. 0.03.

E 76.00–80.00/S 0–5.00 *97.00.

STONE

S62.54:4804 Fig. 451 Roller (?), cylinder with round hole drilled through its L., ends at parallel slant, surface worn smooth, rayed use marks on end; N. Ramage noted traces of orange paint, suggested it is possibly a loom weight; L. 0.04, diam. 0.018.

E 77.56–81.76/unrecorded *96.50.

S62.25:4492 Figs. 452, 453 Rectangular jumping weight, handle decorated with elongated triangles depressed on top—may represent clasped hands; white marble; H. 0.11, L. 0.185, L. handle 0.155.

E 76.00/S 3.50 *96.30, in SW corner.

E 14 Figs. 454–460

EXCAVATIONS

1962 D. G. Mitten overburden to floor, *BASOR* 170, 49. 1973 J. S. Crawford and T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

E 82.56–87.06. Floor at *96.40, roof tiles set in mortar in NW section, stone slabs leading inward from doorway.

N wall: L. ca. 4.50, W. 1.25, H. ca. 2.00. S wall of Syn-MH (Seager, "Building History," 427). Mortared fieldstones with brick facing courses. No brick in fieldstone.

E wall: Dimensions not recorded before removal in excavation of Hellenistic Steps, *infra* "Sondages below the Floors." At S 1.00 mortared brick and stone infill (W. 0.60) of window or opening into E 15.

S wall: L. ca. 4.50, W. ca. 0.50, H. unknown. Fieldstones and spoils with one brick course, except for door jambs of reused marble blocks. Doorway W. 1.40, marble threshold W. 0.70.

Window (W. 0.73) 0.78 W of doorway; an iron swivel socket for a shutter was found *in situ* at *97.00.

W wall: See E 13 E wall. Niche, floor at *97.07, W. 0.89, D. 0.50, back wall one brick Th., P.H. 0.85, possibly originally an opening into E 13; second niche at S 1.00, floor at *97.07, W. 0.40, D. 0.30, plastered walls.

Interior: E-W drain at rear covered by stone slabs, in the NW corner a platform, H. 0.75, W. 0.48, built over it, presumably for washing; vertical drain from Syn roof cemented into the NW corner; just to the SE a 2-handled pot was set into the floor. Niche (W. 0.48) in N wall surfaced with tiles and marble slabs. A vaulted N-S drain, built with the original foundations of the B complex (Seager, "Building History," 428) is under the E wall; a vertical drainpipe at E 84.00 empties into it.

A unique find was an amphora set into the middle of the floor up to its handles (P62.138:4366, Figs. 457, 486). This may have been a container used in a production process, since it could be removed and emptied. There was a platform built of stones in the NW corner. As the excavator, D. G. Mitten, remarked, piles of stones and tiles both in front of and behind the window in the S wall may have been used for display, or possibly for supporting vessels needing ventilation (Fig. 459).³⁸

A layer of red-orange material was found in the upper story deposit of E 14. A small balance may have come from that story. Definitely from the upper story of E 14 are the following: a balance (M62.20:4211, Fig. 468), a weight (M62.13:4199, Figs. 481, 482), two bowls and a pan (M62.89:4928, Fig. 474), three monogrammed glass stamps (G62.4–6:4162–4, Figs. 464–467) and a pyriform amphora (P62.40:4231, Fig. 484). The following metal objects came from the lower story: a sword (Fig. 487), two bells (M62.16:4207, M62.60:4480; Figs. 469–471), a steelyard (M62.14:4204, Fig. 476) and weight, two additional weights at the door (M62.30: 4270, M62.31:4271; Figs. 477–480), a jug (M62.51:4442, Fig. 460) found on the floor and a spatula. Glass lamps including G62.8:4227 (Fig. 463) were found in the lower story.

The most important pottery find was a coarse ware amphora (P62.23:4180, Fig. 483) which bore a graffito interpreted by L. Robert as *Iakobos* in the genitive case, followed by an abbreviation for *presbyterou*. Jacob the Elder (of the Synagogue).³⁹ An inscription on a steelyard weight from Yassi Ada, which refers to Γεώργιου πρεσβύτερου Ναύκληρου, calls Robert's interpretation into question. "Elder" could mean senior, Elder of a Christian church, or even, G. F. Bass speculates,

38. *BASOR* 170, 49–50.

39. *Ibid.* 50, fig. 28; Robert, *NIS* 57, pl. 11.

senior in rank.⁴⁰ In earlier Sardis publications it was assumed Jacob was Jewish, but *Ιάκωβος* is a common Christian name meaning James.⁴¹ Only if this Jacob is identical with Jacob in E 7, where there are inscribed menorahs, would his identification as a Jew be based on strong evidence.

The objects found in E 14 combined with the evidence of the layer of red-orange earth and the connection between the two Jacob graffiti suggest that E 14 functioned as a dye shop similar to E 6–E 8. It is possible that Jacob owned E 6–E 8 as well as E 14, and the author suspects Jacob may have had a commercial interest in E 13, because of dye shop evidence found there.

ARCHITECTURAL FRAGMENTS

BS 73.7 Column fragment, pink and white brecciated marble; L. 0.90, diam. 0.34
E 84.10/S 6.90 *97.40, in front of Shop.

COINS

In addition to the coins listed below, 250 bronze coins, mostly issues of A.D. 330–430, were found in the drain along the N wall.

C62.201 (M7 GR 41) Autonomous, 197–159 B.C., AE25, Pergamon; E 83.00/S 1.50 *96.40, in fill between broken pot and floor.

C73.59 (unpubl.) Early Imperial; E 81.00/S 4.80 *97.40.

C62.480 (M7 R 94) Claudius Gothicus, 270–, posthumous coinage, Ant., uncertain mint; E 80.00–84.00/S 1.00–4.00 *96.60, sifting fill above floor.

C62.161 (M7 R 415) Constantius II, 355–361, AE4, uncertain mint; E 80.00–85.00/S 5.50–8.00 *97.00–*96.60, sifting.

C62.136 (M7 R 639) Valens, 364–375, AE3, uncertain mint; E 81.00–84.00/S 1.50–3.50 *96.80–*96.30, sifting.

C62.482 (M7 R 1044) Valentinian I–III, 364–378, AE3, uncertain mint; E 81.00/S 3.00 *96.50–*96.30.

C62.138 (M7 R 754) Theodosius I, 383, AE4, Cyzicus; E 81.00–84.00/S 1.50–3.50 *96.80–*96.30, sifting.

C62.175 (M7 R 677) Valentinian II, 383, AE2, Constantinople; E 80.00–84.00/S 1.00–4.00 *96.60–*96.30, sifting fill above floor.

40. I.e., the senior of two captains, *Yassi Ada* I, 213–215; 314.

41. *BASOR* 170, 49–51; 199, 44, n. 40; *SPRT*, 166. *Presbyter* (πρεσβύτερος) is also used to refer to the “elders” of early Christian congregations, especially in Palestine, according to the *Oxford Dictionary of the Christian Church* (Oxford 1958) 1101 s.v. “Presbyter.”

C62.682 (M7 R 858) Arcadius, 383–395, AE4, uncertain mint; E 82.00–84.00/S 2.00–4.00 *96.50–*96.30, cleaning floor.

C62.173 (M7 R 734) Theodosius I, 383–395, AE4, Constantinople; E 80.00–84.00/S 1.00–4.00 *96.60–*96.30, sifting fill above floor.

C62.149 (M7 R 759) Theodosius I, 383–395, AE4, Cyzicus; E 80.00–83.00/S 2.00–4.00 *96.90–*96.70.

C62.174 (M7 R 780) Theodosius I, 383–395, AE4, uncertain mint; E 80.00–84.00/S 1.00–4.00 *96.60–*96.30, sifting fill above floor.

C62.209 (M7 R 1056) Valentinian I–III, 383–395, AE4, uncertain mint; E 83.00–85.00/S 1.00 *96.40, fill in drain.

C62.731 (M7 R 1055) Valentinian I–III, 383–404, AE2–4, uncertain mint; E 83.00–85.00/S 1.00 *96.40; fill in drain.

C73.50 (unpubl.) Arcadius, 393–395, AE4; E 81.20/S 4.40 *97.30.

C62.137 (M7 R 909) Honorius, 393–395, AE3, Antioch; E 81.00–84.00/S 1.50–3.50 *96.80–*96.30, sifting fill.

C62.160 (M7 R 1059) Valentinian I–III, 395–408, AE3, uncertain mint; E 80.00–85.00/S 5.50–8.00 *97.00–*96.60, sifting.

C62.207 (M7 R 924) Honorius, 402–408, AE4, uncertain mint; E 82.00/S 1.50 *96.40–*96.10.

C62.208 (M7 R 1070) Valentinian I–III, 410–455, AE4, uncertain mint; E 82.00/S 1.50 *96.40–*96.10.

C62.683, C62.684, C62.723 (M7 R 1071, 3 examples) Valentinian I–III, 425–455, AE4, uncertain mint; E 82.00–84.00/S 2.00–4.00 *96.50–*96.30, cleaning floor; E 83.00–85.00/S 2.00–4.00 *96.50–*96.30, fill above floor; E 82.00/S 1.50 *96.40–*96.10.

Uninv. 62 (M1 90) Anastasius I or Justin I, 491–527, nummus, Constantinople; E 84.00–85.00/S 2.00–4.00 *96.40–*95.90, in disrupted floor fill.

Uninv. 62 (M1 80) Justin I, 518–527, penta., Nicomedia; E 82.00–83.00/S 2.00–4.00 *96.40.

Uninv. 62 (M1 320) Justin I or Justinian I, 518–538, penta., Constantinople; E 80.00–84.00/S 1.00–4.00 *96.60–*96.30, sifting fill.

C62.118 (M1 197) Justinian I, 527–565, penta., Constantinople; E 80.00–85.00/S 3.70 *97.15.

C62.223 (M1 219) Justinian I, 538–565, penta., Thessalonica; E 83.00–85.00/S 1.00 *96.40, in fill in drain.

Uninv. 62 (M1 271) Justinian I, 546–557, deca., uncertain mint; E 86.00/S 3.50 *96.50.

C62.191 (M1 231) Justinian I, 556/557, deca., Nicomedia; E 83.00–85.00/S 2.00–4.00 *96.50–*96.30, in fill.

C62.172 (M1 128) Justinian I, 557/558, follis, Constantinople; E 80.00–84.00/S 1.00–4.00 *96.60–*96.30, sifting fill.

C62.245 (M1 153) Justinian I, 562/563, dec., Constantinople; E 84.00–85.00/S 2.00–4.00 *96.40–*96.20, in disrupted floor fill.

Uninv. 62 (M1 379, 393) Justin II, 565–578, penta., Constantinople; E 84.00–85.00/S 2.00–4.00 *95.25, in fill below floor; E 81.00–83.00/S 0.50–4.00 *97.00–*96.70.

Uninv. 62 (M1 503) Justin II, 565–578, follis, uncertain mint; E 83.00/S 0.30–0.50 *97.90–*97.80, in fill on wall.

C62.99 (M1 369) Justin II, 570/571, half follis, Constantinople; E 83.00–85.00/S 1.00 *96.00.

Uninv. 62 (M1 670) Maurice, 582–584, half follis, uncertain mint; E 86.30–90.50/S 0–3.50 *96.70–*96.30, in disrupted fill.

Uninv. 62 (M1 603) Maurice, 582–602, dec., Constantinople; E 83.00–85.00/S 1.00 *95.00, in fill in drain.

C62.168 (M1 771) Phocas, 602–610, dec., Constantinople; E 81.00–82.00/S 3.50–4.00 *96.80–*96.60, in fill.

Uninv. 62 (M1 823) Phocas, 602–610, follis, uncertain mint; E 86.00/S 3.50 *96.50.

GLASS

Lamp

G62.8:4227 (M6 240) Fig. 463 Folded rim, conical wall, 1/3 upper portion, one (of 3) handles P.; yellow tint; P.H. 0.05, est. diam. 0.09.
E 84.00/S 1.00–1.50 *95.00, in drain with P62.49:4240 *infra* and coins of A.D. 340–440.

Stamps (used as weights, tokens or amulets)

G62.5:4163 (M6 668) Figs. 464–466 Disc-shaped, raised rim, relief of cross with P on top, letters N, E, at points with A or stand at bottom; greenish; diam. 0.021, Th. 0.006.
E 83.00/S 2.00 *97.10.

BASOR 170, 50. For a similar weight with cruciform monogram of Theodoros, see *Yassi Ada* I no. W 9.

G62.6:4164 (M6 670) As above, unidentifiable design in center, bluish-green; diam. 0.018, Th. 0.005.

Found with above.

BASOR 170, 50.

G62.4:4162 (M6 669) Fig. 467 As above, cross bar terminates in perpendicular double lines, vertical in V-shaped angles; aquamarine; diam. 0.025, Th. 0.006.
E 84.00/S 2.30 *97.30–*97.10.

BASOR 170, 50.

METAL

Copper Alloy

Balances

M62.20:4211 (M8 451) Fig. 468 Beam (ends missing), parts of pointer, suspension device, decorative moldings P. at ends

and center; max. P.L. 0.129, max. Th. 0.004.

E 83.00/S 2.00 *97.10.

BASOR 170, 50. A similar balance with pans and weights (M62.30–31:4270–1 *infra*) was found outside the S wall window on a pile of stones.

BASOR 170, 50.

Bells

M62.16:4207 (M8 100) Fig. 469, 470 Conical, cast in one piece with vertical loop at top, 3 pairs of incised lines, clapper missing; max. H. 0.027, diam. base 0.016.

E 83.00–84.00/S 0–1.00 *96.55–*96.30.

M62.60:4480 (M8 102) Fig. 471 As above with spreading base, heavily corroded; max. P.H. 0.069, diam. base 0.06.

E 81.00/S 2.00 *96.80, just above floor next to jug M62.51:4442 *infra*.

Bowl

M62.4:4269 (M8 490) Fig. 473 Hemispherical, slightly concave base, wide ledge rim; hammered, analyzed as unalloyed copper; H. 0.105, max. diam. 0.235, W. rim 0.022.

E 80.90/S 4.90 *97.00 in doorway.

BASOR 170, 50.

Jug

M62.51:4442A (M8 527) Fig. 460 Trefoil mouth, tall, cylindrical neck, flaring body to wide base; thick, low, ring foot, S-shaped iron handle attached to ring around neck; hammer marks on surface; max. P.H. 0.22, max. diam. 0.178; H. handle 0.215.

E 81.00/S 2.50–3.00 *96.60, on floor with iron handle M62.51:4442B and P62.23:4180 *infra*.

Ibid.

Pan

M62.89:4928 (M8 512) Fig. 474 Flat handle with S-shaped loop at end, flat rim with fragment of pan bowl attached; est. diam. pan 0.24, L. handle 0.14.

E 83.00/S 2.00 *97.10.

Ibid.

Spatula

M62.9:4184 (M8 643) Fig. 475 Flat blade with rounded end; handle with square section tapers to round bulb, moldings at junction of handle and blade; max. P.L. 0.145.

E 84.00–85.00/S 3.00–4.00 *96.40.

Cf. *Saraçhane* I no. 449.

Steelyard

M62.14:4204 (M8 436) Figs. 472, 476 Beam graduated with incised lines and dots on 3 sides, 2 suspension hooks on chains, fulcrum hooks, collar and U bar; spherical lead weight; L. beam 0.302, diam. weight 0.052, P. Wt. 984 g. (not recorded if before or after cleaning).

E 82.60/S 1.10 *95.60, in drain along W wall with coins of A.D. 330–440.

BASOR 170, 50.

Vessel base

Uninv. (M8 573) Low disc base weighted with lead, sheet metal bowl, flaring walls; H. 0.024, diam. 0.108.

E 85.00–87.00/S 0.00–2.00 *97.30–*96.90.

Weights

M62.30:4270 (M8 471) Figs. 477, 478 Flat square, N incised on one side, punched dots at ends of strokes and near center; 0.012 x 0.012, Th. 0.003, Wt. before cleaning 4.50 g., after cleaning 4.40 g.

E 82.30–82.50/S 5.00 *96.50–*96.45, outside W door jamb on mosaic floor.

M62.31:4271 (M8 470) Figs. 479, 480 As above, light horiz. lines at r. angles to bars of faint dotted circles between lower bars and top of cross stroke; 0.0125 x 0.013, Th. 0.003, Wt. before cleaning 4.60 g., after cleaning 4.30 g.

Found with above.

BASOR 170, 50.

M62.13:4199 (M8 468) Figs. 481, 482 Concave/convex disc, I B incised on concave side on either side of dot (?); diam. 0.01, Th. 0.030, Wt. before cleaning 2.20 g., after cleaning 2.00 g.

E 83.00/S 2.00 *97.10.

Iron

Uninv. 62 (M8 135) Axe-adze, axe edge parallel to round socket, adze perpendicular to it; max. P.L. 0.23, W. axe 0.065.

E 82.00/S 1.00 *95.50.

As M8 132, pl. 11.

M62.51:4442B Triple-curved vertical jug handle; H. 0.12.

E 81.00/S 2.50 *96.60, on floor with M62.51:4442A *supra* and P62.23:4180 *infra*.

Uninv. 63 (M8 6) Fig. 487 Sword, long, straight, flat blade with a single edge, straight shoulders, narrow tang rectangular in section; max. P.L. 0.538, W. shoulders 0.055.

E 87.00/S 2.00 *96.70.

POTTERY

Amphorae

P62.23:4180=IN62.14 Figs. 461, 462, 483 Almost complete, piriform, ribbing on upper half of body and shoulder, one vertical loop handle with single groove, short tubular foot; H. 0.47, max. diam. of body 0.225.

Graffito: ΙΑΚΩΒΠΠΡΟΥ (H. 0.012–0.014).

E 81.00/S 2.00 *96.50.

BASOR 170, 49–51; SPRT 166; esp. Robert, NIS 57: “Ce dernier nom est suivi d’un groupe de lettres que j’ai interprété par pr(esbytèr)on” and n. 7: “D’abord un pi, dont a disparu la barre horizontale, puis un rho, avec une barre oblique vers le bas de la hampe, pour indiquer une abréviation.”

P62.40:4231 Fig. 484 As above, missing top and handle; handle scar at base of neck; globular body; tubular foot bent before firing; P.H. 0.30, max. diam. of body 0.16.

E 84.00/S 3.00 *96.60, on floor just inside door with whetstone *infra*.

Uninv. 63 Fig. 485 As above, bottom and neck missing; ridged on shoulder where handle joins, otherwise ext. smooth, int. lightly ridged; pink-buff clay with many small inclusions, ext. surface obscured by accretions, no coating on int.; P.H. 0.50, max. diam. 0.29.

E 81.00/S 1.00 *96.40–*96.75, on floor S of basin in NW corner.

P62.138:4366 Figs. 457, 486 Round, squat body, 2 horiz. handles attached at neck and shoulder, wide neck and mouth with slightly everted rim, concave bottom with button in center; ridge across neck where top of handles join, 3 grooves at base of shoulder; int., ext. lightly ridged; pink-buff micaceous clay with many small inclusions; H. 0.39, max. diam. 0.28.

E 82.00/S 1.50 *96.49, S of water basin in NW corner, set into floor where one tile had been removed; a large pithos lid (diam. 0.33, Th. 0.05) was found lying beside it, Fig. 457.

Ampulla

P62.49:4240 Figs. 488–492 Mold-made, Christ Pantokrator, cross behind/Virgin Orans; rounded bottom, narrow neck, suspension holes punched through shoulders; H. 0.055, W. 0.045. E 81.50/S 1.00 *95.00–*94.75, in fill of drain under floor with coins of 330–430.

Hanfmann “Donkey,” 421 n. 4.

Basin

Uninv. 62 Flat bottom, straight wall, out-turned rim slants down, ca. 1/4 P.; heavy calcium deposits on int. and ext.; H. 0.23; est. diam. rim 0.44.

E 80.00–85.00/S 0–3.00 *98.50–*97.00.

Cf. P62.89:4297 in E 13, Fig. 445.

Bowls

Uninv. 62 Curved wall, flat rim with rouletting; red slip; H. 0.04, est. diam. 0.085.

E 82.85/S 0–1.00 *96.80–*95.00.

Uninv. 62 Fig. 495 Shallow, curved rim, ring foot; coarse red fabric, no slip but int. very smooth; est. H. 0.07–0.075, est. diam. 0.29.

E 83.00/S 4.05 *96.60–*96.40.

Uninv. 62 Fig. 493 Curved side turns upright at rounded rim, ring foot; pink-buff micaceous clay; H. 0.045.

E 82.00–83.00/S 3.00 *96.50.

P62.35:4214 Fig. 494 Plain redware with flanged rim, flat base raised on int., ring foot; H. 0.04, diam. 0.16.

E 84.60/S 0.50–1.00 *95.00, in drain over 12 coins.

Uninv. 62 Fig. 496 Upper part and rim P., straight rim, ledge below reconstructed with 10 facets; LRC, very well-adhering red-orange slip; max. P.H. 0.045, est. diam. rim 0.142.

E 75.00–80.00/S not recorded *97.00, assigned to E 14 but possibly E 13. For the shape cf. *Agora IV* no. M 349.

Cup

Uninv. 62 Fig. 497 Small, handleless, with wide, flat rim; flat, string-cut bottom; surface soaked and very abraded, some stone inclusions; H. 0.043, diam. 0.104.
E 82.00–84.52/S 3.00 *97.50–*96.30.

Lid

Uninv. 62 Fig. 498 Flat, heavy concave knob; unevenly turned, smoothed on ext., impressions of matting on underside; H. 0.045, diam. 0.18.
E 80.00–83.00/S 4.00–6.00 *97.30–*96.75.

Plate

P62.257:4549 Fig. 499 Low ring foot, flaring sides, squared and thickened rim, smooth red slip; H. 0.06, diam. 0.32.
E 83.00/S 4.50–5.00 *96.55.
Cf. *Yassi Ada I* no. P 5.

POTTERY LAMPS

L62.11–12:4278–4279 Two identical lamps with undecorated horiz. "spool" handles.
E 84.00/S 1.00 *95.00–*94.75, in drain near floor.
As L67.6:7296 in E 5, Fig. 264.

L62.5:4177 Figs. 500–502 Low round body, hollow triangular horiz. handle, ring foot set off by grooves; channel around large pour hole extends to nozzle (missing); elongated tongues on rim, circle surrounded by dots at base of handle, concentric circles in channel and on either side of nozzle, on underside long loops under handle, nozzle set off by diag. lines; light brown clay with traces of black slip—probably discolored by heat; max. H. 0.035, L. 0.092.
E 80.00/S 3.80 *96.50, fill above floor.
Cf. *Yassi Ada I* no. L 3, for the hollow handle no. L 11.

SEAL

Seal 62.1:4172 Figs. 503, 504 Carnelian ovoid intaglio, with seated or bending nude woman pouring libation onto an altar, sheaf of wheat in her right hand; 1st-2nd C.; H. 0.015, L. 0.012, Th. 0.004.
E 82.00/S 6.00 ca. *96.80, in ashy fill outside door.
BASOR 170, 50, fig. 30.

STONE

S62.66:4875 Fig. 458 Mortar, rounded sides, plain rim, flat bottom; ext. rough-finished, int. polished, very smooth; H. 0.135, diam. 0.38, W. of rim 0.04.
E 84.00/S 2.50 *96.40, on floor with S62.70:4903.

S62.70:4903 Fig. 458 Pestle, heavy rounded working end, cylindrical handle, rough-hewn white marble worked smooth; H. 0.18, diam. 0.18.
Found with above.

S62.73:4906 Leg fragment of lifesize statue, top and bottom cut flat with depression in center for use as a mortar; H. 0.21, max. diam. 0.125.

E 83.40/S 4.10 ca. *97.32, in doorway.

Uninv. 62 Rectangular whetstone, use marks on top; H. 0.07, W. 0.08, D. 0.04.

E 83.00/S 3.40 *96.60, with P62.40:4231 *supra*.

E 15 Figs. 505–507

EXCAVATIONS

1962 D. G. Mitten overburden through floor at *96.00–*95.00 to ca. *92.40 (see "Sondages below the Floors," *infra*), *BASOR* 170, 51. 1973 J. S. Crawford and T. Yalçinkaya cleaned and restored, *BASOR* 215, 52.

Ca. E 87.86–92.04. Floor at *96.50, badly disrupted tile at back, some broken marble revetment slabs. Some tiles lie on tiles from an earlier floor.

N wall: L. ca. 4.18, W. 1.25, H. ca. 1.60. Niche 1.48 E of W wall (H. 0.60, W. 0.45, D. 0.50). S wall of Syn MH (Seager, "Building History," 427). Fieldstone and spoils with brick lacing courses. No brick in fieldstone.

E wall: L. ca. 3.70, H. not recorded. Not straight, poorly constructed of brick, mortared fieldstones and spoils. Doorway (W. ca. 1.00) in center blocked in last period to separate E 15 from E 16. Removed in excavation of Hellenistic Steps.

S wall: L. ca. 4.18. W. ca. 0.50. Door (W. 1.40) in center, jambs of reused marble blocks. Niche E of doorway W. 0.76, D. 0.48. Mortared fieldstones and spoils. Partially removed in excavation of Hellenistic Steps.

W wall: See E 14, E wall.

The glass finds listed in *Sardis M6*, p. 42 came from below E 15's first story floor level and cannot be considered to have been part of the Shop's contents at the time it was destroyed. However, a goblet (M6 340) found in the drain at the back of the Shop may be contemporary with the Shop's final period. Window glass was found in the upper story level *97.50–*97.00. D. G. Mitten found wall plaster with red and yellow paint, possibly from interior wall painting.

A large copper cauldron (M62.52A:4456, Figs. 507, 510) was found outside the Shop and may or may not belong to it. A large iron candelabrum (M62.53:4472, Fig. 511) was found in the upper story. Rusted iron and iron nails were found throughout the fill.

Coarse ware pottery was found in both levels of the Shop, but only one sherd which bears a graffito in the form of a star (P62.193:4453, Fig. 516) was catalogued.

D. G. Mitten also found blue (azurite) and yellow pigments in E 15. The two small mortars (S62.65:4874, S62.22:4428, Figs. 517, 518), small pestle (S62.21:4470,

Fig. 519), and marble bowl fragment (S62.24:4454, Fig. 520) suggest that E 15 was engaged, as were a number of other shops, in pigment production, perhaps of those produced and sold in small quantities. The interior of E 15 was unusually heavily burned, indicating the presence of combustible materials.

If the cauldron found outside in the colonnade really belongs to E 15, it would be analogous to cauldrons found outside E 3 (Fig. 202), E 5 (Fig. 225) and the bowl outside E 14 (Fig. 473), all of which imply that some industrial processes were performed in the Colonnade as well as the Shops proper.

BONE

BI62.8:4698 Figs. 508, 509 Spoon; flat bowl, round handle with profiled knob at end, grooved support on back; L. 0.133. E 85.00–87.00/S 2.00 *95.50, under floor.
For the type, MacGregor 181.

COINS

Uninv. 62 (M1 136) Justinian I, 527–538, half follis, Constantinople; E 87.00/S 1.00 *96.50.

C62.344 (M1 117) Justinian I, 540/541, follis, Constantinople; E 87.50/S 0 *98.00–*97.00, sifting from niche.

Uninv. 62 (M1 343) Justin II, 570/571, follis, Constantinople; E 89.00/S 3.50 *96.50.

Uninv. 62 (M1 672) Maurice, 583–602, half follis, uncertain mint; E 88.00–91.00/S 0–1.00 *95.30, in drain.

Uninv. 62 (M1 952) Heraclius, 610/611, follis, Nicomedia; E 88.00–90.00/S 0–1.00 *96.70, with M1 961 *infra*.

Uninv. 62 (M1 961) Heraclius, 612/613, follis, Nicomedia; found with above.

Uninv. 62 (M1 882) Heraclius, 613/614, follis, Constantinople; E 88.00–90.00/S 0–1.00 *96.70.

GEM

Gem 62.7:4427 Ovoid onyx bead, drilled lengthwise; L. 0.0102. E 89.00/S 2.00 *96.70.

GLASS

In addition to the finds listed below badly corroded window glass was found at E 85.00–86.00/S 3.00–4.00 *97.50–*97.00.

Uninv. 62 (M6 558) Tube-shaped miniature bottle; aquamarine; diam. 0.025.
E 87.00–90.00/S 1.50–3.50 *95.00–*94.00, in fill under floor.

G63.21:5903 (M6 395) Fragments of deep, slightly conical bowl, plain rim, ca. 1/5 P.; pale green; P.H. 0.07, est. diam. 0.10.

E 87.00–92.00/S 1.00–3.00 *94.10, in foundation drain.

Uninv. 63 (M6 340) Goblet stem with knobbed profile.
E 88.00–93.00/S 1.00 *96.10–*95.30, in drain.

METAL

M62.52A:4456 (M8 515) Figs. 507, 510 Cauldron, tall straight sides slope inwards towards top; wide, everted ledge rim, bottom missing; hammered sheet metal analyzed as unalloyed copper; max. P.H. 0.21, max. ext. diam. rim 0.32.
E 88.00/S 5.30 *96.50, on mosaic pavement outside Shop.
A similar vessel was outside E 3 (Fig. 202). Cf. *Yassı Ada* I no. MF 3.

Iron

M62.53:4472 (M8 613) Fig. 511 Candelabrum, thin vertical shaft, 3 curved legs, round flat plate; max. P.H. 1.145, diam. plate 0.125.
E 87.50–88.50/S 1.50–2.50 *97.30.

Uninv. 62 (unpubl.) Knife, straight back and edge, rectangular tang; L 0.40.
E 87.00/S 2.00 *96.70.
Cf. M58.83:692A in W I, Fig. 147.

POTTERY

In addition to the objects listed below, 2 amphorae (Fig. 512) were found in pieces but intact enough to determine the shape: 1) horizontal handles joining neck and shoulder, cylindrical ridged body, bottom not P.; as Hautumum nos. 78–88 from a wide range of Aegean sites in the 5th–6th C., esp. no. 78 = *Agora* V no. M333; 2) piriform, narrow neck, knobbed foot, as Hautumum no. 203 (4th C. *Agora* V no. M240) and no. 247 (from *Yassı Ada*). Found in the NW corner *96.50 on upper tile floor.

Uninv. 62 Fig. 513 Bowl, flat ring foot, sharp carination on ext. to straight rim, int. smoothly rounded; micaceous pink-buff clay, some inclusions and blowouts, grayed from heat; H. 0.045, diam. 0.122.
E 87.00–88.00/S 2.00–3.00 *96.90–*96.30, with cup *infra*.
Cf. *Kenchreai* IV no. LRB 26.

Uninv. Fig. 514 Ca. 1/3 upper part LRC bowl, vertical rim rounded at top and flange below, almost straight flaring wall; diam. 0.182.
E 87.00–90.00/S 0–3.40 *96.50.
Cf. Hayes, form 3c esp. no. 28 = *Agora* V no. P 13084; *Kenchreai* IV no. LRB 33.

Uninv. 62 Fig. 515 Cup, handleless, flat string-cut bottom, wall curves inward toward rim; ext. ridged, int. smooth, micaceous clay with limestone inclusions; H. 0.065, diam. 0.085.
E 87.00–88.00/S 2.00–3.00 *96.70–*96.30, with bowl *supra*.

P62.193:4453 Fig. 516 Body sherd of heavy vessel; micaceous red clay; max. dim. 0.065.
Graffito: fragmentary 5 pointed star; H. 0.022.
E 87.00–89.00/S 0–3.50 *96.70–*96.30.

POTTERY LAMPS

Uninv. 62 Three fragments of "Asia Minor" type, solid handles, ridges on rim, all charred.
E 87.00-90.00/S 0-3.00 *96.60-96.25.

STONE

S62.24:4454 Fig. 520 Fragment of bowl, ridged ledge rim; white marble with large crystals; H. 0.05, outer diam. 0.22, Th. of rim 0.011.
E 86.00-87.00/S 1.00-2.00 *96.60-96.50.

S62.65:4874 Fig. 517 Mortar, plain rim, flat base; basalt; H. 0.117, diam. 0.25.
E 88.89/S 0.50 *96.40, in NE corner.

S62.22:4428 Fig. 518 Complete rectangular jeweler's or apothecary's mortar, oblong, hollow in center; black basalt, very fine and smooth; 0.11 x 0.058, Th. 0.008.
E 88.00/S 2.00 *96.70.

S62.21:4420 Fig. 519 Small elbow-shaped apothecary's pestle, rounded working end, incision at bend; gray-blue marble; H. 0.07, W. 0.04.
E 88.00/S 1.50 *97.00, in burned fill.

Uninv. 62 Fragment of marble tray, ledge rim turns in, very low, flat base; rough-chiselled on bottom, smoothed on underside of wall, polished interior.
E 87.00-90.00/S 0-3.00 *96.60-96.25 with lamp fragments, *supra*.

TERRACOTTA

Uninv. 62 Two conical weights (?), hand-modelled, hole reamed from top to rim; one pink, other gray; diam 0.029.
E 87.00-90.00/S 0-3.00 *96.60-96.25.
Cf. T59.3:1272 in W 3, Fig. 125.

E 16 Fig. 521

EXCAVATIONS

1963 D. G. Mitten overburden through floor at *96.00-95.00, to ca. *92.40 (see the Hellenistic steps in "Sondages below the Floors," *infra*), *BASOR* 174, 45. 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

E 92.24-97.60. Floor at *96.40, packed earth with tile in NW corner.

N wall: L. ca. 5.36, W. 1.25. S wall of Syn MH-Syn Fc (Seager, "Building History," 427). Mortared fieldstones and spoils with brick lacing courses. No brick in fieldstone.

E wall: L. ca. 3.70, W. ca. 0.80, H. not recorded (removed in excavation of Hellenistic Steps). Arch of fieldstone in N end, horiz. pipe (diam. 0.24) set in it 0.22 from NE corner. Heavily constructed of mortared fieldstones and spoils.

S wall: L. ca. 5.36, W. ca. 0.50, H. not recorded (removed). Door, W. ca. 1.34, 2.81 from W wall, 1.23 from E wall.

Blocked window floored with a marble slab that might have been the sill. Reused marble slabs in door jambs; rest of wall mortared fieldstones and spoils. Restoration not accurate.

W wall: see E 15, E wall.

Interior: Vertical pipes upright 0.22 from SE corner (diam. 0.24) and in NW corner (diam. 0.24) cemented in mortar. D. G. Mitten believed a two level structure in the SW corner, the lower level tile, the upper marble slabs, was the base of a stairway.

Unique among the finds from E 16 was a millstone, which D. G. Mitten suspected to have come from a rotary quern. In the area of the Colonnade mosaic in front of the Shop were found a knife (M63.48:5729, Fig. 526) and a campstool frame (M63.49:5730, Fig. 525). It would seem that the stools' compactness made them popular items in the Shops. Metal finds from the upper story level included a hoe (M63.51:5732), a steel-yard (M63.29:5375, Fig. 523) and a hinge (M63.47:5728, Fig. 527). From the lower story came a bell (M63.39:5553, Fig. 524) and a flask (M63.56:5871, Fig. 522). Several glass bottles, a rod (Fig. 528) and a salver foot (Fig. 529) were found on the first story floor. There was a quantity of bones, though not as many as were in restaurants E 1-E 2 or W 1-W 3.

E 16 produced the largest number of identifiable Byzantine coins found in a single Shop. Because most were retrieved by sifting fill, only a few can be assigned a specific level, but eight were from the first story and two from the second.

While the millstone may suggest a commercial operation of some kind, the other finds, especially the bones, seem more residential in character, and there are no vats or other large receptacles. The author believes E 16 was a residence.

ARCHITECTURAL FRAGMENT

Column shaft found on floor by N wall; H. 0.88, diam. narrow end, 0.24.

COINS

C73.73 (unpubl.) Constantius II, 351-361, AE3, Cyzicus; E 97.00/S 5.40 *96.55.

Uninv. 63 (M1 21, 30) Anastasius I, 491-518, nummi, Constantinople; E 92.00/S 0-1.50 *96.75-96.40; E 92.00-96.00/S 0-2.00 *98.00-96.40.

Uninv. 63 (M1 95) Anastasius I or Justin I, 491-527, nummus, Constantinople; E 92.00-96.00/S 0-2.00 *98.00-96.40.

Uninv. 63 (M1 11) Anastasius I, 498-518, penta., Constantinople; E 91.30-95.80/S 0-4.00 ca. *97.00-96.40, sifting fill.

Uninv. 63 (M1 680, 683, 685) Anastasius I–Maurice, 498–602, penta., Constantinople; E 92.00/S 0–1.50 *96.57–*96.40; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 81) Justin I, 518–527, penta., Nicomedia; E 92.00–93.00/S 0–4.00 *96.40.

Uninv. 63 (M1 317) Justin I or Justinian I, 518–538, penta., Constantinople; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

Uninv. 63 (M1 328) Justin I–Justinian I, 518–565, penta., uncertain mint; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 111) Justinian I, 527–538, follis, Constantinople; E 91.00–95.00/N 3.00–S3.25 *97.50–*95.75.

Uninv. 63 (M1 264) Justinian I, 527–538, dec., uncertain mint; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 210) Justinian I, 527–565, penta., Constantinople; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

Uninv. 63 (M1 705, 707) Justinian I–Maurice, 527–602, penta., Constantinople; E 92.80/S 0.20 *94.60, in foundation of drain; E 92.00–96.00/S 0–2.00 *94.60.

Uninv. 63 (M1 261) Justinian I, ca. 529–539, penta., Antioch; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 160) Justinian I, 538–565, dec., Constantinople; E 91.35–96.00/S 0–3.50 ca. *97.00–*96.40, sifting fill.

C63.178 (M1 287) Justinian I, 538–565, dec., uncertain mint; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

C63.105 (M1 138) Justinian I, 539/540, half follis, Constantinople; E 91.90–94.00/S 0–1.30 *97.50–*97.00.

C63.222 (M1 127) Justinian I, 556/557, follis, Constantinople; E 91.00–95.00/S 0–3.25 *96.50–*96.00.

Uninv. 63 (M1 432) Justin II, 565–570, half follis, Thessalonica; E 91.00–95.00/S 0–3.25 *96.25–*95.75.

Uninv. 63 (M1 391, 408, 422, 424) Justin II, 565–578, penta., Constantinople; 391, 408, 422: E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill; 424: E 91.40–94.00/S 0–2.00 *97.50–*97.25.

Uninv. 63 (M1 360) Justin II, 566/567, half follis, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 712) Justin II–Maurice, 566/577 or 583–584, half follis, Thessalonica; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

C63.188 (M1 446) Justin II, 568/569, follis, Nicomedia; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 505) Justin II, 568/569, half follis, uncertain mint; E 95.70/S 0.90 *97.50.

Uninv. 63 (M1 374) Justin II, 570–574, half follis, Constan-

tinople; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

Uninv. 63 (M1 501) Justin II, 573/574, follis, uncertain mint; E 91.30–95.80/S 0–4.00 *97.00–*96.40, sifting fill.

C63.194 (M1 528) Tiberius II, 578, dec., Constantinople; E 91.30–95.80/S 0–4.00 *96.40.

Uninv. 63 (M1 537) Tiberius II, 579–582, half follis, Thessalonica; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 595, 599) Maurice, 582–602, dec., Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 647) Maurice, 582–602, dec., Nicomedia; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 598) Maurice, 583–602, dec., Constantinople; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

Uninv. 63 (M1 660) Maurice, 584–602, dec., Cyzicus; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 587) Maurice, 589/590, half follis, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 623) Maurice, 589/590, half follis, Thessalonica; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 565) Maurice, 594/595, follis, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 776) Phocas, 602–610, penta., Constantinople; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

Uninv. 63 (M1 755, 760, 769) Phocas, 603–610, half folles, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill; E 92.00–96.00/S 0–2.00 *98.00–*96.40.

C63.190 (M1 789) Phocas, 603–610, follis, Nicomedia; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

Uninv. 63 (M1 855) Heraclius, 612/613, follis, Constantinople; E 91.00–95.00/S 0–3.25 *96.25–*95.75.

Uninv. 63 (M1 963) Heraclius, 612/613, follis, Nicomedia; E 91.30–95.80/S 0–4.00 *96.20–*95.70.

C63.191 (M1 881) Heraclius, 613/614, follis, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

C63.189 (M1 911) Heraclius, 615/616, follis, Constantinople; E 91.30–95.80/S 0–4.00 ca. *97.00–*96.40, sifting fill.

GEM

Gem63.6:5640 Round with flat ends, pierced; deep red carnelian; diam. 0.007.

E 91.35–96.00/S 0–3.50 *97.00–*96.40.

GLASS

Bottles

Uninv. 63 (M6 485) Cylindrical neck, rim missing, rounded shoulder; clear with green (?) tint; H. 0.07, diam. neck 0.024.

E 92.94-97.60/S 0-5.00 ca. *96.40.

Uninv. 63 (M6 503) Short conical funnel neck, almost horiz. shoulder; light aquamarine; P.H. 0.045.

E 92.94-97.60/S 0-5.00 ca. *96.40, with M6 676 *infra*.

Similar to E 13, Fig. 398.

Lamp

Uninv. 65 (M6 263) Handle fragment of bowl, greenish.

E 92.00-96.00/S 0-2.00 *97.25-96.50, found with M6 622 *infra*.

Similar to E 1, Fig. 173.

Rod

Uninv. 63 (M6 676) Fig. 528 Slightly tapering fragment, round end, heavy silver iridescence; H. 0.052.

E 92.94-97.60/S 0-5.00 ca. *96.40, with M6 503 *supra*.

Salver (?)

Uninv. 63 (M6 375) Fig. 529 Flaring foot, short concave stem; aquamarine; H. 0.035, diam. 0.055.

E 92.94-97.60/S 0-5.00 ca. *96.40.

Vessels

Uninv. 63 (M6 603) Fig. 530 One-fifth folded rim, vertical wall of large, deep bowl (?); pale green; est. diam. 0.20.

E 92.00-96.00/S 0-2.00 *97.50-97.25.

Uninv. 63 (M6 622) Fig. 531 Wide, conical neck curving to shoulder, narrow spiral thread; light aquamarine; P.H. 0.035.

E 92.00-96.00/S 0-2.00 *97.25-96.50, with M6 263 *supra*.

METAL

Copper Alloy

M63.56:5871 (M8 531) Fig. 522 Flask, flat-bottom, cylindrical body, profiled shoulder, conical neck; curved iron handle; H. 0.20, diam. base 0.11.

E 94.00/S 1.20 *96.40, on floor.

BASOR 174, 45. Cf. M67.29:7475 in E 4, Figs. 212, 214.

Uninv. 63 Cylindrical cup or vessel lid; H. 0.095, diam. 0.12.

E 94.00/S 1.20 *96.40

Uninv. 63 Cylindrical lid; H. 0.075, diam. 0.065.

E 93.00/S 2.70 *96.50, just E of stone mortar.

M63.29:5375 (M8 441) Fig. 523 Steelyard, beam has dis-shaped stop at long end, biconical stop at other, graduated on 3 sides with incised lines and dots, 5 hooks; most of chains and weight missing; L. beam 0.295.

E 96.80/S 0.85 *97.50, next to E wall.

Cf. M73.1:8224 in E 2, Fig. 413.

Iron

M63.39:5553 (M8 103) Fig. 524 Camel bell, clapper missing; max. H. ca. 0.21, max. diam. 0.12.

E 95.90/S 1.40 *96.00.

M63.49:5730 (M8 424) Fig. 525 Campstool frame, 2 rect-angles joined at center of long sides, oblong opening on one

short side of each to hold fabric seat, other short sides formed the stand; L. 0.61, W. 0.44.

E 95.00-97.00/S 4.00-6.00 *96.50, outside S wall of Shop on mosaic floor.

M63.47:5728 (M8 256) Fig. 527 Butterfly hinge; max. H. 0.065, max. W. 0.11.

E 92.00-96.00/S 0-2.00 *97.25-96.50.

M63.51:5732 (M8 108) Hoe, rectangular blade, S-shaped handle with hammered, open socket; max. P.H. 0.16, max. W. blade 0.24.

E 91.50-95.00/S 0-3.50 *97.00-96.40.

Cf. M67.34:4295 in E 13, Fig. 417.

M63.48:5729 (M8 195) Fig. 526 Knife, triangular blade, straight back, rectangular tang; max. P.L. 0.218, max. W. blade 0.071.

E 95.00-97.00/S 4.00-6.00 *97.00-96.50, on mosaic floor outside Shop.

M63.36:5513 Short sword; broad, flat blade, top edge straighter than bottom; shaft end appears to have been hollow; heavily corroded; L. 0.33, max. W. 0.05.

E 94.00-96.00/S 0-1.00 *96.40.

POTTERY

Amphorae

Uninv. 63 Fig. 532 Piriform, applied clay at 2 points on neck where handle (missing as is rim of neck) was attached; lower neck and body ridged on int. and ext., thin slip applied to ext., covered with ashy deposits; P.H. 0.345, max. diam. body 0.177.

E 93.00/S 0.50 *96.50-96.40.

Cf. E 5, Fig. 245.

Uninv. 63 Fig. 533 Bottom half of large amphora or jar, convex bottom, ring base in one piece with body; cream-buff self slip with micaceous red slip over it; yellow material deposited on ext. and int.; P.H. 0.19, max. P. diam. 0.24.

E 90.60/S 0.50 *96.00.

Uninv. 63 One handle, neck, shoulder P.; blackened by fire, int. lined with mastic; P.H. 0.24, max. diam. 0.20.

Grafitto: N at base of handle scratched after firing.

E 91.00-93.00/S 0-1.40 *96.75.

Basin

Uninv. 62 Fragment of wall and out-turned rim, flat bottom; brick-like coarse clay, soaked and surface very abraded, ridging on ext.; max. H. 0.235; Th. wall 0.005-0.02 at bottom.

E 90.00-95.00/S 2.50-3.50 *97.00.

Cf. E 5, Fig. 247.

Cooking ware

P63.382:5514 Fig. 535 Fragment of "frying pan" with smoothed, out-turned rim, flat bottom; coarse fabric with less temper than most cooking ware, fired red; H. 0.05, est. diam. 0.18.

E 92.50-95.00/S 0-2.00 *97.00-96.00.

Uninv. 63 Fig. 536 Fragment of flat-bottomed "frying pan" with out-turned ledge rim found with 2 rim fragments having the same curvature, one attached to a handle made of 2 rolls of clay with loop at end, the other attached to a tapered hollow piece—a support to balance the pan on a brazier (?); coarse, tempered fabric with micaceous slip; appendages luted on with clay; soot on bottom and on "supports"; H. 0.04, est. diam. rim 0.21; P.L. handle 0.105, est. L. support 0.010.
E 91.90–95.00/S 0–3.50 *97.00–*96.40.

The fabric is similar to that of a casserole (güvec) currently made in the Sardin region, Howard Crane, "Traditional Pottery Making in the Sardin Region of Western Turkey," *Muğarnas* 5 (1989) 9–20.

Uninv. 63 Out-turned rim and wall fragment, ledge handle P.; tempered cooking pot fabric; max. P.H. ca. 0.08, W. rim. 0.034.

E 91.90–95.00/S 0–3.50 *97.00–*96.40, with above.

Crucible

Uninv. 63 Fragment of fractured crucible; dribble of bright red and malachite green on ext.; found with bits of red glass, one having the same curvature as int. of crucible fragment.

E 93.00/S 3.00 *94.80.

As E 10, Figs. 370, 371, E 11, Fig. 376.

Jugs

P63.543:5727 Fig. 534 Neck-shoulder fragment of heavy jug or storage vessel; micaceous clay fired gray, small blow-outs from other inclusions; max. dim. 0.078; Th. 0.04–0.06.

Graffito: PO scratched just below neck when leather-hard before firing; may be another stroke below; H. letters 0.06.

E 92.00–96.00/S 0–0.20 *97.25–*96.50.

Uninv. 67 Thick, ridged shoulder fragment of heavy vessel; max. Th. 0.012.

Graffito: just below shoulder, ligature of A and E (?); scratched after firing; wavy line and horizontal groove incised above the graffito before firing.

E 93.00–97.00/S 0–5.00 *96.40–*96.38.

Lids

Uninv. 63 Fig. 537 Concave; recessed knob; coarse clay with inclusions; knob made in one piece with lid, turned; H. 0.04; diam. 0.16.

E 91.00–95.00/S 0–7.50 *97.00–*96.40.

Cf. *Yassı Ada* I no. P41. As P58.292:544 in W 2.

P63.647:5884 Fig. 538 Ca. 1/4 P., rounded edge as for a pithos (?), 2 ridges around center of top, deep groove on underside; impression of stone tournette, brick orange clay, chattered on top at rim; est. diam. 0.22, Th. 0.011–0.013.

Graffito: γυε (broken on l.) raised letters, impressed in mold when lid was made; H. letters 0.027.

E 91.00–96.00/S 1.00–4.00 *96.00.

Plate

P63.333:5457 Fig. 539 Low ring foot, flaring sides, rounded rim flat on ext. edge, center slightly depressed; micaceous clay

body, smooth slip, fragments discolored by varying exposure to heat; H. 0.065, diam. 0.42.

E 91.40–96.20/S 0–1.30 *98.00–*97.00.

Cf. P62.257:4569 in E 14, Fig. 499; *Yassı Ada* I no. P 5.

POTTERY LAMP

L63.53:5733 Mold-made triangular handle with palmette; buff clay, gray from heat; H. 0.04.

E 91.5–95.00/S 0–3.50 *96.40–*97.00.

Cf. L62.5:4177 in E 14, Figs. 500–502; *Yassı Ada* I no. L 2.

STONE

Uninv. 63 Grinding stone (upper part of a rotary quern ?), round, central hole surrounded by ridge, hole near rim for upright peg or handle; diam. 0.40.

E 94.64/S 2.60 *96.40.

S63.39:5459 "Elbow" shaped pestle, black basalt, rough but evenly finished, end and section of side rubbed smooth; L. 0.13, W. 0.128, diam. larger end 0.07, diam. smaller end 0.03.
E 95.00/S 1.00 *96.75.

Nearly identical to S62.8:4159 from E 2A, Fig. 196.

S63.44:5539 Spherical weight (?) with flat top and bottom, green crystalline stone; H. 0.03, max. diam. 0.04, Wt. 81.50 g.
E 92.50/S 1.00 *96.50, on floor.

Catalogued as a weight but almost identical to the pestle, S67.8:7319 in E 6, Fig. 302.

Uninv. 63 Mortar, columnar stand with hollow grinding bowl (diam. 0.23); marble; H. 0.55, max. diam. 0.34.

E 97.17/S 4.24, on platform in SW corner.

E 17 Figs. 540–543

EXCAVATIONS

1963 D. G. Mitten, G. M. A. Hanfmann overburden through floor at *96.00–*95.00, to ca. *92.40 (see *infra*, the Hellenistic Steps in "Sondages below the Floors"), *BASOR* 174, 48. 1973 J. S. Crawford, T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

E 98.45–102.79. Floor at *96.50–*96.40.

N wall: L. 4.34, W. 1.25, H. not recorded. S wall of Syn Fc (Seager, "Building History," 427). Fieldstones and spoils with brick facing courses. No brick in fieldstone. Basin let into wall (see *infra*) as shown on plan, niche in reconstruction is incorrect.

E wall: L. 4.20, W. 0.86, H. not recorded. In S portion a former doorway, threshold W. 0.99, blocked with a poorly built wall, one brick or 0.18 Th. Mortared fieldstones and spoils.

S wall: L. 4.34, W. ca. 0.70, H. not recorded. Solidly built of small, reused marble blocks. Door jambs of larger reused marble blocks. Pier 0.86 x 0.87 in SW corner. Doorway, W. 1.26, is 1.00 from E wall, 1.96 from W wall.

W wall: See E 16, E wall. N section, ca. 2.00, fieldstones and

spoils. S section heavily constructed of reused marble blocks.

Interior: A vat of generally circular shape near middle of N wall adjoins (on the E) a "spill basin" built into the N wall (E-W dim. 2.45, N-S 1.75), floored with schist and marble slabs; sunk 0.45 below it in the NE corner is a lower basin (1.10 x 1.10) with plastered sides. A schist slab (L. 1.02, W. 0.46) lies NE-SW, one end under the drain in the NW corner.

Contrary to the interpretation at the time of excavation (*BASOR* 174, 46) the "two apparent periods of use" are more likely the upper and lower story deposits of a single period of occupation, as is true of the other Shops. It is possible that sherds from earlier periods were mixed in the packed earth of the Shop's floor. Such strays are numerous in the Byzantine Shops.

As in E 16 the identifiable coins were Byzantine, twenty-five from the upper story, six from the lower. Hoard H, which included two Byzantine coins, and a coin of Justin I (C63.225) were found below the first story level.

E 17's upper story yielded two metal finds: a knife (M63.28:5352, Fig. 547), and a campstool frame. Several glass goblets were found in the upper story and the lower story yielded two glass lamp handles and a folded vessel rim (Fig. 546). The remainder of the glass came from below the first story floor: cullet, goblets, lamps, and a plain rim.

Pottery finds from the upper story included two intact pottery vessels (P63.383:5515, P63.385:5517, Figs. 549, 550) and one interesting glazed fragment (P63.583:5787, Fig. 551). A coarse redware lid (P63.589:5795, Fig. 552) and a large basin were found but the level was not recorded. The vat, draining area, basin and jars seem similar to the arrangements in other Shops which probably produced paints or dyes.

BONE

B163.10:5455 Fig. 544 Pin, tapered point, bead and reel with flat head; L. 0.11, diam. head 0.005.
E 96.90-98.00/S 0-2.00 *96.50-96.00.
Cf. MacGregor, 114 no. 7.

COINS

C63.157 (M1 85) Justin I, 518-527, half follis, Antioch; E 96.90-98.00/S 0-2.00 *96.50-96.00.

C63.225, Univ. 63 (M1 59, 60) Justin I, 518-527, penta., Constantinople; E 99.00/S 1.00 *95.50, in drain; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 74) Justin I, 518-527, follis, Nicomedia;

E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 108, 113) Justinian I, 527-538, folles, Constantinople; E 96.90-98.00/S 0-2.00 *96.50-96.00; E 100.00/S 0-0.50 *97.50-97.25.

Univ. 63 (M1 141) Justinian I, 548/549, dec., Constantinople; E 97.00-98.00/S 0-1.50 *97.50-97.25.

Univ. 63 (M1 143) Justinian I, 555/556, dec., Constantinople; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 257) Justinian I, 557/558, follis, Antioch; E 96.90-98.00/S 0-2.00 *96.40.

Univ. 63 (M1 235) Justinian I, 564/565, dec., Nicomedia; E 96.90/S 0-2.00 *96.50-96.00.

Univ. 63 (M1 449) Justin II, 569/570, follis, Nicomedia; E 97.00-98.00/S 0-1.50 *97.50-97.00.

C63.201 (M1 445) Justin II, 570-578, half follis, Thessalonica; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 453) Justin II, 571/572, follis, Nicomedia; E 96.90-98.00/S 0-2.00 *96.40.

Univ. 63 (M1 502) Justin II, 574/575, follis, uncertain mint; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 571) Maurice, 582/583, half follis, Constantinople; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 673) Maurice, 582-602, penta., uncertain mint; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 600) Maurice, 583-602, dec., Constantinople; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

C63.178 (M1 608) Maurice, 583-602, penta., Constantinople; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 668) Maurice, 587/588, half follis, uncertain mint; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

C63.89 (M1 652) Maurice, 589/590, follis, Cyzicus; E 100.00/S 0-5.50 *97.50-97.25.

Univ. 63 (M1 844) Heraclius, 610-613, follis, Constantinople; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

C63.88 (M1 982) Heraclius, 611/612, follis, Cyzicus; E 100.00/S 0-5.00 *97.50-97.25.

C63.90 (M1 846) Heraclius, 612/613, follis, Constantinople; E 100.00/S 0-5.00 *97.50-97.25.

C63.200 (M1 959) Heraclius, 612/613, follis, Nicomedia; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Univ. 63 (M1 893) Heraclius, 612-614, follis, Constantinople; E 100.00/S 0-5.00 *97.50-97.25.

Univ. 63 (M1 919, 928) Heraclius, 612-616, folles, Constantinople; E 97.00-98.00/S 0-1.50 *97.50-97.00; E 100.00/

S 0-5.00 *97.50-97.25.

Uninv. 63 (M1 1000, 1004) Heraclius, 612-616, folles, uncertain mint; E 100.00/S 0-5.00 *97.50-97.25; E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Uninv. 63 (M1 873, 874, 887) Heraclius, 613/614, folles, Constantinople; E 100.00/S 0-5.00 *97.50-97.00; E 100.00/S 0-5.00 *97.50-97.25; E 99.00-99.50/S 4.00-4.25 *96.75-96.50.

Hoard H, as designated by G. Bates (M1 p.151), consisted of 38 coins found at E 101.00/S 2.00 *95.80-95.70, below the floor; of which 24 disintegrated, were illegible or obscure; 14 were uncatalogued Roman coins dating from 395-450; 2 were Byzantine:

Uninv. 63 (M1 78) Justin I, 518-527, penta., Nicomedia.

Uninv. 63 (M1 88) Anastasius I-Justin I, 498-527, follis, Constantinople.

GLASS

Goblets

Uninv. 63 (M6 303) Stem with flat foot, slender, concave, light aquamarine.

E 99.00-102.00/S 2.00-4.00 *97.50-97.00.

Uninv. 63 (M6 302) As above.

E 97.00-101.00/S 0-4.00 *95.20, below the floor.

Lamps

Uninv. 63 (M6 264) Two handles, pale green and aquamarine. E 97.00-100.10/S 1.00-4.00 *96.60-95.90, with M6 602 *infra*.

Uninv. 63 (M6 297) Fig. 545 Beaker-shaped, lower part, knob base P., pale olive; P.H. 0.05, diam. base 0.016.

E 98.00-100.00/S 1.00-4.00 to *95.70, below floor.

Vessel

Uninv. 63 (M6 584) Fig. 546 Plain rim, slightly convex wall, ca. 1/3 P.; light green; P.H. 0.065, est. diam. 0.09.

E 98.45-102.79/S 0-5.00 *96.40-95.80.

Uninv. 63 (M6 602) Folded rim, slightly flaring wall; light green; est. diam. 0.18.

E 97.00-101.00/S 1.00-4.00 *96.60-95.90, with M6 264 *supra*.

METAL

Iron

Uninv. 63 (M8 425) Campstool frame, one corner of frame with slot for fabric P.

E 98.00/S 2.00 *97.25-96.75.

Cf. E 7, Fig. 307 and M63.49:5730 in E 16, Fig. 525.

M63.28:5352 (M8 193) Fig. 547 Knife, convex edge, tang bent under to form a loop; max. P.L. 0.21.

E 98.00-100.00/S 2.00 *97.25-96.75.

POTTERY

Amphorae

P63.383:5515 Figs. 543, 549 Complete, ridged from shoulder to rounded bottom, 2 small handles from neck to shoulder; very micaceous orange clay, residue of charcoal on int., signs of burning on ext.; H. 0.32, max. diam. of body 0.16.

Graffiti: cross on shoulder; E just below handle, H. 0.035.

E 97.00/S 1.00 *97.00, near stone vat with P63.385:5517 *infra*. BASOR 174, 46.

P63.385:5517 Figs. 543, 550 Concave bottom, ridged on shoulder and mid-point of body, strap handle roughly pulled, scar for opposite handle, rim and most of neck missing; body blistered and misshapen from heat, iron oxide deposits on ext.; P.H. 0.38, max. diam. body 0.27.

Found with above.

BASOR 174, 46; cf. *Agora V* no. M326.

P63.472:5636 Fig. 558 As reconstructed from many fragments, thin walls and narrow ridging, sharp carination at shoulder; painted before firing with white slip, basket pattern over body, concentric circles or spirals at bottom; clay body gray with red core—originally fired red with white decoration; P.H. 0.41, est. max. diam. 0.46, Th. 0.004-0.008.

E 96.90-98.00/S 0-1.50 *96.90.

For amphorae of the 4th-6th C. with white painted spiral decoration see *Agora V* nos. M214, M329-330. Scott Redford kindly offered comparisons to pieces from Al Mina, coarse red cooking ware, similar fabric and ridging but without paint, Arthur Lane, "Medieval finds in Al Mina in North Syria," *Archaeologia* 87 (1938) 41, fig. 5E, 9th-10th C., and Beth Shean, ridged storage jar with white painted pattern, J. D. Frierman, *Medieval Ceramics* (Los Angeles 1975) 53, fig. 105, 6th C.

P63.614:5836 Fig. 548 Shoulder fragment; micaceous body fired gray, ribbed int. coated with mastic; max. dim. 0.101, Th. 0.005-0.006.

Graffiti: Monogram, A in square (broken at bottom) 0.13 below groove where neck joins shoulder of vessel; jerkily scratched after firing; 0.026 x 0.023.

E 99.00-102.00/S 1.00-4.00 *97.25-96.75.

Uninv. 63 Ridged body sherd, chipped to form round stopper, edge slants inward to provide a tight fit; max. diam. ext. 0.062, int. 0.056; Th. ca. 0.009.

E 98.45-102.79/S 0-5.00 *96.00-95.80.

Cf. *Yassı Ada I* 160, figs. 8-9.

Bowl (?)

P63.583:5787 Fig. 551 Vertical rim fragment of open bowl or flask with pinched and punched suspension (?) handle; thin, iron-yellow glaze, no slip; P.H. 0.02, W. 0.031.

E 98.00-99.00/S 2.00-3.50 *96.25-96.00.

Fabric and glaze but not the shape similar to *Yassı Ada I* nos. P 1-4.

Lekythos

Uninv. 63 Turned body pinched at bottom, foot added very sloppily, buff clay free of inclusions, no slip; diam. foot 0.035,

Th. 0.002-0.003.

E 98.45-102.79/S 1.00-4.00 *96.00-*95.40.

Lid

P63.589:5795 Fig. 552 Concave lid with recessed knob, ridge between lip and wall would fit it tightly into mouth of vessel; H. 0.037, diam. 0.17.

E 96.90-98.00/S 0-1.50 *96.90, between basin and W wall.

Cf. *Yassı Ada* I no. P. 42.

Spout

P63.544:5737 Fig. 553 Spout or bottom of funnel; evenly ridged on int., smoothed on ext. with red slip; P.L. 0.108, max. diam. 0.065, diam. rim 0.025.

E 99.00-102.00/S 2.00-4.00 *96.40-*96.00.

POTTERY LAMPS

L63.54:5734 Fig. 554 Asia Minor type, recessed plain disk, single pour hole, solid handle, spirals on rim; very worn or perhaps soaked; H 0.40, L. 0.09.

E 99.00-100.00/S 2.00-4.00 *97.00-*97.50.

L63.55:5735 Fig. 555 Shape as above, but larger pour hole, no disk, 3 rows raised "warts"; very worn mold, buff slip, white deposit; H. 0.04, L. 0.08.

E 99.00-99.50/S 3.00-3.25 *96.75-*96.50.

P63.582A-B:5786 Figs. 556, 557 Two identical; plain, round disks with channels around pouring holes, air holes on either side of short nozzles, solid vertical handles; A: L. 0.08, W. 0.07, H. 0.04.

E 98.00-99.00/S 3.00-3.50 *96.00, below floor.

Cf. L68.19:7891 in E 5, Fig. 265.

STONE

Uninv. 63 Figs. 542, 543 Rough-hewn, irregular vat with round basin; limestone, reddened and fractured by heat, repaired with lead clamps; max. H. 0.63, max. diam. basin 0.615, max. dim. across top 0.99.

Found *in situ* by N wall; in the restored Shops it is in E 18.

E 18 Figs. 559-565

EXCAVATIONS

1963 D. G. Mitten overburden through floor, *BASOR* 174, 45. 1973 J. S. Crawford and T. Yalçınkaya cleaned and restored, *BASOR* 215, 52.

E 103.65-108.18. Floor at *96.50.

N wall: L. ca. 4.53, W. 1.25, H. 1.50. S wall of Syn Fc (Seager, "Building History," 427). Mortared fieldstones and spoils with brick facing courses. No brick in fieldstone.

E wall: Destroyed; one-brick thick segment P. abutting N wall.

S wall: L. ca. 4.50, W. ca. 0.75, H. 0.85. W. threshold 1.20 measured 3.78 from W wall and ca. 0.90 from destroyed E wall. Mortared fieldstone and spoils.

W wall: See E 17, E wall.

Interior: Second story reinforced by column. Marble drain 0.47 m.², round depression in center (0.24 diam.) with 3 holes below pipe and stone junction box in N wall. Hole ca. 0.372 into drain at back of Shop.

E 18 must be discussed along with the mosaic-paved passageway east of it which enters the Syn Fc. The shop and passageway were undoubtedly separated by a wall one brick thick at the time of the Shop's destruction; the north part of it was standing when it was excavated. The vertical drainpipe at the rear of the Shop connected with a brick-lined water channel from Syn Fc as well as the drain along the N wall.

Only one metal object was found in the upper story: a pin or spoon handle (M63.58:5875, Fig. 571). In the first story were found a cylindrical tripod censer (M63.60:5876, Figs. 566, 570) and an elaborate, bronze lamp (M63.61:5877, Figs. 567, 568, 570) with an ivy leaf-shaped handle guard executed *à jour* and containing a cross. The lid of the reservoir has both a plain knob and one in the shape of a leaping dolphin. The lid slipped sideways for filling. A pithos (Fig. 561) was found lying on its side in the NW corner of the first story. Glass finds consisted solely of a *millefiori* fragment and blue cullet or tesserae.

The finds are residential rather than industrial in character. The drain openings and the pithos might indicate a connection to dye/paint production, but this is not certain.

COINS

C73.74 (unpubl.) Arcadius, 393-395, AE3, Cyzicus; E 104.20/S 6.50 *97.10.

Uninv. 63 (M1 686) Anastasius I-Maurice, 498-602, penta., Constantinople; E 105.00-108.00/S 0-3.00 *97.20.

C63.205 (M1 311) Justin I or Justinian I, 518-565, penta., Constantinople; E 101.90-111.00/S 0.20-3.80 *97.00-*96.40, sifting fill.

Uninv. 63 (M1 293) Justinian I, 527-565, nummus, uncertain mint; E 105.00-107.00/S 2.00 *97.00-*96.75.

Uninv. 68 (M1 233) Justinian I, 558/559, decia., Nicomedia; E 102.20-104.20/S 3.00-4.00 *96.40-*96.30.

C63.117 (M1 234) Justinian I, 563/564, decia., Nicomedia; E 105.00-112.00/S 0-2.00 ca. *96.75.

C63.203 (M1 474) Justin II, 574/575, follis, Cyzicus; E 103.00-108.00/S 0-3.50 *97.00-*96.40.

Uninv. 67 (M1 357) Justin II, 565-578, follis, Constantinople;

E 107.40/S 3.00 *96.26.

Uninv. 63 (M1 552, 575) Maurice, 583/584, folles, Constantinople; E 103.00–108.00/S 0–3.50 *96.40; E 105.00–112.00/S 0–2.00 ca. *96.75.

C63.204 (M1 735) Phocas, 606/607, follis, Constantinople; E 103.00–108.00/S 0–3.50 *97.00–*96.40.

Uninv. 67 (M1 883) Heraclius, 613/614, follis, Constantinople; E 104.35/S 3.00 *96.26.

C73.5 (unpubl.) Heraclius, 613–616, follis, uncertain mint; E 108.00/S 5.00 *96.50.

Uninv. 63 (M1 997) Heraclius, 614/615, follis, uncertain mint; E 103.00–108.00/S 0–3.50 *96.40.

GLASS

Uninv. 63. (M6 661) Small fragment of a millefiori plaque, green with white circular canes; max. dim. 0.025.
E 105.00–109.00/S 0–3.00 *97.50–*97.00.

Uninv. 63. (M6 711) Three pieces of cullet or tesserae, blue.
E 105.00–109.00/S 0–2.00 *97.50–*97.00.

METAL

Copper Alloy

M63.60:5876 (M8 581) Figs. 566, 570 Censer, cylindrical bowl, everted rim with 3 round loops, ledge at bottom with 3 low feet; censer analyzed as leaded tin bronze, chain low zinc brass; max. H. 0.06, diam. 0.082.
E 106.00–106.30/S 2.50–2.75 *96.50, in burned layer under tiles with M63.61:5877 *infra*.

BASOR 174, 45, and n. 18; cf. M67.39:7588 in E 6, Fig. 275.

M63.27:5351 (M8 561) Fig. 569 Handle for bowl or bucket, flat loop with hole punched through each end; max. W. 0.095, W. band 0.013.
E 105.00–109.00/S 0–2.00 *97.50–*97.00.

M63.61:5877 Figs. 567, 570 Lamp, handle guard with Greek cross within inverted heart-shaped leaf with serrated edges and surmounted by conical bead; round hinged lid with high profiled knob and long blade extending to nozzle rim, a dolphin with tail fin raised high on blade; flat rim extends along nozzle with stylized volutes; incised concentric circles on rim and cross; deep reservoir, ring foot, socket on underside to fit on a stand as M67.28:7474 in E 6, Fig. 284; H. with handle guard 0.14, L. 0.19, W. 0.075.
E 106.00–106.30/S 2.50–2.75 *96.50, with M63.60:5816 *supra*.

BASOR 174, 45, fig. 28. Cf. *Malcove Col.* no. 43 with lit.

M63.58:5875 (M8 669) Fig. 571 Shaft of pin or a handle, tapered at each end, incised pattern at thickest point; max. P.L. 0.13, max. Th. 0.004.
E 103.00–108.00/S 0–2.50 *96.40.

M63.21:5285 Thin strip (strapping ?) with hole at each end; W. 0.013, L. ca. 0.11.

E 103.50/S 1.50 *96.75, with many bits of sheet bronze.

POTTERY

Amphorae

P63.384:5516 Figs. 562, 563, 573 Cone-shaped neck, 2 handles that spring upward from neck and attach at shoulder; ovoid body, concave base forming ring foot; ext. ridged and slipped, carbon residue on int., micaceous clay, gray from burning; H. 0.48, max. diam. of body 0.26.

E 105.00/S 0.50 *97.00. Complete when found, only upper portion drawn.

Cf. P62.364:4685 in E 13, Fig. 442.

P63.294:5411 Fig. 572 Joined fragments of neck, shoulder of single-handled amphora, "fish tail" scar where handle attached to body; no slip, charcoal traces contain fibrous material, possibly straw; max. P.H. 0.27, max. P. diam. 0.21.

Graffito: XΦ (?) crudely scratched after firing; H. letters 0.048.
E 105.00–108.00/S 0–0.10 *97.50–*96.75.

Cooking ware

Uninv. 63 Spout, tempered cooking fabric fired red; L. spout 0.023.

E 103.00–108.00/S 0–3.50 *96.40

Cf. P62.369:4690 in E 13, Fig. 447.

Pithos

Uninv. 63 Fig. 561 Intact pithos, bulbous body, flaring rim, flat bottom; H. 0.83, diam. mouth 0.415, shoulder 0.65.

E 105.00–108.00/S 1.50 *98.00, filled with burnt earth and charcoal.

Plate

P63.117:5111 Fig. 574 Fragment of LRC, flat int. with ring foot, stamped Greek cross monogram with circle under cross-arm; fired black; diam. foot 0.24, H. cross 0.018.

E 105.00–110.00/S 0–2.00 *98.00–*97.50.

Cf. Hayes, fig. 78:1 (in reverse to the Sardis piece), late 5th–early 6th C.

E 19 Figs. 575–578

EXCAVATIONS

1963 D. G. Mitten overburden to floor, *BASOR* 174, 46. 1973 J. S. Crawford, T. Yaşınkaya cleaned and restored, *BASOR* 215, 52.

E 111.90–117.00. Floor at ca. *96.30.

N wall: L. 5.10, W. 1.17, H. 0.70. S wall of Syn Fc (Seager, "Building History," 427). Mortared fieldstones and spoils with brick facing courses. No brick in fieldstone. Niche containing downspout in NE corner.

E wall: L. 4.01, W. 0.32, H. 1.20. Large ashlar pier at SE corner, perhaps built into an arch or gate. Brick in regular courses with a small amount of fieldstone. Irregularity in NE corner allows access to drain from Syn P.

S wall: L. 5.06, W. ca. 0.78, H. 0.97. Pier at SE corner 1.16 x

0.78. Doorway W. 1.12, 1.16 from E wall, 2.78 from W wall. Fieldstones and spoils with some brick.
W wall: L. 3.50, W. 0.42, H. 0.40. Mortared fieldstones and spoils, some brick in fieldstone.

Two marble furniture legs were discovered in the upper story level; they presumably supported a table or shelf. One is a standard type of Roman table leg decorated with a lion's head (S63.59:5766, Figs. 578, 580). The other is in the form of a standing figure of Dionysus (S63.58:5765, Figs. 578, 579).

E 19's metal finds consisted of three objects, all from the upper story level: a pan (M63.7:4990, Fig. 583), a lampstand (M63.5A-D:5353, Figs. 584, 585) and a belt buckle (M64.41:6532, Fig. 582). The glass finds consisted of portions of a bottle, lamp and a vessel. All came from the upper story, except for one vessel rim which had no recorded level.

A large quantity of coarse red and black ware sherds were found along with several catalogued pieces, namely a pottery lamp (L63.59:5831, Figs. 590-592) and cup (P63.599:5809, Fig. 588).

E 19 probably functioned as a residence. None of the finds indicates a particular trade or business. The number of coins is relatively small. The cooking and dining ware do not occur in the same quantities as in restaurants, e.g. E 1 and E 2. Unfortunately, no evidence regarding the occupants' religion was recovered.

ARCHITECTURAL PIECES

S64.44:6347 Small, plain column in one piece with square plinth, molded torus; P.H. 0.565, max. diam. 0.085, plinth 0.12.
 E 116.00-117.00/S 5.50-7.00 *97.00-96.75, just outside S wall.

S64.45:6347 Spirally fluted column as from a sarcophagus, in one piece with plinth, crescent shaped cuttings on plinth; P.H. 0.58, plinth 0.12 x 0.14.
 E 115.00-119.00/S 5.50-7.00 *97.00-96.75, next to above.

COINS

Uninv. 64 (M1 41) Anastasius I, 491-518, nummus, Constantinople; E 112.00-115.00/S 5.00 *97.50-97.25.

Uninv. 63 (M1 695) Anastasius I-Maurice, 498-602, penta., uncertain mint; E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 (M1 689) Anastasius I-Maurice, 498-602, penta., Nicomedia; E 111.00-113.00/S 0-3.25 *97.50-96.75.

Uninv. 63 (M1 66) Justin I, 518-527, nummus, Constantinople; E 113.00-115.00/S 1.00-3.00 *96.75-96.00.

Uninv. 63 (M1 209) Justinian I, 527-565, penta., Constantinople; E 112.00-113.00/S 0-2.00 *97.50-97.00.

C63.220 (M1 252) Justinian I, 559/560, decia., Cyzicus; E 110.00-113.00/S 0-3.25 *97.50-96.75.

Uninv. 63 (M1 384, 385) Justin II, 565-578, penta., Constantinople; E 114.00-116.00/S 2.00-4.00 *97.50-97.00; E 111.00-113.00/S 0-3.25 *97.50-96.75.

Uninv. 63 (M1 512) Justin II, 565-578, penta., uncertain mint; E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 (M1 423, 425) Justin II, 565-578, penta., Constantinople; E 113.00-115.00/S 1.00-3.00 *96.75-96.00; E 114.00-116.00/S 2.00-4.00 *97.50-97.00.

Uninv. 63 (M1 460) Justin II, 565-578, follis, Nicomedia; E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 (M1 365) Justin II, 568/569, half follis, Constantinople; E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 64 (M1 499) Justin II, 572/573, half follis, Constantine in Numidia (?); E 110.00-116.00/S 4.50-6.00 *98.00-97.00. See M1 p. 10 for comment on the mint.

Uninv. 63 (M1 354) Justin II, 576/577, follis, Constantinople; E 112.00-113.00/S 0-2.20 *97.50-97.00.

Uninv. 63 (M1 717) Justin II-Maurice, 565-602, half follis, uncertain mint; E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 (M1 532) Tiberius II, 579-582, decia., Constantinople; E 111.00-113.00/S 0-3.25 *97.50-96.75.

Uninv. 63 (M1 798) Phocas, 605/606, half follis, Nicomedia; E 113.00-115.00/S 1.00-3.00 *96.75-96.00.

Uninv. 63 (M1 965) Heraclius, 612/613, follis, Nicomedia; E 113.00-117.00/S 0-3.00 *98.00-97.50.

GLASS

Uninv. 63 (M6 295) Beaker lamp, lower portion, light aquamarine; P.H. 0.03, diam. base 0.017.
 E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 (M6 486) Curved section of oval or spherical bottle (?), greenish with yellow tint; max. dim. 0.07.
 E 116.50-121.00/S 1.00-3.00 *97.25-97.00.

Uninv. 63 (M6 633) Fig. 581 One-fifth vessel rim with single heavy thread applied below edge, flaring wall, pale green; est. diam. 0.08, max. dim. 0.046.
 E 114.00-116.00/S 2.00-4.00, level not recorded.

INSCRIPTION

IN63.A1 Partially obscured Latin inscription in 3 lines on marble column base, broken at l. edge and r. of dowel hole: lines 1-2 not legible, line 3 (dam?) ieno Sardinorum(m?) platia u . . . pro; "probably not earlier than 3-4th C." (from G. M.

A. Hanfmann's report of Sept. 1963). H. 0.30, W. 0.53, H. of letters 0.03-0.04.

E 114.00/S 3.00 top at *96.30, upside down below W side of threshold, round side projecting into Shop.

BASOR 174, 46.

METAL

Copper Alloy

M64.41:6532 (M8 701) Fig. 582 Shield-shaped buckle plate, 3 loops on the back, interlace in relief, incised border; analyzed as solid-cast brass; max. P.L. 0.03, W. 0.031.

E 113.00-116.50/S 4.00-6.00 *98.00-97.00.

Sardis: Twenty-Seven Years, 44.

M63.5A-D:5353 (M8 615) Figs. 584, 585 Lampstand, 4 pieces may not belong together as restored, spiked candle or lamp holder, supported on Corinthian capital on profiled shaft, tripod base on claw-feet; max. H. (as restored) 0.406, max. W. 0.095.

E 112.00-118.00/S 0-2.00 *97.50, in fallen brick and burned earth.

BASOR 174, 45.

M63.7:4990 (M8 498) Fig. 583 Round pan, flat bottom, low, straight sides and rim bent out to form small spout; H. 0.0265, diam. base 0.09.

E 116.00/S 0 *97.44, in niche in N wall.

POTTERY

Uninv. 64 Fig. 586 Shallow bowl, rim folded down on ext., slightly convex base; brick-like orange clay with many calcite and volcanic inclusions; tightly-adhering fine red slip more suitable to a finer body; H. 0.041, est. diam. 0.185.

Graffito: A scratched on underside after firing.

E 113.00-114.00/S 4.50-5.50 *97.30-96.30.

Uninv. 63 Fig. 587 Fragments of ca. 2/3 globular cooking pot fired red; 2 horiz. lifting handles attached below rim, out-turned rim smoothed down; upper part ridged on ext. and int.; P.H. 0.085, diam. 0.235.

E 116.50-121.00/S 1.00-2.00 *97.25.

P63.599:5809 Fig. 588 Handleless beaker or cup, curved wall, slightly out-turned rim, ring foot; fine table ware fabric, pronounced turn marks, buff slip on ext., reddish slip, ridged on int.; H. 0.09, diam. 0.09.

E 112.00-113.00/S 0-2.00 *97.50-97.00.

Uninv. 63 Fig. 589 Flat lid, knob with concave top; pink friable clay partially gray from heat, unusually micaceous, ext. smoothed, underside rough; H. 0.040, diam. 0.149.

E 116.00-120.00/S 0-3.10 *98.75-97.75.

Uninv. 63 Fragment of flat lid with rounded edge; pink-buff micaceous clay, turned on stone tournette; est. diam. 0.17, Th. 0.009-0.011.

E 114.00-116.00/S 2.00-4.00 *97.50-97.00.

Uninv. 64 One-half plate, ring foot, rounded rim set off with groove; pink-buff micaceous clay, some inclusions and blow-

outs, well-adhering red slip; diam. rim 0.308, foot 0.158.

E 114.50-115.50/S 3.50-6.00 *97.50-97.00.

As P63.333:5457 in E 16, Fig. 539 but smaller.

POTTERY LAMP

L63.59:5831 Figs. 590-592 Mold-made, Asia Minor type; 4 air holes around pouring hole in plain disk, relief pattern of vines and grapes, short nozzle outlined with heart-shaped ridge, solid handle with lotus at base on underside, foot print in center of bottom; L. 0.095, H. 0.04, L. of foot print 0.017.

E 113.00-117.00/S 0-3.00 *98.00-97.50.

STONE

S63.58:5765 (R2 223) Figs. 578, 579 Table leg, Dionysus leaning on pillar with l. arm, l. leg crossed over r.; face destroyed, r. arm missing, was supported by dowel to r. thigh; white marble, 2nd C.; H. 1.04, of Dionysus 0.595, base 0.242 x 0.275 x 0.07.

E 113.40-114.10/S 0.50 *97.75, next to N wall; head and top of pillar found in 1964, E 116.52/S 2.60 *97.15.

BASOR 174, 46; 177, 20, fig. 20; Hanfmann, *Letters*, fig. 115.

S63.59:5766 (R2 220) Figs. 578, 580 Table leg, in the form of the forepart of lion; large-grained grayish marble, front surface very carefully smoothed, back of support multiple claw chisel and anathyrosis, mid-2nd to early 3rd C.; H. 0.87, W. at chest 0.23, D. 0.16.

E 111.50-112.50/S 0.50 *97.75, in NW corner 0.10 W of above.

BASOR 174, 46.

SONDAGES BELOW THE FLOORS

Excavation was extended below the floor to clarify phases of the building that pre-date the Shops in the southwest corner of W 13 and to ascertain the date and function of the building represented by the flight of limestone steps, the "Hellenistic Steps," below E 14-16. A brief account of the results and a limited selection of the finds is given below.

The Southwest Corner of W 13 Figs. 593-598

In 1959 D.G. Mitten carried out a sounding beneath the floor of W 13 at ca. W 54.00-57.00/S 0-4.20 to *92.00.⁴² Two water mains formed of large terracotta pipes (tops at *96.80) and covered by a brick arch ran diagonally underneath W 13 parallel to each other in the direction of the Gymnasium (Fig. 593). The pipes

42. *BASOR* 157, 34.

probably served the baths or the latrines to the north. They do not seem to be part of the Byzantine Shops. As Mitten noted, the fact that these pipes lie upon an earlier, mortared rubble wall, different in orientation from the walls of the Byzantine Shops, suggests the existence of an earlier structure, presumably dating from prior to the earthquake of A.D.17.⁴³ Finds associated with this level consist of late Hellenistic/Early Roman sigillate pottery, or a local imitation common in Asia Minor, (P59.551:2163, P59.546:2149, Fig. 594, P59.461:2037, *infra* relief ware, (P59.438:1999, P59.550:2162, P59.571:2190, Fig. 595, P59.570:2190 and mold fragment P59.547:2155 *infra*) and a “small, squat-bodied bottle” with very thick walls.⁴⁴ Two Hellenistic coins (C59.115, C59.328 *infra*) and a Greek Imperial coin (C59.330) were found. Deposits (which appeared to have been caused by floods) were discovered below the pipes beginning at ca. *94.50 and extending to ca. *93.00. That these flood deposits are in all likelihood continuations of those noted in the excavation of HoB to the southwest is confirmed by the material found below level *93.00.⁴⁵ This material consists of dark brown earth (decomposed mud brick) with fragments of mud brick, burned material, painted and plain Lydian sherds, a small Protocorinthian sherd and a Lydian architectural terracotta fragment showing a griffin’s head (T59.45:2024, *infra*, Fig. 598). These finds have been dated by A. Ramage to the early 6th century B.C.⁴⁶ A compacted level at ca. *92.00 suggested an earth floor.

COINS

C59.315, C59.328 (M7 GR 399, two examples) Hellenistic, unidentifiable; W 54.00–57.00/S 2.00–4.40 *95.00–*94.50; W 57.00/S 2.00–4.40 *95.00–*94.50.

C59.330 (M7 GR 287) Sabina, 117–138, AE21, Sardis; W 53.00–54.00/S 3.00 *96.00.

GLASS

G59.66:2189 (M6 287) Knob base of beaker-shaped lamp, slightly convex wall; olive tint, relatively Th.; P.H. 0.048, diam. at top 0.053.

W 55.00–58.00/S 1.00–5.00 *95.00.

Von Saldern includes the piece with Early Byzantine glass but notes that it could be Roman (*Sardis* M6, p. 52).

43. *Ibid.*

44. *Ibid.* Error in cited level (*95.50), other levels correct.

45. Hanfmann, *SPRT* 26 ff.

46. *Ibid.* See also *Sardis* M5, 20, no. 17, fig. 48.

Uninv. 59 (M6 458) One half of folded glass ring base (of cup or bowl?); well made, light aquamarine; diam. 0.053.

W 54.00–57.00/S 2.00–4.00 *94.50–*94.00.

Dated Early Byzantine, *ibid.* 66.

G59.62:2150 (M6 497) Fragment of bottle, conical neck curving to shoulder; light aquamarine; P.H. 0.08, diam. rim 0.04.

W 54.00–57.00/S 2.00–4.40 *95.50–*95.00.

POTTERY

Sigillate and imitation

P59.551:2163 Ring foot and small portion of wall of hemispherical cup P.; stamp MIOP/HOYC in 2 lines within rectangular frame on int.; H. 0.034, diam. foot 0.06.

W 54.00–57.00/S 2.00–4.40 *95.00–*94.50.

ESB I. Description of this and the following pieces drawn from the manuscript catalogue by James Wrabetz. On pieces identified by Wrabetz as Eastern Sigillata B this is the stamp that occurs most frequently. See also *Sardis* VII no. 224, fig. 211, nos. 11, 12.

P59.546:2149 Fig. 594 Ring foot of cup; stamp in 2 lines KEP/ΔOC in center of int.; diam. foot 0.055.

W 54.00–57.00/S 4.40–2.00 *95.50–95.00.

Identification by Wrabetz, *supra*. On the stamp see Hayes, *Sigillate*, 51–52.

P59.461:2037 Foot fragment of a plate; footprint stamp without letters or frame on underside; black gloss, gray clay; max. dim. 0.072.

W 54.00–57.00/S 2.00–4.40 *95.50–95.00.

Description from Wrabetz, *supra*.

Relief Ware

P59.438:1999 Medallion bowl, base and part of lower wall P., indistinct design—possibly hares or vine—on wall, medallion of 4 acanthus leaves surrounding central acanthus leaf; clay pink to light red; P.H. 0.017, diam. base 0.05.

W 54.00–57.00/S 2.00–4.40 *95.00–*94.50.

Description of this and the following pieces drawn from the manuscript catalogue of Hellenistic relief ware by S. Rotroff and I. Hanfmann, no. 52.

P59.550:2162 Ca. 1/6 rim and upper wall of floral bowl; egg and dart with 3 ridges above, 2 below on rim, horizontal vine in upper register, alternating palm frond (?) and lotus petal on lower; dull black glaze, reddish-yellow micaceous clay; P.H. 0.065, est. diam. rim 0.14.

Found with above.

Ibid. no. 101.

P59.571:2190 Fig. 595 Medallion and ca. 1/2 lower wall of bowl; alternating palm fronds and lotus petals on wall, medallion an 8-petal rosette within ridge; dull tan glaze, clay surface light brown, core gray; max. dim. 0.075, diam. medallion 0.03.

W 55.00–58.00/S 2.00–4.00 *95.00, found with P59.570:2190 *infra*.

Ibid. no. 166.

P59.570:2190 Wall fragment of long petal bowl, bead and reel above ridge on rim, pointed lotus petal with jewelled rib flanked by long petals with jewelled outline and palm frond at r. on wall; dull tan to black glaze on ext., int. chestnut, clay reddish yellow; P.H. 0.055.

Found with above.

Ibid. no. 150.

P59.547:2155 Rim fragment of mold, possibly taken from a bowl; vertical strokes between ridges on rim, horizontal ivy garland on wall; hard, micaceous clay, ext. reddish yellow, int. light reddish brown, gray core; P.H. 0.064, est. int. diam. 0.12.

W 54.00–57.00/S 2.00–4.40 *95.50–*95.00.

Ibid. no. 30.

Attic Black Figure

P59.472:2047 Fig. 596 Small shoulder fragment; shoulder, torso and arm (of Dionysus holding an ivy-branch ?) on l., unidentified motif on r.

W 54.00–57.00/S 1.50–4.00 *94.50–*94.00.

The identification of Dionysus was tentatively put forward by Sir John Beazley (letter to G. M. A. Hanfmann of July 26, 1961) who suggested a resemblance to the Lancut Group (*ABV* pp. 576–81, 708) and a date in the 2nd or 3rd quarter of the 5th C. B.C.; on the basis of the photograph Dietrich von Bothmer agrees with this date (letter of March 17, 1989).

Lydian Painted

P59.524:2132 Handle, black diamond pattern on red; L. 0.043, W. 0.023, Th. 0.003.

W 53.00–55.00/S 2.00–4.40 *96.50–*95.50.

P59.490:2074 Shoulder fragment; above, black checkerboard on white between black bands, below, black wavy lines on red; max. dim. 0.06, Th. 0.006.

W 54.00–57.00/S 1.00–4.00 *92.50, with P59.489:2073 *infra* in a layer of Lydian sherds including a gray ware bowl, additional painted fragments, handmade coarse ware, charcoal and mudbrick, which was sealed under stratified deposits of sand, silt and gravel (from fieldbook notes by the excavator, D. G. Mitten).

P59.489:2073 Fig. 497 Rim and dish fragment of a “fruit-stand”; ext. 2 wide red bands on buff slip, int. streaky glaze with border of 3 concentric circles with dot in center; max. dim. 0.085.

Found with above.

POTTERY LAMPS

Uninv. 59 Portion of reservoir of “Ephesus” type, as Howland type 49A, double-convex profile with very sharp join; relief spirals framed by rope pattern; micaceous, probably local clay fired red.

W 54.00–57.00/S 4.20–4.40 *95.00–*94.50.

Cf. *Agora* IV no. 658.

Uninv. 59 Rim fragment of round open lamp with incurled wall, as Howland type 21; buff micaceous fabric, no slip.

W 54.00–57.00/S 2.00–4.40 *95.50–*95.00.

Cf. *Agora* IV pl. 6. An example of the type was found in 1984 at MMS 1 in a deposit dated to the early 5th C. B.C., *BASOR Sup.* 25, 25–26, fig. 10.

TERRACOTTA

T59.45:2024 (M5 17) Fig. 598 Fragment of a plaque, griffin’s head and forequarters in relief, black and red paint on cream slip; early 6th C. B.C.; H. 0.15, W. 0.107, Th. 0.023.

W 54.00–57.00/S 1.50–4.00 *94.50–*94.00.

BASOR 157, 34.

The Hellenistic Steps Figs. 599–605

by George M. A. Hanfmann

Two soundings made in 1962–63 and 1965 traced a structure with limestone steps, a rubble platform and walls which enclosed a brick-built grave of Roman type.⁴⁷ The sounding made in 1962 and 1963 was below Byzantine Shops E 14, E 15 and E 16 (1962: E 83.00–90.00/S 0–5.00, *BASOR* 170, 51, fig. 37; 1963: wall between E 14 and E 15 removed and excavation extended under E 15 to *92.50–*92.20, *BASOR* 174, 47–50, figs. 29–30). The sounding made in 1965 was below the floor of the Main Hall of the Synagogue (E 87.00–93.00/N 1.20–2.95, *BASOR* 182, 40–41, fig. 27). This sounding is numbered seven on the foundation plan of the Synagogue, and is referred to below and in the records as the “Southeast Pit.” The top of the Steps and the walls are at ca. *93.85–*93.80 and the bottom at *92.65, possibly the level of the Hellenistic street. A brick grave, aligned north-south and roofed with schist slabs plastered over, was found at *91.42.⁴⁸

Ca. 0.40 below the levelling course of the Steps, against the foundation at *92.25 was a Sardinian local coin, showing the head of Apollo on the obverse and

47. G. M. A. Hanfmann did not identify the structure in this note, which was prepared shortly before his death. However, in *Sardis* R1, 30 he referred to it as a mausoleum and in *SPRT* 110, 117, 124, figs. 129, 187 he suggested that it “probably carried a house or shrine-like superstructure.” A faceted Hellenistic column fragment lay nearby, *ibid.* 124. Late Hellenistic vaulted chamber tombs were found S of the MRd, *ibid.* fig. 129, *Sardis* R1, 30. For late Hellenistic or early Roman remains below MRd foundations to the E at MMS/N see now *BASORSup* 23, 79, fig. 26.

48. The grave was constructed of 8 courses of brick; floored with 2 rows of 6 tiles 0.37². Ext. L. 2.34, int. W. 0.50. The roof slabs were somewhat cracked due to settling and pressure but the grave appeared undisturbed and was filled with fine clayey earth which was excavated to floor level; “. . . the grave was always empty, or else the high moisture content in the soil had completely decomposed the bones.” From D. G. Mitten’s unpubl. report of Sept. 1965.

the club of Herakles in a wreath on the reverse, dated after 133 B.C. (C63.232 *infra*). At or below the Hellenistic street level reached in the Southeast Pit (*92.30–*91.50) were a Hellenistic coin (C65.132 *infra*) and six Sardinian local coins of which two are of the type described above (C65.140, C65.142 *infra*) and three show the head of Herakles/standing Apollo (C65.133, 65.134, 65.139, *infra*).⁴⁹ A stratum of fill dumped over the stepped building was clearly defined on top by a layer of stone chips at *95.00. Six Sardinian local coins (C63.231 and C63.233 *infra* and unpublished examples) and one Pergamene coin (C63.226 *infra*) of the second century B.C. were in this fill, beneath the Shops at *95.30–93.80. In the Southeast Pit at *93.90–*93.00 was a coin of Pergamon with bust of Athena/head of Asklepios dated ca. 197–159 B.C. (C65.136). Illegible coins, including Sardinian local issues of the same period, were found in the same stratum at *95.30–*93.80.

The other excavated objects seem to conform in dates to the range of the coins, from the second through first centuries B.C. In the pit under the Shops, Hellenistic appliqué and relief ware fragments of the second to first century B.C. were found above and beside the Steps (appliqué: P63.656:5899, Fig. 602 on the top step at *93.85, P62.495:4933 at *93.50; relief: P62.401:4745, a mold fragment, at *94.00). No sigillate ware came from the Hellenistic street level but Eastern Sigillata B I and II sherds were found in the dumped stratum. A bronze patera handle with a ram's head was at *94.00 (M63.63: 5888 *infra*, Figs. 604, 605). Examples of Hellenistic relief ware found at the Hellenistic street level in the Southeast Pit were a mold fragment dated as early as the first century B.C. (P65.170:6820 *infra*, Fig. 603) and a fragment of a figured bowl showing palm fronds and Erotes (P65.263:6925 *infra*). A mold fragment for an imbricate bowl (P65.263:6925 *infra*), mold-made pieces (P65.245:6906, P65.158:6800 *infra*) and an appliqué fragment from an open vessel (P65.195:6851 *infra*) are examples of the Hellenistic relief wares in the lower fill.

In the Southeast Pit an Ephesus lamp with the mold-made inscription *agathon phos* was at *95.20 (L65.9: 6765 *infra*). Other lamps and fragments of first century B.C. types were found below it and at street level (L65.13:6801 *infra*).

For the description of the Hellenistic Steps the report by D. G. Mitten which appears in the preliminary publication remains definitive:

The construction, of a very hard limestone . . . consists of three masonry steps with respective heights (from top to bottom) of 0.24 m., 0.24 m., 0.26 m., and widths of 0.38 m., 0.38 m., and 0.33 m. Underneath, at *93.08, is a leveling course of small river stones on a rubble cement foundation of unknown thickness. The Steps are preserved to lengths of 6.27 (top), 7.50 (middle), 7.60 (bottom), and project 1.50 from the north wall of the Shops [south wall of the Synagogue] at their west end and 2.50 m. at their east end. Although unfinished (protective projections are left on the outer upper edges of most blocks), the blocks exhibit superbly delicate workmanship at their joints. Ruled guidelines and crosses for setting the blocks are still visible on top of the blocks. Fine *anathyrosis* 0.02 m. wide, with a raised triangular section joint, occurs on Block 4 from the west in the lowest course. Iron clamps 0.20 m. long with slightly rounded heads are fitted into cuttings 0.01 m. deep; dowel holes ca. 0.05 m. also exist. The rough projections and unfinished block at the east end indicate that the structure was never completed. The platform above the Steps had been cut into and filled in with rubble by the builders of the massive north wall of the Shops [south wall of the Synagogue]. Three superposed terracotta water pipes, the lowest with top at *92.40, passed at the west end of the Steps; they appear to have been laid later than the Steps.⁵⁰

The orientation of the Hellenistic Steps varies almost nine degrees from the line of the east-west Marble Road and appears to reflect an earlier city plan.⁵¹ The finds indicate that the Hellenistic level was used until the earthquake of A.D. 17; at the time of the earthquake a burial had been made within the structure but the Steps remained unfinished.⁵²

FINDS FROM THE PIT UNDER E 14-E 16

COINS

C63.226 (M7 GR 46) Pergamon, municipal coinage, ca. 197–159 B.C.; E 93.00/S 3.00 *94.80.

C63.228, C63.232 (M7 GR 198 two examples) Autonomous, 133 B.C.–Augustus, AE5.7, Sardis; E 99.50/S 3.00, E 85.30/S 2.70 *92.70.

C63.231 (M7 GR 201) Autonomous, 133 B.C.–Augustus, AE15, Sardis; E 91.00–96.00/S 1.00–4.00 to *95.30.

50. BASOR 174, 48–49.

51. *Ibid.* n. 21; Sardis R1, 30, fig. 10; Hanfmann, *SPRT* 124, fig. 187.

52. This is not necessarily an indication that the building was being constructed shortly prior to the earthquake. Similar unfinished passages have remained in lower courses of the Artemis temple built in the 3rd C. B.C.

49. C65.132 was unidentifiable by Ann Johnston but the excavator, G. M. A. Hanfmann, saw it as a (posthumous ?) coin of Alexander III or his successors. The detail may have deteriorated before Johnston examined it in 1969.

C63.233 (M7 GR 215) Autonomous, 133 B.C.–Augustus, AE15–17, Sardis; E 92.00/S 1.00 *93.40.

C63.362 (M7 GR 266) Autonomous Imperial, ca. 245, AE22, Sardis; E 83.00–90.00/S 0–3.00 *95.50–*94.00.

C63.386 (M7 R 548) House of Constantine, 335–341, AE follis, uncertain mint; E 83.00–90.00/S 0–2.00 *95.50–*93.00.

C63.361 (M7 R 550) House of Constantine, 341–346, AE, uncertain mint; E 83.00–90.00/S 0–3.00 *95.50–*94.00.

C63.373 (M7 R 1062) Valentinian I–III, 402–408, AE3, uncertain mint; E 83.00–90.00/S 0–3.00 *95.50–*93.00.

C63.363 (M7 R 968) Theodosius II, 425–450, AE4, uncertain mint; E 83.00–90.00/S 0–3.00 *95.50–94.00.

C63.390 (M7 R 1101) Leo, 457–474, AE4, uncertain mint; E 83.00–90.00/S 0–3.00 *95.50–*93.00.

C63.374 (M7 R 1107) Zeno, 474–491, AE4, Constantinople; E 83.00–90.00/S 0–3.00 *95.50–*93.00.

Uninv. 63 (M1 323) Justin I or Justinian I, 518–538, penta., Constantinople; E 89.00–90.00/S 2.00–3.20 ca. *94.40.

GLASS

With the exception of the cullet, which he believes antedates the early Byzantine period, von Saldern dates all the pieces listed below to the early Byzantine period in spite of their low level.

Uninv. 63 (M6 726) Cullet for glass or glaze attached to a flat layer of ceramic material (from crucible?); blue; 0.037 x 0.013. E 101.00–103.50/S 0–2.30 *93.85–*93.30.
For the date, *Sardis* M6 p. 96.

Uninv. 63 (M6 325) Goblet stem and foot; light aquamarine. E 98.50/S 1.00–3.00 *94.00–*93.50.
Ibid. p. 56.

Uninv. 63 (M6 281) Lamp base with thorn-like extension for insertion in a polycandelum as M8 589; pale green; P.H. 0.05. E 98.50/S 1.00–3.00 *94.00–*93.50.
Ibid. p. 51.

Uninv. 62 (M6 474) Beaker, cylindrical lower body curving to concave base; green tint; P.H. 0.073, est. diam. ca. 0.08. E 87.86–91.44/S 0–5.00 *95.30–*95.00.

BASOR 170, 51. Could be dated early 5th C., *Sardis* M6, p. 69.

Uninv. 62 (M6 456) Ring base of large dish, folded edge; aquamarine; diam. 0.04. E 87.86–91.44/S 0–5.00 *94.50–*94.00.
Ibid. p. 66.

METAL

M63.63:5888 (M8 513) Figs. 604, 605 Handle ending in ram's head, curved horns and curly hair in relief, eyes incised;

shaft formed over a core, analyzed as leaded tin bronze; max. P.L. 0.08.

E 91.00–92.00/S 0–3.20 *94.00. This level is from Hanfmann's report; in M8 the level given is *96.00–*95.00 which may have influenced Waldbaum's date, "late Roman-early Byzantine." The piece appears earlier as are some of the parallels she lists.

POTTERY

Sigillata

P62.400:4743 Rim and wall of dish, protruding rim, flange below; fine gloss; est. diam rim. 0.016.

Under E 15 *95.00–95.30.

Identified by J. Wrabetz (manuscript) as ESB I, mid-1st C. Cf. Hayes, *Sigillate*, pl. 11:19, form 8.

P63.650:5889 Base fragment of flat plate; stamped with 9 petal rosette in circular frame; red gloss mottled brown; max. dim. 0.096.

E 91.00–96.00/S 1.00–4.00 to *95.30.

Attributed by J. Wrabetz (manuscript) to ESB II; for the fabric see Hayes, *Sigillate* 51 (ESB 2); the shape resembles form 19, pl. 12:14, the prototype is dated mid-1st C. The Sardis piece should be a local (and probably later) variety, cf. *Agora* V G25 pls. 57, 61.

Relief Ware

P62.427:4814 Fragment of mold for a floral bowl, bead and reel between grooves on rim, tendril between lotus buds on wall; hard, light red micaceous clay; P.H. 0.042, est. diam. rim 0.14.

E 83.50–85.00/S 2.00–4.00 *95.75–*95.15.

Description drawn from manuscript catalogue of Hellenistic relief ware by S. Rotroff and I. Hanfmann, no. 27. Rotroff gives parallels from Pergamon dated to the 3rd quarter of the 2nd C. B.C., *AvP* I.2, beib. 40:1; X.i, no. 352.

P62.401:4745 Rim fragment of a worn mold for an imbricate bowl, slightly projecting rim with double row of tendrils, rounded lotus petal with central ribs on wall; fabric reddish yellow on ext., int. pale red; P.H. 0.066, est. int. diam 0.20.

E 80.00–84.00/S 4.50 *94.00.

Rotroff, Hanfmann, *ibid.* no. 4.

P62.97:4305 Wall fragment of bowl, downward pointing triangles between ridges on rim, birds walking r. on wall; trace of metallic black glaze, brown fabric, possibly vitrified in firing; P.H. 0.041.

E 84.00/S 3.00 *95.20.

Ibid. no. 115.

P62.495:4933 Pergamene appliqué fragment, nude man embracing woman reclining on couch; reddish-yellow fabric, int. brown glaze; P.H. 0.42.

E 89.00/S 2.50 *93.50.

Ibid. no. 298.

P63.656:5899 Fig. 602 As above, hindquarters of a horse with animal skin on his back; ext. dull black to red glaze, int. shiny red; P.H. 0.055.

E 88.00/S 0.8 on the top step at *93.85.

Ibid. no. 284.

Hellenistic Painted

P62.429:4816 Fragment of a globular lagynos; picket leaves and 2 horiz. stripes in thinned orange glaze on white slip, ext. plain; max. P. dim. 0.04.

E 85.00–87.00/S 1.50–3.50 *93.50–*93.00.

Description drawn from manuscript catalogue by Andrew Oliver, Jr.

Cooking Ware

Uninv. 62 Same shape as Early Byzantine “frying pans” (Figs. 77, 536) but less temper and thinner, very hard gray fabric, traces of black slip; thin, flat bottom, slanted side, out-turned rim; heavily calcined. H. ca. 0.03.

Under E 14 at *94.50–94.00.

Attic Black Figure

P63.660:5909 Rim fragment of cup, ext. long, slender leaf below line around rim on reserved ground, int. black glaze; P.H. 0.017, est. diam. 0.22.

E 91.50/S 0.50 *93.90, directly on top of step.

FINDS FROM THE SOUTHEAST PIT

COINS

C65.132 (M7 GR 399) Hellenistic; E 87.00–89.00/N 1.50–2.90 *92.30–92.20.

C65.136 (M7 GR 46) Municipal coinage, ca. 197–159 B.C., AE13–19, Pergamon; E 87.00/N 1.50 *93.90.

C65.133 (M7 GR 215) Autonomous, 133 B.C.–Augustus, AE15–16, Sardis; E 87.00/N 1.50 *91.60.

C65.134 (M7 GR 213) Autonomous, 133 B.C.–Augustus, AE18, Sardis; E 87.00/N 1.50 *91.75.

C65.139 (M7 GR 215) Autonomous, 133 B.C.–Augustus, AE14–15, Sardis; E 87.50–89.00/N 2.20–2.70 *91.69.

C65.140 (M7 GR 186) Autonomous, 133 B.C.–Augustus, AE14, Sardis; E 90.60/N 3.30–3.90 *92.60–*91.60.

C65.142 (M7 GR 191) Autonomous, 133 B.C.–Augustus, AE14, Sardis; E 90.60/N 1.40 *93.30.

POTTERY

Relief Ware

P65.263:6925 Rim fragment of mold for imbricate bowl, bead and reel between grooves on rim, small pointed lotus petals on wall; ext. reddish yellow, int. light reddish brown; P.H. 0.035, est. diam. int. rim 0.13.

E 87.00–90.00/N 1.50–2.90 *93.00–*92.50.

Description drawn from I. Hanfmann, S. Rotroff manuscript catalogue of Hellenistic relief wares no. 2.

P65.245:6906 Wall fragment of gray ware bowl, Eros flanked by indistinct motifs; ext. dull gray glaze, int. tan-gray; max. dim. 0.057.

Found with above.

Ibid. no. 232.

P65.158:6800 Rim and wall fragment of skyphos (?) related to lead glazed wares, trace of handle P., vertical strokes between ridges on rim, olive or laural branches on wall with rosette in field; very thin wall, red fabric, ext. dull red glaze, int. shiny red; P.H. 0.58, est. diam. rim 0.12.

Found with above.

Ibid. no. 325.

P65.195:6851 Pergamene appliqué, wall fragment of open vessel (skyphos?), ivy leaves and berry clusters; light red fabric, red glaze; P.H. 0.03.

E 89.5–91.00/N 1.20–2.70 *93.70–*93.30.

Ibid. no. 273.

P65.170:6820 Fig. 603 Ca. 1/4 mold for long-petal bowl, double spirals on rim, petals on wall outlined by groove and separated by beading; rosette medallion within groove; red micaceous clay; 1st C. B.C. (?); H. 0.043, est. diam. int. rim 0.09.

E 87.50–89.00/N 2.80–3.30 *92.00–91.60.

Ibid. no. 41.

P65.169:6819 Wall fragment of figured bowl, palm fronds alternating with flying Erotes; light red micaceous clay, dull red glaze; P.H. 0.059.

Found with above.

Ibid. no. 125.

POTTERY LAMPS

L65.9:6765=IN65.29 Mold-made, Ephesus type, pointed nozzle, applied collar around fill hole and 4 air holes; gray clay body, slip almost black to dark brown; H. 0.033, L. 0.099.

Inscriptions: Surrounding the collar and partly obscured by it, formed in the mold with decorative tongues: tongue, ΦWS ΑΓΑ, handle, ΘΟΝ, 2 tongues. On underside of base incised ω between two indistinct marks could be read [φ]ῶς.

E 89.00/N 1.75 *95.20.

BASOR 182, 42; Hanfmann, *Letters* 178, fig. 133; Seager in idem, *SPRT* 175. Cf. Howland type 49A, *Agora IV* 166–69; D. Bailey, *A Catalogue of the Lamps in the British Museum* (London 1975) II 90–92.

L65.13:6801 As above but raised ring made in the mold rather than applied collar, no air holes, applied loop handle P.; clay body and slip fired red; H. with handle 0.04, L. 0.056.

E 89.00/N 2.00 *92.75.

Cf. *ibid.* esp. nos. Q 173, Q 174.

IV THE BYZANTINE SHOPS IN CONTEXT

The following selection of comparanda, organized geographically and then alphabetically by site, is intended to provide the reader with additional sources of evidence to complement and supplement the material from the Byzantine Shops. It is neither a catalogue of colonnaded streets and commercial buildings, nor is it intended to be comprehensive. The intent is to give a fuller understanding of the Byzantine Shops within the world of Late Antiquity.

Construction techniques used in the Byzantine Shops are predictably closest to those at other sites in Asia Minor and Greece, especially Ephesus.

Information on commercial practices comes from a much wider area and encompasses a much longer time span: from the seventh century B.C. to the seventh century A.D. Dye establishments from Pompeii to Jerusalem, restaurants at Pompeii and Ostia, as well as Ephesus, provide useful parallels as do a glass shop at Beth She'arim and the smithies of Pompeii.

The trades and activities of Jews and Christians are documented from excavations on the Ophel (Jerusalem), Beth She'arim, Hierapolis in Phrygia, Ephesus, Corinth and other sites further west.

The pictures that emerge from all these comparisons are, in a sense, contradictory. On the one hand Sardis appears rather isolated, somewhat poor and quite provincial in contrast to the splendor of Imperial centers such as Alexandria, Constantinople or Ravenna; on the other hand, the comparisons reveal a Sardis that is closely bound architecturally, technically, professionally, and above all religiously to a dynamic Late Roman and Byzantine world.

ASIA MINOR AND CONSTANTINOPE

Anemurium Fig. 606

Anemurium contains a baths-palaestra complex, where the last major phase of occupation ended around the middle of the seventh century.¹ This abandonment was preceded by a time of decline beginning as early as the mid-fourth century in the baths-palaestra and was marked by the intrusion of relatively poor private houses into the complex.² During the fourth century the pattern of private encroachment alluded to at Sardis and elsewhere also occurred at Anemurium: houses were installed in the palaestra (Fig. 606) and workshops appeared in the large and small baths.³ Anemurium's prosperity ended well before the end of the sixth century; Sardis fared somewhat better.⁴ Anemurium was generally abandoned about 660, with a vestige of habitation discernible until the early eighth century.⁵

The construction of the baths-palaestra was roughly contemporary with that of the Bath-Gymnasium Complex at Sardis: Anemurium's being completed ca. 250,

1. Russell, "Instrumenta," 133-163, chronology 133-134. I wish to thank James Russell for his comments on this passage in manuscript and in a letter of Nov. 19, 1984.

2. Idem, *Türk Ark Derg* 25:1 (1980) 265.

3. Ibid.

4. James Russell, "A Coin Hoard of Maurice Tiberius from Anemurium, Isauria," *ANSMN* 28 (1983) 130-131; cf. *Sardis* M4, 39 ff.

5. Idem, "Anemurium—eine römische Kleinstadt in Kleinasien," *AntW* 7:4 (1976) 2-20, esp. 11; idem, "Anemurium: The Changing Face of a Roman City," *Archaeology* 33:5 (1980) 39.

definitely before 260, a time of Persian invasion.⁶ After the invasion, between ca. 260 and 360, encroachment began in the palaestra. The houses built in the palaestra have a masonry style identical to that at Sardis: piers with curtains of fieldstone and spoils (although spoils seem rarer at Anemurium). In at least one certain case a stairway indicates a second story similar to the Byzantine Shops. The use of wooden stairs or ladders, strongly indicated at Sardis in those Shops without masonry staircases, also seems a possibility in Anemurium.⁷

The finds from Anemurium already published by J. Russell are close to those from Sardis. J. C. Waldbaum cites many parallels to the metalwork from Anemurium in *Sardis* M8, too many to repeat here *in toto*. Suffice it to say that tools, weighing devices, furniture, lock plates, keys, and bronze lamp fragments are all represented at both sites, as are examples of cloisonné jewelry. Belt buckles from several sites and an epigraphic reference to trouser-makers at Sardis suggest to Russell that the wearing of trousers was commonplace in Asia Minor during the early seventh century.⁸ Use of glass lamps at Anemurium parallels that of Sardis, extensively discussed by von Saldern.⁹

The discovery of a phylactery at Anemurium may indicate the presence of Jews there, although so far the evidence does not indicate a community as large or vital as that of Sardis.¹⁰

Constantinople

Although actual remains of colonnaded streets in Constantinople are few, literary and other sources offer descriptions which cannot be omitted from any collection of comparative material, since developments in Constantinople are undoubtedly responsible for the immense popularity of the colonnaded street elsewhere.¹¹

The *Notitia* of the fifth century lists no less than 54 colonnades of various types. They were concentrated in Regions II, III, IV, V, VII, VIII, and X, the first three hills of the city. The list includes both *stoai* (colonnades on only one side of a street or totally enclosing a space,

such as an agora) and *emboloi* (colonnades on both sides of a street).

The most important *embolos* was the Mese, which ran from the Milion, near Hagia Sophia and the Hippodrome, to the Forum Constantini; from there it continued through the Forum Theodosii (Tauri), the Forum Amastrianum, the Forum Bovis and the Forum Arcadii.¹² Beyond that point the Mese ran to the Golden Gate, paralleling the coastline. Another branch of the Mese ran north to the Adrianople Gate parallel to and at some distance from the Golden Horn. Bury believes that there were colonnades along the entire length of the Mese.¹³ Other major streets ran from the Forum Bovis to the St. Romanus Gate and from the Forum Arcadii to the Pegasus Gate.¹⁴

Janin suggests that some of the *emboloi* (he calls them *portiques*) at Constantinople were two-storied with stone staircases.¹⁵ The upper story seems often to have been a social gathering place or even an art gallery, with the shops below profiting from the attractions above.¹⁶

It is interesting that of the twenty colonnades in Constantinople known by name, nine are dated in some way from the fourth to sixth centuries, the same period in which the Byzantine Shops were rebuilt. These colonnades served as an inspiration to city planners throughout the Empire. Sardis was following the capital's example.¹⁷

Ephesus Figs. 607, 608

The shop colonnades of Ephesus provide the closest comparisons known to the author to those at Sardis. The most similar are those along the Arkadiane, the Embolos (formerly called the Street of the Kuretes) and the Street of Eutropius; however, valuable information also comes from the Stoa of the Alytarch, from the Lower Agora, and from the shops attached to the East Gymnasium.¹⁸

12. Janin, 66; Claude, 61–62.

13. Bury, 76, n. 2.

14. Janin, map 5.

15. *Ibid.* 90, citing Leg. XLV *Cod. Theod. De operibus publicis*.

16. *Ibid.* 91–100. Cites name, location, function and other information on the known colonnades of Constantinople.

17. *Ibid.* Colonnades of one kind or another remained in use until the fall of Constantinople.

18. The author visited the site in 1967–1969, 1972–1973, 1980, and 1985. Where other sources are not cited, the information based on the author's observations and inferences.

6. *Ibid.*; Russell, "Instrumenta," 134; cf. *Sardis* R3, xvii.

7. Russell, "Instrumenta," 136, n. 9; for discussion of wooden stairways at Sardis *supra* Ch. I "Stairs."

8. Russell, "Instrumenta," 146 and n. 58; *Sardis* M2, 18–19, 110, no. 12; *Sardis* VII, no. 167.

9. *Sardis* M6, 38–52; cf. Russell, "Instrumenta," 136–137.

10. *Ibid.* 137.

11. Hanfmann, *Croesus*, 82, 87–88.

Lighted by lamps at night, the 600 m. long Arkadiane is paved with huge blocks of limestone and marble, forming the main connection between the central city area and the port. The street itself is over 11 m. wide.¹⁹ On either side of the street are colonnades 5.00 wide, floored with mosaics in geometric patterns.²⁰ The widths of street and colonnades are comparable to the Byzantine Shops, as are the general dimensions of the shops of the Arkadiane, although their exact measurements have not been published.

Both the columns and the capitals of the Arkadiane are much larger than those of the Byzantine Shops' Colonnade. As at Sardis, the order of the capital varies and Corinthian is the most common.²¹ There seems to have been no stone entablature or architrave (as at Perge, Side and Sardis). Whether this reflects a replacement of stone members is difficult to say, but no stone parts of a superstructure were found. No fallen vaulting or coffers were found either, although there may have been a wooden ceiling. The interaxial of the Arkadiane is 3.30 compared to 1.85 at Sardis.²²

The masonry style of the shops along the Arkadiane is exactly the same as at Sardis: mortared fieldstone, spoils, brick lacing courses, and (occasionally) random, uncoursed brick. This type of masonry generally occurs in all the other Ephesian structures described below.²³

The Arkadiane receives its name from an inscription associated with it. The name suggests that the construction of the street should date to the reign of Arcadius (395–408).²⁴ Although there was probably a major street in this location as early as Hellenistic times, the level of the present street surface, much higher than the earlier pavements of the port and the other streets close by, indicates that the latest phase of the remains is a Late Antique development.²⁵

The Embolos is a somewhat similar colonnaded street also paved with marble and limestone blocks. About 60 m. in length, it connects the area of the Upper Agora to that in front of the Temple of Hadrian. The width of the street is ca. 11 m., the same as the Arkadiane. The columns, many of which are clearly reused, are generally

ca. 0.55 in diameter. Although the colonnades of the Embolos have only been cleared to the front wall of the shops, the masonry of that wall is the same as on the Arkadiane and in the Byzantine Shops, with the exception that some shops have massive, marble jambs made of single blocks.

Graced with statues and dedications, cut off from wheeled traffic for use as a pedestrian mall, the Embolos differed from the Marble Road at Sardis, where ruts attest to continuous use as the city's most important artery. The secondary appearance of crosses on architectural pieces of the Embolos is readily paralleled on the columns and walls of the Byzantine Shops at Sardis (Fig. 201).²⁶

The construction date of the Embolos is uncertain, but the following facts are known. First, a dedication dating to the reign of Constantius II (337–361) has been reused in the pavement in front of the Temple of Hadrian. Second, the series of portrait statues in the Embolos begins with heads datable ca. 400 and continues to ca. 550.²⁷ It is therefore possible that the Embolos dates to the early fifth century, as does the Arkadiane. Miltner dates the Embolos to ca. 400.²⁸ There is no evidence to suggest that the Embolos is radically different in date from that proposed for the Byzantine Shops.

The Stoa of the Alytarch is, in a sense, related to the Embolos which it adjoins, but also serves as the façade of a residential complex known as the Slope Houses (Hanghäuser). It is composed of a colonnade (ca. 4.50 wide), behind which are located shops that possessed wooden mezzanines and second stories. The column diameter of the Stoa of the Alytarch is ca. 0.55. Dated to the late fifth or sixth century and destroyed in the early seventh, it is in some ways more elaborate than the other Ephesian shop colonnades and than that at Sardis.²⁹ The floor mosaics of the colonnade display polychrome birds and fish in a bowl.³⁰ The shop façades

26. Foss, *Ephesus*, 65–74, figs. 3, 20; Keil⁵, 121–124; Miltner, 95–109.

27. Foss, *Ephesus*, 67 citing J. Kollwitz, *Oströmische Plastik der Theodosianischen Zeit* (Berlin 1941) 85–88, nos. 6–11. Inan/Rosenbaum, *Portraits*, nos. 201, 202 and *Neue Funde*, no. 149, prefer a date of ca. 400, 50 years earlier than the earliest in Kollwitz's series. However, since this fragment of a female head was found in the rubble in front of the Temple of Hadrian, it might be a mistake to infer that the statue it came from originally stood nearby.

28. Miltner, "Ephesus 1957," 20–21; *Ephesus* I, 73, n. 71.

29. Foss, *Ephesus*, 74; *Ephesus* VIII:2, 33–34; H. Vettors, "Zur Baugeschichte der Hanghäuser," in *Ephesus* VIII:1, 12–13.

30. *Ephesus* VIII:2, 31–34, pls. 38–50, 56.

19. *Ephesus* I, 132; *Ephesus* V, 71–73; *ERA*, 395, 401; Keil⁵, 71–73; Foss, *Ephesus*, 56–59.

20. Miltner, 17.

21. *Ibid.* 55.

22. *Ibid.*

23. For photographs of the masonry see Foss, *Ephesus*, fig. 17.

24. *Ephesus* I, 132.

25. *Ibid.* 133.

and several interiors were frescoed with geometric designs imitating marble revetment schemes. Although none of the Byzantine Shops has a frescoed façade, the interior fresco of E 8 has a central panel that invites comparison (Figs. 319–321), though the general use of black in the fresco seems alien to the frescoes in the Stoa of the Alytarch. The measurements of the shops vary from ca. 5.00–6.00, but most are closer to 5.00, generally similar to the Byzantine Shops.³¹ The unusual ground plans of the shops at either end of the stoa suggest that the building was imposed on an earlier street plan. The stairways in the Stoa of the Alytarch shops are similar to those at Sardis. It is instructive to compare the stairway in E 6 (Fig. 270) to that in Taberna X and that in Hanghaus 2/SR1. The latter stair is built over a brick arch, is L-shaped and is located in a corner.³²

The Street of Eutropius, which also has a colonnade with shops, connects the Theater Square with the Embolos. It was probably rebuilt by the proconsul Eutropius in the late fifth century, although according to the wording of the inscription, which gives the street its name, Eutropius was responsible only for the repaving. In any case, the reused columns and masonry style of the shop walls recall other shops at Ephesus as well as the Byzantine Shops at Sardis.³³

The Lower Agora (sometimes called the Commercial Agora) offers additional comparisons to the Byzantine Shops. It was substantially rebuilt, probably after an earthquake sometime in the 4th or 5th century. Wilberg and Heberdey dated the reconstruction by means of an inscription found by Robert Wood, now in the British Museum.³⁴ Wilberg believed the Lower Agora had been renamed the “Theodosian Forum,” and that the rebuilding should therefore date to his reign. Alzinger has convincingly argued that the inscription was not found in the Lower Agora, but in the Upper, where Wood definitely excavated; this conclusion is also accepted by Foss.³⁵ Foss, however, suggests that the repairs to the lower Agora still might date from the time of Theodosius or thereafter, because columns used in the recon-

struction were from the Temple of Domitian, destroyed by Theodosius, and would only have been available for reuse in his reign or later. Foss also believes that a riot against Nestorius during the Council of Ephesus in 431 occurred in the Lower Agora, thereby giving evidence for its continued use.³⁶

The masonry style of the repairs to the Lower Agora, composed of mortared fieldstones, bricks and spoils, is similar to that of the Embolos, the Stoa of the Alytarch, and the Arkadiane; it certainly does not contradict a fifth century date for the repairs.³⁷ The columns mentioned by Foss are not the only Roman spoils noticeable in the construction.³⁸ The south wall is composed of small, squared stones with brick lacing courses; many stones were cut or broken from marble pieces of other monuments. The gray granite columns from the Temple of Domitian (H. 4.75) are topped by both Corinthian and Composite capitals.³⁹ Some of the marble slabs used as thresholds also appear to have been reused. The plans of the 61 shops may reflect the earlier Roman phase of the building: their depth is 4.50, height 2.62, width 4.50–5.50, doorway width 1.95.⁴⁰ In the main, however, the complex must be considered Late Antique.

The shops lining the façade of the East Gymnasium recall the relationship of the Bath-Gymnasium (Building B) at Sardis to the Byzantine Shops. F. Yegül discusses the comparison between the two complexes in greater detail.⁴¹

Other colonnades from Late Antiquity existed at Ephesus. One which is known but has not been fully studied or published is located at the foot of Paynırdağ. Others are found in the areas of the Theater Square, Theater Gymnasium and Palaestra.⁴²

That the Jews of Ephesus formed a large and prosperous group is attested by numerous biblical and legendary references.⁴³ Physical evidence of their presence includes a graffito of a menorah on the steps of the Library of Celsus.⁴⁴ Epigraphic evidence shows that they had a synagogue, although its location is unknown,

36. Foss, *Ephesus*, 63.

37. *Ephesus* III, 11.

38. *Ibid.* 12.

39. *Ibid.* 14.

40. *Ibid.* 6.

41. *Sardis* R3, 137–138.

42. Foss, *Ephesus*, 54.

43. A. T. Kraabel, “Judaism in Western Asia Minor under the Roman Empire,” (diss. Harvard Divinity School 1968) 51–60; Foss, *Ephesus*, 45.

44. Observed by the author in 1980.

31. *Ibid.* pl. 21; *Ephesus* VIII:1, 39–41, pls. 30–40.

32. *Ephesus* VIII:2, pls. 4, 38, 56; also pls. 8 (Taberna X) and 71 (HS/SR1; Vestibulum).

33. Foss, *Ephesus*, 63.

34. *Ibid.*, also 82–83 n. 70; E. L. Hicks, *Greek Inscriptions in the British Museum* (Oxford 1893) III 185, no. 184.

35. *Ephesus* III 90; cf. Foss, *Ephesus*, 63; *ERA*, 395; W. Alzinger in *RE*, Supp. XII (1970) 1600–1604.

because the inscription was discovered reused in the Basilica of St. Mary.⁴⁵ Lamps with Jewish symbols also occur.⁴⁶

To summarize the significance of the comparison between Sardis and Ephesus: 1) a number of buildings datable to the early fifth century or later are very similar in masonry style to the Byzantine Shops; 2) dimensions of the buildings at Ephesus and Sardis are often similar; 3) similarities in plan between buildings at Ephesus and Sardis are clearly demonstrated in structures dating from the first century onwards; 4) interior features such as wooden mezzanines or second stories, stairways, mosaics and frescoes are similar; 5) there is evidence for an important Jewish community at both sites.

Hierapolis (Pamukkale)

An impressive colonnaded street exists at Hierapolis. It marked the main axis of the city from southeast to northwest.⁴⁷ Three types of vertical supports are used: piers, columns and piers with engaged columns. This might either indicate several building phases or an attempt to unite pre-existing structures.⁴⁸

The dimensions of the colonnaded street at Hierapolis are similar to those at Sardis:

	Hierapolis	Sardis
Street W.	13.50	12.35–12.50
Colonnade W.	5.30–6.35	5.20–6.20
Interval	2.33	1.85–2.40

The width of the colonnade at Hierapolis, like that at Sardis, varies: it measures 5.30 on the east side and 6.35 on the west.⁴⁹

The Hierapolis colonnade, at least in its essential plan, might well date to the rebuilding after the devastating earthquake of A.D. 17, which caused a great deal of damage both to Sardis and Hierapolis. The handsome gate of the Hierapolis street has, by means of an inscription, been associated with Julius Frontinus, Proconsul of Asia in 82/83 and the colonnade's construction is usually dated to the reign of Domitian, 81–96.⁵⁰

A later, Byzantine inner gateway placed the street outside the city's walls.

G. M. A. Hanfmann has remarked on the similarity of the ashlar masonry of West B and CG to the masonry of the baths at Hierapolis and suggested that the same school of architects was active in both cities in the early first century. This may be why dimensions of the colonnaded streets are similar.⁵¹

An inscription on a statue base found at Sardis in BE-C (IN72.1), a dedication by Glykon the son of Glykon, mentions an unusual goddess, Euposia, who is also attested on coins of Hierapolis and whose name occurs on a statue dedication there.⁵²

There was a sizeable Jewish population at Hierapolis, some of whom were connected with the purple dyeing and tapestry weaving trades and who also belonged to Jewish guilds.⁵³ A retail merchant held dual citizenship at both Sardis and Hierapolis.⁵⁴ Cichorius points out also the long-lasting connection with Sardis via the Royal Road.⁵⁵

Therefore in terms of pagan cult, business and architecture, as well as whatever ties may have existed between their Jewish communities, the comparison between Hierapolis and Sardis is particularly instructive.

Hierapolis (Kastabala)

Although unexcavated, Hierapolis Kastabala was visited and identified by J. T. Bent. His description of the site includes a detailed discussion of a well-preserved colonnaded street, plus a rough map of the city and environs.⁵⁶

The colonnaded street extends, according to Bent's account, for 320 yards; from the south gateway to the theater.⁵⁷ The width of the street was 35 feet; the interval 8 feet.⁵⁸ The columns, composed of a red and blue conglomerate, have diameters of 2 feet 8 inches and a height of 20 feet 6 inches. Some of the columns have

51. *Sardis* R1, 131–132; *BASOR* 162, 45.

52. C. Cichorius, in Humann, 34; *BASOR* 211, 27. For IN72.1, dated 211–212, see *Sardis* R2 no. 277, Hanfmann, *SPRT*, 92, 131, 147.

53. Cichorius, 34, 46. See also J. Juster, *Les Juifs dans l'Empire Romaine* (New York 1914) I 486 no. 3, II 307.

54. Cichorius, 55, Ins. no. 75.

55. *Ibid.* 53.

56. Bent, *passim*; see also *PECS*, 392; P. Verzone, "Città ellenistiche e romane dell'Asia Minore. Hierapolis-Castabala; Tarso; Soli-Pompeiopolis; Kanytelles," *Palladio* 2–3 (1957) 54–68.

57. Bent, 234.

58. *Ibid.*; Verzone, 55 gives W. 11.2, intercolumnation ca. 3 m.

45. Foss, *Ephesus*, 45.

46. *Ibid.*; *Ephesus* IV:2 114 no. 180, 172 no. 1872, 187 no. 157, 188 nos. 164, 167.

47. *PECS*, 390–391; Akurgal, *Civilizations*⁵, 175–177.

48. Humann, 7–10.

49. *Ibid.* 7.

50. Akurgal, *Civilizations*⁵, 177.

statue brackets. The columns stood on Ionic bases and carried Corinthian capitals.⁵⁹

The width of the street is similar to those of Side, Perge, Tyre, Ephesus and Sardis. However, the columns suggest the colonnaded streets of Syria more than those of Asia Minor because of their large diameters, although they are squatter (proportions 7.8:1) than the great colonnades of Apamea and Palmyra (proportions 10:1). The use of statue brackets is also more frequent in the Syrian colonnaded streets.⁶⁰

Smyrna (Izmir)

A 210 m. long portion of colonnaded street was discovered in Izmir during the widening of Esref Paşa Caddesi.⁶¹ It was oriented northeast to southwest, leading to the center of the city; its width about 10.00.⁶² The colonnade had shops at the back; their rear wall was used as a retaining wall for the slope behind, a construction feature also found in the city's agora.⁶³

Unfortunately the excavations were neither controlled nor scientific, so detailed information is lacking. The street width is close to that of the Arkadiane (11.00) and Sardis (12.50). One would expect a close architectural similarity due to the geographic proximity and trade relations of the two cities. The colonnades of Smyrna were famous, praised by Strabo and especially by Aelius Aristides; therefore Smyrna must have had such colonnades from the first century, the time when the Marble Road at Sardis was planned, although unfortunately the exact construction date is unknown. They were rebuilt after an earthquake in 178 in the reign of Marcus Aurelius.⁶⁴

Pergamon

Two important shop colonnades have been found adjoining the Asklepeion at Pergamon. The first of these is a colonnade with attached shops west of the Hadrianic West Hall of the Asklepeion. A description of it has been published, and parts of the colonnade have been re-erected. The order of the colonnade is Doric. Although its excavator, S. Kasper, notes that the

original building is Hellenistic and attributes its construction to the Attalids, he also remarks that the building seems to have remained in use in a restored form for centuries.⁶⁵

The colonnaded hall is composed of two stories and the Doric columns each have twenty flutes.⁶⁶ The width of shops and colonnade is ca. 12 m.; its length 93 m. The intercolumniation (determined by the length of an architrave block) is 2.095.⁶⁷ The shops, which, according to Kasper, are similar to those of the Upper Market halls and the Terrace of Demeter, have a 5.75 door axis.⁶⁸

The masonry of the buildings consists of yellow tufa foundations and upper courses of horizontally-clamped, square, red andesite blocks, a typical Pergamene style.

The interior of the shops was decorated with frescoes in geometric patterns of red, green, yellow and black. These frescoes seem to the author to be very late; similar to those of E 8 and others from Ephesus.

In some respects, the dimensions of this colonnade are quite similar to those of the one at Sardis: width (12.00:12.50); intercolumniation (2.95:ca. 2.40); and shop width (5.75:4.55). Although the height of the restored columns does not appear in the publication, the author, while visiting Pergamon, saw that they were approximately the same height as those at Sardis.

The second and more closely related monument at Pergamon is the colonnaded street and "via tecta" along the Sacred Way from the city to the Asklepeion, covering 140.8.⁶⁹ Ziegenaus remarks that the Sacred Way is actually two discrete parts: the western section before the Propylon and the actual Propylon, covered by groin vaults supported by piers.⁷⁰ It is the former, western section that concerns us. Here there are rows of well-preserved pedestals and bases with many unfluted Ionic columns or fragments, several of which have been re-erected. Ionic capitals have been replaced on some of them. The street (8.34 wide) is well paved with rectangular blocks, some of which are marble. The colonnade width is 4.90.⁷¹

65. S. Kasper, "Sondage im Olivehain westlich des kaiserzeitlichen Festplatzes," in Boehringer, "Pergamon 1965," 448.

66. *Ibid.* 444.

67. *Ibid.*

68. *Ibid.* 445. It would seem that the shops at Pergamon were designed to a standard module.

69. O. Ziegenaus, "Hallenstrasse," in Boehringer, "Pergamon 1965," 448.

70. *Ibid.*

71. *Ibid.* plan 3.

59. Bent, 234; Verzone, 55.

60. Cf. *ERA*, 410. Ward-Perkins cites brackets and capital style.

61. Naumann/Kantar, *passim*, esp. 72.

62. *Ibid.*

63. Crawford, 41.

64. Strabo 14.1.35; Aelius Aristides, *Orat.* XVIII and XIX; Magie, 1537 n. 17; Bowersock, 45–46; Calder, *passim*.

The shops, which are not discussed in Ziegenaus' preliminary report nor shown on his Plan 3, have walls which are preserved to a height of ca. 1 m.⁷² The masonry style is rectangular, andesite blocks, laid, in at least some cases, in rows of headers and stretchers. The doors are flanked by substantial jambs of andesite. At least one of the shops on the eastern side of the street has a door in its rear wall, which indicates a connection either with a thoroughfare or possibly another room.

Ziegenaus also notes that the Sacred Way (although greatly altered) continued in use in Late Antiquity.⁷³ Such alterations are especially evident in his fig. 28, where a secondary partition wall cuts across the floor of the colonnade, and the spaces between the pedestals and bases are walled up with irregularly laid blocks. However, even in this late phase, which recalls practices of encroachment at Corinth and Antioch, the street level remains constant instead of rising. The incorporation of two earlier buildings, a fountain and a mausoleum, proves that the colonnaded street itself is an imposition on an earlier, uncolonnaded Sacred Way.⁷⁴

The building history of the colonnaded street and Via Tecta at Pergamon corresponds remarkably to that at Sardis. The streets of Roman Pergamon, like those of Roman Sardis, follow the same general route as the earlier, Hellenistic streets. At Pergamon, the colonnades, which reached their peak under Hadrian, subsequently experienced encroachment by private constructions beginning in the late third and early fourth centuries. Coin finds indicate that there was an active building period in the fifth century. The re-use of spoils was frequent and characteristic of the masonry type. A period of active commerce ensued in the fifth and sixth centuries, followed by a radical decline in the seventh century which left few traces.⁷⁵

The finds from Pergamon which are similar to those of the Byzantine Shops include pilgrim flasks (ampullae), a type of amphora, a type of jug, various types of lamps, steelyards, balances, bells, lock fragments, pins, and a buckle.⁷⁶

The main difference between Pergamon and Sardis is the use of regular stone masonry, which relates more closely to Perge, Side, and the Syrian colonnaded streets than to the mortared fieldstone, brick and spoils that unite Ephesus, Corinth, and Delphi to the Byzantine Shops at Sardis.⁷⁷

Perge

Perge has a colonnaded street with shops similar in general dimensions to those at Sardis.⁷⁸ It runs north-south from the massive Hellenistic gateway (third century B.C.) past the agora toward the city's center. The street is well paved with large blocks and has a central drainage channel.⁷⁹ The width of the street is ca. 19 m.; the width of the colonnades is ca. 4.4 m.; the shop width, 5.75.⁸⁰ When the author visited the site in 1969, the interiors of the shops had not yet been excavated. It was impossible to tell, either from stairways or interior columns, whether the shops were two-storied or not.

The gray and white marble columns of the street colonnade are ca. 0.50 in diameter and ca. 4 m. high (including bases and pedestals).⁸¹ They are unfluted and stand on Attic bases, which in turn stand on pedestals of unequal heights (probably re-used) and bear Ionic or Corinthian capitals as re-erected. Some of the columns are decorated with relief sculpture showing pagan subjects: an Apollo (Helios) chariot and an Artemis Pergaia with a torch.⁸² Such relief sculpture would have been unlikely during or after the reign of Theodosius, so its execution, and perhaps that of the colonnade as well, probably antedates the late fourth century.

A marble entablature block has been placed on two of the columns with Ionic capitals; this block, however, appears to be too long for the interval between them. Its ends should come to the centers of the two columns, but in the reconstruction the architrave almost covers both capitals.⁸³ The entablature block has an elaborately carved soffit on the underside and two modified bead and reel patterns on its face, above which is a *cyma recta* molding with lion-headed spouts. Such a

72. Observed by the author in 1972.

73. Ziegenaus (*supra* n. 69) 448-449.

74. *Ibid.* 450-455.

75. *AvP* XI:4, 1-2 and esp. "Zur Chronologie," 154-156.

76. *Ibid.* Pilgrim flasks: nos. 297, 300, 303, pl. 14; amphora no. 320, pl. 15; jug no. 313, pl. 15; lamps nos. 495, pl. 19, 502, 581, pl. 20; steelyard and balances nos. 649-659, pl. 22; bells nos. 685-687, pl. 22; lock plate no. 688, pl. 22; pins nos. 672, 673, pl. 22; buckle no. 678, pl. 22.

77. Although he refers primarily to ecclesiastical architecture, cf. the relationships of techniques of various centers in Krautheimer, 79-80.

78. *PECS* 692-693; Lanckoronksi II 45-58.

79. *Bean*, 54; Lanckoronksi II 41.

80. *Ibid.*; Boulanger, 520.

81. Lanckoronksi II 41.

82. Boulanger, 520.

83. Observation by the author in 1968.

block might have come from an earlier, more monumental phase of Perge's colonnaded street; but in its last phase, especially in light of the different dimensions used for the interval and architrave, we must agree with the excavator, A. M. Mansel, that most of the entablature was replaced by wood.⁸⁴

The masonry of the shop walls consists of roughly-cut, rectangular tufa blocks of irregular size. The jambs are substantial, single blocks of another stone, perhaps marble.⁸⁵ This is the primary difference between Perge's and Sardis' colonnaded streets, and places Perge more in the category of Pergamon, Side, and the "Syrian group." Ward-Perkins suggests that the local masonry tradition in Pamphylia and Pisidia looks toward the cities of Cilicia and Syria, where the walls are commonly of dressed stone, rather than to the Aegean area, where mortared fieldstone and brick predominate.⁸⁶

Pompeiopolis (Solo)

Some of the columns of a colonnaded street still stand at Pompeiopolis, where they have attracted the attention of several generations of scholars.⁸⁷ Paribeni and Romanelli mention twenty-four standing columns, 8.50 high (including base and capital). The height of the bases is 0.72, of the capitals 1.08.⁸⁸ The capitals are called either Composite (Paribeni/Romanelli) or Corinthian (Ward-Perkins), although the order may vary.⁸⁹ The length of the street is ca. 320 m., and M. Gough dates much of it to the third century on the basis of an inscription mentioning Trajanus Decius.⁹⁰ Some of the capitals were also decorated with mythological figures: Diana Lucifera (?), comparable to Artemis Pergaia at Perge), one of the Dioskouroi, Jupiter-Serapis, Athena, Hera (?), Hades (?), Ares (?), Hercules and a female figure with a mural crown (Tyche or Cybele?). Lions and eagles also occur.⁹¹ The column shafts had statue brackets at a height of 3.30.⁹²

Ward-Perkins relates the colonnaded street at Pompeiopolis to the "Syrian group" of colonnaded streets

on the basis of the "windswept" style of its capitals and the use of statue brackets.⁹³ While this is indeed the case, the relationship to other sites further west, notably Perge, should not be overlooked. The use of mythological figures on the capitals is in marked contrast to the Chi-Rho inscriptions at Sardis and the vigorous Christianization of the Embolos at Ephesus. The construction of the colonnaded street at Pompeiopolis may well be earlier than at Sardis and Ephesus. In contrast to Ephesus and Sardis, sites to the north, such as Pergamon, and to the south and east, such as Perge, Pompeiopolis, and Hieropolis, seem to have colonnaded streets that retain an earlier, conservative, pagan character. This is not only true of the decoration, but of the monumentality and masonry style of the walls as well.

Selge

Knowledge of Selge has been immensely enriched by the work of a Turkish-Austrian expedition, which accurately surveyed the site and studied the architectural remains in 1968 and 1969.⁹⁴ Lanckoronski's 1884 team at Selge did not include an architect, so his plan is essentially a sketch containing a number of errors and lacking accurate measurements and details.⁹⁵

The colonnaded street at Selge was 230 m. long and united the Upper Agora with the North Hill of the city. As with the Arkadiane at Ephesus, the Roman-Byzantine Street followed the route of its Hellenistic predecessor.⁹⁶ The order of the Roman phase was, as at Sardis, Ionic.⁹⁷ The colonnades provided a unifying façade in front of privately owned shops and houses which, owing to their diversity, presumably antedated the colonnade. Detailed information about the shops and houses is presently unavailable, because of overgrowth at the site and theft of architectural materials.

As at Sardis and Ephesus, both the colonnades and the street itself were encroached upon during the Byzantine period, ultimately engulfing the colonnade. However, an on-paper reconstruction of the original structure is possible. The foundations were of mortared rubble; the stylobate, the paving of the street and the colonnades were of limestone. The column shafts (3.10 high) were monolithic and of veined, marble-like limestone. They

84. Mansel, "Side," 16.

85. Crawford, 56.

86. *ERA*, 406-407.

87. *PECS*, 851; Paribeni/Romanelli, 87-90; Keil/Wilhelm, 55-58; P. Verzone, *Palladio* 2-3 (1957) 54-68.

88. Paribeni/Romanelli, 89.

89. *Ibid.*, cf. *ERA*, 410.

90. Gough in *PECS*, 851. Paribeni/Romanelli simply call it "Late Roman," 90.

91. *Ibid.* 89.

92. *Ibid.* 90.

93. *ERA*, 410.

94. Machatschek/Schwartz, 8-9. I am indebted to L. Nees for calling this publication to my attention.

95. *Ibid.* 27-28.

96. *Ibid.* 62.

97. *Ibid.*

stood on pedestals, as did several columns at Sardis. At Selge the pedestals are constructed of limestone with upper surfaces profiled as Attic bases. The columns supported an architrave with three fasciae, surmounted by a sima without a frieze.⁹⁸ It has been postulated that a wooden roof superstructure with tiles covered the colonnades.⁹⁹

The walls of the shops and houses screened by the colonnades were made of mortared rubble and set on limestone and conglomerate foundations. The mortared rubble construction is similar to the "Aegean group" rather than the "Syrian group" of colonnaded streets. Door and window frames were profiled with limestone moldings. Some of the doorways of the houses were more elaborately decorated with aediculae and engaged columns. Honorary statues with their inscribed bases were numerous in the colonnades.¹⁰⁰

Side

There are two impressive colonnaded streets at Side.¹⁰¹ One, designated by Mansel as C, runs from the Great Gate to the agora.¹⁰² After a short gap on its northern side, where there are large public buildings, Street C continues, passing tangent to the curving outside wall of the theater and proceeding toward the temples near the harbor. This may indicate that Street C was superposed on an earlier plan, because the public buildings and the theater are not unified with it. The widths of the street's two colonnades are unequal: 6.70 on the west; 5.20 on the east. The columns are of gray granite, 5.80 in height.¹⁰³ They have Corinthian or Ionic capitals and both square and hexagonal bases with strongly profiled socles. In the earlier phase there was a stone architrave with two fasciae, but during the second, Byzantine phase, the stone entablature was replaced with a wooden one, as was also the case at Ephesus, Perge, and Sardis.¹⁰⁴ As at Perge the earlier interval seems wider than the later.

The colonnade is intersected at least once by cross streets. The excavated one is quite narrow, only 3.50 wide.¹⁰⁵ Where the street is tangent to the theater there are no shops; in their places are entrances to the theater. Only the front wall of the shops was cleared when the author visited the site in 1968, but it could be determined that the masonry is similar to that of Perge: small, rectangular stone blocks. Comparable large, monolithic door jambs are present as well.

The second colonnaded street, designated by Mansel as B, also begins at the Great Gate but runs north-south down to the large basilica where the bishop's residence may have been.¹⁰⁶ Lanckoronski's architect, Petersen, recorded the width of the street as nine m. from column base to column base.¹⁰⁷ Behind the colonnade there seem to be two levels of paving with a bench at the back. This may be secondary encroachment. There are shops with doorways ca. 5 m. apart and with a depth of ca. 5 m. The columns had Attic bases, and Corinthian capitals found in the area measure 0.52 high and 0.46 at the lower diameter. There may have been a pulvinated frieze, although the author doubts it.¹⁰⁸

The colonnaded streets at Side show general similarities to those at Sardis, but the closest comparison is predictably at neighboring Perge. We thus find the following groups of colonnaded streets emerging in Asia Minor: 1) "Cilician," with relations to Syria; 2) "Pamphylian," with similarities to both Syria and the Aegean; 3) "Aegean," including Sardis, with close relationships to Greece (Corinth and Delphi), and 4) "Pergamene," with some Aegean relationships but with a unique masonry style.

EGYPT

Athribis

Around the turn of the century, Sir W. Flinders Petrie excavated and recorded an Egyptian dyeshop of the Roman period at Athribis (near Sohag) in Egypt.¹⁰⁹ The primary records of the excavation were unavailable

105. Ibid.

106. Ibid.

107. Lanckoronski I 130.

108. Ibid.

109. PECS, 110; K. Michalowski, "Le topographie d'Athribis à l'époque romaine," *ASAE* 57 (1962) 19-31; W. Helk, E. Otto, *Lexikon der Ägyptologie* 1:4 (1973) 519-524. I owe these references to D. A. Pendlebury.

98. Ibid. n. 418. The Ionic capitals are dated on stylistic grounds to the mid-2nd C.

99. Ibid. 63.

100. Ibid.

101. PECS, 835-836; Lanckoronski II 125-152; Mansel, *Ruinen* 17; idem *AA* 71 (1965) 34-120; idem, G. Bean, J. Inan, *Side agorası ve civarındaki binalar* (Ankara 1956); Bean, 78-100; S. Eyice, "La ville byzantine de Sidé en Pamphylie," *Actes du Xe congrès internationale des études byzantines* (Istanbul 1957) 130-133.

102. Mansel, *Ruinen*, 17.

103. Ibid.

104. Ibid.

to the author, but two modern publications have appeared discussing the shop's plan and finds.¹¹⁰ The shop is divided (like E 6-E 8, Fig. 267) into three lower story rooms, with a stairway in a corner of one leading to an upper story.

One room (called the showroom) may correspond to E 8. A second room (called a rinsing room) may correspond to E 7 (though rinsing was not done there) and the workroom closely resembles E 6. This workroom at Athribis had sixteen small containers around three walls, some containing indigo and a red substance; the numerous containers in E 6 are similar (Fig. 269). The upper story, as in E 6 (Figs. 32, 271, 272), was supported by two columns. The general appearance of the plan of the shop at Athribis is strongly reminiscent of the dyeshop on the Ophel in Jerusalem, *infra*.

GREECE AND THE BALKANS

Corinth

The shops of the Lechaion Road remained in use in the fourth and fifth centuries and continued to be used perhaps as late as the eleventh century.¹¹¹ However, as at Pergamon, continued encroachment on the colonnades eventually eliminated their classical character; structures were constructed across the colonnades and sidewalks into the road itself and appropriated the public space, until the former width of the road (7.35) was reduced in places to less than 2 m.¹¹² In addition, Scranton notes: "It is, then, probable that in the earlier phases, even into the tenth century, many if not all of the columns of the colonnades still stood; by the end of the twelfth century they had all been removed."¹¹³ The shops were greatly altered in the Byzantine era, especially by the introduction of a second story and by possible residential use in some parts.¹¹⁴ In other words, the shops had the same functions as the Byzantine Shops at Sardis.

Although there are exceptions, the general construction in Corinth is dressed stone, after which mortared

rubble, the same technique used at Delphi, Ephesus and Sardis, became the rule.¹¹⁵ Walls are commonly 0.60 thick, about the same as at Sardis.¹¹⁶ Stucco was used as at Sardis to conceal irregularities. Mud mortar was used in the wall construction; limed mortar was used on wall faces.¹¹⁷ Marble blocks were used at the quoins, and the foundation walls were a few centimeters wider than the upper wall width.¹¹⁸ Both these characteristics occur at Sardis.

The rafters of some buildings at Corinth are 0.12 square. This size does not differ very much from the beams at Sardis, which are 0.10 in diameter or 0.17 square.¹¹⁹

The thresholds at Corinth are the same type as those at Sardis: they are made of marble slabs averaging 1.40 in width, compared to 1.30–1.83 at Sardis.¹²⁰ Both rabbetted and non-rabbetted types occur on both sites, and most of the doors are bivalve. The same floor types occur at both sites: clay, brick or tile (tiles at Corinth) and marble slabs.¹²¹

Finally, Scranton's remarks as to whether the concept of the colonnaded street survived into the Middle Byzantine period (twelfth century) deserve quoting:

It is striking that there should be a Market Avenue lined with columns in the twelfth century to compare with the Lechaion Road of classical times, but there can be no question of the twelfth century Corinthians having imitated their classical predecessors directly, for the Lechaion Road colonnades were gone by the twelfth century. It is even a question whether they were imitating any colonnaded avenues at all, for in a way the colonnades of the Market Avenue are really composed of a series of individual porches. Under present conditions it may be impossible to decide whether they represent a tradition of monumental colonnades still alive in such a city as Byzantium or were local inventions developed from practical needs that are forerunners of a later style of colonnade not directly related to antiquity.¹²²

What is clear is that, despite all else, the Shops of the Lechaion Road are part of the "Aegean group" of colon-

115. *ERA*, 371–372. Local limestone covered with stucco, later (Flavian) use of marble, occasional appearance of concrete. Cf. *Corinth XVI* 98–99

116. *Ibid.* 99.

117. *Ibid.*

118. *Ibid.* 98–99.

119. *Ibid.* 99.

120. *Ibid.* 100, fig. 11.

121. *Ibid.* 101.

122. *Ibid.* 134. Cf. the intensification of commercial activity in the area, T. Gregory, "Fortification and Urban Design in Early Byzantine Greece," ed. R. Hohlfelder *City, Town and Countryside in the Early Byzantine Era* (Boulder 1982) 52.

110. A. Leix, "Historical Gleanings," *CIBA Review* 12 (1938) 423; Robinson, 15.

111. The establishment was originally Julio-Claudian. It was refurbished with shops after an earthquake in A.D. 77, *ERA*, 371; *Corinth I* 159, 192.

112. *Corinth XVI* 77.

113. *Ibid.*

114. *Ibid.* 77–78.

naded streets and are closer to Sardis, Ephesus, and (as will appear) Delphi than any other sites in Asia Minor or Syria.

Delphi Figs. 609, 610

Just outside the main gate in the southeast part of the temenos wall of the Sanctuary of Apollo is a stone-paved structure referred to as "l'agora romaine."¹²³ The paved area (31.10 by 14.20) was surrounded on the east, north and probably on the south side by colonnades. The total length of "l'agora romaine" is 39.60 and its width 30.70. The north colonnade is the best preserved; traces remain at the northeast corner to attest to the east colonnade, but the posited south colonnade is totally destroyed. The width of the paved area (14.20) is somewhat larger than the width of the Marble Road at Sardis (12.50).

The north colonnade and rear wall of the shops are 39.60 long. The rear wall, as at Izmir (Smyrna), served as a terracing wall. The widths of the colonnade and the row of shops behind it are respectively 6.30 and 5.40. The individual shops are about 5 m. wide. The shop dimensions compare closely to those at Sardis (depth 5.20, width 4.50–5.00 colonnade width including shops 12.35).

On the gray marble stylobate of "l'agora romaine," seven Ionic columns stand on Attic bases. The stylobate is made of reused stones, one bearing an inscription, "Apollon."¹²⁴ The bases of two columns occupy correct positions, although it is uncertain whether the shafts presently on the bases are the original ones. Some of the capitals used in the reconstruction do not belong to the original colonnade, but all appear to be stylistically late (crudely carved Ionic) and the small dimensions of the shafts (diameters 0.34–0.38) seem very close to the smaller group of columns at Sardis.¹²⁵

The masonry and construction technique of the walls of the five shops and two arched niches behind the

north colonnade of "l'agora romaine" are quite similar to those at Sardis, Ephesus and Corinth: re-used marble block piers at jambs and quoins; spoils, fieldstone and brick lacing courses (some of which have an unusual herringbone pattern); friable mortar, putlog holes, and a surface coat of plaster (reddish as opposed to white at Sardis). In at least one shop a pithos was let into the floor, common at Sardis and elsewhere.

The north colonnade of "l'agora romaine" is the example most similar to the Byzantine Shops in terms of wall construction known to the author, with the exception of the Arkadiane at Ephesus. From the style of this construction and that of the capitals, the date of "l'agora romaine" appears to be very late Roman, perhaps the latter part of the fourth or even the fifth century.¹²⁶ The "agora romaine" at Delphi certainly belongs in the "Aegean group," comprising those at Sardis, Ephesus, Corinth and possibly Smyrna.

Stobi

A modest, late-antique colonnaded street known as the Via Sacra has been excavated at Stobi, running from the northwest gate to the Episcopal Church.¹²⁷ The length of the street is considerable (78.00) but it is very narrow (4.85 wide). The two colonnades are also very narrow (2.85 wide). Both street and colonnades are paved with stone slabs.¹²⁸ The colonnade has been encroached upon by secondary building in places.¹²⁹ Fragments of columns have been found, as well as two types of capitals, Ionic and flat impost (plain except for one decorated with a relief cross).¹³⁰

According to the excavator, Mano-Zissi, the street was reinforced by piers in a late phase, one pier for every two columns.¹³¹ Brick was used in the upper portions of these piers; stone in the lower. The piers

126. P. Amandry writes in a letter of July 8, 1980: "La date que vous suggérez, par comparaison avec Sardes, me remplit d'aise. Car je pense depuis longtemps que 'l'agora romaine'—ainsi que d'autres constructions de technique similaire à Delphes—est sans rapport avec le sanctuaire d'Apollon, et que c'est en fait la place de la ville, siège d'un évêché, qui s'était installée dans les ruines du sanctuaire et dont la 'voie sacrée' était la rue principale."

127. PECS, 859–860; Kitzinger, passim; Wiseman/Mano-Zissi, "Stobi 1970"; idem, "Stobi 1971"; idem, "Stobi 1972"; idem, "Stobi 1973–74," (House of the Fuller); idem, *Studies I and II*; Wiseman, *Guide*.

128. Kitzinger, 114.

129. Ibid.

130. Ibid. 115.

131. Ibid.

123. P. Amandry kindly provided information and dimensions by letter of April 25, 1980 for "l'agora romaine," which has not yet been published in detail. See P. Amandry, "Chronique des Fouilles en 1947" *BCH* 71–72 (1947–1948) 446, fig. 21, "Chronique delphique (1970–1981)" *BCH* 105 (1981) 722–724.

124. Ibid. 724.

125. The École Française d'Athènes bears no responsibility for the restoration, which was carried out by the Greek Antiquities Service. See *BCH* 103 (1979) 577 for the solid archaeological grounds that determined placement of 2 bases in 1947. The capitals were replaced at random. See also *BCH* 71–72 (1947–1948) 446, fig. 21.

and columns seem to have carried brick arches. Mano-Zissi believes the colonnades were vaulted.¹³²

The exact date of the colonnades' construction is not known. Kitzinger suggests that the plan dates from the second or third century.¹³³ He dates the colonnades themselves to "between some time in the fourth and the late fifth century."¹³⁴ Both Kitzinger and Mano-Zissi believe the piers date from around 500.¹³⁵ Wiseman mentions that there are shops and other structures opening on the colonnades which are still unexcavated.¹³⁶ He also thinks that "... the Via Sacra was probably in existence at least by the early fourth century," and that the present street may reflect a yet earlier plan.¹³⁷ This view is supported by the disharmonious orientation of the Via Sacra and the Episcopal Basilica which opens onto it. The discord in alignment suggests that the street existed with its present orientation before the Episcopal Basilica was built.¹³⁸

The piers and walls of the structures on the Via Sacra at Stobi show basically similar masonry to that of the others in the "Aegean group" (Sardis, Ephesus, Corinth and Delphi): mortared fieldstones, spoils and bricks. The reinforcement of a colonnade with piers is unparalleled (to the author's knowledge) in street colonnades elsewhere, although this construction is well-known in church narthexes, e.g. SS. Sergius and Bacchus and Hagia Sophia. Thus it is possible that the reinforcement piers and the vaulting may have been made in the early sixth century, certainly after the Gothic sack of Stobi in 479.¹³⁹

Of further interest at Stobi are the synagogue, which indicates the presence of a substantial Jewish community,¹⁴⁰ and the House of the Fuller, identified as a dye-shop by a large quantity of murex shells.¹⁴¹ Wiseman reports finds there substantially similar to those from the Byzantine Shops, e.g. a marble mortar, storage jars,

bronze keys, stone pestles and kitchen pottery.¹⁴² The destruction date of the House of the Fuller is uncertain, but it occurred no earlier than 518.¹⁴³

THE ROMAN EAST

Antioch

A thorough description of the Roman and Byzantine (Justinianic) phases of the poorly preserved colonnaded streets of Antioch has been published by J. Lassus.¹⁴⁴ As at Sardis, the colonnade at Antioch included a sidewalk (2.03 wide) which covered the water channel at the edge of the street.¹⁴⁵ The width of the street itself is 6.80, much narrower than at Sardis. The widths of the mosaic floor of the colonnade and the stylobate were 6.28 and ca. 1.45 respectively.¹⁴⁶ In the Roman phase the colonnades were more monumental (9.25 wide).¹⁴⁷

The interaxial varied from 3.75 to 4.80 in different sectors excavated.¹⁴⁸ Although only fragments of columns were found, the diameters varied between 0.58–0.65; the materials were red and gray granite.¹⁴⁹ The heights of such columns may have exceeded 6.00.¹⁵⁰ No capitals, bases or architrave blocks were recovered, however. Lassus suggests a sloping roof from the front walls of the shops for the colonnade and a gabled roof for the shops themselves.¹⁵¹ He also hypothesizes a row of windows under the colonnade roof, based on the strength of the shop walls.¹⁵² No staircases were found, so it is an open question whether the shops were one or two-storied.

The Megalopsychia Mosaic

The topographical border of a mosaic pavement found at Antioch, referred to as the Megalopsychia Mosaic, shows the famous suburb of Daphne with its vivid street life and does much to reveal what life in the

132. Ibid.

133. Ibid. 117.

134. Ibid.

135. Ibid. 116–117.

136. Wiseman, *Guide*, 56.

137. Ibid.

138. Kitzinger, 116.

139. *PECS*, 859, for date of attack by Theodorici.

140. Kitzinger, 129–134, 139–146; Wiseman/Mano-Zissi, "Stobi 1970" 408–411; idem, "Stobi 1971" 408–411; idem, "Stobi 1972" 391–393; Wiseman, *Guide*, 30–33.

141. Kitzinger, 117–118; Wiseman/Mano-Zissi, "Stobi 1970," 402–403; idem, "Stobi 1971," 420; idem, "Stobi 1972," 379; idem, "Stobi 1973–74," 138–139; idem, *Studies* I 210–212.

142. Idem, "Stobi 1973–74," 139.

143. Ibid.

144. *Antioch* V.

145. Main Street Dig VII 16–0 Sud, *ibid.* 94.

146. *Ibid.* 95.

147. *Ibid.* 34, 95.

148. *Ibid.* 32, 35, 70.

149. *Ibid.* 59, 146.

150. *Ibid.* 146.

151. *Ibid.* 147.

152. *Ibid.*

Byzantine Shops must have been like.¹⁵³ Colonnaded streets are not pictured, but a part of the mosaic, entitled *ta ergasteria tou Martyriou*, in which a servant is shown bringing a drink to his master or a patron of a wineshop, recalls E I and W I at Sardis with their extensions into the colonnade. In the next scene, entitled *o Peripatos*, a dice game is in progress.¹⁵⁴ The scene recalls the many small, conical, terracotta game pieces found in the Byzantine Shops. The type of folding chair or campstool shown in the mosaic is similar to the campstools from E 7 (Fig. 307).

Apamea

The Syrian town of Apamea boasts one of the most grandiose colonnaded streets to remain standing. The dimensions are enormous by comparison to those of the "Aegean," "Pamphylian" and "Cilician" groups. Part of the street is reconstructed in Brussels, at the *Musées Royaux d'Art et d'Histoire*.¹⁵⁵

As at Antioch there are two principal periods of colonnade construction, the Roman and Byzantine (Justinianic). Both phases have the same dimensions: width of street 20.79 (measured column to column); 1.24 square bases 0.47 high; columns with lower diameters of 0.90, height 9.00; stylobate blocks, width 1.52–1.65; width of colonnade 6.15.¹⁵⁶ The Justinianic phase includes an orthogonal paving in white limestone with a "sidewalk" similar to those at Sardis and Antioch.¹⁵⁷

The Roman paving was also white limestone but irregularly joined. Lassus believes that the portions of the colonnade with plain columns are Trajanic; those with spiral-fluted columns date to the reign of Antoninus Pius.¹⁵⁸

The street at Apamea is also interesting because it preserves a row of windows above the doors of the shops. Since few shops anywhere are preserved to this level, they provide a possible model for the elevation of the Byzantine Shops. Windows over doorways are common in Roman shops, e.g. those of Trajan's Market, because such transom windows reduce the weight on the lintel of the doorway, as well as provide needed

light, especially when the doors are closed. Because the columns at Apamea are 9.00 high, the windows are not too close to the beams of the colonnade roof to prevent light from entering.¹⁵⁹ At Sardis, however, the Colonnade is so low that windows in this position would have had to be very small and not positioned to receive much light. It may be plausible that windows were placed above the door lintels at Sardis, but it is almost certain that there were windows above Colonnade level in the second story (Fig. 32).

Apamea and Antioch (as well as Palmyra and other sites discussed below) represent the "Syrian group" of colossal colonnaded streets. They seemed to retain their Roman character longer than the other groups, showing more cosmetic changes than far-reaching ones. They frequently maintain their monumentality, do not substitute a wooden entablature for stone, and have shop walls made out of large, finely cut blocks with less use of spoils and almost no use of brick and mortared fieldstone. They also remained stylistically more consistent in details such as capitals.

Banakfûr

Among the Syrian commercial buildings studied by H. C. Butler, some of the most interesting are in Banakfûr, which Butler dates to the fifth century.¹⁶⁰ Like some of the houses from the same area, the shops have two-storied, colonnaded façades with rooms opening off the rear.¹⁶¹ These buildings are common in northern Syria; some are in rows facing each other as if they formed a colonnaded street.¹⁶² In some instances the street between them is closed by a wall with a small door, which makes the complex more like a *soukh* and reminds one of the altered, late stage of some streets at Antioch.¹⁶³ The most developed form, in which these units surround a space with stables on one side, resembles and may foreshadow the khan of Seljuk architecture.¹⁶⁴

The two-storied façade of the shops at Banakfûr suggests the most likely elevation of the Byzantine Shops. Unlike the colonnaded streets of Syria, which are earlier, these buildings are contemporary with the Byzantine Shops. Accordingly, their columns tend to be

153. *Ibid.* 138–139, pl. 56; Levi I 156; G. Downey, "Libanius' Oration in Praise of Antioch (Oration XI)" *ProcPhilSoc* 103:5 (1959) 652–686.

154. Levi, 330.

155. Butler, *Syria* II 55; Balty; Verhoogen; *Antioch* V 152–153.

156. *Ibid.* 152.

157. *Ibid.*

158. *Ibid.*

159. *Ibid.*

160. Butler, *Publications*, 167.

161. *Ibid.* 168.

162. *Ibid.*

163. *Ibid.* Cf. *Antioch* V 26; also *Corinth* XVI 77, 133–134.

164. O. Aslanapa, *Turkish Art and Architecture* (London 1971) 147–161.

squat, spoils are often used, and stylistic consistency is not observed. Those elements that imitate classical forms tend to be stylized and crude. In many respects these buildings are closer to the Byzantine Shops at Sardis than the grandiose colonnaded streets of the "Syrian group."

Benâbil

Butler also published a description of a Syrian house from Benâbil, which he dates to the second century.¹⁶⁵ Because it has living quarters over work/utility rooms, it is similar to the Byzantine Shops. The house is designed like a short stoa (ca. 19.00 long, ca. 9.00 wide) with a two-storied colonnade. The lower story has a squat, Roman Ionic order; the upper an equally squat Corinthian.¹⁶⁶ The masonry of the walls is ashlar and generally comprised of regular, rectangular blocks, some irregular in size.¹⁶⁷

The lower story is divided into one large and two smaller rooms, the combined size of which is almost equal to that of the larger room.

Beth She'arim (Besara)

A glass workshop of the late Roman and Early Byzantine periods has been found at Beth She'arim.¹⁶⁸ Workshops such as this probably existed at Sardis to supply the glass objects sold in the Byzantine Shops. A final report has not been published, but it contains numerous vessels, 1200 coins, and crucibles with glass *in situ*. B. Mazar believes much of the glass at Beth She'arim was made locally.¹⁶⁹

Bostra

The colonnaded streets with shops at Bostra provide an important comparison to Sardis, for of all the colonnaded streets in the "Syrian group," Bostra is the most similar to Sardis. Not only are many of the dimensions similar, but the well-preserved front walls of the shops, with their windows and beam holes, show what the front elevation of the Byzantine Shops may well have looked like. Butler describes the colonnaded streets of Bostra as being more numerous but less grand than the better known colonnaded streets of Syria (Palmyra,

Apamea, etc.).¹⁷⁰ As at Philadelphia, the colonnades have been preserved by incorporation into later buildings, which have encroached on them as at Corinth, Pergamon, Antioch, etc.¹⁷¹

Butler describes three main east-west colonnaded streets at Bostra and suggests that originally there were more.¹⁷² The largest of these is a street extending from the West Gate to the East Arch.¹⁷³ Its width is "a little over 8 meters." The second street, with a width of 5.70 and a colonnade width of 5.00, runs between two mosques, the Djami Fatmeh and the Djami al-Khidr.¹⁷⁴ The third east-west street, 8.50 wide between column centers, is located "100 m. to the west of the line of the north wall of the Djhami al-Omari."¹⁷⁵

Butler also discusses the north-south streets. The largest of these originates at the North Gate, crosses two of the east-west colonnaded streets at right angles and meets the third, the main east-west street, at an oblique angle. The width of this north-south street is 8.80. The second, smaller street was 7.90 wide with a 5.50 wide colonnade.¹⁷⁶ The intercolumniation of the street is 2.90–3.00, somewhat larger than Sardis, as is the colonnade width. The width (5.50) and depth (5.60) of the shops at Bostra are also slightly greater than those at Sardis.¹⁷⁷

The fronts of eight shops are preserved near the juncture of the two main north-south and east-west streets. The masonry is fine ashlar. The intercolumniation is 2.18, the colonnade width 5.45, and the doorway width 1.57–2.45.¹⁷⁸ Even more important than the basically similar dimensions, the presence of windows below the brackets for horizontal beams proves that there were windows below the colonnade roof.¹⁷⁹ Furthermore, Butler states that another colonnade, northwest of the Djami al-Khidr, seems to have been residential, a use which some of the Byzantine Shops seem to have shared.¹⁸⁰

Throughout the colonnades, the order seems to have been Roman Ionic with plain shafts; the columns have diameters of 0.80 on the principal streets and 0.70 on

170. Butler, *Syria* II 230–235.

171. *Ibid.* 231.

172. *Ibid.*

173. *Ibid.* 230.

174. *Ibid.*

175. *Ibid.* 231.

176. *Ibid.*

177. *Ibid.* 232.

178. *Ibid.* 233.

179. *Ibid.* 234.

180. *Ibid.*

165. Butler, *Publications*, 69–71.

166. *Ibid.* 70.

167. *Ibid.*

168. *Beth She'arim* I 211, 218–220; R. Brill, *IJEJ* 15 (1965) 261 ff.

169. *Beth She'arim* I 211.

the side streets.¹⁸¹ Butler's restoration drawing of the colonnade elevation shows a shaft height of ca. 6.40 and a total height of ca. 8.60 including the entablature.¹⁸²

These dimensions demonstrate that even when the streets are narrow, the dimensions of the Syrian colonnades remain monumental. The visual effect must have been extremely cramped, with a very strong vertical emphasis. The colonnades are conceived separately from the streets they line, and the dimensions remain essentially standard within the "Syrian group."

Jerusalem

A major colonnaded street existed in Roman and Byzantine Jerusalem, presumably constructed during the rebuilding of the city as Aelia Capitolina by Hadrian after the Bar Kochba revolt in 135. Excavations have recovered some columns belonging to the main colonnade near the Church of the Holy Sepulcher. The path of the street can still be traced, running south from the Damascus Gate.¹⁸³ There were also subsidiary colonnaded streets in the city, as discussed below.¹⁸⁴

A better understanding of the main street comes from a pictorial source, the sixth century topographical mosaic at Madeba which shows a view of the course of the street and also suggests the appearance of its elevation.¹⁸⁵

The Madeba mosaic is rather schematic, but the author believes that two types of roofs are shown. The first, the type used in Street I, is a sloping, tiled roof; the second, which seems to be used in at least the south portion of Street II, appears to be a tiled, gabled roof.¹⁸⁶ Further indications of the elevations are found in other mosaics which show views of Jerusalem and Bethlehem. These may be "ideal views" imagined by the artists or taken from another pictorial source, nevertheless they reflect general appearances. The mosaics of the Capella di San Venanzio (Lateran Baptistery) dated to 640–649 show a standard gabled roof for what seems to be a colonnaded street.¹⁸⁷ The spandrel mosaics of Santa Maria Maggiore (ca. 432–440) show a view of a colon-

nade visible through Jerusalem's city gate; unfortunately the roof is not shown.¹⁸⁸ These views give a good idea of the dominating effect of colonnaded streets on the cityscapes of the fifth to seventh centuries.

Byzantine Buildings on the Ophel

Since 1968 continuing excavations directed by B. Mazar have uncovered remarkable and well-preserved Late Roman and Byzantine remains to the south of the Temple Mount.¹⁸⁹ They are especially close to Sardis in the date of their destruction by the Persians in 614.

Although the shops are not part of a colonnaded street, their masonry style is closer to the Byzantine Shops than the fine ashlar of the monumental "Syrian group" of colonnaded streets. Because the Jerusalem buildings are preserved to a height of two stories, windows and beam holes show the type of arrangement probably in use at Sardis. The discovery of dyeshops in Jerusalem provides comparative evidence that the Shops at Sardis engaged in that trade.¹⁹⁰

The buildings of particular interest are: a two-storied Byzantine house located south of Robinson's Arch (locus 7066); a large, three-storied building complex, believed by the excavators to have originally been the palace of the Empress Eudocia in the fifth century, which was converted into a convent in Justinian's reign (locus 15000); a dyeshop located below the blocked-up Triple Hulda gate; and a Byzantine house located near the steps to the Double Hulda Gate.¹⁹¹

The two-storied house (locus 7066) was built in Roman times and modified in the Byzantine period. Its

188. W. Oakeshott, *The Mosaics of Rome* (Greenwich 1967) 74–75, pl. 9, see also 66. W. Volbach, *Early Christian Art* (New York 1962) 336–337, pl. 130 for a similar mosaic in S. Pudenziana; Wilpert, Schermacher (*supra* n. 187) 318, pl. 72; G. Matthiae, *Mosaici medioevali delle chiese di Roma* (Rome 1967) 1 64–65 discusses views of Jerusalem.

189. The author wishes to express his gratitude to B. Mazar and N. Avigad, along with members of the Ophel excavation staff for their help and information during his visit to Jerusalem in 1978. The visit was made possible in part by a generous grant from the University of Delaware.

190. Mazar, "Temple Mount," 380.

191. *Ibid.* 25–40; Mazar, *Mountain* 248–254; Mazar, *Jerusalem 1968, Jerusalem 1969–1970*. For earlier excavations see F. J. Bliss, A. C. Dickie, *Excavations in Jerusalem 1894–1897* (London 1898) 231–233; Kenyon, *Digging*. Ben-Dov, 231–2, 246, 248–9 describes and provides useful reconstruction drawings of the colonnaded street with shops of the "Cardo Valensis" and believes that both tanning and dyeing took place in the shops on the Ophel.

181. *Ibid.* 235.

182. *Ibid.* 233.

183. Kenyon, *Jerusalem*, 187–188.

184. Kenyon, *Digging*, 258–260.

185. Kenyon, *Jerusalem*, 187–188; Gold, *passim*; Avi-Yonah, *passim*.

186. Levi 1 618.

187. G. B. Govenale, *Il Battistero laterense* (Rome 1930); J. Wilpert, W. Schermacher, *Die römischen Mosaiken der kirchlichen Bauten vom IV.-XIII. Jahrhundert* (Freiburg 1916 repr. 1976) 94, fig. 63.

walls are ca. 0.60 thick.¹⁹² Windows are located directly above the doors, as well as in the upper story. Wall construction is of roughly finished, large blocks, except for elements such as thresholds and door jambs, which are well finished.¹⁹³ Brick is not used. Secondary, Byzantine walls are built of mortared fieldstones and spoils in a technique similar to that of the "Aegean group," to which the Sardis Shops belong. The walls were once coated with a fine, white plaster which was frescoed, or in some cases covered with a coarser white plaster which was decorated with patterns of *ostraka*, broken brick, roof tiles, or stones.¹⁹⁴ Fragments of frescoes painted in red, black, yellow and white were found in the Ophel excavations; however, they were discovered in the fill, not on the walls, and in such small pieces that no clear pattern has yet been reconstructed.¹⁹⁵ Beam holes for the floors of the second story are numerous and ca. 0.20 square and ca. 0.20 apart.¹⁹⁶

The dye works, located below the Triple Hulda Gate, were housed in a rectangular room on the ground floor level.¹⁹⁷ It was vaulted, judging from two arches with their springing preserved. Wall construction is similar to that in the house mentioned above; blocked doorways reveal secondary, Byzantine re-use. The room communicates with the street through a doorway having an outer width of 0.96 and a threshold 1.07 wide. On the south side it was entered by a four-step stairway. The threshold, similar to those in the Byzantine Shops, is made of two marble blocks with holes at the sides for bivalve door pins and another hole in the center for a closing pin. The walls are plastered and patterned with impressed stones.

The room contains the remains of five vats made of mortared rubble and brick. They are lined with pink cement and overlaid with white cement. The walls of all the vats were destroyed to the level of the floor, but their dimensions are easily distinguishable from scars on the floor and walls. The vats are almost square (0.90 x 0.85 inside measurements), and four of them are in pairs, a pair being 2.39 wide (outside measurement). In the bottom of two vats are two sloping, curved, V-shaped grooves which flow into two oval, sunken

areas in the floor also made of mortared rubble and lined with pink cement. These had an interior width of 0.54 and the pair an exterior width of 1.44. In the author's opinion these vats and their channels are analogous to the remains found in the northeast corner of W 8 (width 1.42) and the southwest corner of E 2A (Figs. 66, 190). B. Mazar mentioned in conversation that a later dyeshop near the Omayyad palace might indicate the persistence of the dyer's trade in this area of Jerusalem. This view is supported by a ninth century text from the Cairo Genizeh.¹⁹⁸ N. Avigad and the epigraphers M. Schwabe and B. Lifshitz have published funerary inscriptions of a family of Jewish cloth dyers and cloth merchants from a catacomb at Beth She'arim.¹⁹⁹

The Byzantine complex near the Triple Gate, which seems to have begun its existence as a palace and ended up as a monastery (locus 15000), has produced objects similar to those in the Byzantine Shops, e.g. a decorative lockplate, a bronze censer and a large marble mortar.²⁰⁰ Dimensions and decoration of a column found in the Ophel excavations correspond to the larger size columns from the Byzantine Shops. This column, numbered 912 by the excavators, is squat by classical standards. It has a lower diameter of 0.54, an upper diameter of 0.50 and a height of 2.82, yielding a proportion of only 5.22:1.00 height to lower diameter, as opposed to BS 73.8, 0.41 in diameter, 2.76 high, or 6.73:1.00. The decoration of the column consists of two rectangularly profiled moldings at the top of the shaft, the top one thicker than that right below it. Of particular interest is a Latin cross in relief, located about two-thirds of the way up the column. Latin crosses (but engraved, not in relief) appear on columns from the Byzantine Shops' colonnade, as do similar moldings. The material of the Ophel column is *mezze*, an incompletely crystallized form of marble, pinkish-white in color. The color effect is similar to the pink and white brecciated marble of columns of the Byzantine Shops' colonnade. The author suspects that the short, squat columns were made for

192. Information supplied by the excavators.

193. Mazar, "Temple Mount," 38-39.

194. *Ibid.*, see also 36; idem, *Mountain*, 256-257.

195. Mazar in conversation of January 18, 1978.

196. *Supra* n. 193.

197. Mazar, *Mountain*, 284.

198. *Idem*, *Jerusalem 1968*, 19, no. 14. See now S. D. Goitein, *Letters of Medieval Jewish Traders* (Princeton 1973) index s.v. dyeing; for dyeing as a Jewish trade, 17; 5 volumes of the documents have been published by idem, *A Mediterranean Society; The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza* (Berkeley 1967-88).

199. *Beth She'arim* III 80-81, Hall B Catacomb 19, see also *Beth She'arim* II 172-174, nos. 188, 189 (compare the inscription mentioning Jewish guilds at Hierapolis, *supra*).

200. Mazar, "Temple Mount," 36-37.

the renovation at Sardis, while the taller columns were re-used.²⁰¹

Palmyra

The Great Colonnade of Palmyra is one of the largest and best known colonnaded streets of the "Syrian group." The street is 1,100 m. long, 11.00 wide, and the shop colonnades are 6.00 wide. The diameter of the columns is 0.95; the height is 9.50. There were shops on both sides of the street.²⁰² Most of the colonnade dates, according to Michalowski, to the second century.²⁰³

A second street, called the Transversal Colonnade, is also dated by inscriptions to the early second century.²⁰⁴ Shorter (230.00) but broader (22.00) than the Great Colonnade, it had shop colonnades 6.00 wide on both sides.²⁰⁵ The proportions of these colonnades are typical of the colossal tall and narrow "Syrian group."²⁰⁶ The masonry of the shop walls seems to be relatively large ashlar blocks.

Philadelphia (Amman)

There are the remains of two colonnaded streets at Philadelphia. The longer of the two runs in a roughly east-west direction throughout the entire length of the city. The second, smaller street runs in a northwest-southeast direction. Butler found remains of the colonnaded streets built into the walls of modern houses, and the colonnade floors and street paving used as courtyards or cellar floors.²⁰⁷ He was able to obtain measurements which show that the colonnades were 9.20 apart (on column centers), the street 8.40 wide, and the intercolumniation 3.00. This intercolumniation distance is similar to that of Sardis (ca. 2.90). Butler supposed the order of the colonnade to have been Corinthian.²⁰⁸

Tell Beit Mirsim (Debir)

Six or seven dyeshops were excavated at Tell Beit Mirsim by W. F. Albright.²⁰⁹ A brief discussion of these

shops helps to explain the practices of Jewish dyers in small-scale establishments similar to those at Sardis.

Each shop usually contained two small, round vats.²¹⁰ They varied in height from 0.70 to 0.90 and contained a basin from 0.30–0.45 in diameter, similar in volume to vats found in E 6 (Fig. 268). In addition to the round vats, in Room 2 there were rectangular vats 0.65 deep and 1.30 x 0.90 in length and breadth.²¹¹ Jars were also used in the dyeing process, because yarn was dyed more often than whole cloth. This is reflected in the colorful woven textiles depicted on contemporary monuments.²¹² Amphorae found in the Byzantine Shops, especially those with large mouths, may have served a similar purpose.

Albright adds to his excavation report an account of the procedure followed by contemporary indigo dyers working in Hebron in 1930.²¹³ As he describes it, the process was cold (no heating by either fire or heated stones) and usually involved two dippings, but better quality cloth received up to ten dippings.

Albright rightly stresses the need for large amounts of water in the dyeing process, and this accounts for the location of cisterns near the dyeshops he excavated. At Sardis water from the Bath-Gymnasium and several pipes ran from the Bath Block to the West Shops (Fig. 593).

CONCLUSIONS

These comparisons suggest the following generalizations, which help to place the Byzantine Shops at Sardis in an overall context.

On the basis of masonry style, use of a wooden entablature and dimensions of streets, colonnades, shops and columns, the Byzantine Shops belong to the category of shop colonnades referred to in this book as the "Aegean group." This group includes Corinth, Delphi, Ephesus, Smyrna, and possibly Constantinople (lack of physical evidence makes the latter uncertain). In all cases the Shop walls are made of mortared fieldstone, spoils

210. Albright, 56.

211. *Ibid.*

212. *Ibid.* 61, pls. 51–52, Kelso, Thorley in *ibid.* 136–137; Wright², 190. The jars at Tell Beit Mirsim were let into a bench; those at Sardis are usually let into floors. The largest jar at Tell Beit Mirsim was H. 0.616, diam. 0.407, about the size of amphorae and smaller than pithoi.

213. Albright, 60.

201. The author takes the stocky columns to be "Byzantine" and the taller, more traditionally proportioned columns to be "Roman" spoils from other buildings.

202. *PECS*, 667–669; Michalowski.

203. *Ibid.* 16–17.

204. *Ibid.* 22.

205. *Ibid.*

206. *ERA*, 456.

207. *PECS*, 703–704; Butler, *Syria* II.

208. *Ibid.*

209. Albright, 55–62, and ch. 4 on the objects by J. L. Kelso, J. P. Thorley; Wright², 190–191. The dyeshops date to the 7th C. B.C.

and brick, with reused marble blocks at jambs and quoins (an exception is Smyrna, where information is unavailable). Street width (or in the case of Delphi courtyard width) measures from 10–14 m. The street width at Corinth is anomalous at 7.35, probably because the street pre-existed its colonnaded form. Colonnade width varies from 5.00–6.30; shop width from 4.50–5.20. Exceptions can occur in the latter measurement, as the buildings were frequently altered over long periods of time. Column diameter is generally ca. 0.55 and height ca. 5.50. Sardis is an anomaly here, when only its final phase is considered. In its earlier phase, described by F. Yegül, the larger columns conform to the general dimensions of the rest of the “Aegean group.”²¹⁴

The chronology of the “Aegean group” is rather complicated. In the cases of Corinth, Ephesus, Sardis (and probably Smyrna) there is evidence for streets in the same positions, with or without colonnades, that antedate the Late Antique. These structures underwent complete or substantial reconstruction in Late Antiquity, often resulting in stylistic inconsistencies, reduced height and richness of materials, or all of the above. When any evidence exists to date these reconstructions, it points to the fifth century. There is no sure evidence to place reconstructions to the colonnades of the “Aegean group” outside of the 5th century. Granted, the only epigraphic evidence is at Sardis where inscriptions record erection or re-erection of colonnades and a builder’s contract implies general urban renewal around 459.²¹⁵ The names of fora along the Mese at Constantinople also indicate important building activity in the fifth century. On this basis the author suspects that the otherwise undated colonnades at Corinth were refurbished and those at Delphi were originally constructed in the fifth century. Stobi’s colonnades should date from the same period, if Kitzinger’s dates are correct. The masonry style and dimensions at Stobi differ so much from the others, however, that it must be considered independent of the “Aegean group.”

The evidence of all these buildings, taken together, shows that Imperial patronage as well as government officials’ and citizens’ benefactions attempted to revitalize the cities of western Asia Minor, Greece and the

Balkans in the fifth century. Colonnaded streets as well as magnificent churches heralded the change from the pagan to the Christian Roman Empire.

In the cases of Corinth, Ephesus and Sardis (as well as street colonnades in other groups, e.g. Pergamon and Side) there is clear evidence of encroachment on the colonnades in later centuries by private individuals. In Corinth’s case, as well as at Pergamon, Antioch, Bostra and Philadelpheia, the takeover was total. In the cases of Sardis and Ephesus where the buildings were destroyed in the seventh century, the encroachment was only partial, perhaps indicating that invasion of public spaces tended to increase after that time.

The colonnaded street at Pergamon, although close in dimensions to the “Aegean group,” must remain *sui generis*, because of its unusual wall masonry style, andesite blocks which were often laid as headers and stretchers. The relatively consistent style throughout its length and the lack of spoils suggest that this colonnaded street (built in the second century) retained a more classical character until a late period. In some respects the preference for ashlar instead of the mortared fieldstone masonry is surprising, since the latter appears so prominently in the large, round building in the southeast corner of the Asklepeion.

The relationship of Sardis to other groups of colonnades is more remote. Sardis is relatively close to colonnaded streets (designated here as the “Pamphylian group”) at Perge, Side, and Selge in Pisidia which seem to be related to both the “Aegean group” and the “Cilician group” (discussed below) in style as well as geography. The street widths (Perge 13.00, Side 9.00), colonnade widths, shop widths and use of wooden entablatures parallel the “Aegean group.” The masonry style, ashlar or cut spoils with monumental, monolithic jambs, is similar to the “Cilician group.” Columns at Perge and Side are frequently taller than the norm for the “Aegean group,” and the pagan subject matter of the column reliefs at Perge, as well as its more classical character, suggest an earlier date (second century) than the rebuildings of the “Aegean group.”

The differences are still more marked between the “Aegean group” and the “Cilician group” than with the “Pamphylian group.” The Pamphylian group consists of Hieropolis Kastabala and Pompeiopolis (Anazarbos, Antiocheia ad Cragum, and Diokaisareia might be added because they also have colonnaded streets; incomplete publication and lack of available dimensions preclude their discussion here). The principal differences between

214. *Sardis* R3, 17.

215. *Sardis* M4, 115, no. 18 and 110–113, no. 14, the oath of the Builders and Artisans, no. 14 dated April 27, 459. For restorations to the Bath-Gymnasium and associated facilities *ibid.* 113–115, nos. 15–20; Hanfmann, *Croesus*, 87–88.

the “Cilician group” and the “Aegean group” are the use of ashlar masonry and greater monumentality, exemplified by column diameters of 0.80 and a height of 6.25 in the former as compared to a usual diameter of 0.55 and a height of ca. 5.50 in the “Aegean group.” The difference in dimensions underscores the close relationship (also evident in the statue brackets and “wind-swept” capitals) with the “Syrian group,” discussed *infra*. Another characteristic of the “Cilician group” (which is also common to the “Syrian group”) is the increased proportion of colonnade height to street width. Columns in the “Syrian group” of colonnaded streets are as tall as 9.50 along streets only 11.00 wide, producing a tall, narrow appearance and perhaps greater shade for the street. This results from using columns of the same diameter for narrow streets as for the colossal streets with widths over 20.00. Although the columns of the “Cilician group” are not as tall as the “Syrian” ones, they have a height of 6.25 with a street width of only 10.55 (Hieropolis Kastabala) or 1.688:1.00, as opposed to ca. 2.27:1.00 for the “Aegean group.” Hieropolis Kastabala is the only dated street in this group (third century), but members of this category may date from an earlier period than the “Aegean group.”

The contrast is most marked between the “Aegean group” and the “Syrian group,” which consists of Palmyra, Apamea, Bostra, Antioch, Jerusalem, and Philadelphia (as well as Gerasa, Damascus, Berytus, Petra, Rabba, Samaria, Sebaste, Sidon, Tyre and Zenobia, not discussed here). The “Syrian group” uses ashlar masonry exclusively, and the dimensions are often colossal for the streets, shops and columns. The largest street widths (Apamea, 23.50 and Palmyra, 22.00) are nearly double that of Sardis, while the column heights (Apamea, 9.00 and Palmyra, 9.50) are three times those

of Sardis, ca. 3.00. It is true that not all Syrian colonnaded streets are so wide, but the most important ones are, and they must be compared to the most important streets at sites elsewhere.

Colonnaded streets in the “Syrian group” often have elaborate and consistent architectural ornament, and also have stone entablatures, rather than wood. When datable, the Syrian colonnades tend to be relatively early, built during the second century.

G. M. A. Hanfmann postulated that the influence exerted by the “Syrian group” as early as the second century inspired the initial popularity of colonnaded streets. When Constantinople was rebuilt as an Imperial capital in the fourth and fifth centuries, incorporating colonnaded streets as important elements in the plan, a general revival of colonnaded streets resulted.²¹⁶ The emperors in Constantinople wished to surpass such established centers as Antioch-on-the-Orontes. The other cities then tried to outdo each other in imitating Constantinople.

In the Byzantine Shops at Sardis one can see both an end and a beginning. The world of classical antiquity had succumbed beyond all efforts to revive it; the Byzantine Empire’s struggle to survive had only begun.

The Byzantine Shops document this struggle at Sardis and the attempts of its inhabitants to cope with a world in which all security and confidence had vanished before natural disasters, such as earthquake and disease, and human ones, such as successive invasions by Goths and Persians, as well as a rapacious government. Only the appeals to God by the Jews and Christians of Sardis, displayed on the humble objects which surrounded them, have survived to mutely speak for them; history gave them no memorial.

216. Ibid. 49, 82.

APPENDIX 1

CONSPECTUS OF

MINTS

Compiled by Michael D. Weishan

The following table presents a tabulation of the mints represented by coins found in the Byzantine Shops and identified in *Sardis* M1 and *Sardis* M7, with breakdown

by denomination and by date. The dates span the earliest to latest coin identified in the group. Coins found in the sondages below the floors are not included.

Mint	Denomination	Dates	Mint	Denomination	Dates
ALEXANDRIA, 8 total			ARLES, 1 total		
	<i>Roman</i>			<i>Roman</i>	
3	AE follis	330–341	1	AE follis	319
2	AE	341–346	CARTHAGE, 1 total		
1	AE2	383–386		<i>Byzantine</i>	
2	AE3	364–375	1	half follis	538/539
ANTIOCH, 35 total			CONSTANTINE IN NUMIDIA, 1 total		
	<i>Roman</i>			<i>Byzantine</i>	
5	AE follis	335–337	1	half follis	572/573
1	AE fraction	296	CONSTANTINOPLE, 365 total		
5	AE	341–346		<i>Roman</i>	
4	AE3	364–408	9	AE follis	326–341
3	AE4	383–450	5	AE	341–346
	<i>Byzantine</i>		3	AE2	383–408
12	follis	ca. 533–607	26	AE3	351–423
4	half follis	518–587	20	AE4	355–491
1	penta.	ca. 529–539	1	not recorded	393–395
AQUILEIA, 2 total				<i>Byzantine</i>	
	<i>Roman</i>		1	hexagram	626–641
1	AE3	352–360	169	follis	498–664
1	AE4	383–387			

Mint	Denomination	Dates	Mint	Denomination	Dates
1	¾ follis	608–609	PERGAMON, 2 total		
43	half follis	498–616		<i>Greek</i>	
21	deca.	538–610	1	AE17	ca. 159–133 B.C.
57	penta.	498–610	1	AE25	197–159 B.C.
9	nummus	481–527			
CYZICUS, 113 total			PERGAMON AND SARDIS, 1 total		
	<i>Roman</i>			<i>Greek</i>	
1	Ant.	268–270	1	AE20	27 B.C.–A.D. 14
13	AE follis	321–341	PHILADELPHIA, 1 total		
4	AE	337–346		<i>Greek</i>	
3	AE2	351–354	1	AE19	212–250
31	AE3	351–408			
21	AE4	355–455	ROME, 16 total		
	<i>Byzantine</i>			<i>Roman</i>	
24	follis	542–613	3	Ant.	260–270
8	half follis	548–610	2	AE follis	314–341
3	deca.	538–602	3	AE3	355–423
5	penta.	538–578	7	AE4	410–455
HERACLEA, 21 total				<i>Byzantine</i>	
	<i>Roman</i>		1	half follis	578–582
9	AE follis	309–341	SARDIS, 12 total		
4	AE	337–346	1	AE5.7	133 B.C.–A.D. 14
4	AE2	346–392	1	AE15	133 B.C.–A.D. 14
2	AE3	364–402	1	AE15–16	133 B.C.–A.D. 14
2	AE4	355–383	3	AE17	200–220
MAGNESIA AD SIPYLUM, 1 total			3	AE18	100–ca. 140
	<i>Greek Imperial</i>		1	AE21	133 B.C.–A.D. 14
1	AE16	139–161	1	AE22	212–217
			1	AE24	238–242
NICOMEDIA, 94 total			SEBASTE, 1 total		
	<i>Roman</i>			<i>Greek</i>	
9	AE follis	321–337	1	AE18	27 B.C.–A.D. 14
2	AE	337–346	SIRMIUM, 1 total		
2	AE2	393–395		<i>Roman</i>	
9	AE3	351–408	1	AE4	355–361
6	AE4	355–395	SISCIA, 2 total		
	<i>Byzantine</i>			<i>Roman</i>	
48	follis	518–616	2	AE follis	320–336
4	half follis	579–609			
6	deca.	556–602			
8	penta.	498–602			

Mint	Denomination	Dates	Mint	Denomination	Dates
THESSALONICA, 35 total			UNCERTAIN MINT, 345 total		
	<i>Roman</i>			<i>Greek</i>	
3	AE follis	313–337	6	unidentifiable	Hellenistic –2nd C. A.D.
1	AE	341–346			
2	AE3	351–354			
3	AE4	355–392			
	<i>Byzantine</i>			<i>Roman</i>	
2	follis	614/615	9	Ant.	270
22	half follis	552–614	1	1AE follis	330–346
2	penta.	527–565	2	AE fraction	295–299
			30	AE	337–455
			4	AE2	383–395
THRACE, 1 total			6	AE2 or 3	346–461
	<i>Greek</i>		2	AE2–4	383–404
1	AE14	323–218 B.C.	105	AE3	346–423
			105	AE4	355–518
			1	AE13	261–246 B.C.
THYATIRA, 1 total				<i>Byzantine</i>	
	<i>Greek</i>		22	follis	518–616
1	AE19	ca. 200	10	half follis	565–602
			11	deca.	527–602
TRALLES, 1 total			20	penta.	498–602
	<i>Greek</i>		1	nummus	527–565
1	AE30	253–260			

APPENDIX 2 METAL AND FRIT PROCESSING: ANALYSIS OF CERAMIC CRUCIBLE RESIDUES

by Martha Goodway and Pamela Vandiver

The manufacturing debris from the Shops consisted in part of residues contained in ceramic crucibles. Six samples of these residues and a sample taken from a fragment of blue frit were analyzed at the Conservation Analytical Laboratory, Smithsonian Institution, Washington D.C.¹ From a detailed study of the variations in composition and microstructure of the residues and the frit, it was possible to reconstruct a set of activities appropriate to the manufacture of jewelry and other small decorative objects. These activities consisted of metallurgical and ceramic processes such as melting and the manufacture of decorative material for inlays.

Methods of Analysis Tables 1 and 2

The samples were very small, most submillimeter in size, and included frit, slag, dross, and concretions. The samples were first examined with a low-power optical microscope capable of continuous increases in magnification from 7–240x in order to judge the degree of

heterogeneity in the materials and to observe fine details such as particle size, particle alignment and porosity. Scanning electron microscopy was employed to characterize microstructure with simultaneous energy dispersive X-ray analysis in order to identify those elements present in concentrations of one percent or more (Table 1). The relative heights of the peaks in the X-ray spectrum were compared to one another and to standards to obtain estimates of the relative amounts of the elements detected. The elements are reported in the order of decreasing peak heights and are uncorrected for effects of atomic number, absorption and efflorescence. An element having a peak about ten percent of the height of the tallest peak is considered a minor constituent. Emission spectroscopy was carried out on a blue frit, BS TS 1, to determine if the colorant was derived from brass scale, and the frit was reheated to determine its sintering temperature (Table 2). X-ray diffraction was used to identify Egyptian blue (Table 2).

Electrum

Analyses of the residue in Crucible 4 (P67.7:7289 from E 5, Fig. 249) were the most useful in identifying a specific process. Two samples were analyzed.

BS TS 6 was a low density, silvery, highly porous dross-like material of variable composition. The sample was taken from the upper edge of a glassy residue. In one area of this sample there was a prominent gold peak in the X-ray spectrum with other minor peaks from iron, calcium, silicon and potassium, indicating

1. The samples were taken at Sardis in 1986 and 1987 by J. A. Scott and were made available to the Smithsonian laboratory through the gracious permission of the Ministry of Culture of the Republic of Turkey. We are grateful to the field director, Crawford H. Greenewalt, Jr. for his help and interest and to Teoman Yalçinkaya for forwarding the material to the U.S.

Further analyses are contemplated and the results may be expanded in a forthcoming article. The editors are grateful to Goodway and Vandiver for permitting the preliminary results to appear in this volume. The editors join the authors in gratitude to Edward Sayre for helpful comments and to Harold Westley, who carried out the emission spectroscopy.

Table 1 Results of Crucible Residue Analyses

Energy Dispersive X-ray Analysis

BS TS 1 Blue frit which retains shape and circumferential spiral throwing ridges of a ceramic crucible. Sample of lighter blue part of frit.

Major: Si, Cu, Ca

Minor: Fe, Al, S, Na, K, Cl, Ti

BS TS 2 Sulfur yellow residue from Crucible 5, a shallow bowl with out-folded rim.

Major: S, Fe

Minor: Ca, Si, K, Al, Cu, Mg, Na

BS TS 3 Two residue samples with brass slag and corrosion products from Crucible 1, a straight-sided ceramic vessel.

Sample 1, brass slag

Major: Cu, Si, Zn, Sn

Minor: S, Ca, Al, Fe, Mg

Sample 2, copper chloride corrosion product

Major: Cu, Cl

Minor: Ca, Si

BS TS 4 Bubbly gray slag residue from interior near bottom of Crucible 2, a straight-sided ceramic vessel.

Sample 1

Major: Si, Al, Fe, Au

Minor: K, Ca, As, Ti

Sample 2, droplet of lead metal coated with lead corrosion product

Major: Pb

Minor: Sb or Ca

BS TS 5 Friable, brown sample from near rim of Crucible 2.

Major: Fe, Si

Minor: K, Al

X-ray diffraction identified quartz and mica.

Microstructure indicates presence of fired clay.

BS TS 6 Dross from Crucible 4, P67.7:7298, bowl with pouring spout. Sample taken from upper edge of glassy residue.

Sample 1

Major: Au, Fe, Ca

Minor: Si, K

Sample 2

Major: Si, Mg, Ca

Minor: Zn, Fe

BS TS 7 Pool of residue in base of Crucible 4.

Sample 1, possibly dross from melting electrum

Major: Si, Ag, Au, K

Minor: Ca, Al

Sample 2

Major: Fe, Mn

Minor: Si, K, Ca

Sample 3, silicious slag

Si, Ca, Al, Fe, K, Zn

Table 2 Emission Spectroscopy and X-Ray Defraction Analysis of BS TS 1, Egyptian Blue

Emission Spectroscopy:*Major* ($\geq 10\%$): Ca, Si*Minor* (1–10%): Al, Cu (about 1%), K, Mg, Na*Faint Trace* (0.001–0.01%): Ba, Cr, Fe (about 0.02%), Mn, Pb (about 0.03%), Sn (about 0.0007%), Ti, Zn (about 0.03%)*Very Faint Trace*: Ag, As, Au, B**X-ray diffraction peaks which identify Egyptian blue:**

7.63/40	3.78/90	3.29/100	3/19/50	3.05/40	3.00/90	2.62/40
2.58/40	2.32/30	2.13/10	1197/20	1.89/15	1/83/60	
1.784/40	1.704/40	1.603/40	1.483/10	1.336/25		

Phases present: Quartz, very minor Cristobalite

that this dross was associated with the melting of gold. In another area of the sample silicon, magnesium, calcium, zinc and iron were detected.

BS TS 7 was taken from the thick pool of residue in the bottom of the same crucible. The dross contained silicon, silver, gold, potassium, calcium and a small amount of aluminum and, in addition, black particles containing iron and manganese with similar peak intensities. In some areas of this dross the calcium peak intensity was highest.

Since the glassy residue in this crucible contained gold in substantial amounts in some regions and silver was detected in amounts above one percent, but lead was not detected, this crucible was likely to have been used for melting electrum. The absence of lead in this residue indicates that this vessel is not a cupel and was not used for refining.

Sulfur

The analysis of BS TS 2 from Crucible 5, also from E 5, suggests the possibility that niello was being produced in this Shop. Crucible 5 is an open bowl of the same type as Fig. 251 with which it was found and which also contains a bubbled residue that has not yet been analyzed. BS TS 2 is a fine, compacted pale yellow powder which consists of sulfur, iron, calcium, silicon, potassium, aluminum, copper, magnesium and a trace of sodium, with the major constituents being sulfur and iron. Most of the particles were submicrometer in size with agglomerates in the twenty micrometer range. This powder was homogeneous in both composition and microstructure. It spread easily as a pigment when applied to a streak plate as a chalk.

Sulfur was found in quantity in this and other Shops but its presence in a crucible and in the context of the other samples, which clearly showed metallurgical activity, suggests the possibility that the sulfur was a raw material for making niello to be used as an inlay. All the necessary materials for making niello were found in Shop E 5.

Oddy and La Niece analyzed a gold buckle from Asia Minor dated to about A.D. 350 (in the British Museum AF333) which contained 86 percent gold, 12.5 percent silver and 1.5 percent copper, i.e. electrum.² This buckle is inlaid with niello. Oddy, Bimson and La Niece published an analysis of the niello from this buckle. This niello was mixed gold and silver sulfide, which they believed was made from electrum.³ Earlier niellos were a copper sulfide when used on a bronze or brass, and a silver sulfide when used on silver. Mixed sulfides of silver and copper have not been dated earlier than the sixth century, and no occurrence of lead sulfide has been found from prior to that time.⁴ Thus, the niello that might have been produced with the sulfur found in Crucible 5 would logically be a mixed gold and silver sulfide and, in fact, Crucible 4 offered evidence that electrum, rather than silver, was available for this purpose. The data cited above suggests that niello of electrum would be set into a precious metal, not into brass.

2. W. A. Oddy, S. La Niece, "Byzantine Gold Coins and Jewellery: A Study of Gold Contents," *Gold Bulletin* 19:1 (1986) 19–27.

3. W. A. Oddy, M. Bimson, S. La Niece, "The Composition of Niello Decoration on Gold, Silver and Bronze in the Antique and Medieval Periods," *Studies in Conservation* 28 (1983) 29–35.

4. *Ibid.*

Lead

BS TS 4 was taken from near the bottom of Crucible 2 (from E 10, Fig. 371). The sample is of a high porosity gray slag which contained silicon, aluminum, iron, zinc, potassium and calcium, with minor amounts of arsenic and titanium. The iron and zinc peaks were similar in height. Metallurgical activity is indicated but its nature is unclear.

BS TS 5 is a soft, friable, somewhat compacted brown powder from near the rim of the same crucible. This sample, which looks like dross, contained iron and silicon which had peaks of similar intensity, and potassium and aluminum in minor amounts. This is a heterogeneous material. Other phases present included quartz, clay and mica, probably as impurities.

The dross from Crucible 2 (in BS TS 4) contained a droplet of solid metal covered with what appeared to be a thin layer of lead carbonate corrosion product. The solid metal in this droplet was lead. Antimony or calcium may also have been present in a minor amount, but which one could not be confirmed by energy dispersive X-ray analysis, as their peaks overlap.

Metallic lead might have been used in several ways; for example, in brass alloys to promote easier casting, in solders, or for refining gold by cupellation. The melting of lead which contained no other major metallic element suggests that pure lead was being remelted for cupellation.

Brass

BS TS 3 was taken from the residue in Crucible 1 (Fig. 370) which is of the same type as Crucible 2 but is misshapen from heat. The two crucibles were found together in Shop E 10. Two parts of BS TS 3 were analyzed. One was a hard, reddish, glasslike slag with a granular surface structure. Entrained, rounded pores were present in cross section. Some white salts and dirt adhered to the surface. The interior composition included copper, silicon, zinc, tin, sulfur, calcium, aluminum, iron, and a trace of magnesium. The greenish part of a mixed red and green sample contained copper, chlorine, calcium and silicon. It was probably a corrosion product, since the reddish part of this sample was the same as that given above. There was a minor black phase which was not identified.

This sample was slag of a copper, zinc, tin alloy with perhaps a minor amount of iron. The fluxes consisted of silicon, calcium, aluminum, sulfur and perhaps iron.

The microstructure and composition were consistent with metallurgical activity. Slag with a large amount of copper and minor amounts of zinc and iron is evidence of molten brass. The analytical results are consistent with the alloying of copper with calamine (a zinc carbonate) or the remelting of scrap, which was more likely to have been the case. Iron was a commonplace impurity in early brass and could have come from the copper ore or been incorporated during processing.

There is considerable heterogeneity in the composition of this slag, which might indicate multiple use of the crucible for remelting small amounts of metal derived from different sources. The crucible could not be examined for signs of layering of the slag, melting or other reactions. The high silicon, calcium, and aluminum content might indicate a process for the consolidation of impurities but there was not the usual high porosity characteristic of dross. Smelting of such small amounts of metal in a crucible is unlikely.

The color of brass varies with the amount of zinc present in the composition. If brass contains enough zinc, the color of the clean, polished metal is golden rather than coppery red. If less than ten percent of zinc is homogeneously distributed throughout copper, the alloy maintains the red color inherent in copper. The color of the metal may have been exploited by the producers of copper alloy jewelry although this has not been demonstrated by the few analyses published to date.

However, gilded items were found in the Shops and in other Early Byzantine contexts at Sardis. A crucible found in the colonnade in front of Shop W 7 (P72.9: 8911, Fig. 109) contains a lead slag with droplets of gold which suggested a residue of small scale gilding when analyzed in the field by A. P. Lins.⁵ A low-zinc red brass would have been more easily fire gilded than a more highly alloyed copper.⁶ Gilding by the application of a gold amalgam (mixture of gold and mercury) and heating to drive off the mercury became common about the third century A.D.⁷ To be successfully gilded, copper alloy ought to be free of lead. Unfortunately the gilded copper alloy items from the Shops and from contemporary contexts at Sardis have not been analyzed. They include a brooch with glass paste inlay from Shop E 6

5. Sardis M8 no. 958.

6. W. A. Oddy, "Scientific Dating of the San Marco Horses," *MASCA Journal* 2 (1962) 46.

7. *Ibid.*

(J73.2:8222, Fig. 283).⁸ A brass lamp in the form of a lion (M67.4:7291, Figs. 232, 233, from Shop E 5) was found to be free of lead but contains a very high proportion of zinc which would have created a gold color without gilding. X-ray fluorescence performed at the Maden Tetik ve Arama Enstitüsü in Ankara showed zinc at 22.78 percent and lead at 0.40 percent. A second analysis of the same sample made by J. M. Schultz at the University of Delaware showed copper to zinc ratios of 22:10 and 18:9 in two runs on the same sample. Lead was not observed and hence was not present in a large concentration.⁹

Blue Frit

BS TS 1 was taken from a piece of glassy material which bears the interior shape and wheelmarks of a ceramic container. It was found on the floor of E 6. The fragment shows a sharp demarcation of light to darker blue; the sample was taken from the light area. It is a grayish blue frit with considerable porosity. Angular to subangular quartz particles, about 0.1 mm. in diameter, composed about eighty volume-percent of this sample. These were sintered together with heterogeneous blue particles consisting of a mixture of silicon, copper and calcium with minor amounts of iron, aluminum, sulfur, sodium, potassium, chlorine and titanium. The blue regions consisted of crystals of Egyptian blue, identified by X-ray diffraction, in a glassy matrix. There was also a minor fraction (five volume-percent or less) of red to black particles which were rich in iron, some of which looked like a porous slag and some like small bits of over-fired clay, perhaps from a crucible.

Exclusive of the slag and clay inclusions, the sample is a fritted mixture of ground quartz and blue glass, which contains crystals of Egyptian blue and a small amount of clay. The grayish-blue material at first impression had the appearance of a cobalt aluminate spinel but in fact was colored by the crystals of Egyptian blue and by blue glass containing copper and iron which had been fluxed with both sodium and potassium. No cobalt was detected in this sample by energy dispersive X-ray analysis and only a faint trace was found by emission

spectroscopy. Semi-quantitative emission spectroscopy of selected blue particles determined that the copper was not added in the form of brass scale or other alloy. The ratios to copper of tin (0.0007), zinc (0.03), lead (0.03) or iron (0.02) clearly showed insufficient amounts of these other elements to have originated in an intentional alloy with copper. Faint traces (about 0.001–0.01 weight percent) of silver, arsenic, gold, boron, chromium, cobalt, and manganese were also detected but in too small a concentration to affect the color.

Opacity was promoted by a well-dispersed clay addition, which might have been intentional or not. The presence of aluminum, titanium and iron in the glassy part of the mixture are indicators of clay. The fact that the clay is fairly homogeneous throughout the glassy phase suggests that the clay may also have been an intentional addition, yet it is not inconceivable that the clay was introduced adventitiously in a multiple stage process of fritting and grinding.

There was more iron present than can be explained by the addition of clay alone. Iron in some form was probably an intentional addition. The effect of the clay and iron was to produce a grayish, opaque blue, rather than a bright turquoise blue. Multiple fluxes, sodium and potassium, may have been used to promote the formation of glass in what is known as the mixed-alkali effect, the glass then acting as a medium from which the Egyptian blue crystals could precipitate during prolonged heating. Both chlorine and sulfur were also present, suggesting that salts rather than ash may have been the source of the flux.

To produce this fine-particled, opaque, grayish-blue colorant required sustained heat treatment in the range of 800–1000° C. Reheating the frit produced sintering at 850° C, which represents the minimum heating temperature required for cohesion of the frit. There is a slight indication of cristobalite in the X-ray diffraction pattern which would indicate a multiple firing process.

The sample is not suitable as a pigment; if ground to finer particle sizes it becomes bluish white. Neither is this frit suitable for reheating to a glass because of the large amount of quartz present. The frit is suitable for use as an inlay in jewelry such as the brooches found in the Shops (Figs. 283, 338) and elsewhere at Sardis which are decorated with white and yellow as well as blue frits.¹⁰

8. *Sardis* M8 no. 685. Other objects of the period showing traces of gilding are *ibid.* nos. 727, 761, 802. A menorah fragment, no. 610, may have been gilded, p. 20. No. 727, an earring, was in a mixed burial context but is dated Early Byzantine on the basis of style.

9. Crawford, "Lion," 292 presents the summary of the analytical results from which these remarks are drawn. The report of the analysts has not been reviewed. Both analyses were done in 1972.

10. *Sardis* M8 nos. 684–687, also a buckle, no. 699. Copper alloy lock plates were also inlaid, possibly with frit although none is

CONCLUSIONS

These results all point to small-scale metalworking. Several practices appropriate to jewelry making were identified from the residues found in four crucibles. They include such routine metal processing as alloying and remelting. There was also a possibility of refining and circumstantial evidence of fire gilding. Several metals and alloys were clearly present: lead, brass and electrum. One decorative material, the blue frit, was used and another, niello, might have been. The inlaying of both these materials are similar processes that require reheating at a temperature lower than the melting point of the metal into which they are to be set. There is no evidence among these samples for the smelting of metal

or of iron working. Although iron was detected in the elemental analyses of the crucible residues, iron is a nearly ubiquitous and often helpful element in fluxing slags of many different metals. None of the samples examined were typical of iron smelting, blacksmith's scale or the like.

While the evidence of the crucibles and their residues leaves little doubt that jewelry and other small decorative metal objects were being produced or repaired, a jeweler's shop cannot be reconstructed. Rather, these results present an alternative hypothesis as to the activities in several Shops or the suggestion that more than one craft was practiced. Further technical studies should compare pieces of jewelry and other finished objects with these analyses. These preliminary results are presented in part to demonstrate the amount of information to be extracted from small samples of residue—had it been possible to analyze all the material at the time of excavation a great deal more would be known about Early Byzantine crafts at Sardis.

preserved, *ibid.* no. 381, here Fig. 356 and no. 380 from HoB. A similar brooch (J79.1:8939) was found at MMS/S, *BASOR* 249, 8, fig. 10.

CONCORDANCE OF FINDS

Objects and coins are listed in order by inventory number. Uninventoried objects follow inventoried lists within each category, and are listed by year. All uninventoried objects that have been previously published or that are illustrated in this volume are listed. Those that are cross-referenced only to a Shop are grouped together by year and Shop, i.e., Uninv. 62, Shop E 2 (3 examples). "Publication" refers only to a previous listing in a Sardis monograph or report.

Coins may be further cross-referenced by reference to Appendix 1 and to the Index, in which specific coin entries are listed for each major mint.

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
BONE				ARCHITECTURAL FRAGMENTS			
BI59.1:1391		W 7	Fig. 96	BS 73.26		E 3	
BI59.21:1888		W 13	Fig. 43	RT 1		Colonnade	
BI62.8:4698		E 15	Figs. 508, 509	RT 4		Colonnade	Fig. 11
BI63.10:5455		E 17	Fig. 544	RT 6		Colonnade	Fig. 13
BI68.2:7658		E 4	Fig. 215	RT 7		Colonnade	Fig. 21
				RT 9		Colonnade	Fig. 9
				RT 12		Colonnade	Fig. 16
				RT 14		Colonnade	Fig. 20
				RT 15		Colonnade	Fig. 13
				RT 16		Colonnade	
				RT 20		Colonnade	
				RT 23		Colonnade	
				WS 2		Colonnade	Fig. 15
ARCHITECTURAL FRAGMENTS				COINS			
Uninv. 59 (2 pieces)		W 8		C57.588	M7 R 548	E 8	
Uninv. 59		W 11	Fig. 51	C58.7	M1 850	W 3	
Uninv. 67		E 7		C58.8	M1 853	W 2	
Uninv. 68 (2 pieces)		E 3		C58.8	M1 853	W 2	
BS 73.2		Colonnade	Fig. 10	C58.12	M7 R 314	W 2	
BS 73.4		E 13		C58.13	M7 R 467	W 2	
BS 73.6		E 12		C58.23	M1 277	W 3	
BS 73.7		E 14		C58.24	M1 808	W 1	
BS 73.8		E 13		C58.25	M1 397	W 1	
BS 73.9		E 12		C58.26	M1 112	W 1	
BS 73.12		E 9		C58.27	M1 904	W 1	
BS 73.13		E 9	Fig. 14	C58.28	M1 924	W 1	
BS 73.16		Colonnade	Fig. 12				
BS 73.17		Colonnade	Fig. 12				
BS 73.19		E 12					
BS 73.20A-C		E 5					
BS 73.23		E 3					
BS 73.25		E 3					

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C58.29	M1 998	W 1		C58.180	M1 410	W 2	
C58.30	M7 R 175	W 1		C58.181	M1 974	W 2	
C58.31	M7 R 1102	W 1		C58.182	M1 969	W 2	
C58.33	M1 355	W 3		C58.183	M7 R 617	W 2	
C58.34	M1 788	W 3		C58.187	M1 118	W 1	
C58.35	M1 921	W 3		C58.188	M1 272	W 1	
C58.84	M1 339	W 3		C58.189	M1 352	W 1	
C58.119	M7 GR 228	W 2		C58.190	M1 448	W 1	
C58.120	M1 6	W 2		C58.191	M1 535	W 1	
C58.122	M1 333	W 2		C58.192	M1 578	W 1	
C58.123	M7 R 413	W 2		C58.193	M1 558	W 1	
C58.124	M7 R 1048	W 2		C58.194	M1 581	W 1	
C58.125	M7 R 702	W 2		C58.195	M1 728	W 1	
C58.126	M1 483	W 2		C58.200	M1 917	W 2	
C58.128	M7 R 639	W 2		C58.201	M1 960	W 2	
C58.129	M7 R 415	W 2		C58.202	M1 944	W 2	
C58.130	M7 R 1059	W 2		C58.203	M1 903	W 2	
C58.131	M7 R 1056	W 2		C58.204	M1 864	W 2	
C58.132	M7 R 940	W 2		C58.205	M1 862	W 2	
C58.133	M7 R 1059	W 2		C58.206	M1 840	W 2	
C58.134	M1 902	W 2		C58.207	M1 895	W 2	
C58.135	M1 662	W 2		C58.208	M1 831	W 2	
C58.136	M1 920	W 2		C58.209	M1 907	W 2	
C58.137	M1 830	W 2		C58.214	M1 75	W 1	
C58.138	M1 951	W 2		C58.215	M1 594	W 2	
C58.139	M1 841	W 2		C58.216	M1 490	W 1	
C58.140	M1 906	W 2		C58.217	M1 945	W 1	
C58.141	M7 R 436	W 2		C58.223	M1 103	W 1	
C58.142	M7 R 830	W 2		C58.224	M1 509	W 3	
C58.143	M7 R 837	W 2		C58.232	M7 R 887	W 2	
C58.144	M7 R 808	W 2		C58.233	M1 648	W 2	
C58.145	M7 R 550	W 2		C58.234	M1 783	W 2	
C58.146	M7 R 1023	W 2		C58.235	M7 R 858	W 2	
C58.147	M7 R 118	W 2		C58.236	M1 434	W 1	
C58.148	M7 R 133	W 2		C58.237	M1 518	W 1	
C58.149	M7 R 716	W 2		C58.238	M1 838	W 1	
C58.151	M7 R 837	W 2		C58.239	M7 R 638	W 1	
C58.152	M7 R 841	W 2		C58.240	M7 R 1067	W 1	
C58.153	M7 R 861	W 2		C58.241	M1 9	W 1	
C58.154	M1 265	W 2		C58.242	M1 566	W 1	
C58.155	M1 579	W 2		C58.243	M1 107	W 1	
C58.156	M1 726	W 2		C58.244	M1 312	W 1	
C58.157	M1 994	W 2		C58.245	M1 133	W 1	
C58.158	M1 834	W 2		C58.246	M1 519	W 1	
C58.159	M1 947	W 2		C58.249	M1 943	W 2	
C58.160	M1 829	W 2		C58.250	M1 900	W 2	
C58.161	M1 849	W 2		C58.251	M1 657	W 2	
C58.162	M7 R 927	W 2		C58.252	M7 R 381	W 2	
C58.163	M7 R 813	W 2		C58.253	M7 R 232	W 2	
C58.164	M7 R 509	W 2		C58.254	M7 R 1054	W 2	
C58.165	M7 R 364	W 2		C58.259	M1 331	W 3	
C58.166	M7 R 415	W 2		C58.260	M1 162	W 3	
C58.167	M7 R 392	W 2		C58.261	M7 R 1056	W 3	
C58.169	M1 1005	W 2		C58.263	M7 R 1102	W 7	
C58.170	M7 R 324	W 2		C58.283	M7 R 591	W 2	
C58.171	M7 R 200	W 2		C58.288	M7 R 986	W 1	
C58.172	M7 R 841	W 2		C58.289	M7 R 1070	W 1	
C58.173	M1 245	W 2		C58.290	M7 R 1043	W 1	
C58.175	M7 R 480	W 2		C58.291	M7 R 926	W 1	
C58.176	M7 R 168	W 2		C58.294	M1 847	W 1	
C58.177	M7 R 533	W 2		C58.295	M1 918	W 1	
C58.178	M7 GR 261	W 2		C58.296	M1 845	W 1	
C58.179	M1 664	W 2		C58.297	M1 814	W 1	

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C58.298	M1 665	W 1		C59.52	M1 517	W 8	
C58.299	M1 859	W 2		C59.56	M1 318	W 6	
C58.300	M1 1013	W 2		C59.57	M7 R 865	W 7	
C58.301	M1 912	W 2		C59.58	M1 191	W 6	
C58.302	M7 R 237	W 2		C59.59	M1 211	W 6	
C58.303	M1 368	W 2		C59.60	M1 696	W 6	
C58.304	M1 828	W 2		C59.63	M1 340	W 6	
C58.305	M1 967	W 2		C59.64	M7 R 1071	W 7	
C58.306	M1 976	W 2		C59.65	M7 R 680	W 7	
C58.308	M1 202	W 1		C59.66	M1 619	W 9	
C58.322	M7 R 319	W 3		C59.67	M7 R 783	W 7	
C58.323	M7 R 759	W 3		C59.68	M7 R 1102	W 7	
C58.324	M7 R 759	W 3		C59.70	M7 R 873	W 10	
C58.325	M7 R 779	W 3		C59.71	M7 R 840	W 9	
C58.326	M7 R 680	W 7		C59.75	M7 R 1043	W 9	
C58.327	M7 R 702	W 3		C59.76	M7 R 759	W 9	
C58.328	M7 R 227	W 3		C59.77	M7 R 813	W 9	
C58.329	M7 R 702	W 3		C59.78	M7 R 808	W 9	
C58.330	M7 R 1043	W 3		C59.79	M7 R 1071	W 9	
C58.333	M7 R 718	W 2		C59.80	M7 R 1071	W 9	
C58.334	M1 322	W 5		C59.81	M7 R 392	W 7	
C58.335	M1 54	W 5		C59.82	M7 R 950	W 7	
C58.336	M1 732	W 5		C59.83	M7 R 1059	W 7	
C58.337	M1 790	W 5		C59.84	M7 R 968	W 7	
C58.338	M1 786	W 5		C59.87	M7 R 843	W 7	
C58.339	M1 809	W 5		C59.88	M1 633	W 6	
C58.360	M7 R 1059	W 3		C59.90	M1 64	W 7	
C58.363	M7 R 1063	W 1		C59.91	M1 536	W 6	
C58.366	M7 R 923	W 2		C59.92	M7 R 1102	W 7	
C58.367	M7 R 1103	W 2		C59.93	M1 642	W 8	
C58.368	M7 R 1072	W 2		C59.95	M1 747	W 10	
C58.370	M7 R 1094	W 2		C59.99	M1 631	W 9	
C58.374	M7 R 1094	W 2		C59.100	M7 GR 261	W 7	
C58.378	M7 R 556	W 2		C59.101	M7 R 275	W 7	
C58.385	M7 R 1087	W 1		C59.102	M1 909	W 7	
Uninv. 58	M1 701	W 2		C59.104	M7 R 1071	W 7	
Uninv. 58	M1 708	W 1		C59.105	M7 R 1068	W 7	
Uninv. 58	M1 709	W 2		C59.107	M7 R 968	W 7	
C59.9	M7 R 808	W 3		C59.109	M7 R 862	W 9	
C59.10	M7 R 680	W 7		C59.110	M7 R 845	W 9	
C59.12	M7 R 863	W 7		C59.111	M1 524	W 9	
C59.16	M1 584	W 9		C59.112	M7 R 968	W 9	
C59.17	M1 995	W 6		C59.113	M7 R 415	W 9	
C59.18	M7 R 639	W 7		C59.115	M7 R 93	W 7	
C59.19	M1 479	W 9		C59.116	M1 309	W 8	
C59.20	M1 350	W 9		C59.117	M1 484	W 8	
C59.21	M1 690	W 6		C59.118	M1 486	W 8	
C59.22	M7 GR 320	W 7		C59.119	M1 773	W 8	
C59.23	M7 R 267	W 9		C59.120	M7 R 408	W 8	
C59.24	M1 348	W 7		C59.121	M7 R 125	W 7	
C59.25	M1 562	W 7		C59.122	M1 935	W 8	
C59.26	M7 R 736	W 7		C59.123	M1 275	W 8	
C59.32	M1 628	W 8		C59.125	M1 249	W 8	
C59.34	M1 815	W 7		C59.126	M1 767	W 9	
C59.35	M1 702	W 6		C59.127	M1 796	W 9	
C59.38	M7 R 464	W 7		C59.128	M7 R 519	W 9	
C59.39	M7 R 1094	W 7		C59.131	M7 R 800	W 8	
C59.44	M7 R 93	W 7		C59.132	M7 R 1107	W 8	
C59.45	M1 495	W 7		C59.133	M7 R 968	W 8	
C59.47	M7 R 876	W 7		C59.135	M7 R 1056	W 8	
C59.48	M7 R 806	W 7		C59.136	M7 GR 255	W 9	
C59.49	M7 R 974	W 7		C59.138	M7 GR 62	W 3	
C59.50	M7 R 187	W 7		C59.140	M7 R 1059	W 3	

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C59.146	M7 R 417	W 3		C59.266	M7 R 759	W 3	
C59.147	M7 R 1063	W 3		C59.267	M1 353	W 3	
C59.148	M7 R 623	W 3		C59.268	M1 551	W 3	
C59.149	M7 R 1056	W 3		C59.290	M7 GR 347	W 13	
C59.152	M7 R 841	W 3		C59.299	M7 R 390	W 13	
C59.153	M1 774	W 3		C59.300	M7 R 656	W 13	
C59.153	M7 R 861	W 3		C59.301	M7 R 635	W 13	
C59.154	M7 R 1112	W 3		C59.303	M7 R 372	W 13	
C59.155	M7 R 881	W 3		C59.304	M7 R 231	W 13	
C59.156	M7 R 301	W 10		C59.305	M7 R 614	W 13	
C59.157	M7 R 178	W 10		C59.306	M7 R 558	W 13	
C59.158	M7 R 1044	W 10		C59.307	M7 R 363	W 13	
C59.159	M7 R 979	W 10		C59.308	M7 R 1044	W 13	
C59.160	M1 620	W 3		C59.309	M7 GR 368	W 13	
C59.161	M7 R 894	W 3		C59.310	M7 R 93	W 13	
C59.162	M1 975	W 3		C59.315	M7 GR 399	SW corner of W 13	
C59.163	M7 R 361	W 3		C59.328	M7 GR 399	SW corner of W 13	
C59.164	M7 R 1056	W 3		C59.330	M7 GR 287	W 13	
C59.165	M7 R 1056	W 3		C59.340	M7 R 550	W 13	
C59.175	M7 R 1097	W 3		C59.341	M7 R 233	W 13	
C59.176	M7 R 361	W 10		C59.345	M7 R 147	W 13	
C59.177	M7 R 1063	W 3		C59.361	M7 R 919	W 3	
C59.183	M1 684	W 8		C59.408	M7 R 780	W 8	
C59.184	M7 R 973	W 7		C59.421	M7 R 964	W 3	
C59.185	M7 R 1060	W 3		C59.425	M7 R 1100	W 3	
C59.186	M1 925	W 3		C59.426	M7 R 509	W 3	
C59.193	M1 50	W 3		C59.440	M7 R 1063	W 3	
C59.205	M7 R 986	W 3		C59.730	M7 R 1071	W 9	
C59.206	M1 942	W 7		Uninv. 59	M1 589	W 9	
C59.207	M1 704	W 7		Uninv. 59	M1 496	W 13	
C59.217	M1 407	W 8		C62.99	M1 369	E 14	
C59.218	M1 699	W 8		C62.118	M1 197	E 14	
C59.219	M1 213	W 9		C62.136	M7 R 639	E 14	
C59.220	M1 270	W 8		C62.137	M7 R 909	E 14	
C59.225	M7 R 80	W 8		C62.138	M7 R 754	E 14	
C59.226	M7 R 923	W 8		C62.149	M7 R 759	E 14	
C59.227	M7 R 702	W 8		C62.160	M7 R 1059	E 14	
C59.228	M1 278	W 8		C62.161	M7 R 415	E 14	
C59.229	M1 601	W 8		C62.168	M1 771	E 14	
C59.230	M7 R 1044	W 8		C62.172	M1 128	E 14	
C59.231	M7 R 670	W 8		C62.173	M7 R 734	E 14	
C59.232	M7 R 1009	W 8		C62.174	M7 R 780	E 14	
C59.233	M7 R 1059	W 8		C62.175	M7 R 677	E 14	
C59.234	M7 R 793	W 8		C62.191	M1 231	E 14	
C59.236	M7 R 780	W 8		C62.201	M7 GR 41	E 14	
C59.237	M7 R 940	W 8		C62.207	M7 R 924	E 14	
C59.238	M1 254	W 8		C62.208	M7 R 1070	E 14	
C59.239	M1 207	W 8		C62.209	M7 R 1056	E 14	
C59.240	M7 R 649	W 8		C62.223	M1 219	E 14	
C59.241	M7 R 813	W 8		C62.245	M1 153	E 14	
C59.242	M7 R 1081	W 8		C62.344	M1 117	E 15	
C59.244	M1 723	W 8		C62.353	M1 3	E 12	
C59.245	M1 950	W 8		C62.366	M1 984	E 13	
C59.246	M7 R 892	W 8		C62.480	M7 R 94	E 14	
C59.247	M7 R 1080	W 8		C62.482	M7 R 1044	E 14	
C59.249	M7 R 977	W 8		C62.682	M7 R 858	E 14	
C59.252	M7 R 930	W 8		C62.683	M7 R 1071	E 14	
C59.254	M7 R 1056	W 8		C62.684	M7 R 1071	E 14	
C59.256	M7 R 923	W 3		C62.688	M7 R 1109	E 14	
C59.257	M7 R 639	W 3		C62.723	M7 R 1071	E 14	
C59.258	M7 R 548	W 3		C62.731	M7 R 1055	E 14	
C59.259	M1 488	W 3		Uninv. 62	M1 80	E 14	
C59.264	M7 R 653	W 3					
C59.265	M7 R 755	W 3					

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
Uninv. 62	M1 89	E 12		C63.363	M7 R 968	E 14	
Uninv. 62	M1 90	E 14		C63.373	M7 R 1062	E 14	
Uninv. 62	M1 101	E 13		C63.374	M7 R 1107	E 14	
Uninv. 62	M1 101	E 12		C63.386	M7 R 548	E 14	
Uninv. 62	M1 136	E 15		C63.390	M7 R 1101	E 14	
Uninv. 62	M1 142	E 13		C63.514	M7 GR 174	E 18	
Uninv. 62	M1 144	E 13		Uninv. 63	M1 21	E 16	
Uninv. 62	M1 188	E 13		Uninv. 63	M1 24	E 9	
Uninv. 62	M1 201	E 13		Uninv. 63	M1 30	E 16	
Uninv. 62	M1 222	E 12		Uninv. 63	M1 66	E 19	
Uninv. 62	M1 256	E 12		Uninv. 63	M1 74	E 17	
Uninv. 62	M1 271	E 14		Uninv. 63	M1 78	E 17	
Uninv. 62	M1 320	E 14		Uninv. 63	M1 81	E 16	
Uninv. 62	M1 343	E 15		Uninv. 63	M1 88	E 17	
Uninv. 62	M1 371	E 13		Uninv. 63	M1 95	E 16	
Uninv. 62	M1 379	E 14		Uninv. 63	M1 108	E 17	
Uninv. 62	M1 393	E 14		Uninv. 63	M1 111	E 16	
Uninv. 62	M1 503	E 14		Uninv. 63	M1 113	E 17	
Uninv. 62	M1 508	E 12		Uninv. 63	M1 141	E 17	
Uninv. 62	M1 525	E 13		Uninv. 63	M1 143	E 17	
Uninv. 62	M1 603	E 14		Uninv. 63	M1 160	E 16	
Uninv. 62	M1 670	E 14		Uninv. 63	M1 209	E 19	
Uninv. 62	M1 672	E 15		Uninv. 63	M1 210	E 16	
Uninv. 62	M1 752	E 12		Uninv. 63	M1 235	E 17	
Uninv. 62	M1 823	E 14		Uninv. 63	M1 257	E 17	
Uninv. 62	M1 882	E 15		Uninv. 63	M1 261	E 16	
Uninv. 62	M1 934	E 13		Uninv. 63	M1 264	E 16	
Uninv. 62	M1 952	E 15		Uninv. 63	M1 293	E 18	
Uninv. 62	M1 956	E 13		Uninv. 63	M1 317	E 16	
Uninv. 62	M1 961	E 15		Uninv. 63	M1 323	E 15	
Uninv. 62	M1 966	E 13		Uninv. 63	M1 328	E 16	
C63.88	M1 982	E 17		Uninv. 63	M1 354	E 19	
C63.89	M1 652	E 17		Uninv. 63	M1 360	E 16	
C63.90	M1 846	E 17		Uninv. 63	M1 365	E 19	
C63.105	M1 138	E 16		Uninv. 63	M1 374	E 16	
C63.117	M1 234	E 18		Uninv. 63	M1 384	E 19	
C63.157	M1 85	E 17		Uninv. 63	M1 385	E 19	
C63.178	M1 287	E 16		Uninv. 63	M1 391	E 16	
C63.178	M1 608	E 17		Uninv. 63	M1 422	E 16	
C63.188	M1 446	E 16		Uninv. 63	M1 423	E 19	
C63.189	M1 911	E 16		Uninv. 63	M1 424	E 16	
C63.190	M1 789	E 16		Uninv. 63	M1 425	E 19	
C63.191	M1 881	E 16		Uninv. 63	M1 432	E 16	
C63.194	M1 528	E 16		Uninv. 63	M1 449	E 17	
C63.200	M1 959	E 17		Uninv. 63	M1 453	E 17	
C63.201	M1 445	E 17		Uninv. 63	M1 460	E 19	
C63.203	M1 474	E 18		Uninv. 63	M1 501	E 16	
C63.204	M1 735	E 18		Uninv. 63	M1 502	E 17	
C63.205	M1 311	E 18		Uninv. 63	M1 505	E 16	
C63.220	M1 252	E 19		Uninv. 63	M1 512	E 19	
C63.222	M1 127	E 16		Uninv. 63	M1 532	E 19	
C63.225	M1 59	E 17		Uninv. 63	M1 537	E 16	
C63.226	M7 GR 46	Hellenistic Steps		Uninv. 63	M1 552	E 18	
C63.228	M7 GR 198	Hellenistic Steps		Uninv. 63	M1 565	E 16	
C63.231	M7 GR 201	Hellenistic Steps		Uninv. 63	M1 571	E 17	
C63.232	M7 GR 198	Hellenistic Steps		Uninv. 63	M1 575	E 18	
C63.233	M7 GR 215	Hellenistic Steps		Uninv. 63	M1 587	E 16	
C63.361	M7 R 550	E 14		Uninv. 63	M1 595	E 16	
C63.362	M7 GR 266	E 14		Uninv. 63	M1 598	E 16	
				Uninv. 63	M1 599	E 16	
				Uninv. 63	M1 600	E 17	
				Uninv. 63	M1 623	E 16	
				Uninv. 63	M1 647	E 16	
				Uninv. 63	M1 655	E 10	

Concordance of Finds

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
Uninv. 63	M1 660	E 16		C65.133	M7 GR 215	Hellenistic Steps	
Uninv. 63	M1 668	E 17		C65.134	M7 GR 213	Hellenistic Steps	
Uninv. 63	M1 673	E 17		C65.136	M7 GR 46	Hellenistic Steps	
Uninv. 63	M1 680	E 16		C65.139	M7 GR 215	Hellenistic Steps	
Uninv. 63	M1 683	E 16		C65.140	M7 GR 186	Hellenistic Steps	
Uninv. 63	M1 685	E 16		C65.142	M7 GR 191	Hellenistic Steps	
Uninv. 63	M1 686	E 18		Uninv. 65	M1 158	E 12	
Uninv. 63	M1 689	E 19		Uninv. 65	M1 822	E 12	
Uninv. 63	M1 695	E 19		C67.8	M7 GR 255	E 1	
Uninv. 63	M1 705	E 16		C67.16	M7 R 145	E 1	
Uninv. 63	M1 707	E 16		C67.17	M7 R 724	E 4	
Uninv. 63	M1 712	E 16		C67.25	M7 R 93	E 4	
Uninv. 63	M1 717	E 19		C67.26	M7 R 474	E 4	
Uninv. 63	M1 755	E 16		C67.27	M7 R 484	E 1	
Uninv. 63	M1 760	E 16		C67.42	M7 GR 54	E 8	
Uninv. 63	M1 769	E 16		C67.48	M7 R 790	E 11	
Uninv. 63	M1 776	E 16		C67.59	M7 R 686	E 1	
Uninv. 63	M1 798	E 19		C67.61	M7 R 175	E 1	
Uninv. 63	M1 844	E 17		C67.73	M7 R 414	E 1	
Uninv. 63	M1 855	E 16		C67.87	M7 R 1059	E 1	
Uninv. 63	M1 873	E 17		C67.91	M7 R 956	E 1	
Uninv. 63	M1 874	E 17		C67.102	M7 GR 198	E 1	
Uninv. 63	M1 887	E 17		C67.109	M7 R 1071	E 1	
Uninv. 63	M1 893	E 17		C67.112	M7 R 906	E 1	
Uninv. 63	M1 919	E 17		C67.147	M7 R 925	E 2	
Uninv. 63	M1 928	E 17		C67.154	M7 R 1048	E 1	
Uninv. 63	M1 963	E 16		C67.154	M7 R 1063	E 1	
Uninv. 63	M1 965	E 19		C67.154	M7 R 1071	E 1	
Uninv. 63	M1 997	E 18		C67.157	M7 R 1068	E 1	
Uninv. 63	M1 1000	E 17		C67.160	M7 R 816	E 1	
Uninv. 63	M1 1004	E 17		C67.161	M7 R 1001	E 1	
C64.154	M1 858	E 12		C67.166	M7 R 813	E 1	
C64.160	M1 545	E 12		C67.173	M7 R 853	E 2A	
C64.753	M7 R 1056	E 12		C67.173	M7 R 1071	E 2A	
C64.754	M7 R 955	E 12		C67.222	M7 R 609	E 1	
C64.755	M7 R 1097	E 12		C67.225	M7 R 1068	E 1	
C64.765	M7 R 1071	E 12		C67.244	M7 R 919	E 4	
C64.770	M7 R 1088	E 12		C67.245	M7 R 1071	E 5	
Uninv. 64	M1 35	E 12		C67.247	M7 R 434	E 5	
Uninv. 64	M1 41	E 19		C67.249	M7 R 459	E 4	
Uninv. 64	M1 60	E 17		C67.284	M7 R 336	E 4	
Uninv. 64	M1 132	E 12		C67.313	M7 R 995	E 5	
Uninv. 64	M1 499	E 19		C67.314	M7 R 557	E 4	
Uninv. 64	M1 550	E 12		C67.321	M7 R 1071	E 3	
Uninv. 64	M1 560	E 12		C67.323	M7 R 93	E 5	
Uninv. 64	M1 730	E 12		C67.342	M7 R 1070	E 1	
Uninv. 64	M1 740	E 12		C67.346	M7 R 1107	E 5	
Uninv. 64	M1 800	E 12		C67.370	M7 R 1070	E 1	
Uninv. 64	M1 819	E 12		C67.423	M7 R 759	E 6	
Uninv. 64	M1 825	E 12		C67.424	M7 R 745	E 6	
Uninv. 64	M1 842	E 12		C67.425	M7 GR 399	E 6	
Uninv. 64	M1 863	E 12		C67.427	M7 R 1013	E 6	
Uninv. 64	M1 875	E 12		C67.468	M7 R 783	E 6	
Uninv. 64	M1 891	E 11		C67.480	M7 R 558	E 7	
Uninv. 64	M1 932	E 12		C67.481	M7 R 779	E 7	
Uninv. 64	M1 980	E 12		C67.484	M7 R 1047	E 7	
Uninv. 64	M1 993	E 12		C67.486	M7 R 550	E 7	
Uninv. 64	M1 1007	E 12					
Uninv. 64	M1 1009	E 12					
C65.77	M1 867	E 12					
C65.337	M7 R 1056	E 12					
C65.132	M7 GR 399	Hellenistic Steps					

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C67.501	M7 R 381	E 8		C67.570	M7 R 1044	E 8	
C67.504	M7 R 926	E 8		C67.571		E 8	
C67.505	M7 R 145	E 8		C67.573	M7 R 779	E 8	
C67.507	M7 R 1044	E 8		C67.575	M7 R 918	E 8	
C67.508	M7 R 634	E 8		C67.575		E 8	
C67.509	M7 R 35	E 8		C67.576	M7 R 1071	E 8	
C67.510	M7 R 635	E 8		C67.582	M7 R 111	E 8	
C67.514	M7 GR 174	E 8		C67.583	M7 R 209	E 8	
C67.516	M7 R 927	E 8		C67.583	M7 R 214	E 8	
C67.519	M7 R 538	E 8		C67.583	M7 R 220	E 8	
C67.523	M7 R 1068	E 8		C67.583	M7 R 231	E 8	
C67.523A	M7 R 986	E 8		C67.584	M7 R 1054	E 8	
C67.524		E 8		C67.585	M7 R 233	E 8	
C67.525	M7 R 923	E 8		C67.586	M7 R 328	E 8	
C67.526	M7 R 774	E 8		C67.586	M7 R 467	E 8	
C67.527	M7 R 575	E 8		C67.587	M7 R 189	E 8	
C67.528	M7 R 413	E 8		C67.587	M7 R 299	E 8	
C67.529	M7 R 483	E 8		C67.588	M7 R 196	E 8	
C67.530	M7 R 381	E 8		C67.588	M7 R 207	E 8	
C67.531	M7 R 216	E 8		C67.588	M7 R 406	E 8	
C67.531	M7 R 233	E 8		C67.588	M7 R 450	E 8	
C67.532		E 8		C67.588	M7 R 464	E 8	
C67.533	M7 R 180	E 8		C67.588	M7 R 548	E 8	
C67.533	M7 R 190	E 8		C67.589	M7 R 329	E 8	
C67.533	M7 R 248	E 8		C67.589	M7 R 381	E 8	
C67.533	M7 R 264	E 8		C67.589	M7 R 412	E 8	
C67.533	M7 R 293	E 8		C67.589	M7 R 413	E 8	
C67.533	M7 R 308	E 8		C67.589	M7 R 414	E 8	
C67.533	M7 R 366	E 8		C67.589A	M7 R 473	E 8	
C67.533A	M7 R 401	E 8		C67.589	M7 R 488	E 8	
C67.533	M7 R 406	E 8		C67.589	M7 R 557	E 8	
C67.533	M7 R 419	E 8		C67.590	M7 R 967	E 8	
C67.533	M7 R 451	E 8		C67.591	M7 R 325	E 8	
C67.533B	M7 R 461	E 8		C67.591	M7 R 385	E 8	
C67.533	M7 R 538	E 8		C67.591	M7 R 558	E 8	
C67.534	M7 R 173	E 8		C67.591	M7 R 591	E 8	
C67.534	M7 R 199	E 8		C67.592	M7 R 903	E 8	
C67.535	M7 R 368	E 8		C67.593	M7 R 345	E 8	
C67.535	M7 R 392	E 8		C67.594	M7 R 744	E 8	
C67.535	M7 R 408	E 8		C67.596	M7 R 592	E 8	
C67.535	M7 R 434	E 8		C67.597	M7 R 1007	E 8	
C67.535	M7 R 442	E 8		C67.598	M7 R 1071	E 8	
C67.535	M7 R 456	E 8		C67.599	M7 R 591	E 8	
C67.535	M7 R 463	E 8		C67.599	M7 R 1044	E 8	
C67.535	M7 R 467	E 8		C67.600	M7 R 590	E 8	
C67.535	M7 R 552	E 8		C67.600	M7 R 638	E 8	
C67.536	M7 R 242	E 8		C67.600	M7 R 1043	E 8	
C67.536	M7 R 261	E 8		C67.601	M7 R 331	E 8	
C67.537	M7 R 172	E 8		C67.601	M7 R 350	E 8	
C67.537A	M7 R 166	E 8		C67.601	M7 R 497	E 8	
C67.538	M7 R 413	E 8		C67.602	M7 R 381	E 8	
C67.538	M7 R 415	E 8		C67.603	M7 R 189	E 8	
C67.544	M7 R 552	E 8		C67.604	M7 R 441	E 8	
C67.545	M7 R 1027	E 8		C67.605	M7 R 526	E 8	
C67.546	M7 GR 215	E 8		C67.606	M7 R 1043	E 8	
C67.570	M7 R 332	E 8		C67.607	M7 R 1056	E 8	
C67.570	M7 R 335	E 8		C67.609	M7 R 548	E 8	
C67.570	M7 R 408	E 8		C67.611	M7 R 1071	E 8	
C67.570	M7 R 413	E 8		C67.612	M7 R 145	E 8	
C67.570	M7 R 780	E 8		C67.613	M7 R 231	E 8	
C67.570	M7 R 903	E 8		C67.614	M7 R 189	E 8	
C67.570	M7 R 906	E 8		C67.614	M7 R 277	E 8	
C67.570	M7 R 919	E 8		C67.614	M7 R 307	E 8	

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C67.615	M7 R 413	E 8		Uninv. 67	M1 346	E 7	
C67.616	M7 R 415	E 8		Uninv. 67	M1 357	E 18	
C67.616	M7 R 1043	E 8		Uninv. 67	M1 392	E 10	
C67.617	M7 R 636	E 8		Uninv. 67	M1 429	E 10	
C67.618	M7 R 591	E 8		Uninv. 67	M1 443	E 9	
C67.619	M7 R 529	E 8		Uninv. 67	M1 461	E 9	
C67.619	M7 R 906	E 8		Uninv. 67	M1 462	E 10	
C67.620	M7 R 841	E 8		Uninv. 67	M1 494	E 1	
C67.621	M7 R 755	E 8		Uninv. 67	M1 515	E 10	
C67.621	M7 R 774	E 8		Uninv. 67	M1 527	E 10	
C67.622	M7 R 1059	E 8		Uninv. 67	M1 561	E 10	
C67.623	M7 GR 6	E 8		Uninv. 67	M1 567	E 9	
C67.624	M7 R 624	E 8		Uninv. 67	M1 570	E 9	
C67.625	M7 R 413	E 8		Uninv. 67	M1 572	E 11	
C67.626	M7 R 808	E 8		Uninv. 67	M1 583	E 7	
C67.650	M7 R 870	E 10		Uninv. 67	M1 602	E 10	
C67.656	M7 R 345	E 10		Uninv. 67	M1 618	E 10	
C67.675	M7 R 851	E 10		Uninv. 67	M1 634	E 10	
C67.676	M7 R 412	E 11		Uninv. 67	M1 636	E 10	
C67.684	M7 GR 310	E 10		Uninv. 67	M1 639	E 6	
C67.685	M7 R 413	E 9		Uninv. 67	M1 643	E 1	
C67.685	M7 R 1088	E 9		Uninv. 67	M1 646	E 1	
C67.714	M7 GR 399	E 10		Uninv. 67	M1 650	E 10	
C67.719	M7 R 1063	E 8		Uninv. 67	M1 653	E 10	
C67.720	M7 R 502	E 9		Uninv. 67	M1 658	E 1	
C67.722A	M7 R 986	E 10		Uninv. 67	M1 661	E 1	
C67.735	M7 R 1056	E 10		Uninv. 67	M1 663	E 1	
C67.735	M7 R 1059	E 10		Uninv. 67	M1 703	E 6	
C67.739	M7 R 861	E 10		Uninv. 67	M1 710	E 9	
C67.742	M7 R 1013	E 10		Uninv. 67	M1 716	E 5	
C67.743	M7 R 861	E 10		Uninv. 67	M1 718	E 10	
C67.744	M7 R 901	E 10		Uninv. 67	M1 733	E 10	
C67.747	M7 R 747	E 10		Uninv. 67	M1 757	E 4	
C67.854	M7 R 766	E 12		Uninv. 67	M1 780	E 7	
C67.856	M7 R 415	E 12		Uninv. 67	M1 791	E 12	
C67.857	M7 R 241	E 12		Uninv. 67	M1 793	E 4	
C67.858	M7 R 381	E 12		Uninv. 67	M1 795	E 9	
C67.859	M7 R 759	E 13		Uninv. 67	M1 802	E 4	
C67.865	M7 R 233	E 12		Uninv. 67	M1 804	E 1	
C67.872	M7 R 321	E 12		Uninv. 67	M1 812	E 1	
Uninv. 67	M1 26	E 5		Uninv. 67	M1 832	E 4	
Uninv. 67	M1 52	E 10		Uninv. 67	M1 848	E 10	
Uninv. 67	M1 53	E 4		Uninv. 67	M1 860	E 7	
Uninv. 67	M1 58	E 1		Uninv. 67	M1 871	E 1	
Uninv. 67	M1 62	E 10		Uninv. 67	M1 883	E 18	
Uninv. 67	M1 109	E 10		Uninv. 67	M1 923	E 1	
Uninv. 67	M1 114	E 10		Uninv. 67	M1 948	E 1	
Uninv. 67	M1 122	E 9		Uninv. 67	M1 949	E 6	
Uninv. 67	M1 157	E 12		Uninv. 67	M1 970	E 1	
Uninv. 67	M1 195	E 13		Uninv. 67	M1 986	E 1	
Uninv. 67	M1 212	E 1		Uninv. 67	M1 1002	E 1	
Uninv. 67	M1 225	E 10		Uninv. 67	M1 1008	E 6	
Uninv. 67	M1 227	E 10		Uninv. 67	M1 1098	E 5	
Uninv. 67	M1 228	E 10		Uninv. 67	M7 R 167	E 8	
Uninv. 67	M1 250	E 13		Uninv. 67	M7 R 1012	E 12	
Uninv. 67	M1 260	E 13		C68.11	M7 R 1087	E 3	
Uninv. 67	M1 296	E 1		C68.12	M7 GR 329	E 4	
Uninv. 67	M1 315	E 10		C68.109	M7 R 968	E 2	
Uninv. 67	M1 319	E 10		C68.115	M7 R 1029	E 2	
Uninv. 67	M1 324	E 10		C68.116	M7 R 1031	E 2	
Uninv. 67	M1 332	E 1		C68.131	M7 GR 399	E 2	
Uninv. 67	M1 338	E 9		C68.133	M7 R 1070	E 2	
Uninv. 67	M1 341	E 10		C68.136	M7 R 572	E 2	

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				COINS			
C68.137	M7 R 1015	E 2		C68.262	M7 R 1063	E 5	
C68.138	M7 R 927	E 2		C68.262	M7 R 1087	E 5	
C68.140	M7 R 1056	E 2		C68.262	M7 R 1088	E 5	
C68.140	M7 R 1059	E 2		C68.269	M7 R 413	E 5	
C68.140	M7 R 1061	E 2		C68.270	M7 R 1101	E 5	
C68.141A	M7 GR 215	E 2		C68.281	M7 R 1105	E 5	
C68.141B	M7 R 231	E 2		C68.282	M7 R 205	E 5	
C68.141C	M7 R 89	E 2		C68.288	M7 R 557	E 5	
C68.143	M7 R 1098	E 2		C68.298	M7 R 590	E 5	
C68.148	M7 R 1012	E 2		C68.300	M7 R 94	E 5	
C68.149	M7 R 1068	E 2		C68.303	M7 R 1059	E 5	
C68.149A	M7 GR 261	E 2		C68.306	M7 R 1044	E 5	
C68.150	M7 R 313	E 2		Uninv. 68	M1 13	E 4	
C68.150	M7 R 1048	E 2		Uninv. 68	M1 44	E 1	
C68.151	M7 R 783	E 2		Uninv. 68	M1 45	E 1	
C68.151	M7 R 1044	E 1		Uninv. 68	M1 46	E 2	
C68.151	M7 R 1067	E 2		Uninv. 68	M1 79	E 2	
C68.151B	M7 R 921	E 2		Uninv. 68	M1 110	E 2	
C68.156	M7 R 40	E 2A		Uninv. 68	M1 217	E 2	
C68.159	M7 R 93	E 2A		Uninv. 68	M1 233	E 18	
C68.159	M7 R 249	E 2A		Uninv. 68	M1 263	E 8	
C68.160	M7 R 936	E 2A		Uninv. 68	M1 307	E 5	
C68.161	M7 GR 231	E 2A		Uninv. 68	M1 389	E 1	
C68.162	M7 R 94	E 2A		Uninv. 68	M1 398	E 8	
C68.163	M7 R 1059	E 2A		Uninv. 68	M1 399	E 2	
C68.164	M7 R 1044	E 2A		Uninv. 68	M1 400	E 2	
C68.168	M7 R 813	W 2		Uninv. 68	M1 415	E 3	
C68.169	M7 R 1099	E 2A		Uninv. 68	M1 420	E 3	
C68.176	M7 R 131	E 3		Uninv. 68	M1 426	E 2	
C68.178	M7 R 348	E 3		Uninv. 68	M1 440	E 2	
C68.184	M7 GR 406	E 4		Uninv. 68	M1 478	E 2A	
C68.185	M7 GR 401	E 4		Uninv. 68	M1 480	E 2	
C68.185	M7 R 135	E 4		Uninv. 68	M1 493	E 2	
C68.193	M7 R 192	E 4		Uninv. 68	M1 511	E 2	
C68.193	M7 R 667	E 4		Uninv. 68	M1 514	E 2A	
C68.196	M7 R 385	E 4		Uninv. 68	M1 520	E 1	
C68.196	M7 R 970	E 4		Uninv. 68	M1 540	E 2	
C68.196	M7 R 1044	E 4		Uninv. 68	M1 543	E 2	
C68.196	M7 R 1056	E 4		Uninv. 68	M1 554	E 2A	
C68.196A	M7 R 1110	E 4		Uninv. 68	M1 555	E 11	
C68.198	M7 R 1026	E 4		Uninv. 68	M1 556	E 2	
C68.199	M7 GR 164	E 4		Uninv. 68	M1 564	E 2A	
C68.203	M7 GR 291	E 4		Uninv. 68	M1 582	E 2	
C68.204	M7 R 680	E 4		Uninv. 68	M1 593	E 4	
C68.208	M7 R 263	E 4		Uninv. 68	M1 627	E 2A	
C68.208	M7 R 413	E 4		Uninv. 68	M1 671	E 2	
C68.208	M7 R 968	E 4		Uninv. 68	M1 679	E 8	
C68.208	M7 R 1055	E 4		Uninv. 68	M1 688	E 2	
C68.208	M7 R 1062	E 4		Uninv. 68	M1 714	E 1	
C68.208	M7 R 1063	E 4		Uninv. 68	M1 727	E 4	
C68.209	M7 R 322	E 4		Uninv. 68	M1 729	E 2	
C68.213	M7 R 408	E 4		Uninv. 68	M1 737	E 2	
C68.213	M7 R 1059	E 4		Uninv. 68	M1 739	E 2	
C68.213A	M7 GR 296	E 4		Uninv. 68	M1 743	E 2	
C68.213B	M7 R 1067	E 4		Uninv. 68	M1 744	E 2	
C68.232	M7 R 380	E 7		Uninv. 68	M1 748	E 2A	
C68.233	M7 R 1100	E 5		Uninv. 68	M1 753	E 4	
C68.236	M7 R 765	E 1		Uninv. 68	M1 758	E 2A	
C68.236	M7 R 1056	E 2		Uninv. 68	M1 762	E 1	
C68.239	M7 R 414	E 1		Uninv. 68	M1 766	E 4	
C68.247	M7 R 347	E 5		Uninv. 68	M1 777	E 4	
C68.249	M7 R 1062	E 11		Uninv. 68	M1 778	E 2	
C68.262	M7 R 927	E 5		Uninv. 68	M1 782	E 2	

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
COINS				GLASS			
Uninv. 68	M1 784	E 2A		G58.17A-B:469	M6 681	W 1	Fig. 174
Uninv. 68	M1 785	E 2		G58.18:470	M6 681	W 1	
Uninv. 68	M1 794	E 2		G58.22:408	M6 402	W 3	
Uninv. 68	M1 806	E 2		G58.23:409	M6 403	W 3	
Uninv. 68	M1 807	E 4		G58.27:387B	M6 404	W 3	
Uninv. 68	M1 816	E 2		G58.34:528	M6 310	W 2	
Uninv. 68	M1 818	E 2		G58.38:538	M6 260	W 2	
Uninv. 68	M1 821	E 4		G58.46:611	M6 311	W 1	
Uninv. 68	M1 827	E 5		G58.47:612	M6 654	W 1	
Uninv. 68	M1 837	E 2		G58.68:865	M6 608	W 3	
Uninv. 68	M1 843	E 2A		G58.95:1048	M6 593	W 2	
Uninv. 68	M1 854	E 2		G59.22:1340	M6 445	W 7	
Uninv. 68	M1 857	E 4		G59.25:1341	M6 569	W 8	Fig. 82
Uninv. 68	M1 861	E 2		G59.28:1374	M6 568	W 7	
Uninv. 68	M1 866	E 4		G59.62:2150	M6 497	SW corner of W 13	
Uninv. 68	M1 868	E 1				SW corner of W 13	
Uninv. 68	M1 869, 870	E 4		G59.66:2189	M6 287	SW corner of W 13	
Uninv. 68	M1 877	E 2				W 13	Fig. 44
Uninv. 68	M1 879	E 5		G59.68:2194	M6 367	W 13	
Uninv. 68	M1 889	E 2		Uninv. 59	M6 316	W 13	
Uninv. 68	M1 894	E 4		Uninv. 59	M6 315	W 13	
Uninv. 68	M1 898	E 2		Uninv. 59	M6 405	W 13	
Uninv. 68	M1 901	E 4		Uninv. 59	M6 458	SW corner of W 13	
Uninv. 68	M1 908	E 1				E 5	
Uninv. 68	M1 914	E 4		Uninv. 59	M6 516	W 13	
Uninv. 68	M1 922	E 4		Uninv. 59	M6 734	E 14	Fig. 467
Uninv. 68	M1 926	E 4		G62.4:4162	M6 669	E 14	Figs. 464-466
Uninv. 68	M1 929	E 4		G62.5:4163	M6 668	E 14	
Uninv. 68	M1 931	E 1		G62.6:4164	M6 670	E 14	
Uninv. 68	M1 933	E 1		G62.8:4227	M6 240	E 14	Fig. 463
Uninv. 68	M1 936	E 2		G62.11:4487	M6 519	E 13	Fig. 397
Uninv. 68	M1 939	E 2		Uninv. 62	M6 277	E 13	
Uninv. 68	M1 941	E 4		Uninv. 62	M6 300	E 13	
Uninv. 68	M1 968	E 2A		Uninv. 62	M6 347	E 13	
Uninv. 68	M1 979	E 2		Uninv. 62	M6 371	E 13	
Uninv. 68	M1 985	E 1		Uninv. 62	M6 377	E 13	Fig. 401
Uninv. 68	M1 987	E 2		Uninv. 62	M6 454	E 13	
Uninv. 68	M1 990	E 1		Uninv. 62	M6 456	Hellenistic Steps	
Uninv. 68	M1 996	E 5				Hellenistic Steps	
Uninv. 68	M1 1001	E 2		Uninv. 62	M6 474	E 13	
Uninv. 68	M1 1067	E 3				E 13	Fig. 399
Uninv. 68	M1 1069	E 4		Uninv. 62	M6 502	E 13	
Uninv. 68	M1 1072	E 1		Uninv. 62	M6 520	E 13	
C69.21		W 3		Uninv. 62	M6 522	E 13	
C69.23	M7 R 1070	W 11		Uninv. 62	M6 538	E 13	
C69.25	M7 R 1043	W 11		Uninv. 62	M6 549	E 13	Fig. 398
C69.38	M7 R 1059	W 11		Uninv. 62	M6 557	E 13	
C73.5		E 18		Uninv. 62	M6 558	E 15	
C73.48		E 12		Uninv. 62	M6 561	E 13	
C73.50		E 14		Uninv. 62	M6 576	E 13	Fig. 403
C73.51		E 12		Uninv. 62	M6 577	E 13	Fig. 404
C73.59		E 14		Uninv. 62	M6 595	E 13	Fig. 405
C73.62		E 13		Uninv. 62	M6 596	E 13	
C73.64		E 12		Uninv. 62	M6 597	E 13	
C73.73		E 16		Uninv. 62	M6 629	E 13	
C73.74		E 18		Uninv. 62	M6 677	E 13	Fig. 402
C73.100		E 2A		G63.21:5903	M6 395	E 15	
C73.121		E 1		Uninv. 63	M6 242	E 13	
C73.130		E 1		Uninv. 63	M6 264	E 17	
				Uninv. 63	M6 281	Hellenistic Steps	
GLASS							
G58.1:986	M6 218	W 2		Uninv. 63	M6 295	E 19	
G58.15:466	M6 560	W 2		Uninv. 63	M6 297	E 17	Fig. 545

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
GLASS				INSCRIPTIONS			
Uninv. 63	M6 302	E 17		IN62.14=		E 14	Figs. 461, 462
Uninv. 63	M6 303	E 17		P62.23:4180			
Uninv. 63	M6 325	Hellenistic Steps		IN63.A1		E 19	
Uninv. 63	M6 340	E 15		IN67.25		E 7	
Uninv. 63	M6 375	E 16	Fig. 529	IN67.26		E 7	
Uninv. 63	M6 485	E 16		IN67.33=		E 7	Fig. 324
Uninv. 63	M6 486	E 19		P67.18:7341			
Uninv. 63	M6 486	E 19		IN67.41=		E 8	
Uninv. 63	M6 503	E 16		WP67.1			
Uninv. 63	M6 521	E 13		IN68.8		E 2	
Uninv. 63	M6 584	E 17	Fig. 546	IN68.14		E 5	Fig. 230
Uninv. 63	M6 602	E 17		IN69.17=	M8 437	E 5	
Uninv. 63	M6 603	E 16	Fig. 530	M69.3:7919A-C			
Uninv. 63	M6 622	E 16	Fig. 531				
Uninv. 63	M6 633	E 19	Fig. 581	JEWELRY			
Uninv. 63	M6 643	E 13	Fig. 396	J73.1:8221	M8 684	E 9	Fig. 338
Uninv. 63	M6 661	E 18		J73.2:8222	M8 685	E 6	Fig. 283
Uninv. 63	M6 676	E 16	Fig. 528	LAMPS			
Uninv. 63	M6 711	E 18		L58.25:534		W 2	Fig. 153
Uninv. 63	M6 726	Hellenistic Steps		L58.26:549		W 2	
Uninv. 64	M6 323	E 13	Fig. 400	L58.36		W 2	
Uninv. 64	M6 368	E 12		L58.44:982		W 2	
Uninv. 64	M6 484	E 12		L59.4:1246		W 8	Fig. 93
Uninv. 64	M6 528	E 12		Uninv. 59		SW corner of W 13	
Uninv. 64	M6 632	E 12	Fig. 395	(2 pieces)			
Uninv. 64	M6 680	E 12		L62.5:4177		E 14	Figs. 500-502
Uninv. 64	M6 688	E 12		L62.11:4278		E 14	
Uninv. 65	M6 263	E 16		L62.12:4279		E 14	
Uninv. 67	M6 239	E 4		Uninv. 62		E 15	
Uninv. 67	M6 250	E 1	Fig. 172	L63.48:5644		E 12	Fig. 424
Uninv. 67	M6 266	E 4	Fig. 217	L63.53:5733		E 16	
Uninv. 67	M6 280	E 1	Fig. 173	L63.54:5734		E 17	Fig. 554
Uninv. 67	M6 291	E 1		L63.55:5735		E 17	Fig. 555
Uninv. 67	M6 345	E 1		L63.59:5831		E 19	Figs. 590-592
Uninv. 67	M6 369	E 4		L64.31:6185		E 12	Fig. 425
Uninv. 67	M6 378	E 1		L64.32:6186		E 12	Fig. 427
Uninv. 67	M6 379	E 1		L64.33:6187		E 12	Fig. 426
Uninv. 67	M6 401	E 4	Fig. 216	L65.9:6765=		Hellenistic Steps	
Uninv. 67	M6 523	E 13		IN65.29			
Uninv. 67	M6 594	E 5		L65.13:6801		Hellenistic Steps	
Uninv. 67	M6 628	E 1		L67.5:7295		E 5	Fig. 263
Uninv. 67	M6 683, 684	E 1	Fig. 174	L67.6:7296		E 5	Fig. 264
Uninv. 67	M6 685	E 4		L67.17:7350		E 8	Fig. 328
Uninv. 67	M6 687	E 7		L67.19:7374		E 8	
Uninv. 67	M6 717	E 5		Uninv. 67		E 7	
Uninv. 67	M6 721	E 4		L68.2:7603		E 2	Fig. 185
Uninv. 67	M6 721	E 6		L68.19:7891		E 5	Fig. 265
G68.3:7736	M6 488	E 12	Fig. 394	Uninv. 73		E 5	
				Uninv. 73		E 7	
GEMS				METAL			
Gem62.7:4427		E 15		M58.31:396	M8 831	W 1	Fig. 145
Gem63.6:5640		E 16		M58.33:390	M8 696	W 3	Fig. 118
INSCRIPTIONS				M58.34:378	M8 445	W 3	
IN59.3		W 8		M58.35:377	M8 412	W 3	Fig. 120
IN59.4		W 8		M58.36:392	M8 702	W 3	Figs. 116, 117
IN59.13:1442		W 8	Fig. 69	M58.55:792	M8 841	W 1	Fig. 146
IN59.18:1441		W 11	Fig. 53	M58.59:861	M8 698	W 2	Fig. 141
IN59.29=		W 9		M58.60:877	M8 473	W 2	Fig. 142
P59.101:1376							

<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>	<i>Object</i>	<i>Publication</i>	<i>Shop</i>	<i>Figure</i>
METAL				METAL			
M58.71:581	M8 188	W 2	Fig. 143	M63.60:5876	M8 581	E18	Figs. 566, 570
M58.83:692A	M8 187	W 1	Fig. 147	M63.61:5877		E18	Figs. 567, 568, 570
M58.112:505	M8 117	W 3		M63.63:5888	M8 513	SW corner of W 13	Figs. 604, 605
M58.118:498	M8 194	W 2	Fig. 144	Uninv. 63	M8 6	E14	Fig. 487
M59.5:1253	M8 225	W 7	Fig. 98	Uninv. 63	M8 425	E 17	
M59.6:1273	M8 866	W 9		Uninv. 63		E 16	
M59.11:1355	M8 539	W 7		(2 pieces)			
M59.14:1372	M8 407	W 8	Fig. 84	M64.23:6188	M8 189	E 12	Fig. 409
M59.18:1396	M8 153	W 10	Fig. 57	M64.41:6532	M8 701	E 19	M8 701
M59.19:1399	M8 692	W 8	Fig. 83	Uninv. 64	M8 192	E 12	Fig. 410
M59.21:1411	M8 166	W 7	Figs. 99, 100	Uninv. 64	M8 506	E 12	
M59.22A:1452	M8 854	W 7	Fig. 97	M67.4:7291	M8 618	E 5	Figs. 232, 233
M59.22B:1452	M8 857	W 7		M67.5:7299	M8 523	E 4	
M59.35:1600	M8 925	W 3	Fig. 121	M67.7:7313	M8 536	E 4	
M59.36:1601	M8 821	W 3	Fig. 122	M67.8:7317	M8 431	E 7	Fig. 305
M59.40:1650	M8 226	W 3		M67.13:7375	M8 385	E 10	Fig. 353
M59.45:1682	M8 695	W 3	Fig. 119	M67.14:7380	M8 496	E 4	
M59.55:1883	M8 218	W 13	Fig. 46	M67.15:7381	M8 526	E 4	Figs. 211, 213
M59.66:2115	M8 229	W 13	Fig. 45	M67.16:7382	M6 525	E 6	Fig. 285
M61.18:3214	M8 475	W 8	Fig. 85	M67.17:7383	M8 614	E 6	Fig. 289
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ILLUSTRATIONS

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Drawings and photographs of objects are at 1:4 unless stated otherwise. Objects are illustrated under the descriptive categories by which they are listed in the text.

The plans of the individual Shops are at approximately 1:50. Because they were derived from a large-scale plan of the B area, features and objects could not be precisely located and are presented in a schematic manner:

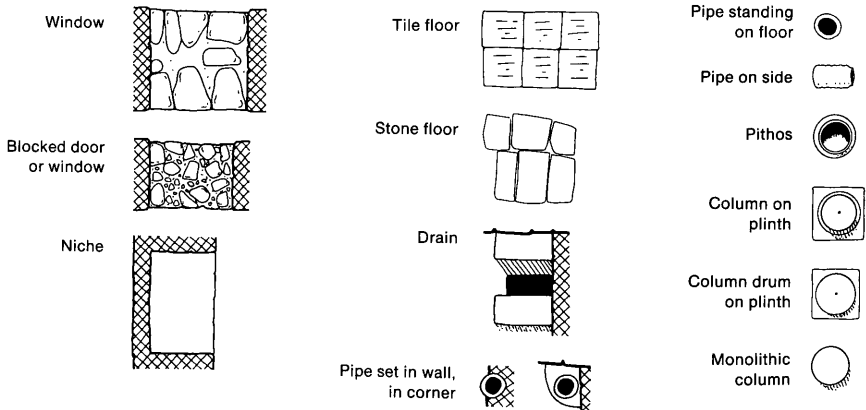




Fig. 1 The Bath-Gymnasium during excavation of BSH and the Byzantine Shops to the W, 1958. Looking NW.



Fig. 2 The Byzantine Shops as restored along the S side of the Bath-Gymnasium Complex, 1973. Looking NW.

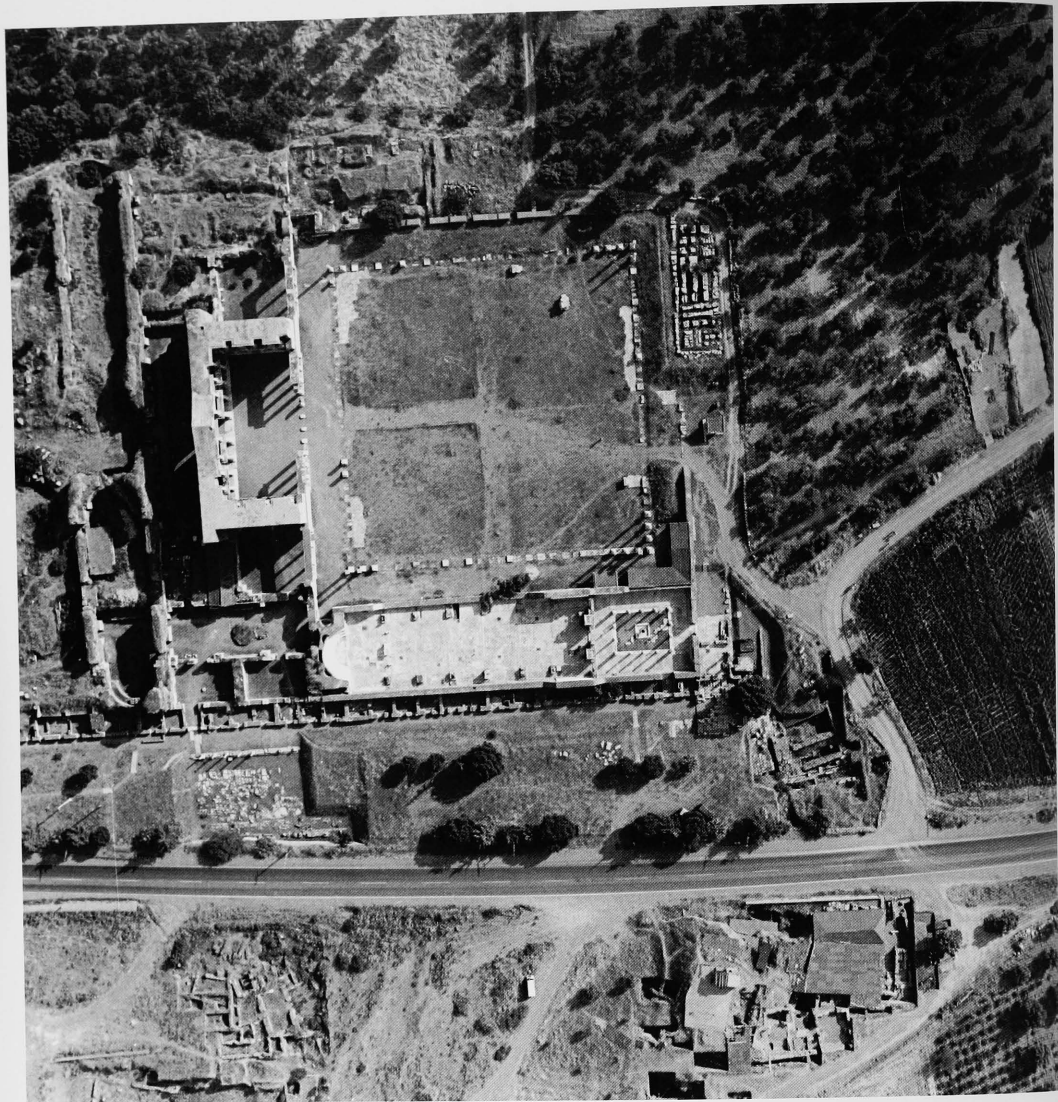


Fig. 3 Aerial photograph of the Bath-Gymnasium Complex E of BWH, Syn, BS W 9-E 19, MRd, and sectors HoB and MMS, 1988. Photograph by Eleanor and Wilson Meyers.

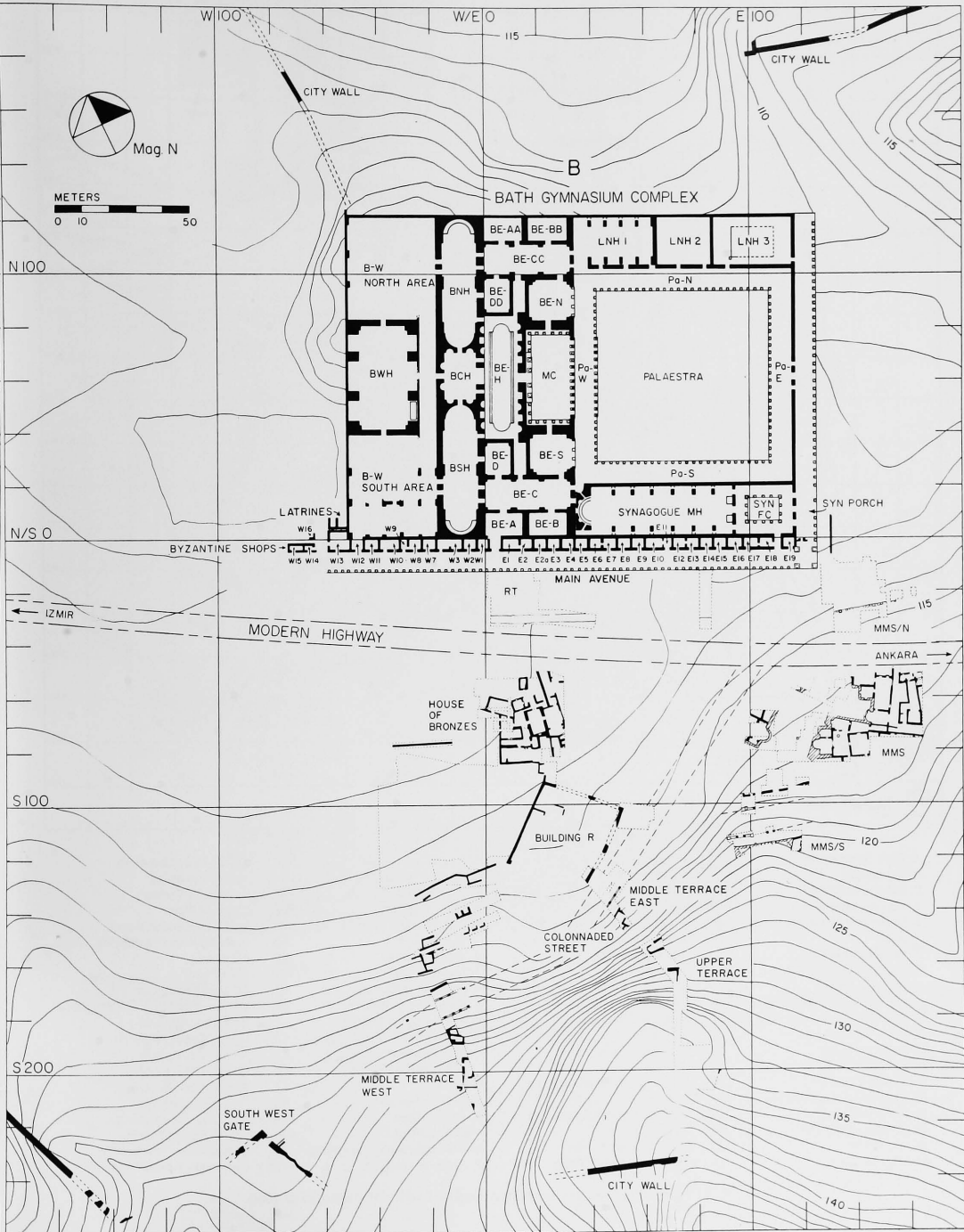
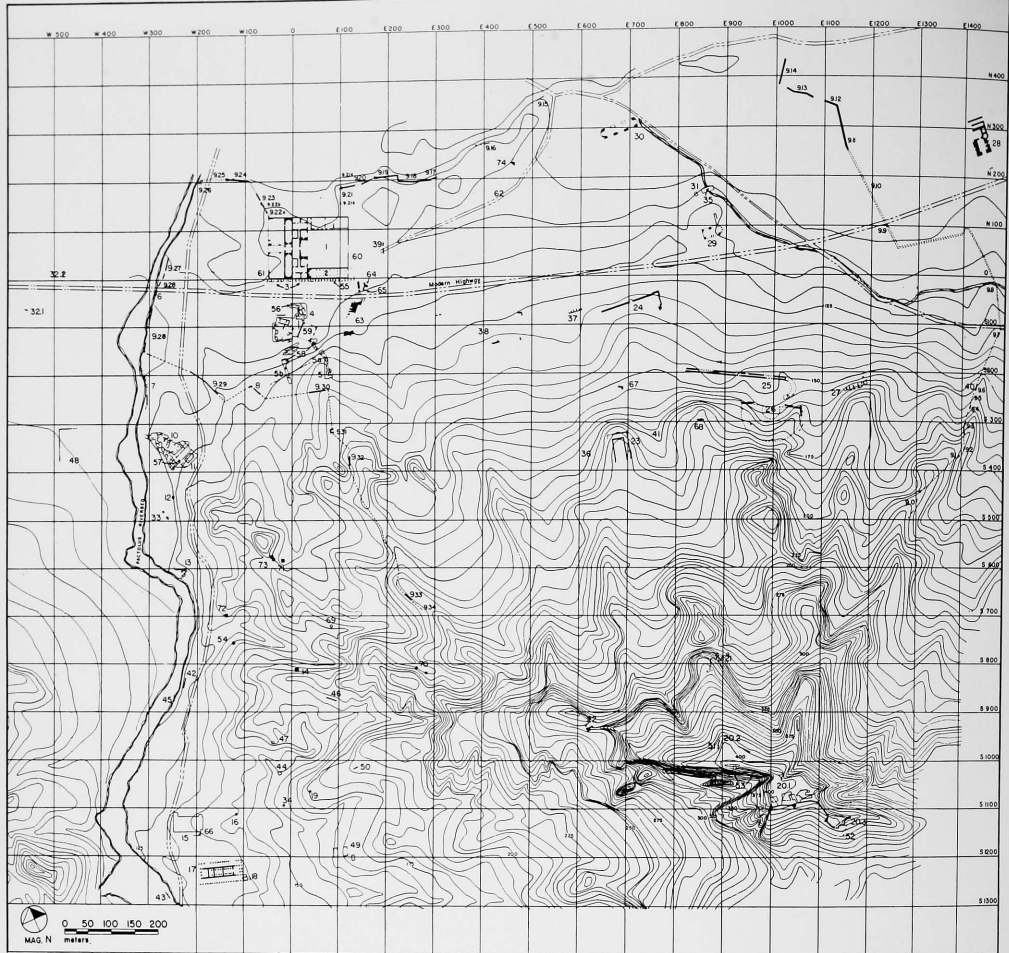


Fig. 4 Restored plan of the Bath-Gymnasium Complex, Synagogue, and BS with the excavated areas to the S. The Roman remains as of 1988.



- | | | | |
|------------------------------------|---|------------------------------------|---|
| 1. Bath-Gymnasium | 20.1. Acropolis Top | 35. Road under Mill | 54. Şeytan Dere Cemetery |
| 2. Synagogue | 20.2. Acropolis North | 36. Road to Roman House | 55. Hellenistic Steps |
| 3. Byzantine Shops | 20.3. Acropolis South | 37. Vaulted Substructure | 56. Hellenistic Tombs |
| 4. House of Bronzes | 21. Acropolis Tunnels | 38. Roman Agora | 57. Street of Pipes |
| 5. Upper and Middle Terraces (a,b) | 22. 'Flying Towers' | 39. Rubble Walls East of Gymnasium | 58. HoB Colonnaded Street |
| 6. Roman Bridge | 23. Lydian Foundations/Roman Terraced House | 40. 'Odeum' Area | 59. Building R and Tetrapylon |
| 7. Pactolus Industrial Area | 24. Building A | 41. Foundations | 60. East Road |
| 8. Southwest Gate | 25. Stadium | 42. Hypocaust Building | 61. West Road? |
| 9.1-9.34. Byzantine City Wall | 26. Theater | 43. Marble Foundation | 62. Conjectured Ancient Road |
| 10. Pactolus North | 27. Hillside Chambers | 44. Minor Roman Building | 63. Monumental Mudbrick Structure (MMS and MMS/S) |
| 11. Church E and EA | 28. Bath CG | 45. Rubble Wall | 64. Lydian Gate? (MMS/N) |
| 12. Peacock Tomb | 29. Building D (Byzantine Church) | 46. Pre-Hellenistic Wall | 65. Roman Colonnade |
| 13. Pactolus Cliff | 30. Building C (Roman Basilica) | 47. Brick Vaulted Tomb | 66. Lydian Tile Reconstruction |
| 14. Pyramid Tomb | 31. Mill | 48. Walls | 67. Wadi B Ionic Building |
| 15. Expedition Headquarters | 32.1. Claudia Antonia Sabina Tomb | 49. Butler's House | 68. Field 49 Lydian Wall |
| 16. Northeast Wadi | 32.2. Painted Tomb | 50. Shear's Stoa | 69. "Pot of Gold" Findspot |
| 17. Temple of Artemis | 33. Brick Vaulted Tombs | 51. Lydian Walls (AcN) | 70. Lydian Spring/Cistern |
| 18. Church M | 34. Roman Chamber Tomb | 52. Pre-Hellenistic Walls (AcS) | 71. Chrysanthios Tomb (76.1) |
| 19. Kägirik Tepe | | 53. Holes in Acropolis Scarp | 72. Orthostate Tomb (77.1) |

Fig. 5 Plan and key to the excavated sectors E of the Pactolus as of 1986.

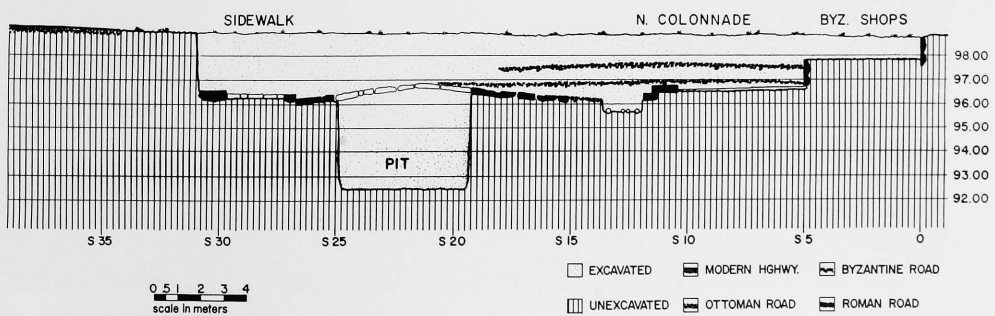
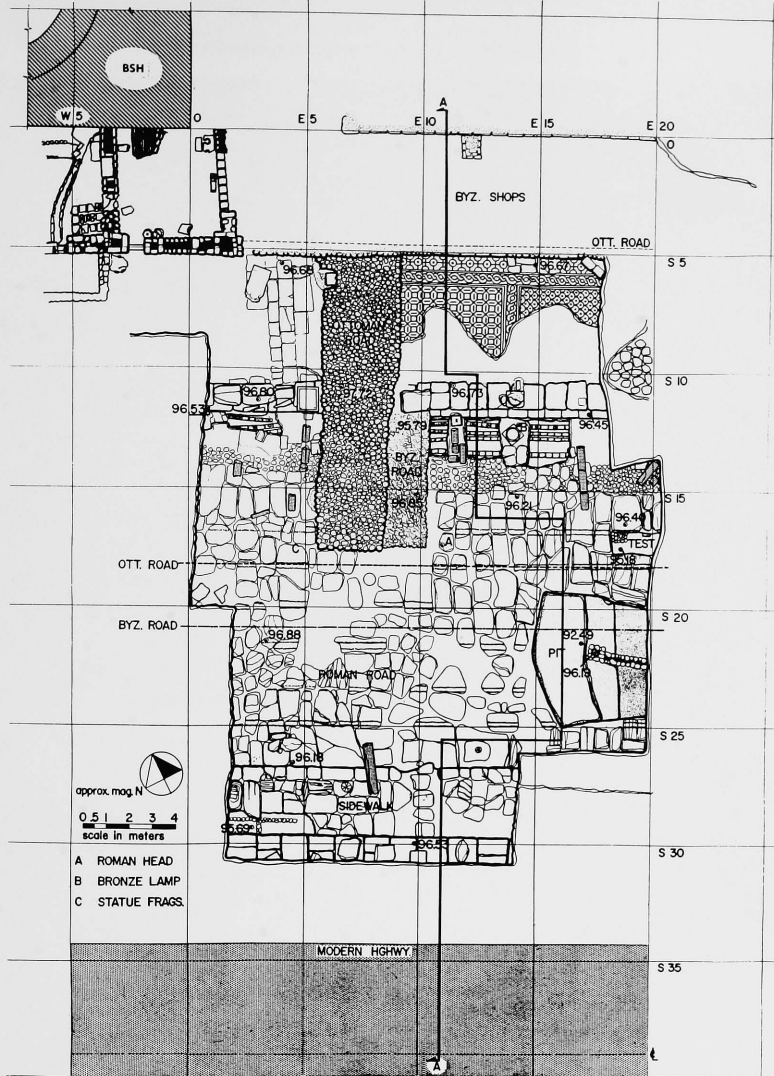


Fig. 6 Road Trench: plan and section of the phases of the E-W road, 1961.



Fig. 7 Marble Road, stylobate, bases and columns *in situ* S of Byzantine Shops, as excavated, 1962. Looking N.



Fig. 8 The Colonnade as restored S of Byzantine Shops E 1-3, 1973. Looking N.

Architectural Elements from the Colonnade.
Ca. 1:10.



Fig. 9 Attic base. RT 9.



Fig. 10 Attic base. BS 73.2.



Fig. 11 Ionic pedestal. RT 4.



Fig. 12 Ionic pedestal (BS 73.16) with column fragment (BS 73.17).



Fig. 13 Attic base (RT 6) reused as a capital set on a rectangular base (RT 15).

Architectural Elements from the Colonnade.
Ca. 1:10.



Fig. 14 Pergamene capital. BS 73.13.



Fig. 15 Doric capital. WS 2.



Fig. 16 Ionic capital. RT 12.



Figs. 17, 18 Corinthian capital.



Fig. 19 Ionic and composite capitals (displayed in E 3).

Architectural Elements from the Colonnade.
Ca. 1:20.



Fig. 20 Column shaft inscribed XP (RT 14) and joining fragment.



Fig. 21 Two column shafts. RT 7.

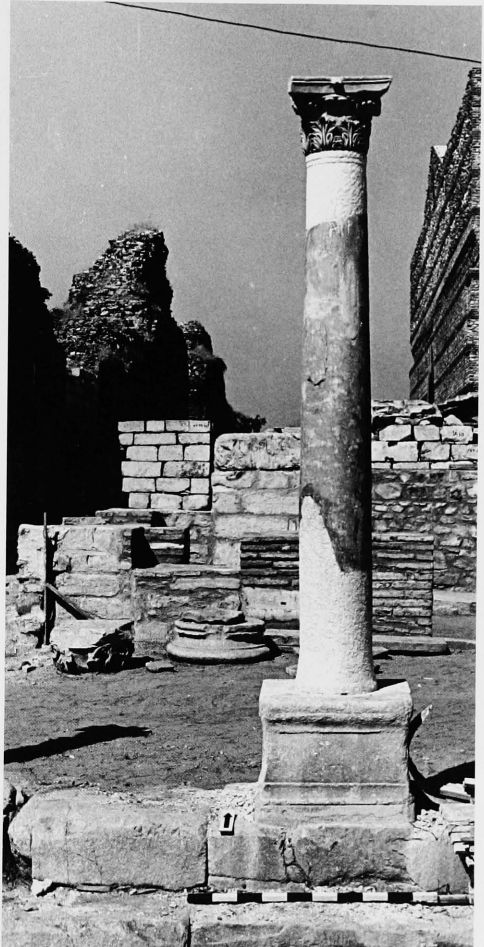


Fig. 22 Restored column, second from W in Fig. 8, 1973. Looking N.

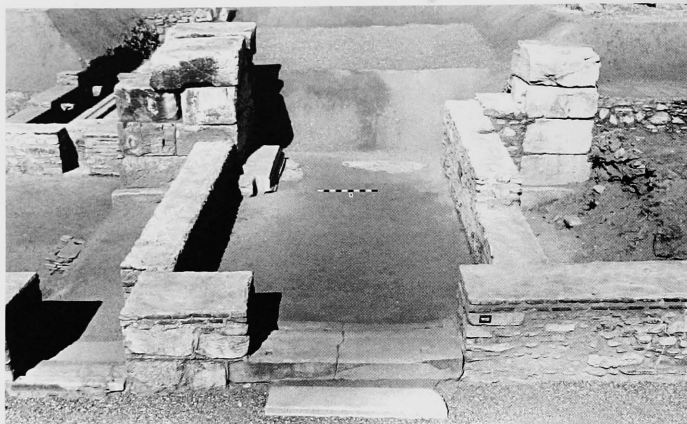


Fig. 23 Entrance to BW South Area (W 12) as restored, 1973. Looking N.

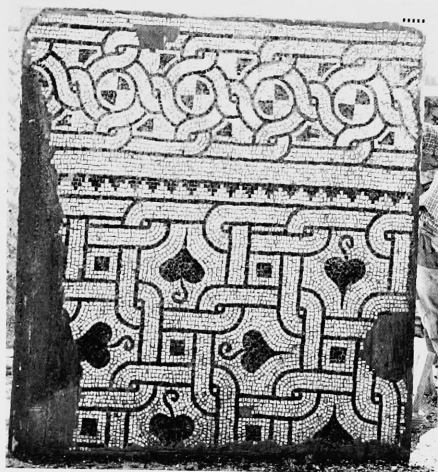


Fig. 24 Mosaic from entrance, Fig. 23, after lifting. Ms. 59.1.

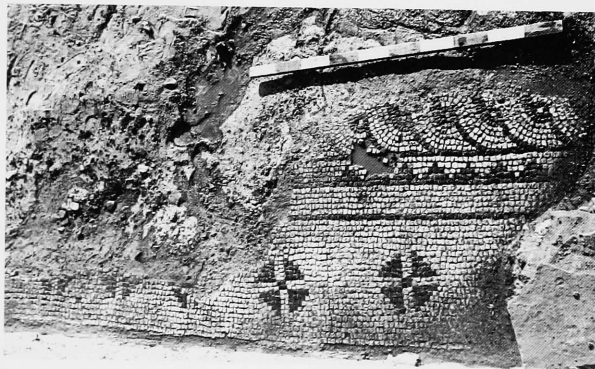


Fig. 25 Ambulatory mosaic at entrance to BE-A, 1967. Looking N.

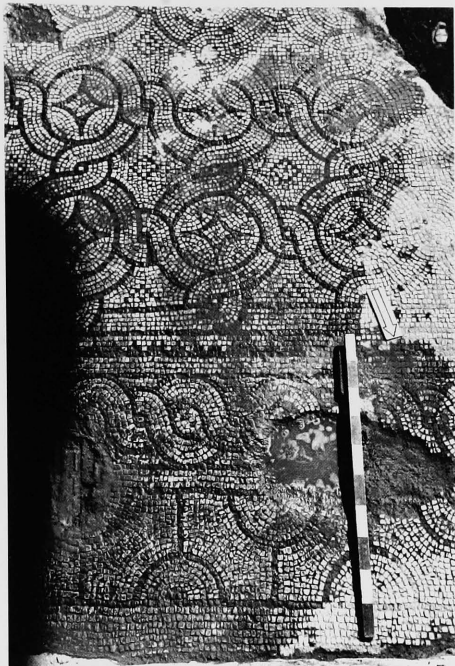


Fig. 26 Ambulatory mosaic in front of E 15, 1962. Looking S.



Fig. 27 Burned wood from beams or rafters in the Colonnade.



Fig. 28 Burned wooden planks from second story floor.

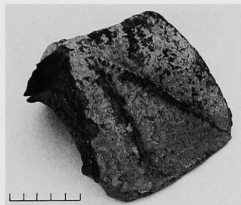


Fig. 29 Cover tile.



Fig. 30 Spouted corner tile from the W end of the Colonnade.

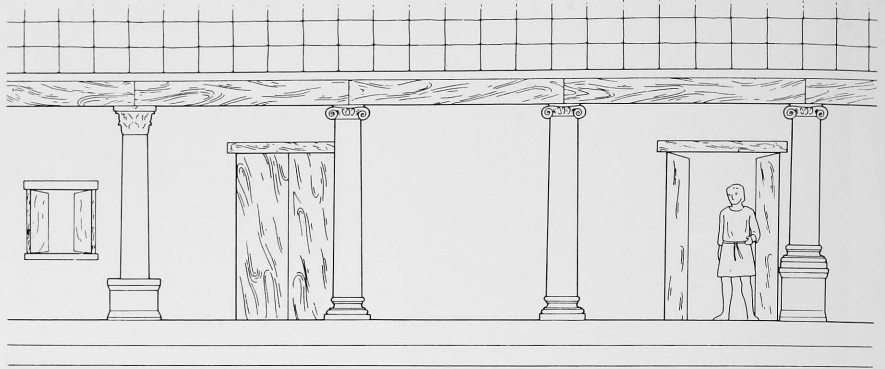


Fig. 31 Hypothetical reconstruction of the Colonnade and S facade of the Shops.

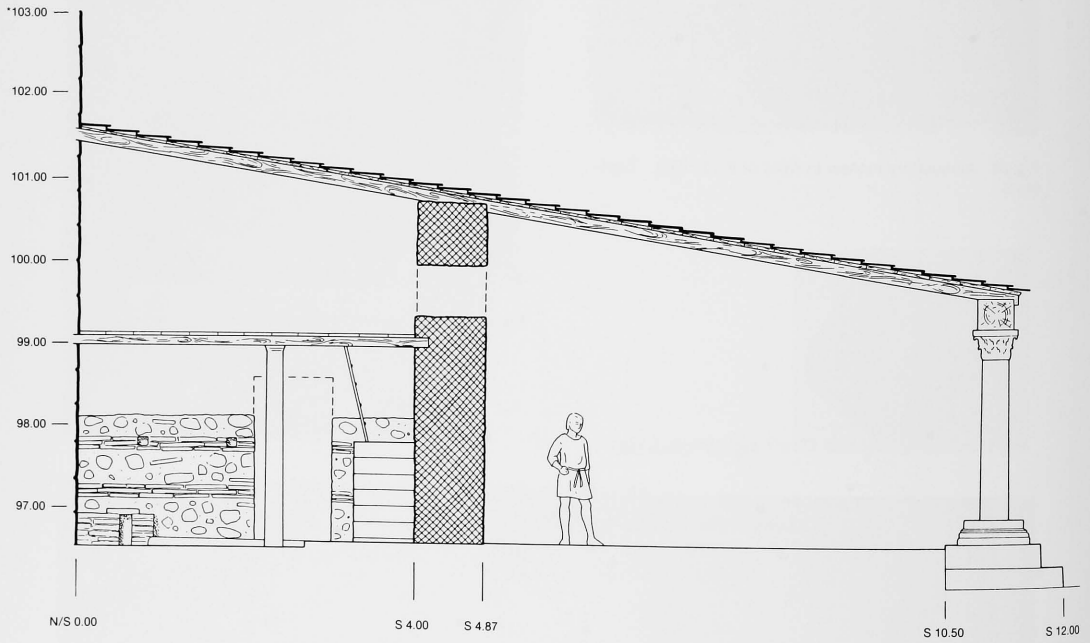


Fig. 32 Hypothetical section through E 6 and the Colonnade.



Fig. 33 Recreation of the interior of E 6.

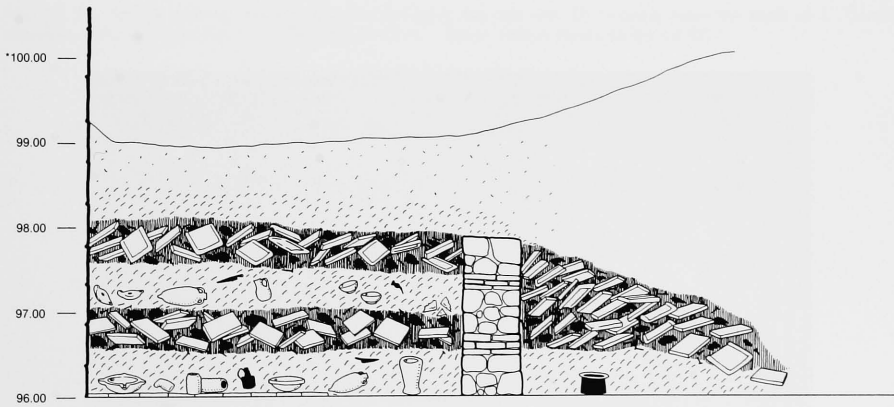


Fig. 34 Schematic stratigraphic section showing the upper and lower story deposits.

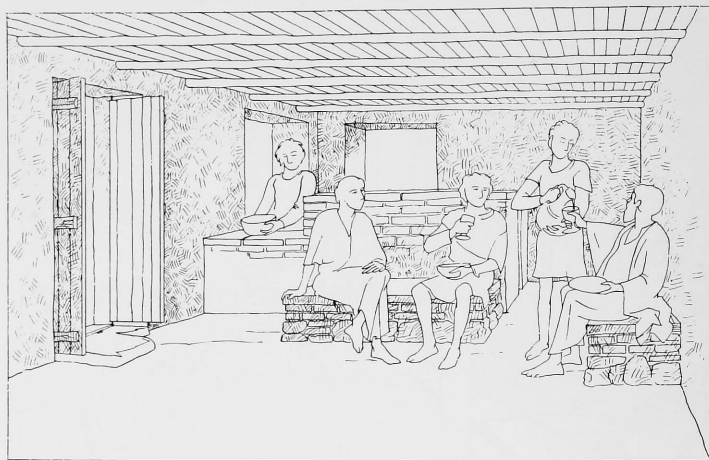


Fig. 35 Recreation of the interior of E 1, a restaurant.

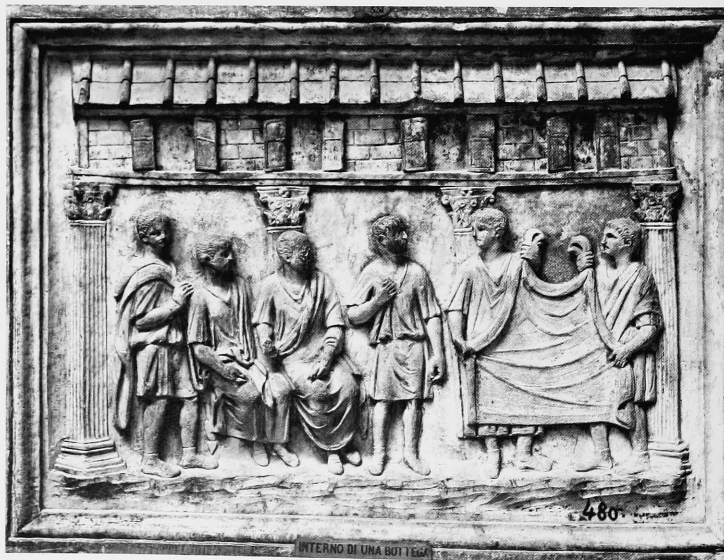
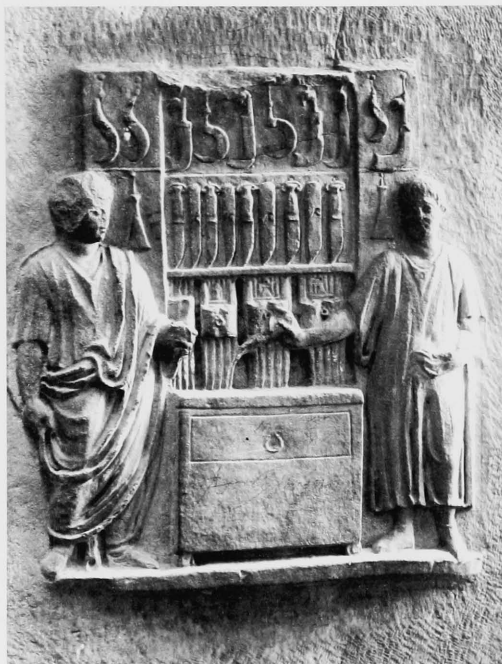
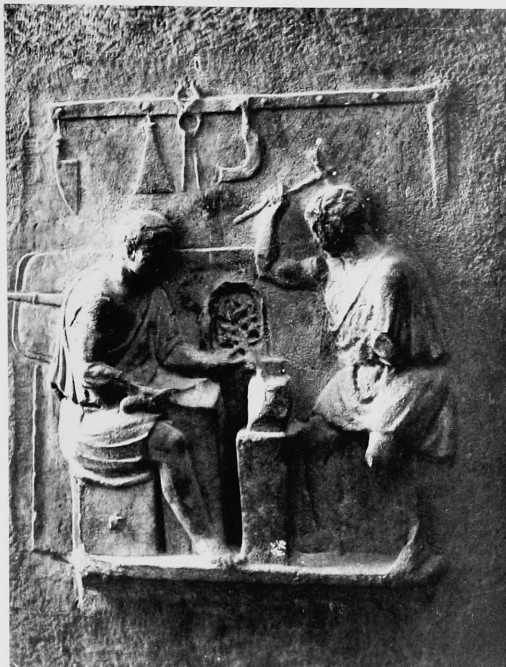


Fig. 36 Relief showing merchants displaying their cloth to customers, 1st C. A.D., from Rome, Vigna Strozzi. Florence, Galleria Uffizi inv. no. 315.



Figs. 37, 38 Reliefs showing metal workers at an anvil and the sale of hardware from the tomb of L. Cornelius Atimetus, 1st C. A.D., from Rome, Villa Negroni-Massimo. Rome, Vatican Museums inv. no. 9277.

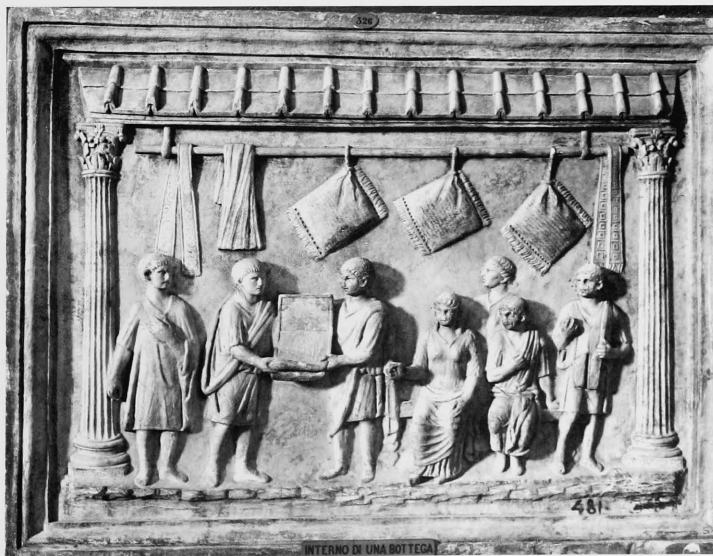


Fig. 39 Relief showing the display and sale of cloth and cushions in a colonnade, 1st C. A.D., from Rome, Vigna Strozzi. Florence, Galleria Uffizi inv. no. 313.



Fig. 40 The West Shops and the central halls of B during excavation, 1959. Looking N.



Fig. 41 The West Shops as restored, 1973. Looking NE.

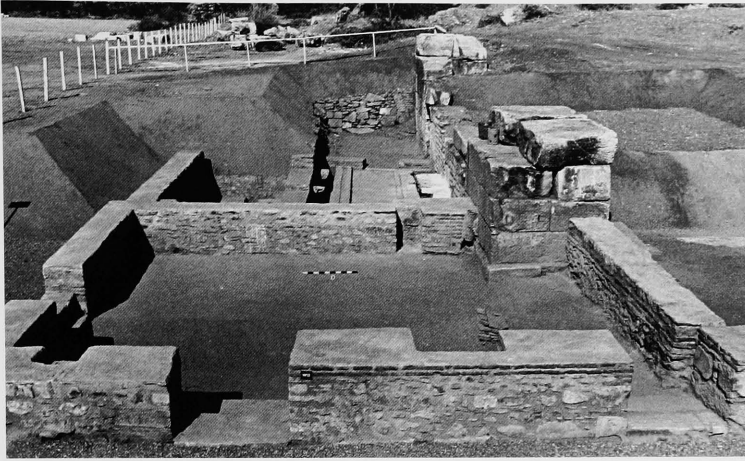


Fig. 42 W 13 as restored, 1973. Looking N.

BONE
Pin



Fig. 43.
B159.21:1888.

GLASS
Goblet



Fig. 44.
G59.68:2194.

COPPER ALLOY
Spoons



Fig. 45.
M59.66:2115.



Fig. 46.
M59.55:1883.

POTTERY

Amphorae



Fig. 47.



Fig. 48.

Cooking Ware

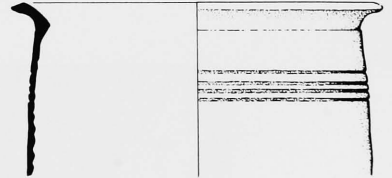


Fig. 50.

Bowl



Fig. 49.



Fig. 51 W 11 as excavated, 1969. Looking N.

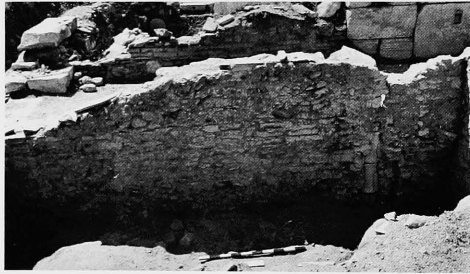


Fig. 52 W wall, 1969. Looking W.



Fig. 53 Inscribed brick. IN59.18:1441.



Fig. 54 Metal suspension plates and hooks. M69.4:7920.



Fig. 55 W 10 as restored, 1973. Looking N.



Fig. 56 Pier no. 15 with beam hole at *99.10.

IRON
Chisel



Fig. 57.
M59.18:1396.

POTTERY
Cooking Ware



Fig. 58.

STONE
Mortar

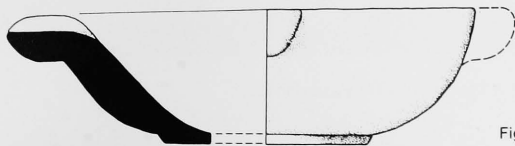


Fig. 59 S59.35:1739.

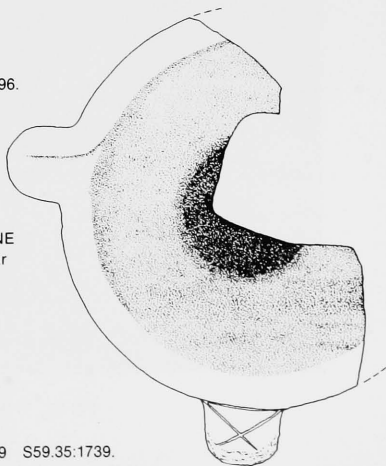




Fig. 60 Plan of W 9 (left) and W 8 (right).

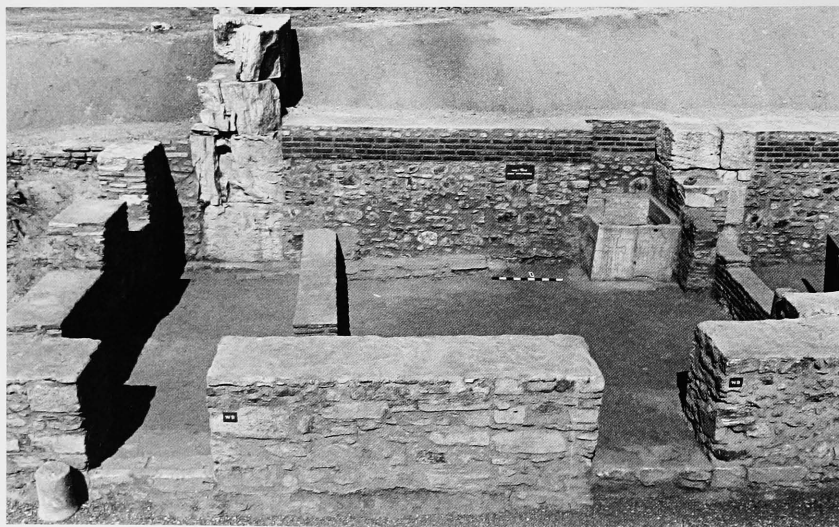


Fig. 61 W 9 and W 8 as restored, 1973. Looking N.

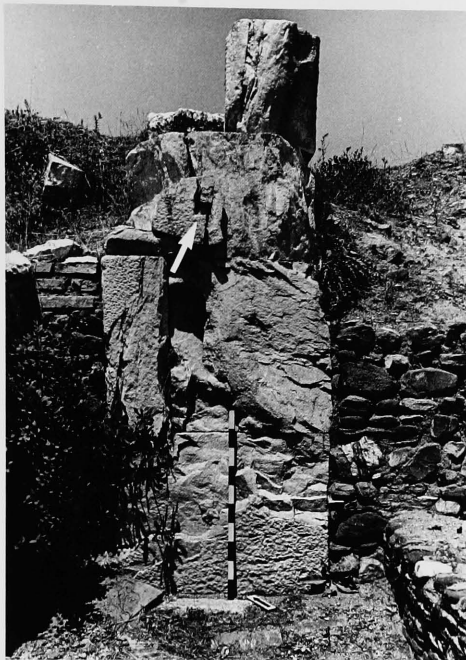


Fig. 62 Pier 17 in N wall of W 9 with square beam hole at *99.10.



Fig. 63 N end of W 9 with tiles, pottery, pipes *in situ*, 1959.



Fig. 64 S part of W 9 as excavated, 1959.



Fig. 65 W 8 as excavated, 1959. Looking N.



Fig. 66 Mortar *in situ* in front of basin in NE corner of W 8, 1959.



Fig. 67 Features on E side of W 8 as excavated, 1959. Looking SE into W 7, from above.



Fig. 68 Reused inscriptions on basin in W 8. IN59.3 and IN59.4.



Fig. 69 Inscribed brick from W 8. IN59.13:1442. 1:3



Fig. 70 W 8, S wall, 1969.



Fig. 71 Looking W into W 8 and W 9, 1969. E face of W wall of W 7 in the foreground.

POTTERY

Amphorae



Fig. 72 P59.120:1409.



Fig. 73 P59.101:1376 with IN59.29 rolled out at 1:2.

Bowls

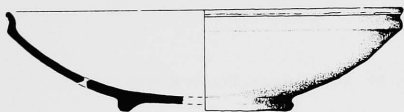


Fig. 74 P59.88:1350, restored.

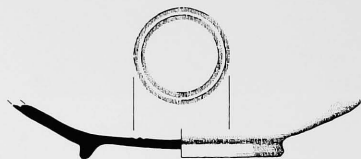


Fig. 75 P59.133:1454.



Fig. 76 P59.57:1274.

Cooking Ware



Fig. 77 P59.100:1375, restored.



Fig. 78 Lid.

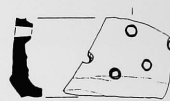


Fig. 79 Colander

Pithoi

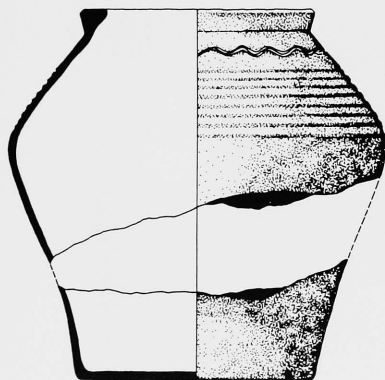


Fig. 80 P59.584:2214, restored.

1:10

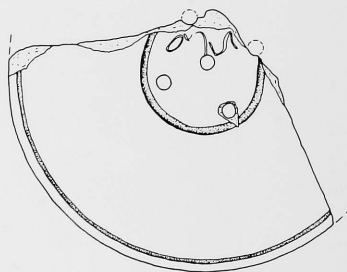


Fig. 81 Lid. P59.231:1598.

W 8 Finds

GLASS

Bottle



Fig. 82. 1:2
G59.25:1341A.

COPPER ALLOY

Buckle



Fig. 83. 2:3
M59.19:1399.

Key



Fig. 84. 2:3
M59.14:1372.

Weight



Fig. 85. 1:1
M61.18:3214.

POTTERY

Amphorae

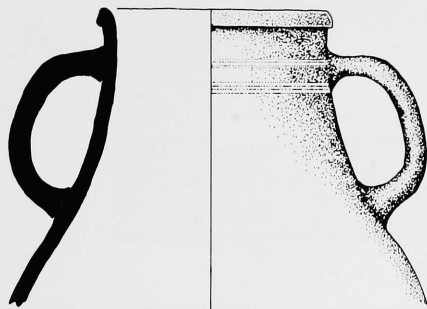


Fig. 86 P59.127:1447.

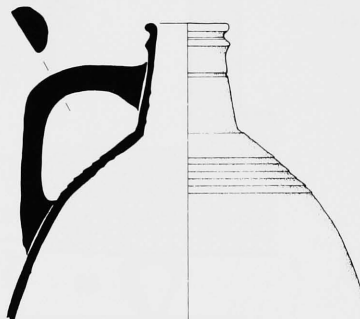


Fig. 87.

Bowls



Fig. 88 P59.237:1605.



Fig. 89 P59.128:1448.

Cup



Fig. 90 P61.32A:3202.

Jugs



Fig. 91.
P59.109:1388.



Fig. 92.

LAMP



Fig. 93.
L59.4:1246.

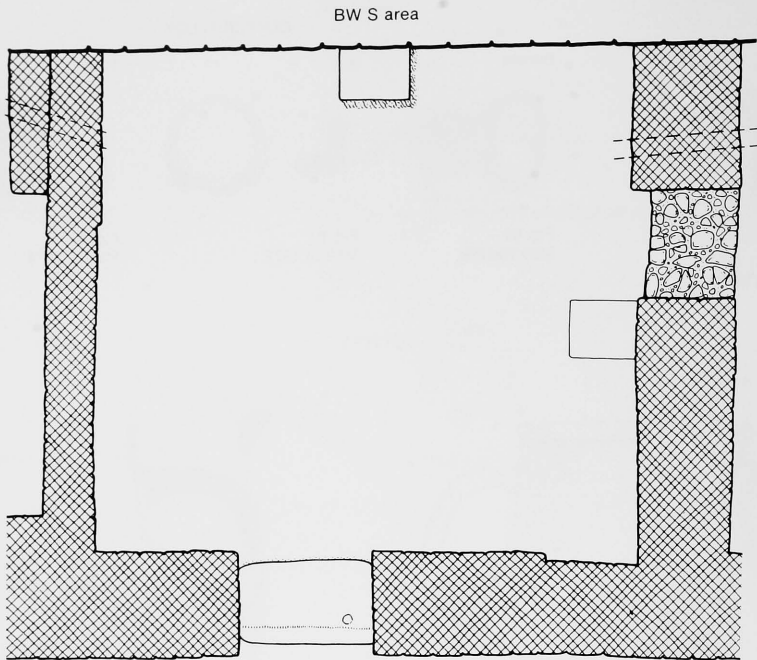


Fig. 94 Plan of W 7.

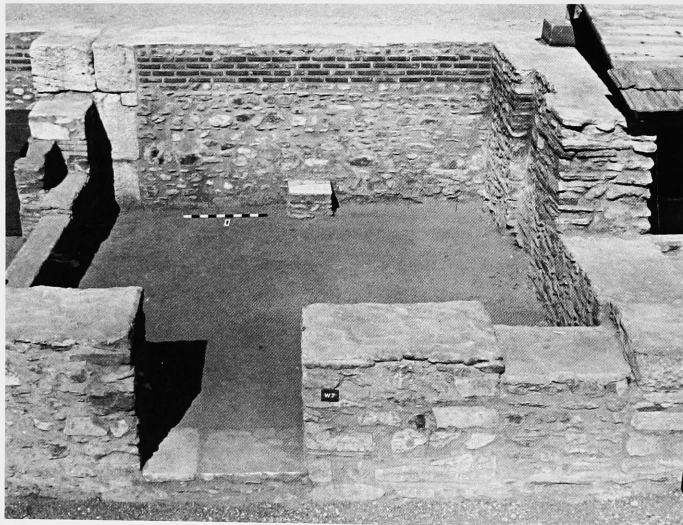


Fig. 95 W 7 as restored, 1973. Looking N.

BONE
Haft



Fig. 96 B159.1:1391.

COPPER ALLOY

Rings



Fig. 97 M59.22A-B:1452. 2:3

Spoon



Fig. 98.
M59.5:1253.

IRON
Saw



Figs. 99, 100 M59.21:1411, side and detail of end at 2:3.

POTTERY

Bowls



Fig. 101.
P59.122:1414.



Fig. 105.
P59.83:1344.

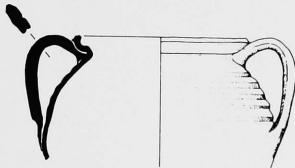


Fig. 102.

Cooking Ware



Fig. 103.
P59.81:1342.



Fig. 104.
P59.115:1402.

Jug



Fig. 106.
P59.82:1343.

Lid



Fig. 107.

Graffito



Fig. 108.
P59.107:1385.

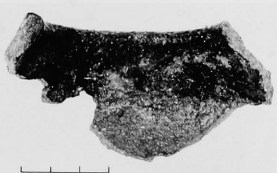


Fig. 109 Crucible fragments with gold droplets on int.
P72.9:8211. 1:2

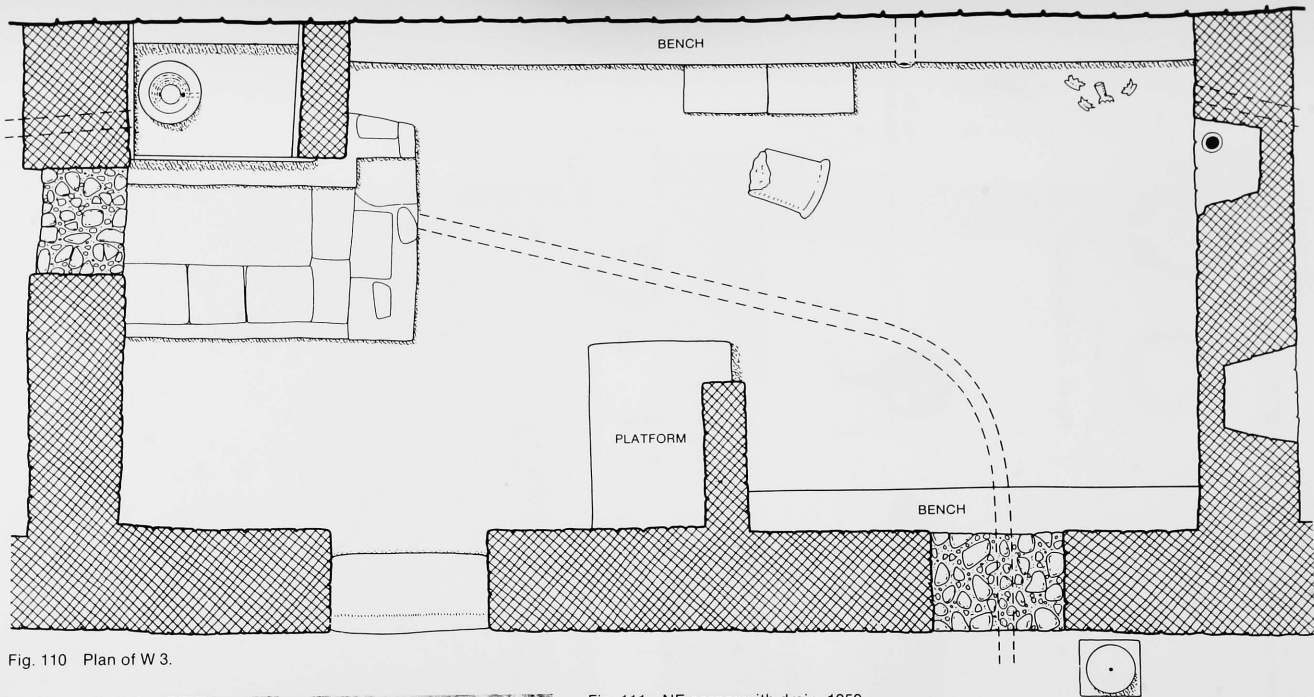


Fig. 110 Plan of W 3.

Fig. 111 NE corner with drain, 1959.



Figs. 112, 113 Stopper in situ in pipe in basin and as cleaned. M73.4.8249.



Fig. 114 W 3 as restored, 1973. Looking N.



Fig. 115 Pier in NW corner with beam holes at *96.20. Top of basin shows below, 1973.

COPPER ALLOY

Buckles



Figs. 116, 117 M58.36:392 front, back.

2:3



Fig. 118. 2:3
M58.33:390.



Fig. 119. 2:3
M59.45:1682.

Hasp



Fig. 120.
M58.35:377.

Rings



Fig. 121. 2:3
M59.35:1600.



Fig. 122. 2:3
M59.36:1601.

POTTERY

Bowl



Fig. 123 P59.104:1380.

Cooking Ware

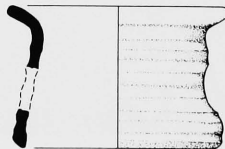


Fig. 124 P59.90:1354.

TERRACOTTA

Weight?



Fig. 125.
T59.3:1272.

BSH

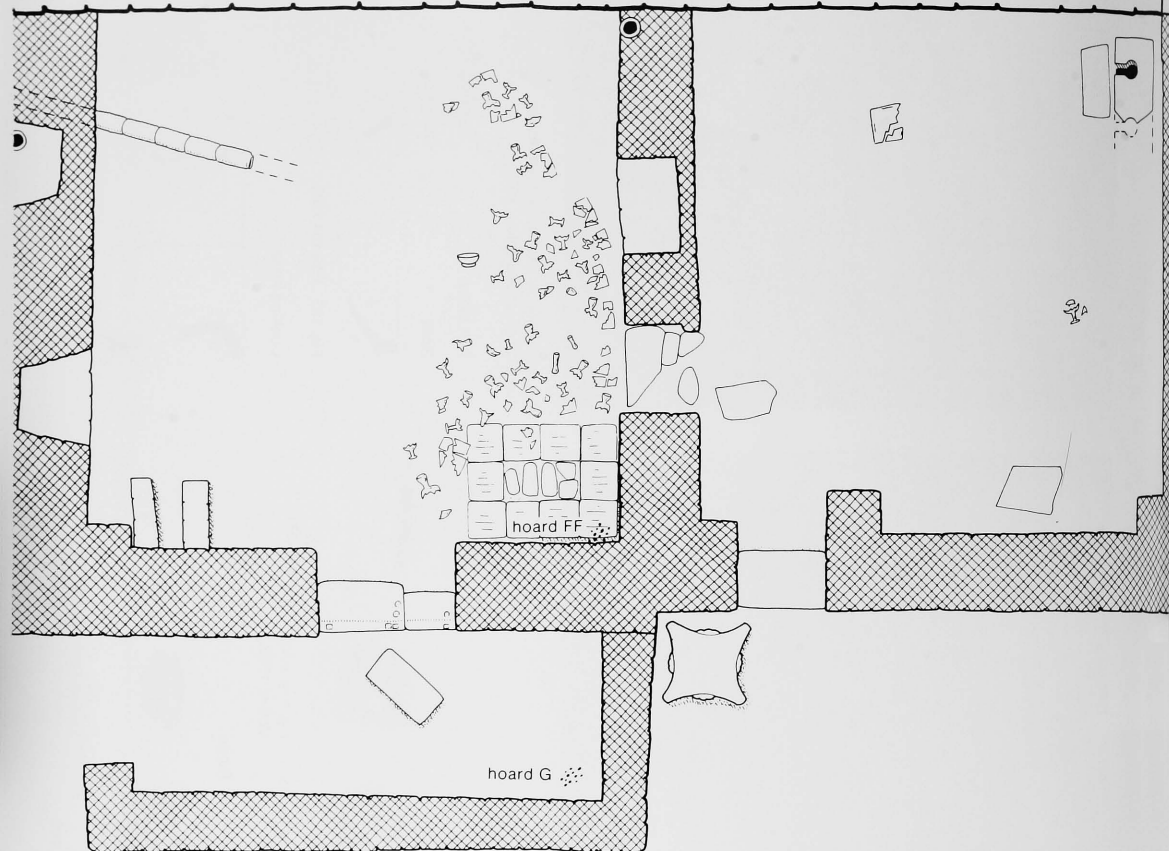


Fig. 126 Plan of W 2 (left) and W 1 (right).



Fig. 127 Pipe in enclosure S of W 2. Looking NE.



Fig. 128 Capital *in situ* at entrance to W 1, 1958. Looking NW.



Fig. 129 W 2 and W 1 as restored, 1973, with the entrance into BE-A and E 1. Looking NE.



Fig. 130 W 1 (foreground) and W 2 as excavated, 1958. Looking NW.



Fig. 132 W 2 as excavated, 1958. Looking N.

Fig. 131 Pier of S apse of BSH with beam hole at *101.50.



Fig. 133 E wall of W 2 looking E into W 1, 1969.

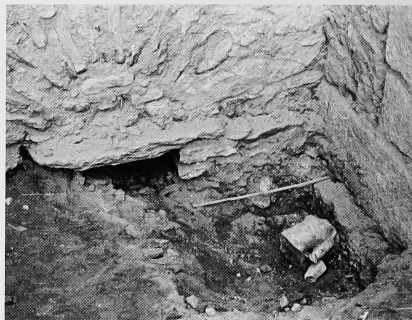


Fig. 134 NW corner of W 2 with upper torso of S58.8:605 *in situ*, 1958.



Fig. 135 S wall of W 2 as excavated, 1958. Looking S.



Fig. 136 Furniture support in form of Attis. S58.8:605.



Fig. 137 W 1 as excavated, 1958. Looking N.

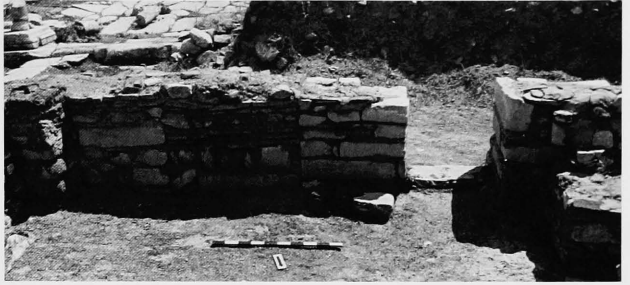


Fig. 138 S wall of W 1 as excavated, 1969. Looking S.



Fig. 139 NE corner of W 1, 1958.



Fig. 140 W wall of W 1 and fallen pier looking W to W 2, 1969.

W 2 Finds
COPPER ALLOY

Buckle

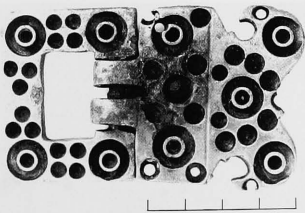


Fig. 141 M58.59:861. 2:3

Weight



Fig. 142. 1:1
M58.60:87.

W 1 Finds
COPPER ALLOY

Rings



Fig. 145. 2:3
M58.31:396.



Fig. 146. 2:3
M58.55:792.

IRON
Knives



Fig. 143.
M58.71:691

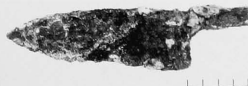


Fig. 144 M58.118:498.

IRON
Knife



Fig. 147 M58.83:692A.

Amphorae



Fig. 148 P58.291:543.

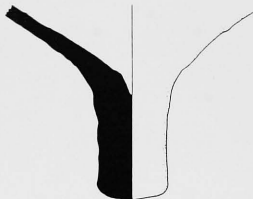


Fig. 149 P58.468:760.

Cooking Ware



Fig. 150 P58.429:694A.

Cup



Fig. 151.
P58.265:461.

Plate



Fig. 152.
P58.272:444.

LAMP



Fig. 153 L58.25:534.

TERRACOTTA
Stamp



Fig. 154 P58.290:542.

W 1 Finds
POTTERY
Ampulla



Figs. 155, 156 P58.428:397 front and back. 1:2

Cooking Ware

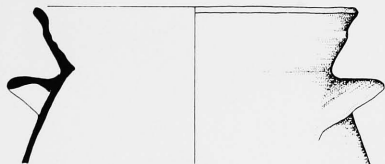


Fig. 157 P58.339:714.

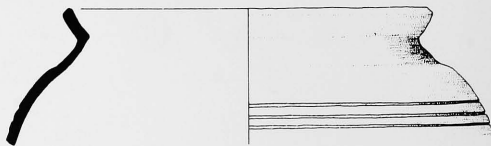


Fig. 158 P58.425:690A.

Jug



Fig. 159.
P58.257:491.

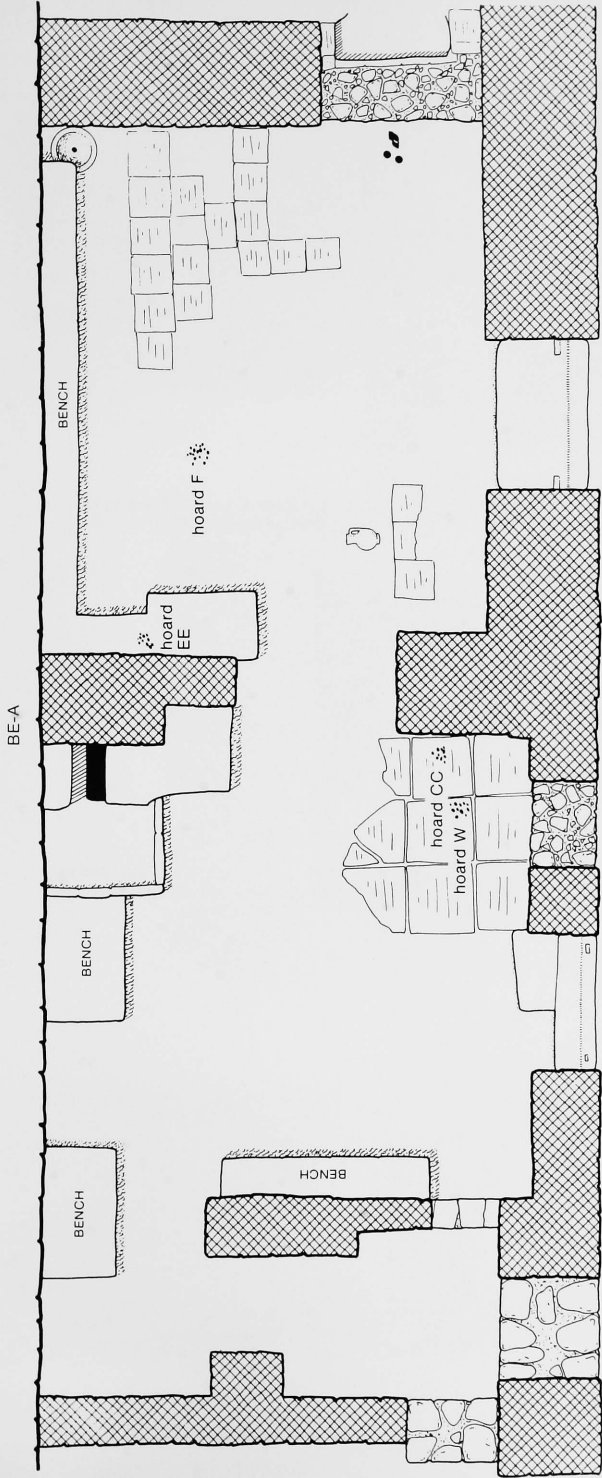
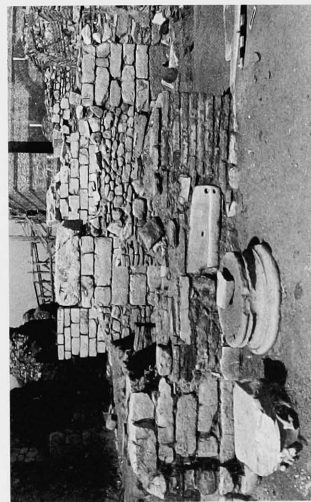
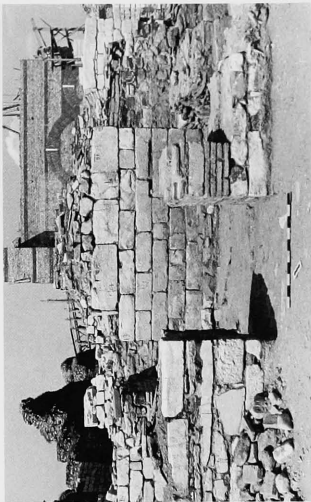


Fig. 160 Plan of E 1 (left) and E 2 (right).



Figs. 161, 162, 163 S wall of E 1 and 2 looking N to N wall with mortared fieldstone infill between piers, during excavation, 1968.

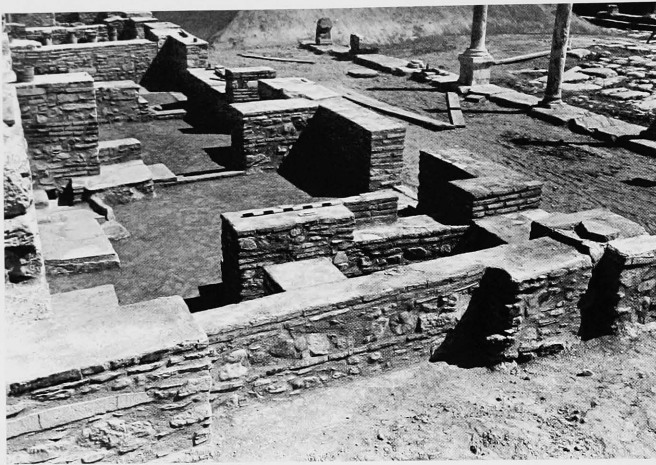


Fig. 164 E 1 and E 2 looking NE into E 2A, as restored, 1973.



Fig. 165 E 1, W wall and partition wall as excavated, 1967. Looking SW.



Fig. 166 S wall of E 1 and E 2 and partition wall as excavated, 1967. Looking S.



Figs. 167, 168 E 1, E wall and NE corner looking E into E 2 and E 2A as restored, 1973, and as excavated, 1968.



Fig. 169 E 2 as excavated, 1968. Looking NE.



Fig. 170 E 2, E section of S wall as excavated, 1980.



Fig. 171 E 2, W wall looking W into E 1 during excavation, 1968.

E 1 and E 2

E 1 Finds

GLASS

Lamps



Fig. 172.



Fig. 173.

Windows

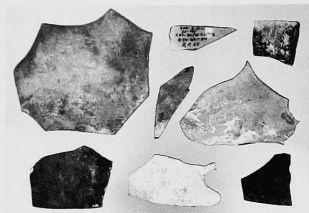


Fig. 174 Fragments from BS and B, including G58.17A-B:469 from W 1.

POTTERY

Plate



Figs. 175-178 P67.2:7284, top, bottom, section.

STONE

Mold



Fig. 179 S62.3:4136.

Mortar

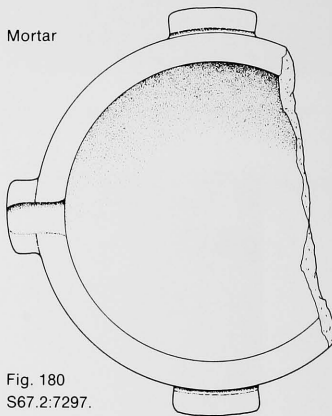


Fig. 180 S67.2:7297.



COPPER ALLOY

Key



Fig. 181. M61.26:3353. 1:2

POTTERY



Fig. 183. P68.12:7614, IN68.8 at 1:2.

E 2 Finds

Jug

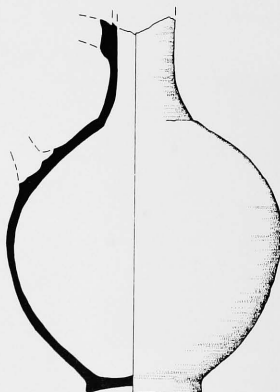


Fig. 184.

LAMP

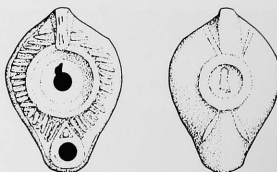


Fig. 185 L68.2:7603.

Lampstand



Fig. 182 M68.4:7624.

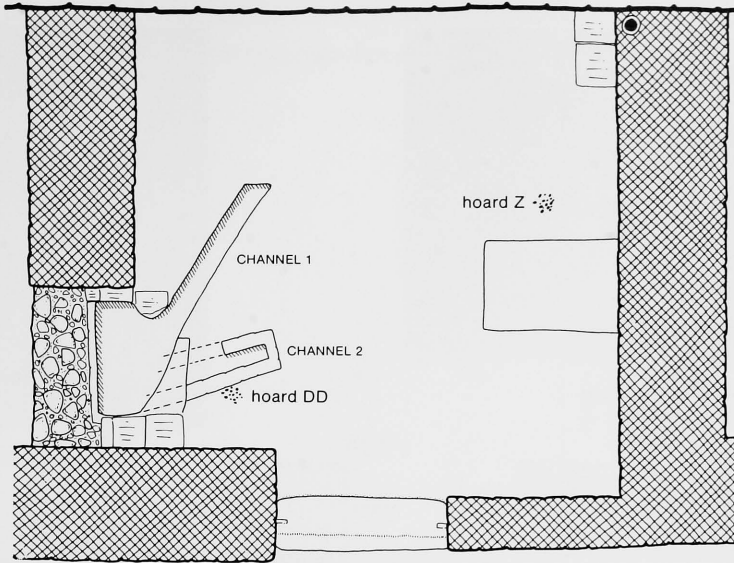


Fig. 186 Plan of E 2A.



Fig. 187 E 2A as excavated, 1968. Looking N.



Fig. 188 E side as excavated, 1968.



Fig. 189 W wall with niche and water channels in SW corner, as excavated, 1968.

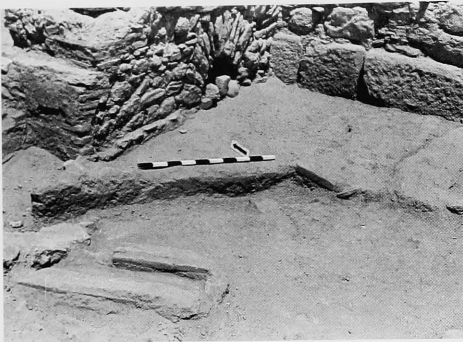


Fig. 190 Water channels in SW corner.

COPPER ALLOY

Buckle



Fig. 192. 2:3

POTTERY

Amphora

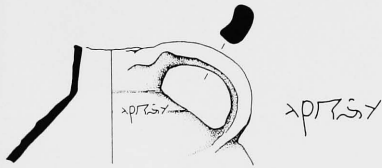


Fig. 193 With graffiti rolled out at 1:2.

Plates

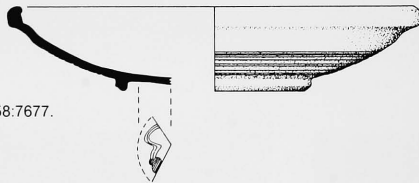


Fig. 194 P68.58:7677.



Fig. 195.

STONE

Pestle



Fig. 196 S62.8:4159.



Fig. 191 Lower part of S68.1:7604 (Fig. 197) *in situ*.



Fig. 197 S68.1:7604 as restored with top from E 2.

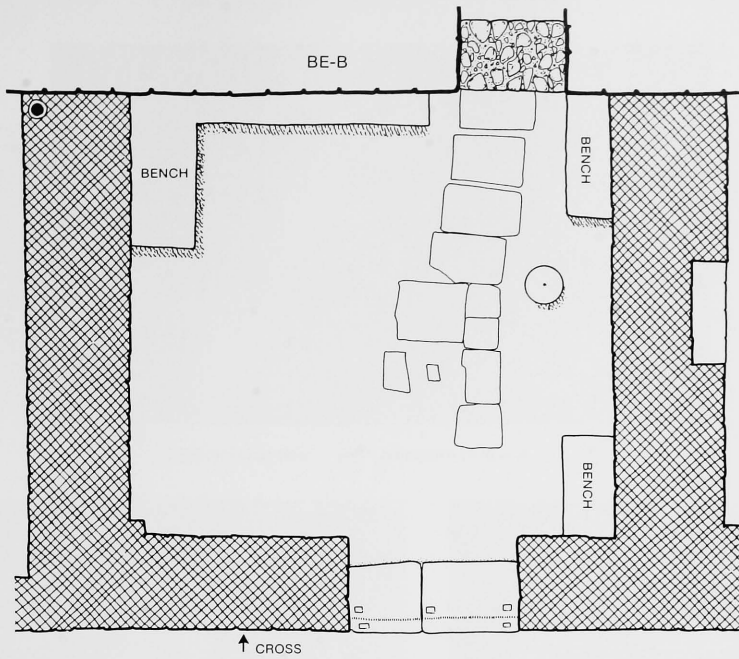


Fig. 198 Plan of E 3.



Fig. 199 W side of S wall, 1968. Looking N.



Fig. 200 E 3 as excavated, 1968. Looking N.



Fig. 201 Cross on re-used block, detail of Fig. 199.

Fig. 202 Copper alloy cauldron *in situ* outside E 3.



Fig. 203 N wall as excavated, 1968. Looking N into BE-B.



Fig. 204 Detail of threshold, Fig. 203.



Fig. 205 E wall, column shaft *in situ*, as excavated, 1968.



Fig. 206 E 3 as excavated, 1968. Looking SW from above into E 3^A

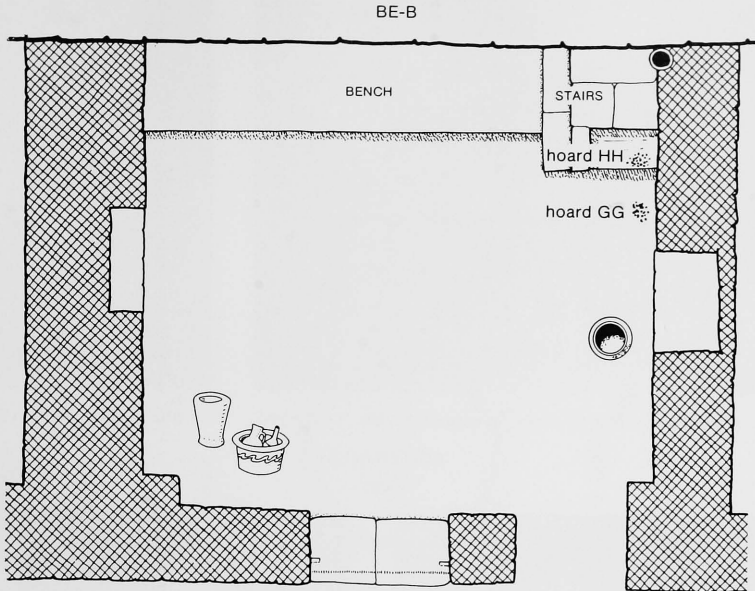


Fig. 207 Plan of E 4.



Fig. 208 E 4 as restored, 1973. Looking N.



Fig. 209 E wall, pithos *in situ*, stair in NE corner, as excavated, 1968. Looking NE.

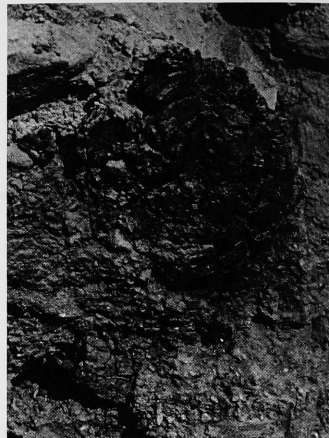


Fig. 210 Burned timber in E wall.

COPPER ALLOY

Jugs



Fig. 211.
M67.15:7381
in situ.



Fig. 212.
M67.29:7475
with lid *in situ*.



Fig. 213.
M67.15:7381.



Fig. 214.
M67.29:7475.

BONE

Flute

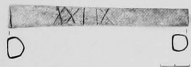


Fig. 215 B168.2:7658.

GLASS

Bowl



Fig. 216.

Lamp



Fig. 217.

POTTERY

Jug

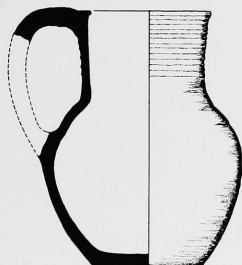


Fig. 220.

Cups



Fig. 218.



Fig. 219.



Fig. 221 P68.46:7661, stamp at 1:2.

Fig. 222 Stone mortar and pottery basin containing pots *in situ* in SW corner.

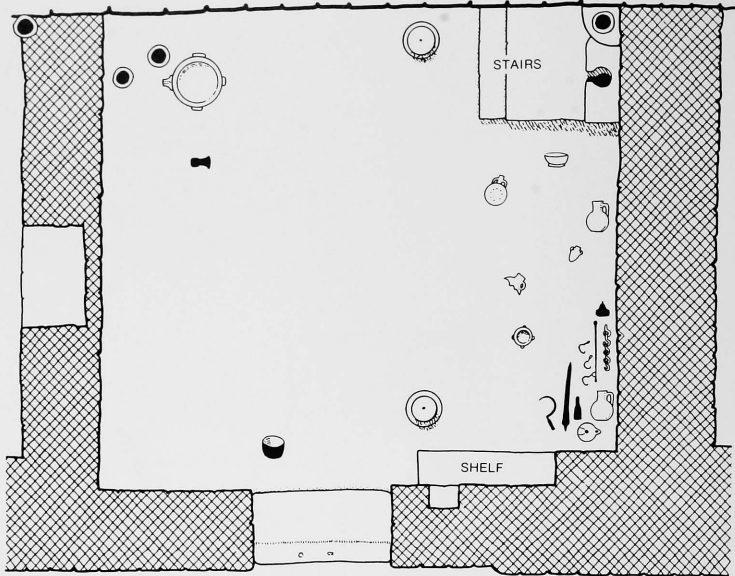


Fig. 223 Plan of E 5.



Fig. 224 E 5 during excavation, 1968. Looking N.

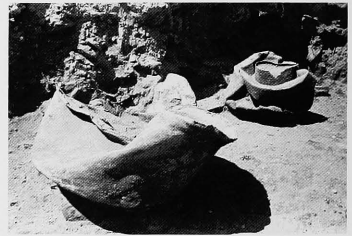
Fig. 225 Copper alloy cauldrons *in situ* outside E 5, 1973.Fig. 226 Burned and fallen beams *in situ*.



Fig. 227 E 5 as restored, 1973. Looking N.

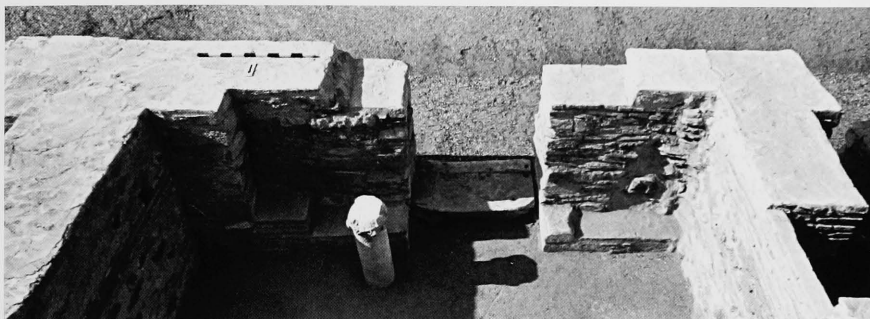


Fig. 228 E 5 as restored, 1973. Looking S from above.

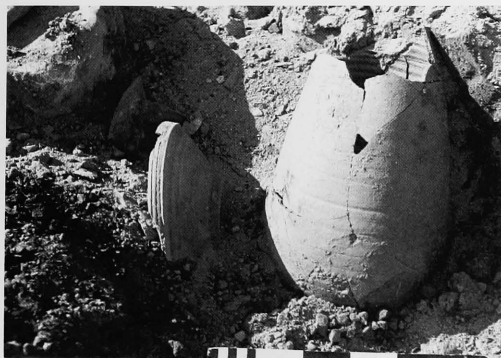


Fig. 229 Bowl (Fig. 251) and lower part of storage jar *in situ*, 1967.



Fig. 230 IN68.14.

Bowl

Lamp



Fig. 231 M68.14:7757.

Figs. 232, 233 M67.4:7291 after cleaning and *in situ*.

Steelyard

Clasp

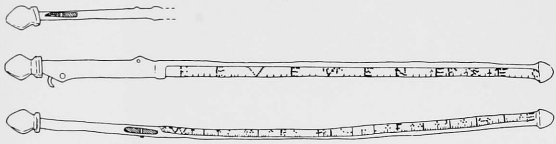


Fig. 234 M68.25:7901.



Fig. 237 Steelyard (Figs. 235–236), pounder (Fig. 240), sword (Fig. 242) *in situ* with P68.176:7887 (Fig. 260).

Figs. 235, 236 M69.3:7919A-C=IN69.17.

Sword

IRON

Pounders?

Axe

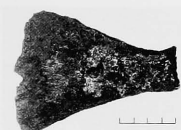


Fig. 238 M68.22:7843.

Dagger



Fig. 239.



Fig. 240
M69.1:7917.



Fig. 241.



Fig. 242
M68.23:7889. 1:10

Amphorae

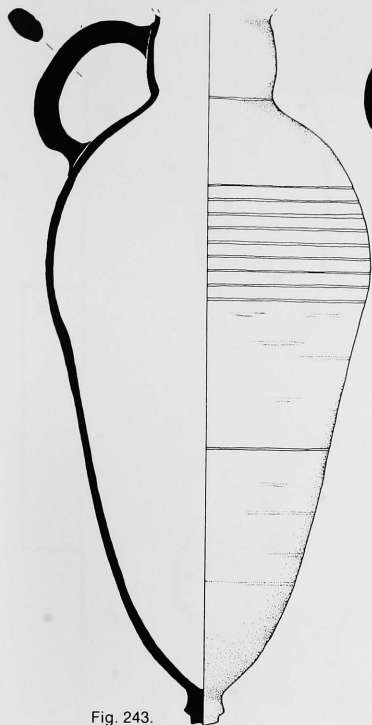


Fig. 243.

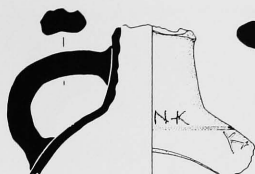


Fig. 244 P68.183:7902.



Fig. 245.

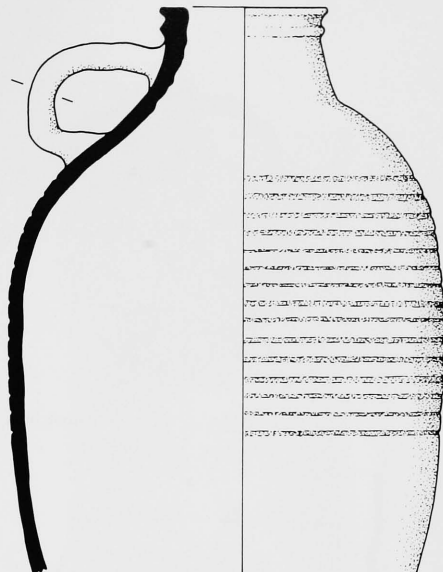


Fig. 246.

Basin

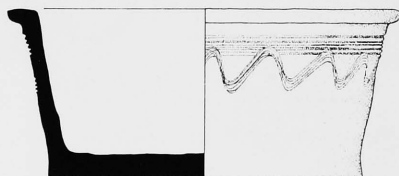


Fig. 247.

Bowls

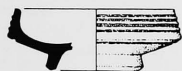


Fig. 248 P67.6:7294.

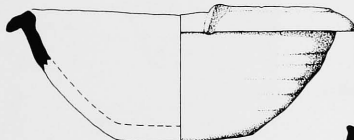


Fig. 249 P67.7:7298.



Fig. 250.



Fig. 251.



Fig. 252.

Cup

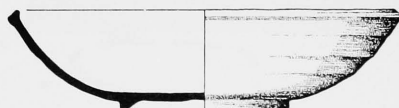


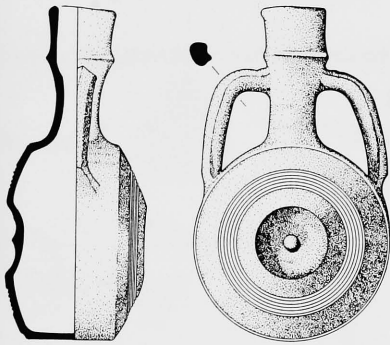
Fig. 253.

POTTERY

Flasks



Figs. 255-257 P68.165:7872 front, back, side section.



Figs. 258, 259 P68.174:7885 side, front.

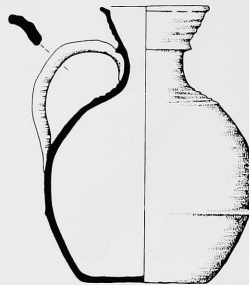


Fig. 260 P68.176:7887.

Jugs



Fig. 261 P68.175:7886.

Lid



Fig. 262.

LAMPS

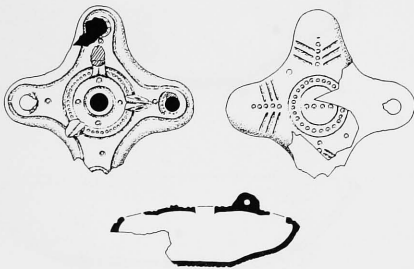


Fig. 263 L67.5:7295.



Fig. 264 L67.6:7296.

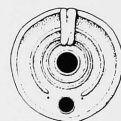


Fig. 265 L68.19:7891.

STONE

Mortar



Fig. 266 S68.37:7890.

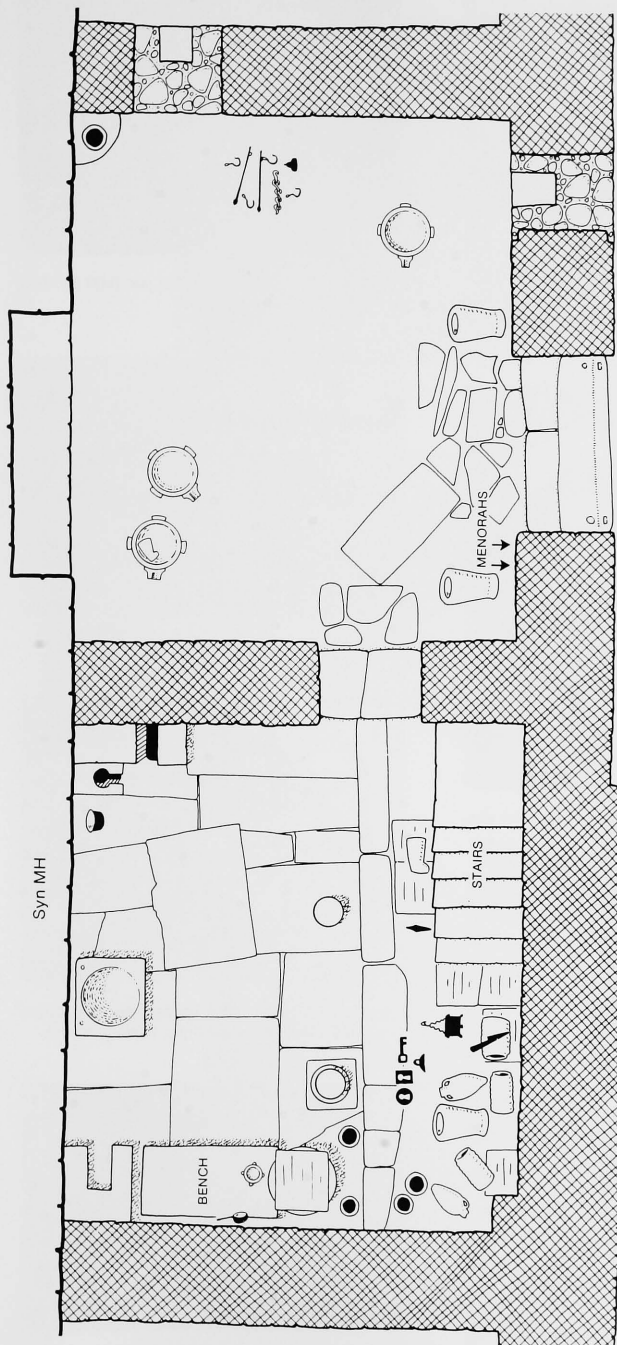


Fig. 267 Plan of E 6 (left) and E 7 (right).

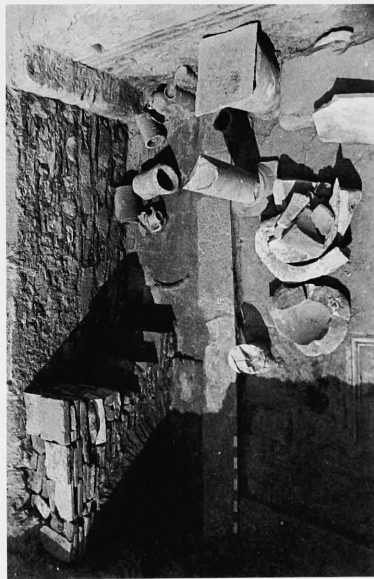


Fig. 269 Pipes and amphora *in situ* in SW corner of E 6, 1967.



Fig. 268 E 6 as excavated, 1967. Looking S from above.



Fig. 270 E 6 as excavated, 1969. Looking N.



Fig. 273 E 6, copper alloy fluted pan (M67.37.7586) *in situ* in second story fall.



Fig. 271 E 6 looking E into E 7, as restored, 1973. The large mortar or vat was found in E 6.



Fig. 274 E 6, iron trowel *in situ* in E wall.



Fig. 275 E 6, copper alloy censer (M67.39.7588) *in situ* in E 6 with suspension links, chain and hook.

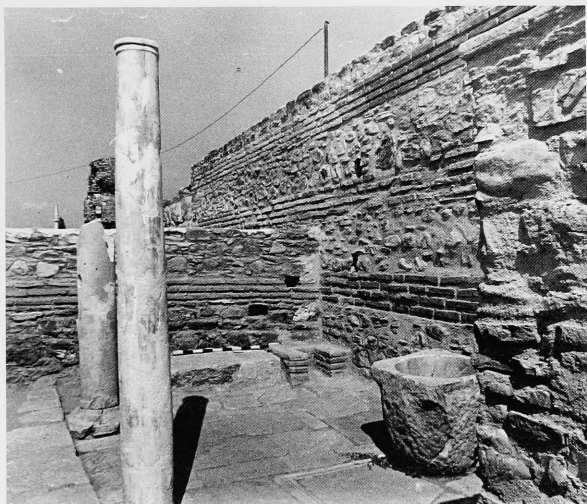


Fig. 272 E 6 as restored, 1973. Looking NW.



Fig. 276 E 6, mortar (Fig. 298) and strainer (Fig. 286) *in situ*. The pestle was found nearby.



Fig. 277 E 7 as excavated, 1969. Looking N.



Fig. 278 E 7, doorway through S wall, 1967.



Fig. 279 E 7, two menorahs on S wall.



Fig. 280 E 7 as excavated with mortars (Figs. 309, 310, 316) *in situ*, 1967. Looking W.

Authepsa



Figs. 281, 282 M67.36:7585 ext. and showing int. funnel.

Jug

E 6 Finds
COPPER ALLOY

Brooch



Fig. 283 J73.2:8222. 2:3

Lampstand



Fig. 284 M67.28:7474.



Strainer



Fig. 286 M67.38:7587.

Candelabrum



Locks

IRON

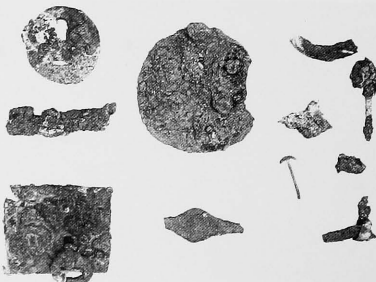


Fig. 288 M67.18-20:7397-9 and fragments found with them.

Fig. 287 Window leading.

Fig. 289 M67.17:7383. 1:10

LEAD

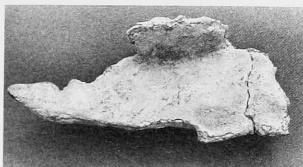
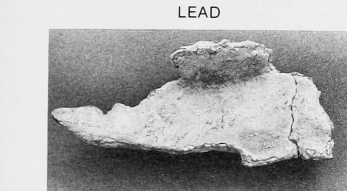


Fig. 285 M67.16:7382.



Bowl

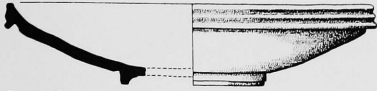


Fig. 290.

Closed Vessel



Fig. 291 P67.17:7340, with graffiti at 1:2.

Jug

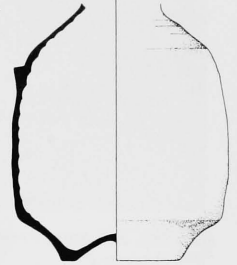


Fig. 292.

Lids



Fig. 293.



Fig. 294.



Fig. 295.



Fig. 296.



Fig. 297.

STONE

Mortars

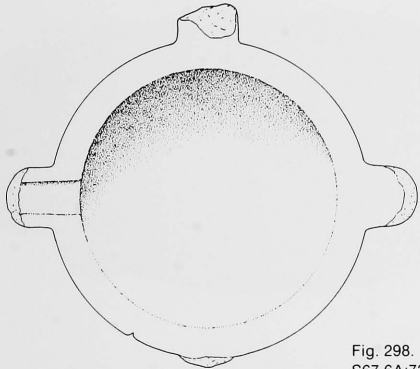


Fig. 298.
S67.6A:7316.

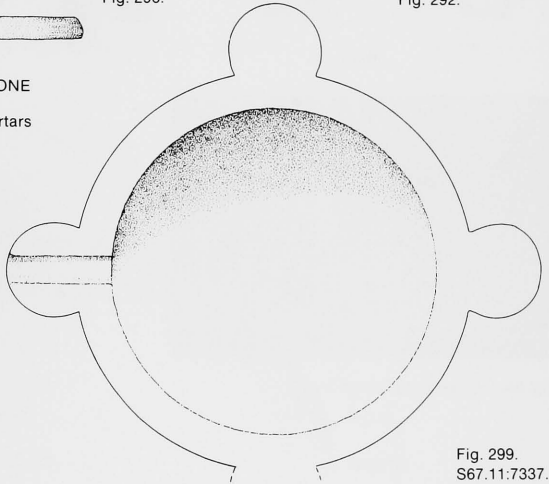
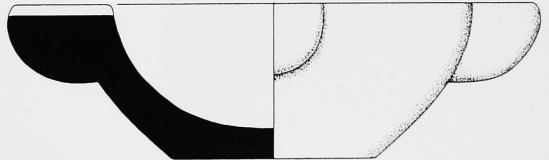
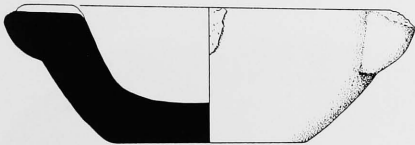


Fig. 299.
S67.11:7337.



Pestles



Fig. 300 S67.9:7320.



Fig. 301 S67.7:7318.



Fig. 302 S67.8:7319.

E 6 and E 7

E 7 Finds
COPPER ALLOY

Censer



Figs. 303, 304 M67.32:7482 *in situ* and after cleaning.



Finial



Steelyards



Fig. 306 M67.31:7481 *in situ* with other fragments.

Fig. 305 M67.8:7317.

IRON



Fig. 307 Camp stool frames *in situ*.

STONE

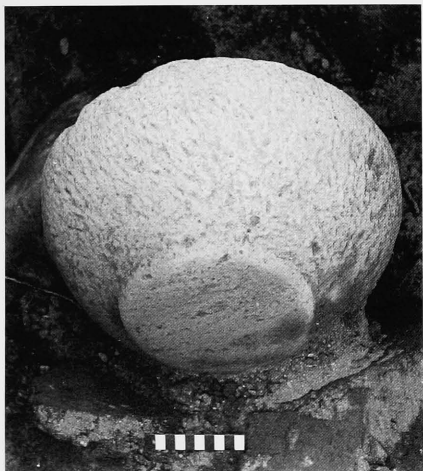


Fig. 308 Marble bowl *in situ*.

Mortars



Fig. 309 S67.15:7353.

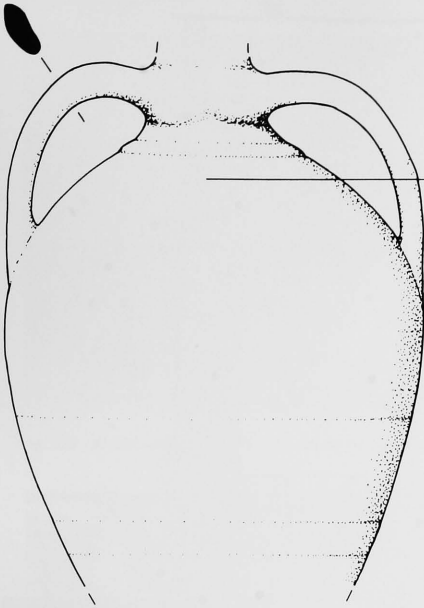


Fig. 310 S67.13:7351.

E 7 Finds
POTTERY

E 6 and E 7

Amphorae



12Kw/7p



12Kw

Fig. 312 P67.18.7341, with IN67.33 at 1:2.

Cups



Fig. 313.



Fig. 314.



Fig. 315.

Fig. 311 P67.16.7339, with graffito at 1:2.

STONE

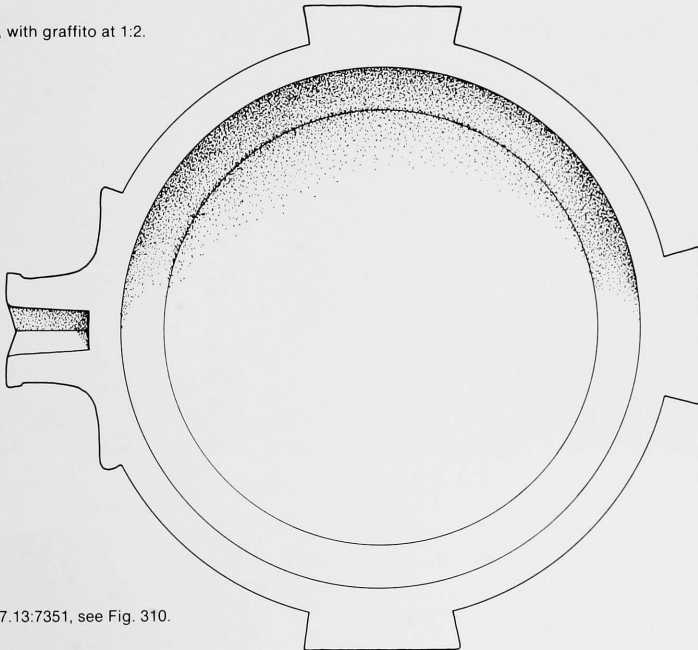
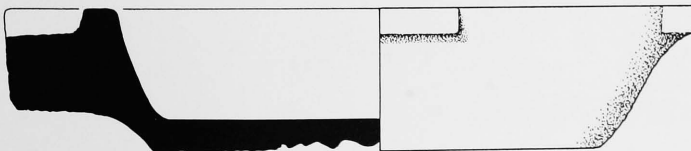


Fig. 316 S67.13.7351, see Fig. 310.



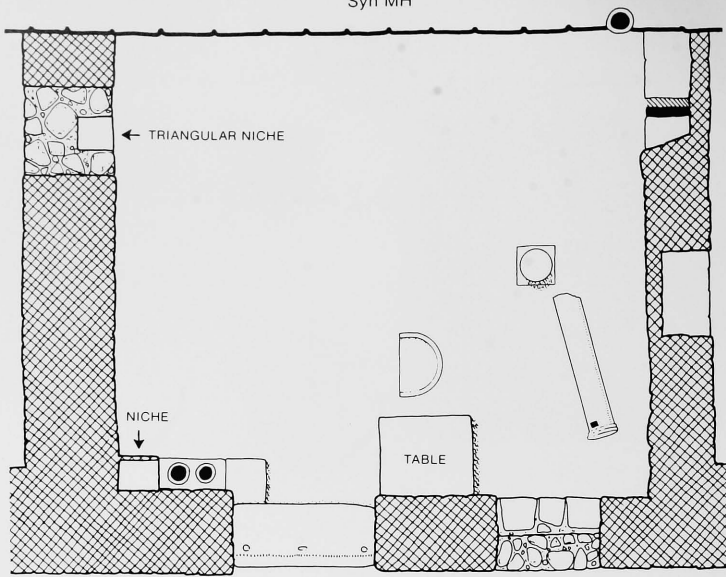


Fig. 317 Plan of E 8.



Fig. 318 E 8 as restored, 1973. Evidence for the niche is not conclusive. Looking N.



Fig. 319 Detail of WP67.1, panel A, (Fig. 320), lower W corner.

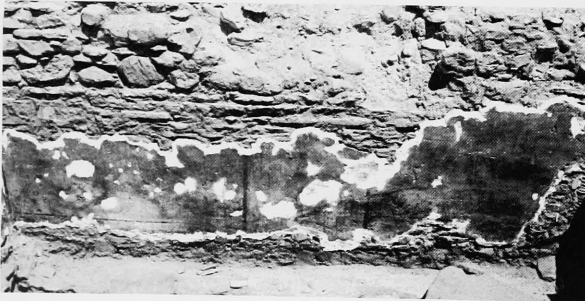


Fig. 320 N wall showing WP67.1 painted panels A-C, 1967.



Fig. 321 Detail of WP67.1 panel C (Fig. 320), lower W corner.



Fig. 322 E wall and interior column broken in two, during excavation, 1969.



Fig. 323 S wall during excavation, 1969. Looking S.

POTTERY

Amphora

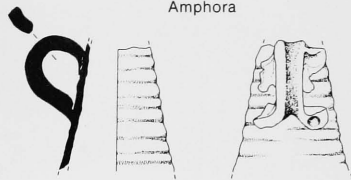


Fig. 326.

Bowl



Fig. 327.

LAMP



Fig. 328.

L67.17.7350.

Ca. 1:1

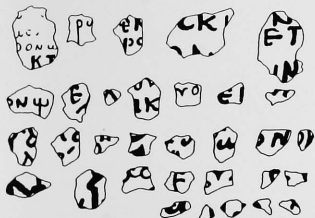


Fig. 324 IN67.41=WP67.1, not to scale.

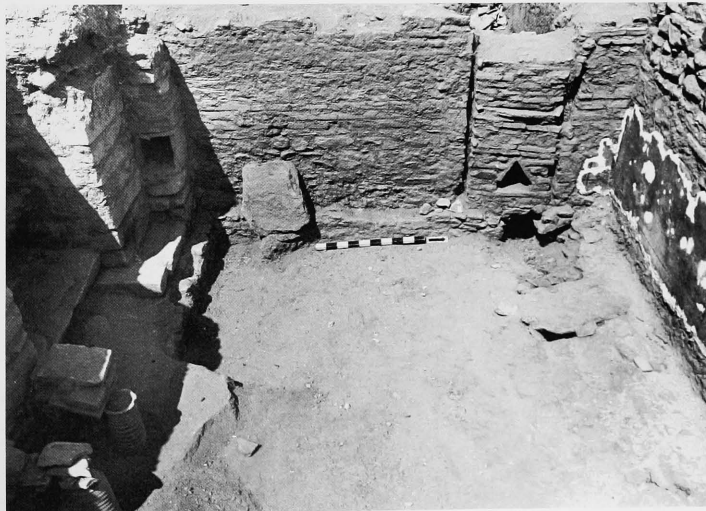


Fig. 325 E 8 as excavated, 1967. Looking W.

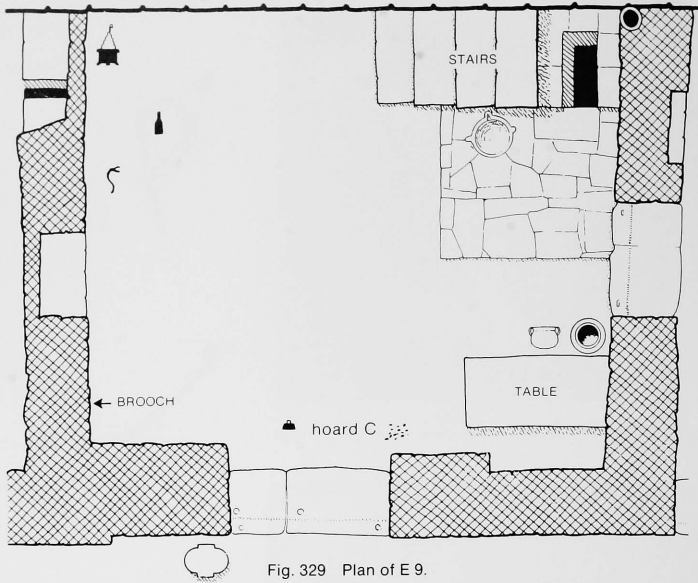


Fig. 329 Plan of E 9.



Fig. 330 E 9 as restored, 1973. Looking N.

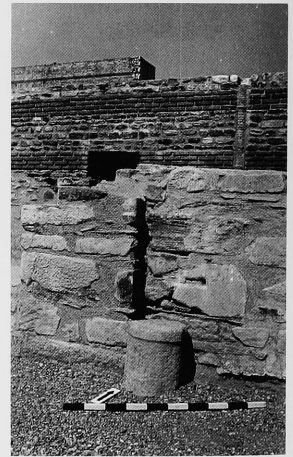


Fig. 331 Backstep in S wall, as restored, 1973.

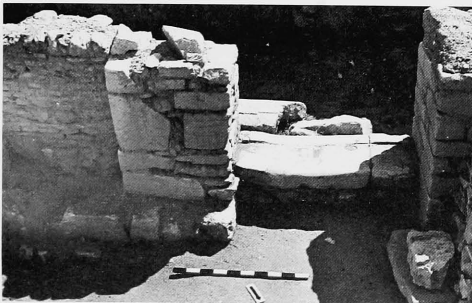


Fig. 332 E part of S wall and door as excavated, 1969. Looking S.

Fig. 333 Mortar *in situ* in NE corner.



Figs. 334, 335 E part of E 9 as excavated, 1969 and as restored, 1973, looking E into E 10.



Fig. 336 N wall with plaster intact, mortar *in situ*, during excavation, 1967. Looking N.



Fig. 337 Cooking pot (Fig. 341), pithos, flask lid *in situ* near E door, 1967.

LEAD
Bowl



Fig. 340 M67.30:7476.

TILE



Fig. 343 T67.8:7376.

COPPER ALLOY
Brooch

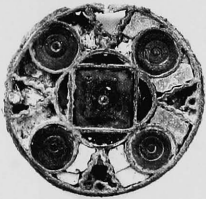


Fig. 338 J73.1:8221. 2:3

POTTERY
Cooking Pot

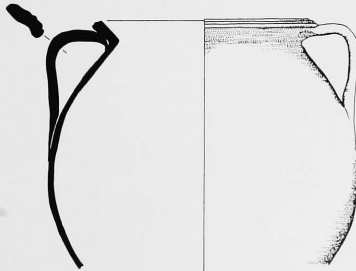


Fig. 341.

Censer



Fig. 339 M67.35:7584.

Sherd



Fig. 342 P67.84:7478.

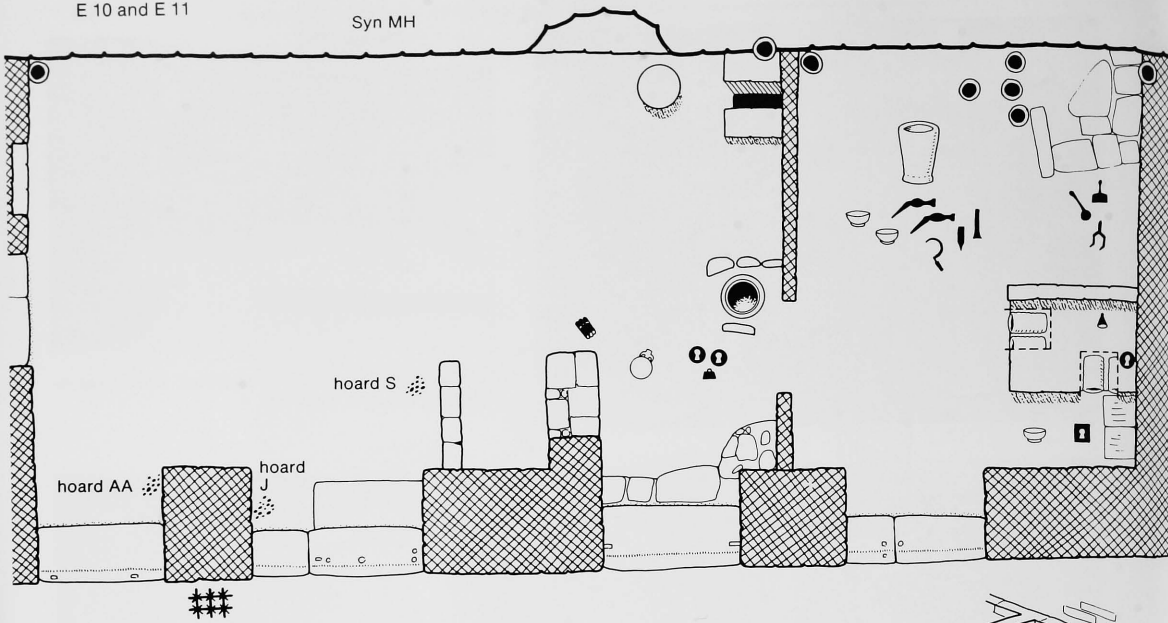


Fig. 344 Plan of E 10 (left) and E 11 (right) with reconstruction of the structure in SE corner of E 11.

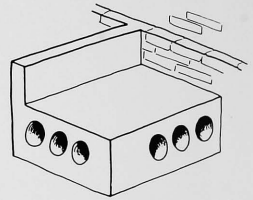


Fig. 345 E 10 and E 11 as restored, 1973. Looking NE.



Fig. 346 N wall of E 10 as excavated, 1969. Looking N.

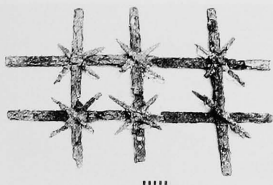


Fig. 347 Iron window grille from ambulatory in front of E 10.



Fig. 348 E 10 looking E into E 11, during excavation, 1969.



Fig. 349 E 10, E section of S wall with enclosure, during excavation, 1969. Looking S.



Fig. 350 E 10, center and W doorways in S wall, during excavation, 1969. Looking S.

E 10 Finds
COPPER ALLOY

Locks



Fig. 353.
M67.13.7375.

Figs. 351, 352 Sides, ends.

IRON

Handle



Fig. 359.

Pick-axe

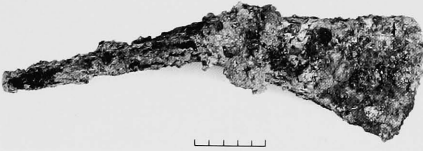


Fig. 360 M72.6:8197.

Shovel



Fig. 361.
M72.7:8198.

E 11 Finds
COPPER ALLOY

Buckle



Fig. 354. 2:3

Censer Lid

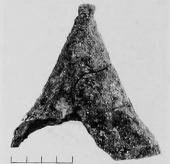


Fig. 355.

Locks

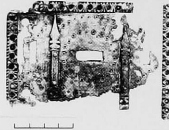


Fig. 356 M68.10:7716.



Fig. 357. 1:2



Fig. 358.

IRON

Hammer-adzes

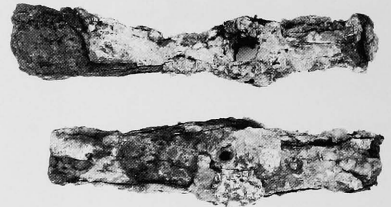


Fig. 362.

Billhooks

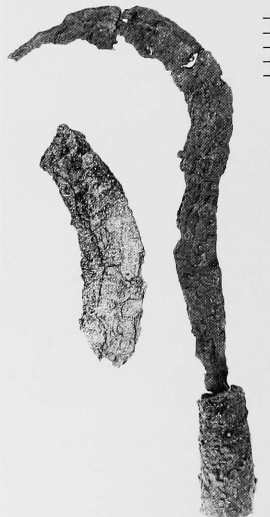


Fig. 363.

Fork



Fig. 364.
Ladle



Fig. 365.

IRON

Locks



Fig. 366 Rectangular locks and plates from E 11; twelve were found in pipes in the SW corner structure (Figs. 344, 348). Not to scale.

Punch

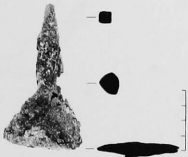


Fig. 367.

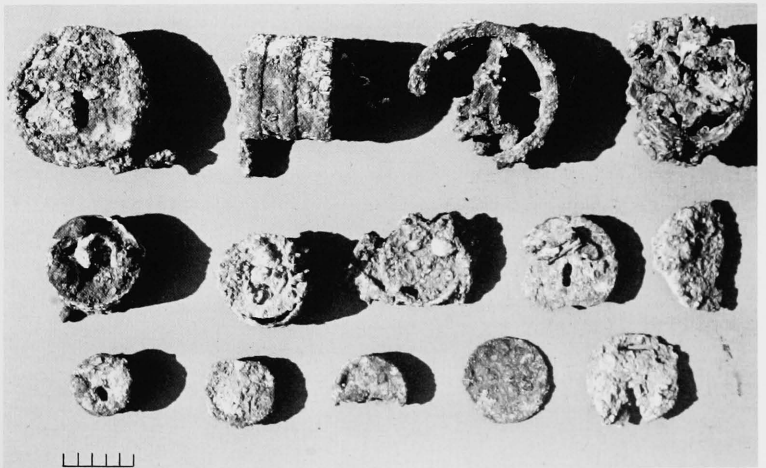


Fig. 368 Cylindrical locks from pipes in SW corner structure (Figs. 344, 348). Not to scale.

E 10 Finds
POTTERY

Basin

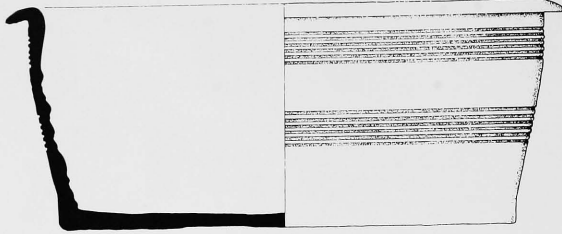


Fig. 369.

Crucibles

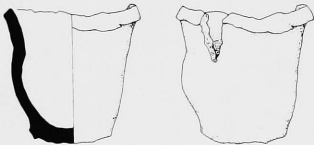


Fig. 370.

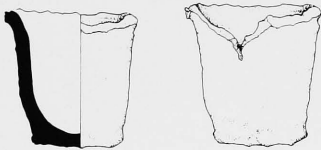


Fig. 371.

Flask

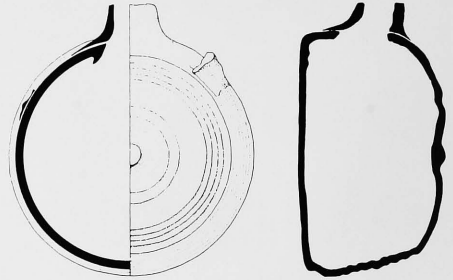


Fig. 372 P67.83:7477.

E 11 Finds
POTTERY

Bowls

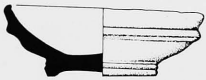


Fig. 373.
P68.126:7797.



Fig. 374.
P68.127:7798.



Fig. 375.
P68.138:7820.

Crucible



Fig. 376.
P67.36:7384.

Jug

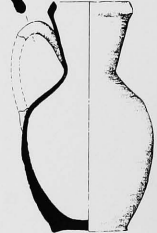


Fig. 377.

E 10 Finds
STONE



Fig. 378 S68.24:7799.

E 11 Finds
STONE

Bowl



Fig. 379 S68.30:7821.

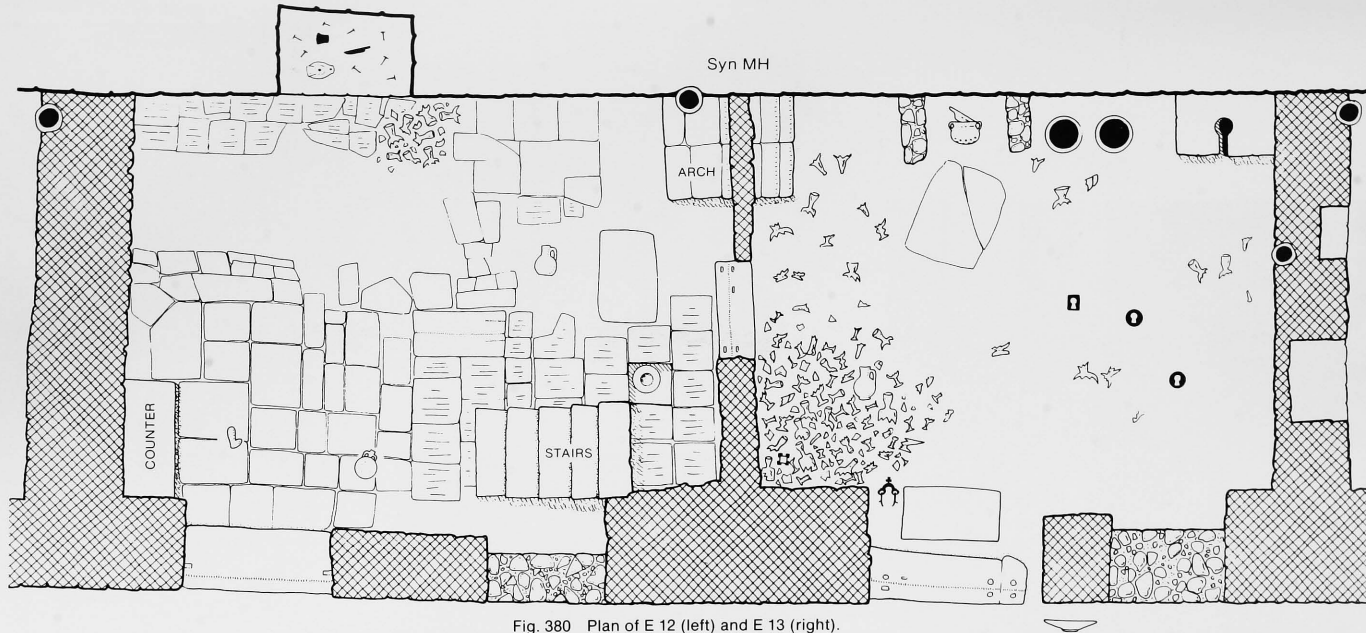


Fig. 380 Plan of E 12 (left) and E 13 (right).



Fig. 381 E 12, glass bottles (Fig. 393) *in situ* near N wall.



Fig. 382 E 12, stone mortar set into floor near stair.

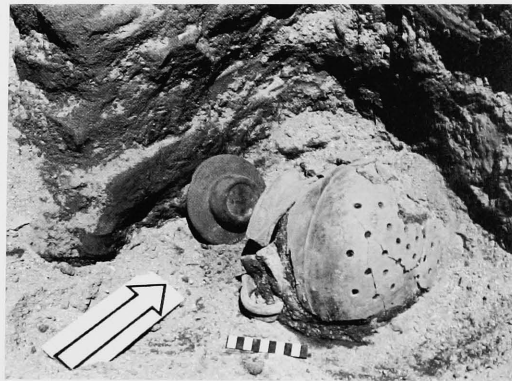


Fig. 383 E 13, colander (Fig. 446) and lid (Fig. 450) *in situ* against N wall.

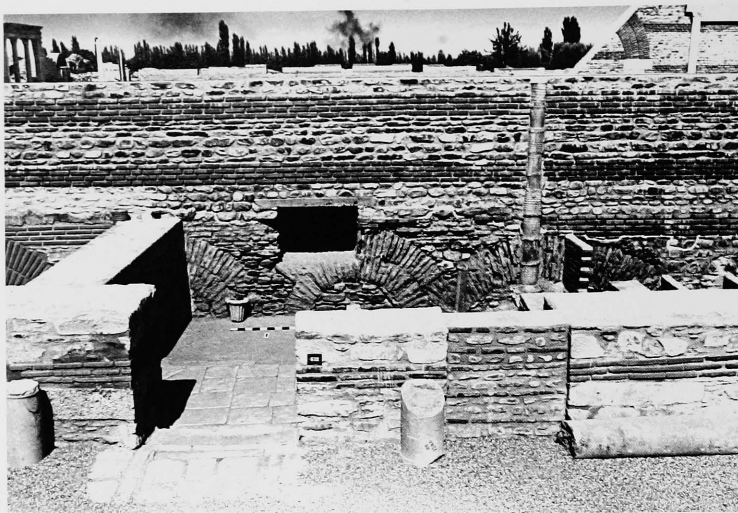


Fig. 384 E 12 as restored, 1973. Looking N.

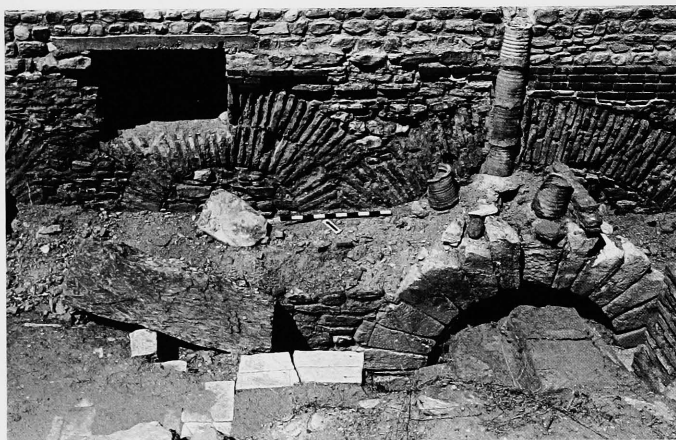


Fig. 385 E 12 during excavation, 1969. Looking N.

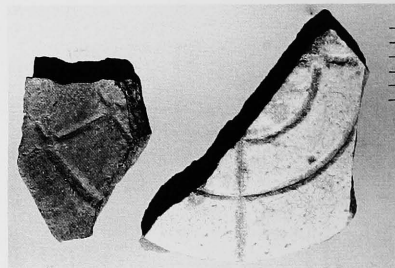


Fig. 386 Stone plaques showing menorahs found in E 12. S64.55:6587A-B.

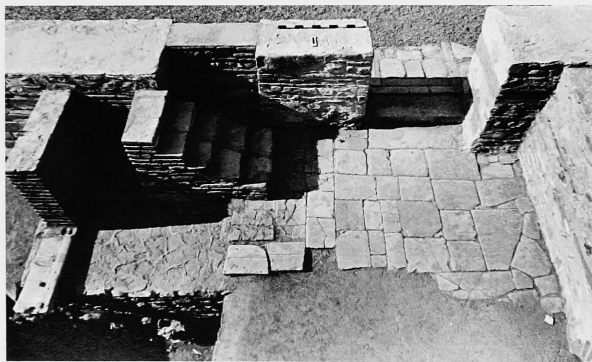


Fig. 387 E 12 as restored, 1973. Looking S from above.



Fig. 388 E 12 looking E into E 13 as restored, 1973.

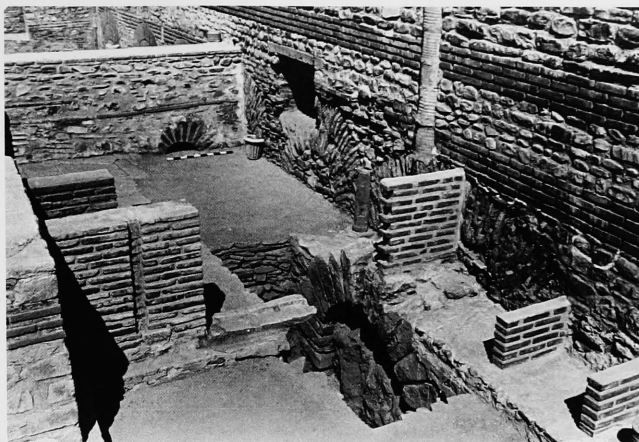


Fig. 389 E 12 and E 13 as restored, 1973. Looking NW.

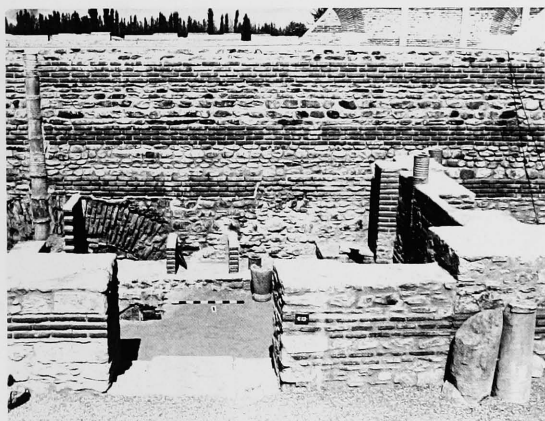


Fig. 390 E 13 as restored, 1973. Looking N.



Fig. 391 E 13 partially excavated with pots *in situ*, 1962. Looking N.



Fig. 392 E 12 during excavation, 1969. Looking S.

E 12 Finds
GLASS

Bottles

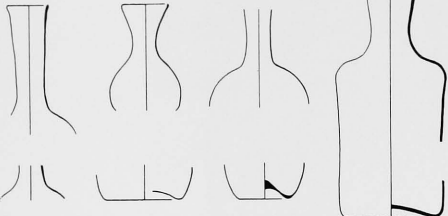


Fig. 393 Six fragments of eight bottles catalogued together (see Fig. 381).

Fig. 394
G68.3:7736.



Fig. 395.

E 13 Finds
GLASS

Bottles



Fig. 396.

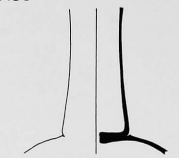


Fig. 397 G62.11:4487.



Fig. 398.



Fig. 399.



Fig. 400.



Fig. 401.



Fig. 403.



Fig. 404.



Fig. 405.

Rod



Fig. 402.

COPPER ALLOY

Ring



Fig. 406
M63.46:5643.

Strainer Spoon



Fig. 407 M68.8:7691.

Weighing Devices



Fig. 412 M62.90:4929.

COPPER ALLOY



Fig. 413 M73.1:8224.

Axe



Fig. 408 M63.45:5642.

IRON

Knives



Fig. 409 M64.23:6188.



Fig. 410.

TERRACOTTA
Die



Fig. 411. 2:3
T64.23:6182.

Pendant?



Figs. 414, 415. 2:3
M62.62:4555 view, section.

Ring



Fig. 416. 2:3

Hoe
IRON



E 12 Finds
POTTERY

Bowls



Fig. 418.

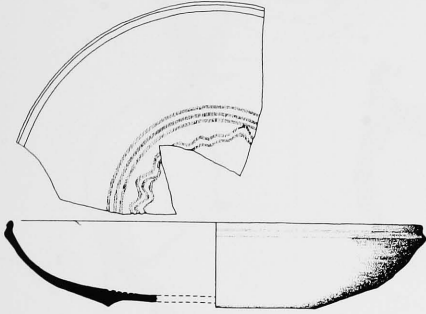


Fig. 419 P62.431:4818.

Flask

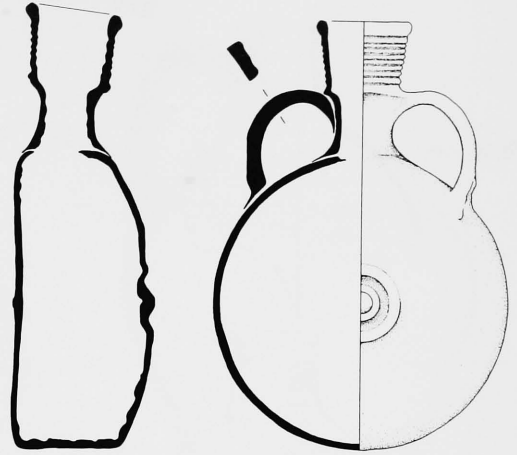


Fig. 420 P64.177:6222 side section, section/view.

Storage Jar



Plate

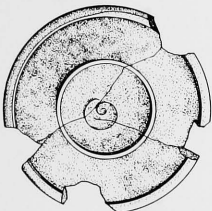


Fig. 421 P64.128:6158
section/view, bottom.

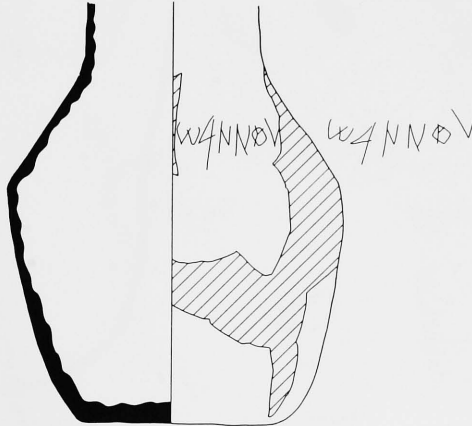


Fig. 422 P64.147:6189 with graffito rolled out.

Jug



Fig. 423 P62.488:4913.

LAMPS

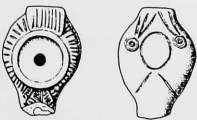


Fig. 424.
L63.48:5644.



Fig. 425.
L64.31:6185.

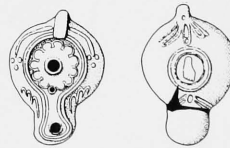


Fig. 426.
L64.33:6187.



Fig. 427.
L64.32:6136.



E 13 Finds
POTTERY

Amphorae and Sherds with Graffiti

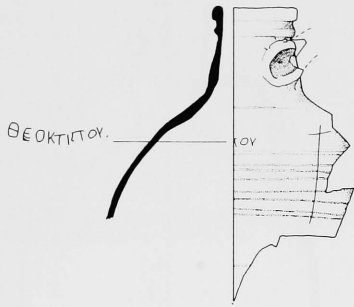


Fig. 428 P62.371:4692
with graffiti on opposite sides rolled out.

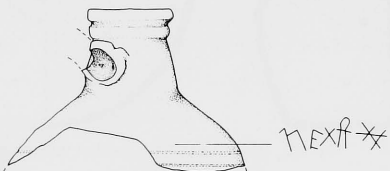


Fig. 429 P62.394:4735.

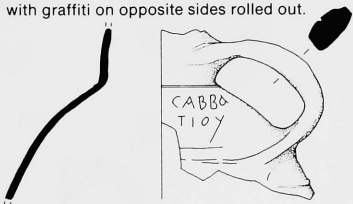


Fig. 430.

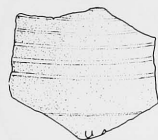
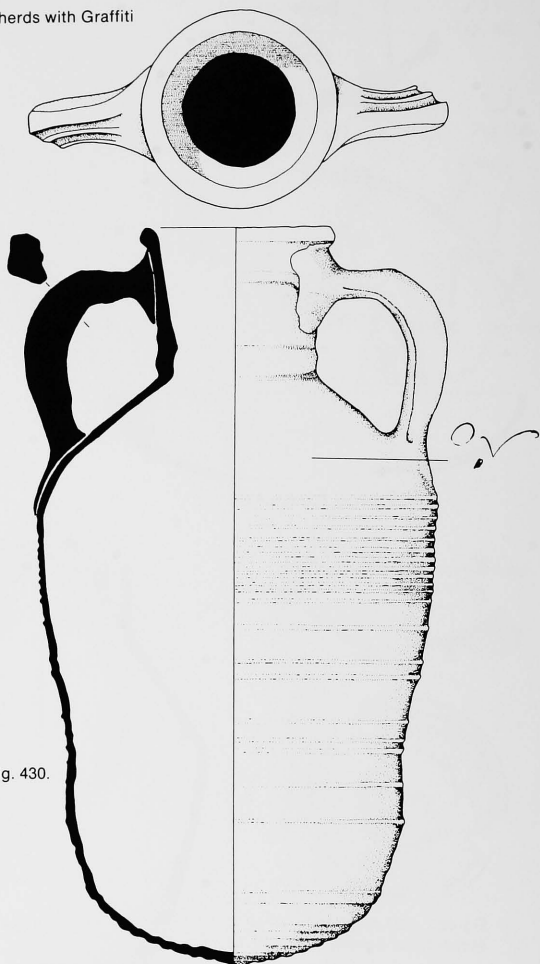


Fig. 431 P62.397:4738.



Fig. 432.
P62.486:4911.



Fig. 433.
P62.398:4739.

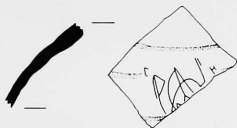


Fig. 434 P62.487:4912.



Fig. 435.
P62.395:4736.



Fig. 436.
P62.396:4737.



Fig. 437 P62.425:4812A.



Fig. 438.
P62.425:4812B.



Fig. 439.
P62.425:4812C.



Fig. 440 P62.393:4734.

E 13 Finds
POTTERY
Amphorae

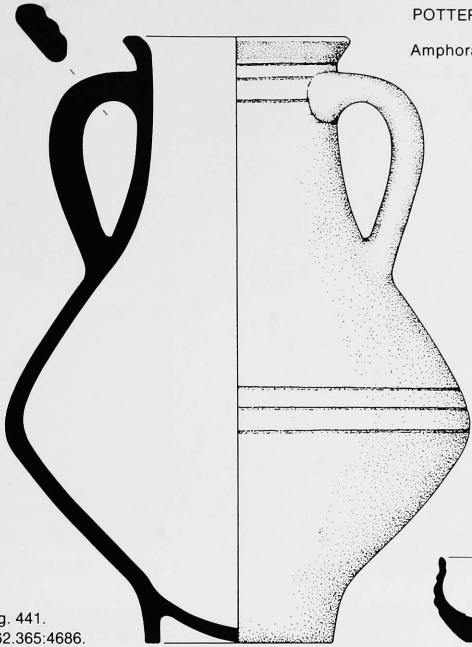


Fig. 441.
P62.365:4686.

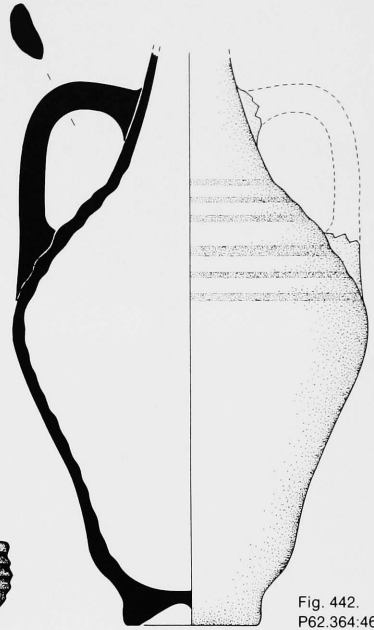


Fig. 442.
P62.364:4685.

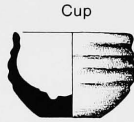


Fig. 443.
P62.213:4488.

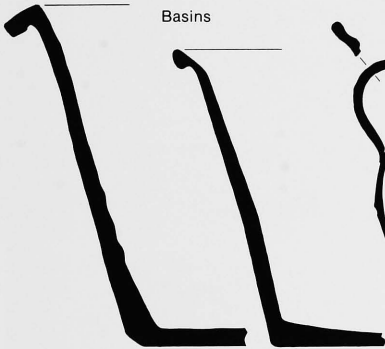


Fig. 444.

Fig. 445.
P62.89:4297.

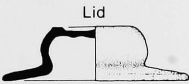


Fig. 450 P62.367:4688.

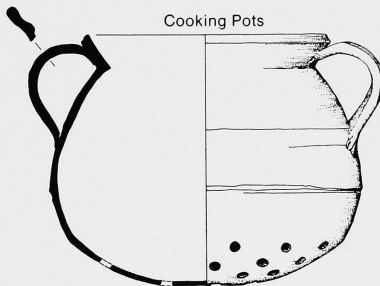


Fig. 446 P62.366:4687.



Fig. 447 P62.369:4690.

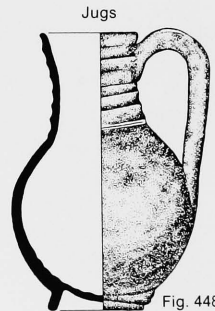


Fig. 448.
P62.214:4489.

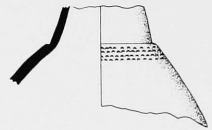


Fig. 449 P62.402:4749.

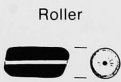
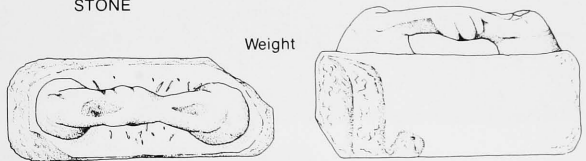


Fig. 451.
S62.54:4804.

STONE



Figs. 452, 453 S62.25:4492 top, side.

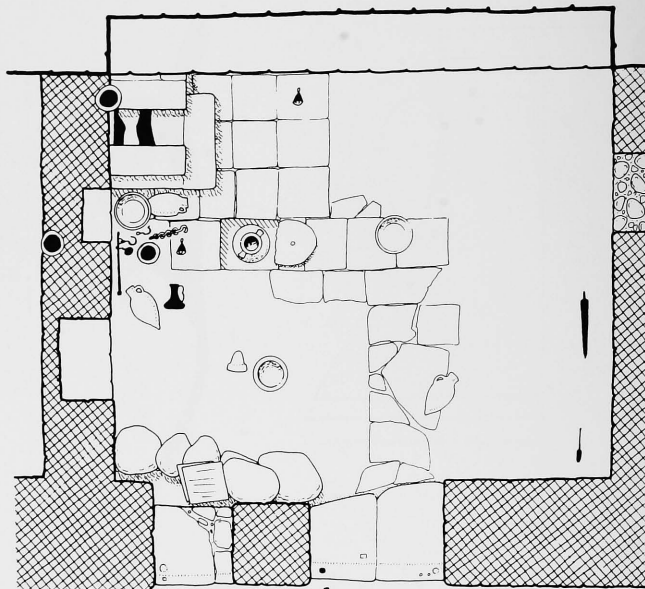


Fig. 454 Plan of E 14.



Fig. 455 E 14 and ambulatory during excavation, 1962. Looking NW.



Fig. 456 E 14 with finds in place after excavation, 1962. Looking NW.



Fig. 457 P62.138:4366 (see Fig. 486) set in floor with pithos lid next to it.



Fig. 458 Mortar and pestle (S62.66:4875, S62.70:4903) *in situ* on floor.



Fig. 459 Stones and tiles in front of window in S wall, 1962. Looking S.



Fig. 460 Copper alloy jug with iron handle (M62.51:4442) *in situ*.



Figs. 461, 462 P62.23:4180 and detail of IN62.14 (see Fig. 483). Not to scale.

Lamp



Fig. 463. G62.8:4227.

Ca. 1:3

GLASS



Figs. 464–466. 1:1
G62.5:4163 view, section, detail of cross.

Stamps

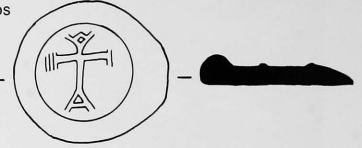


Fig. 467 G62.4:4162. 1:1

Balance



Fig. 468 M62.20:4211.

Bells



Figs. 469, 470. 2:3
M62.16:4207 view, section.

COPPER ALLOY

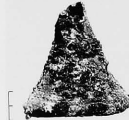


Fig. 471. M62.60:4480.

Steelyard

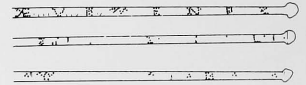


Fig. 472 Calibrations on M62.14:4202, Fig. 476.

Bowl



Fig. 473 M62.4:4269.

Pan



Fig. 474 M62.89:4928.

Spatula



Fig. 475 M62.9:4184.

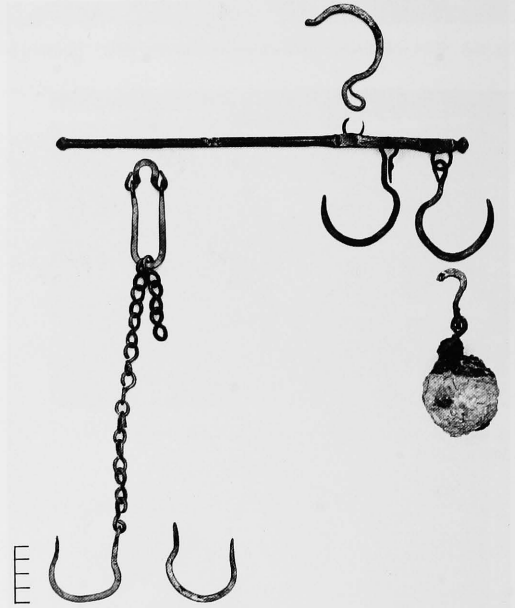
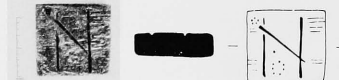


Fig. 476 M62.14:4204.

Weights



Figs. 477, 478 M62.30:4270. 1:1



Figs. 479, 480 M62.31:4271. 1:1



Figs. 481, 482 M62.13:4199 1:1 and inscription 2:3.

POTTERY
Amphorae

AKWB | 404

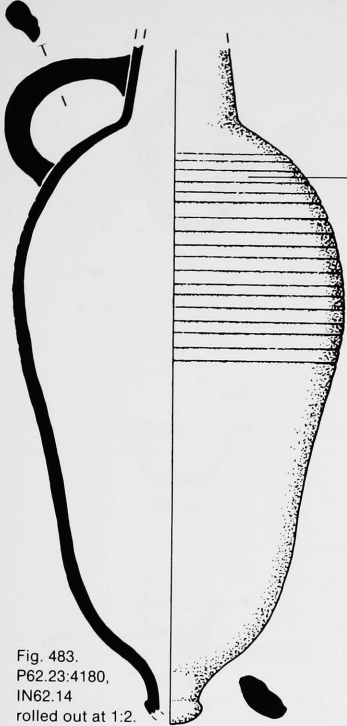


Fig. 483.
P62.23:4180,
IN62.14
rolled out at 1:2.

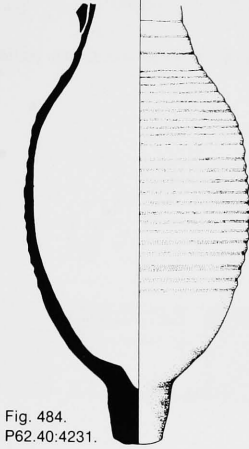


Fig. 484.
P62.40:4231.



Fig. 485.

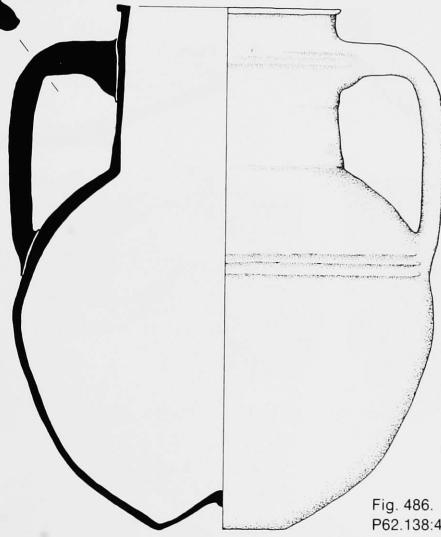


Fig. 486.
P62.138:4366.

IRON
Sword



Fig. 487.



POTTERY
Ampulla



Figs. 488–492 P62.49:4240 Pantokrater, Orans, section. 1:2

Bowls



Fig. 493.



Fig. 496.

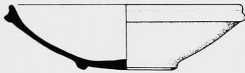


Fig. 494 P62.35:4214.

Cup



Fig. 497.

Lid



Fig. 498.

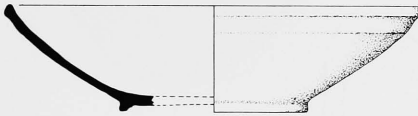


Fig. 495.

Plate



Fig. 499 P62.257:4549.

LAMP



Figs. 500–502 L62.5:4177 top, bottom, section.

SEAL



Figs. 503, 504 Seal 62.1:4172 with impression. 1:1

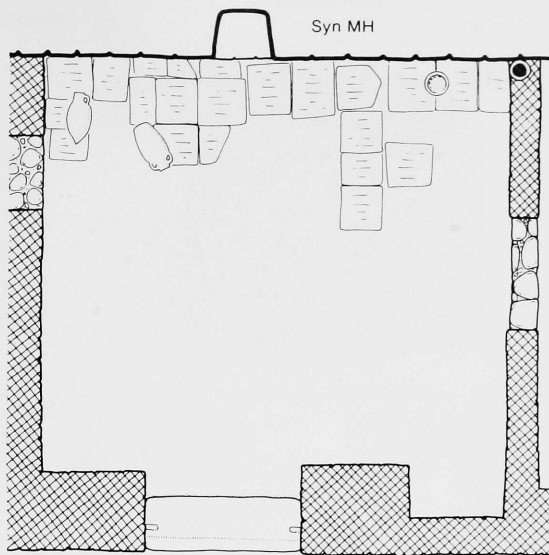


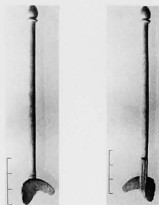
Fig. 505 Plan of E 15.



Fig. 506 E 15, N wall and NW corner during excavation, 1962. Looking NW.

Fig. 507 E jamb of S wall, M62.52A.4456 (Fig. 510) *in situ* on mosaic pavement, 1962. Looking NE.

BRONZE
Spoon



Figs. 508, 509.
Bl62.8:4698 front, back.

COPPER ALLOY

Cauldron

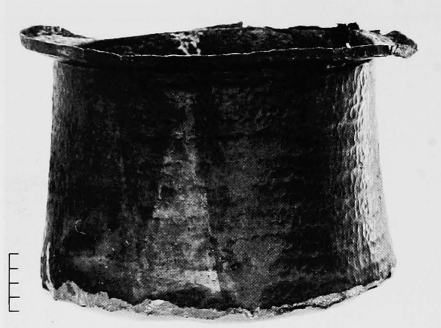


Fig. 510 M62.52A:4456 (see also Fig. 507).

IRON

Candelabrum



Fig. 511 M62.53:4472. 1:10

POTTERY

Bowls



Fig. 513.



Fig. 514.

Cup



Fig. 515.

Vessel Sherd



Fig. 516.
P62.193:4453.



Fig. 512 Two amphorae *in situ* in NW corner.

STONE
Mortars

Pestle



Fig. 517 S62.65:4874.



Fig. 518 S62.22:4428.



Fig. 519. S62.21:4420.

Bowl

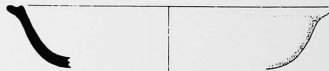


Fig. 520 S62.24:4454.

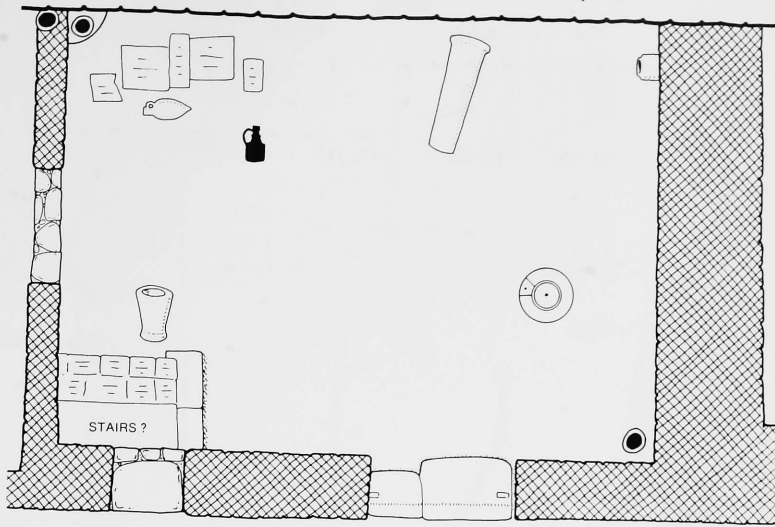


Fig. 521 Plan of E 16.

COPPER ALLOY



Steelyard

Flask



Fig. 522 M63.56:5871.

Bell



Fig. 524 M63.39:5553.



Fig. 523 M63.29:5375 with calibration at 3:4.

IRON

Campstool

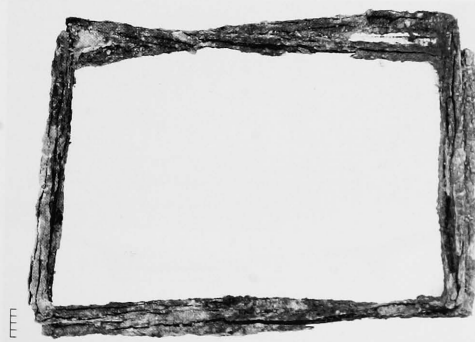


Fig. 525 M63.49:5730.

Knife



Fig. 526 M63.48:5729.

Hinge



Fig. 527 M63.47:5728.

1:10

GLASS

Rod



Fig. 528.

Salver



Fig. 529.

Vessels



Fig. 530.

Fig. 531.

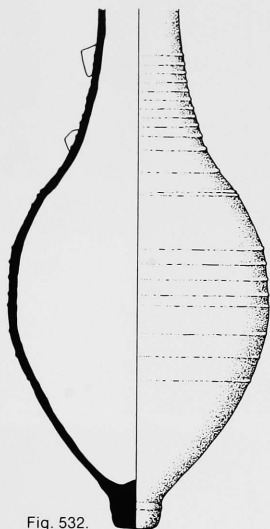


Fig. 532.

Amphorae

POTTERY

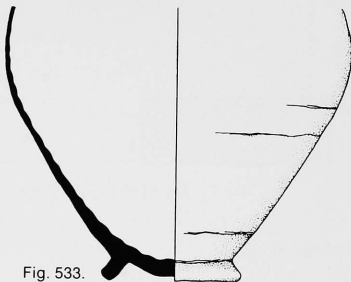


Fig. 533.

Jug



Fig. 534 P63.543:5727.



Fig. 535 P63.382:5514, reconstruction.

Frying Pans

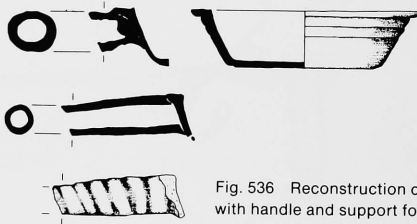


Fig. 536 Reconstruction drawing of pan with handle and support found together.

Lids



Fig. 537.

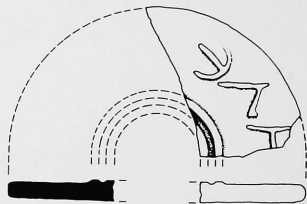


Fig. 538 P63.647:5884.

Plate

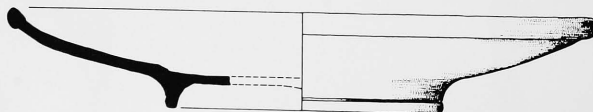


Fig. 539 P63.333:5457.

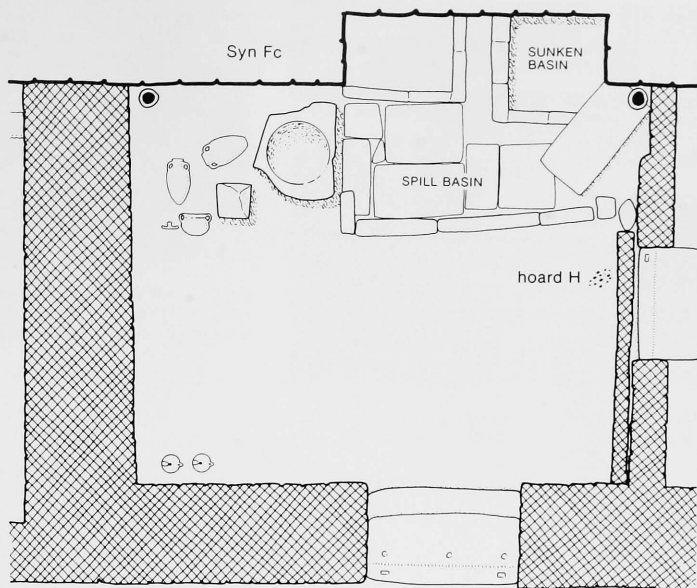


Fig. 540 Plan of E 17.



Fig. 541 E 17 as restored, 1973. Looking N.

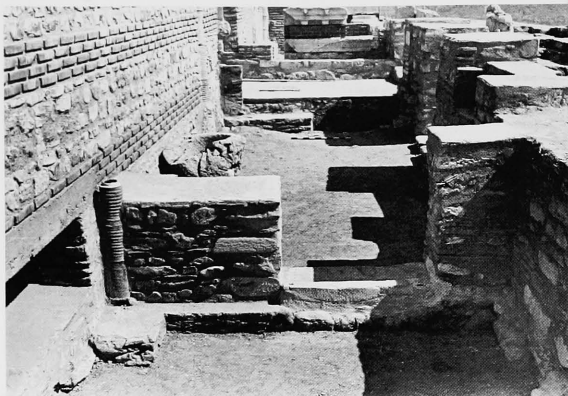


Fig. 542 E 17 and E 18 as restored, 1973, showing blocked doorway into E 18. The basin visible in E 18 was found in E 17 (Fig. 543). Looking E.



Fig. 543 NW corner during excavation, with basin, P63.383:5515 (Fig. 549), P63.385:5517 (Fig. 550), cooking pot and pipe *in situ*. Looking NW.

BONE

Pin



Fig. 544.
B163.10:5455.

GLASS

Lamp



Fig. 545.

Vessel



Fig. 546.

POTTERY

Amphorae



Fig. 548 P63.614:5836 with monogram at 1:2.

IRON

Knife



Fig. 547 M63.28:5352.

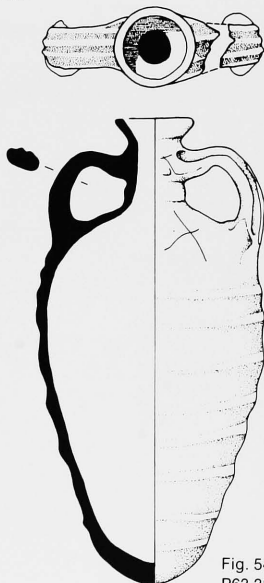


Fig. 549.
P63.383:5515.



Fig. 550.
P63.385:5517.

Bowl?



Fig. 551.
P63.583:5787.

POTTERY
Lid



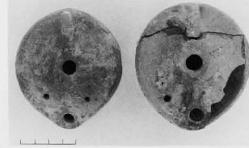
Fig. 552 P63.589:5795.

Spout



Fig. 553.
P63.544:5737.

LAMPS



Figs. 556, 557 P63.582A-B:5786, section of A.



Fig. 554 L63.54:5734.



Fig. 555 L63.55:5735.



Amphora

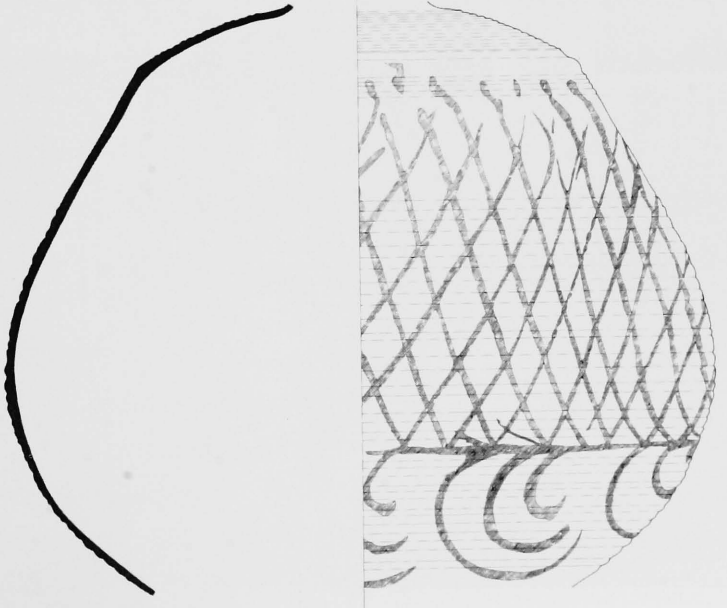


Fig. 558.
P63.472:5636,
reconstruction.

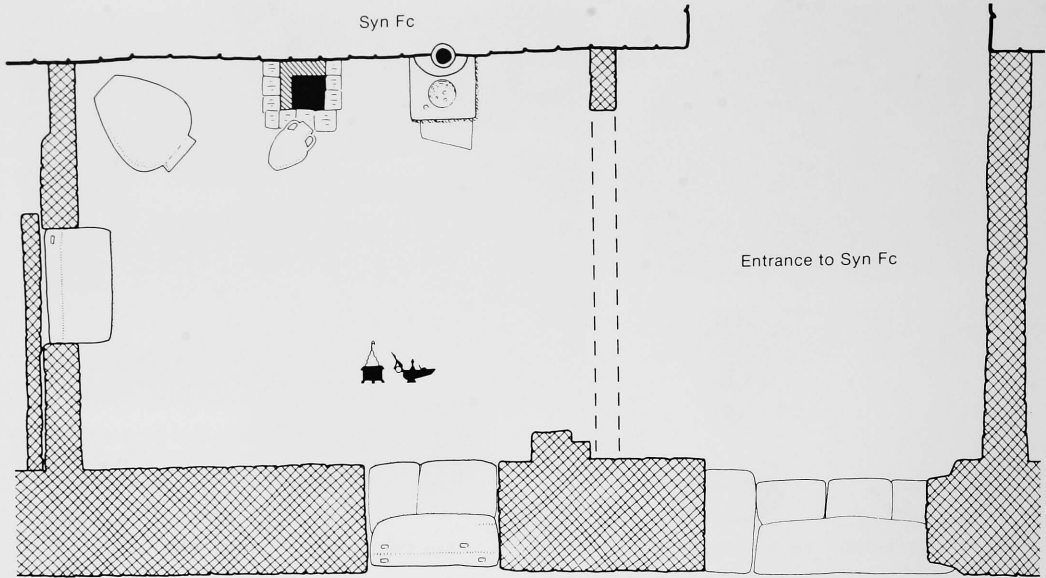


Fig. 559 Plan of E 18 and entrance to Syn Fc.



Fig. 560 E 18 and entrance to Syn Fc as restored, 1973. Looking N.

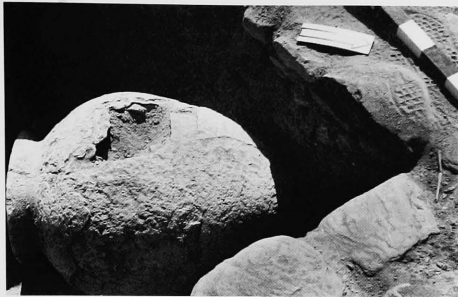


Fig. 561 Large pithos in NW corner *in situ*. Looking SW.

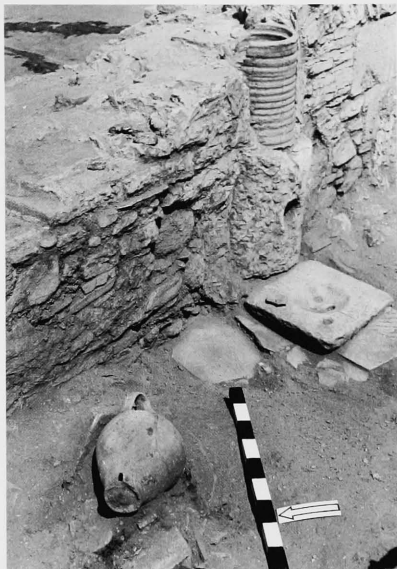


Fig. 562 N Wall showing drainpipe and stone junction box with P63.384:5516 (see Fig. 563, 573) *in situ*. Looking NE.



Fig. 563 P63.384:5516 *in situ* near N wall. Looking NW.



Fig. 564 E 18, NE corner and passage into Syn Fc during excavation, 1963. Looking NE.

Fig. 565 Ambulatory mosaics in front of E 18 and entrance to Syn Fc, 1972. Looking E.

COPPER ALLOY

Censer



Fig. 566 M63.60:5876.

Lamp



Figs. 567, 568 M63.61:5877 top, side.

Handle



Fig. 569 M63.27:5351.



Fig. 570 M63.60:5876, M63.61:5877 *in situ*.

Pin



Fig. 571.
M63.58:5875.

POTTERY

Amphorae

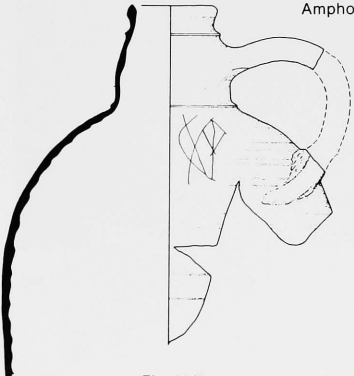


Fig. 572.
P63.294:5411.

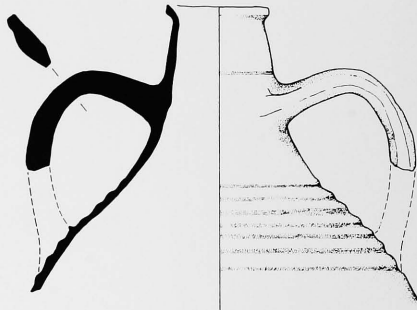


Fig. 573 Upper part of P63.384:5516.
For the complete pot as found see Figs. 562, 563.

Plate



Fig. 574.
P63.117:5111.

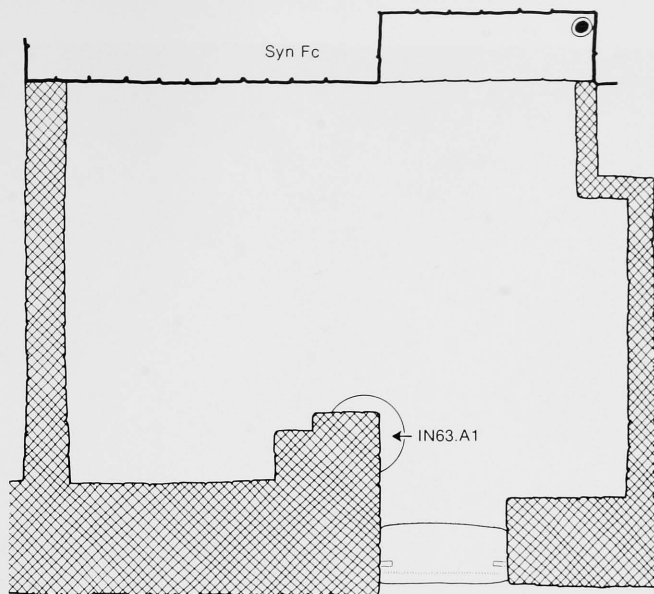


Fig. 575 Plan of E 19.



Fig. 576 E 19 as restored, 1973. Looking N.



Fig. 577 The walls of E 19 abutting the S wall of the B complex, beyond the partially preserved arch. In the background, the E Shops, Syn, Pa, MC during excavation, 1963. Looking NW.



Fig. 578 S63.59:5766 and S63.58:5765 *in situ*.



Fig. 579 S63.58:5765. 1:10



Fig. 580 S63.59:5766. 1:10

GLASS

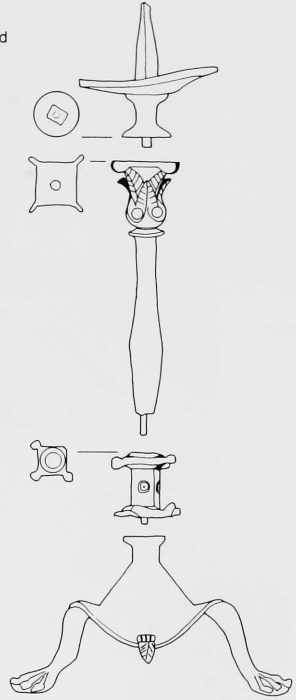
Rim



Fig. 581.

COPPER ALLOY

Lampstand



Figs. 584, 585 M63.5A-D:5353 as restored. The pieces may not go together.

Buckle



Fig. 582.
M64.41:6532.

Pan



Fig. 583 M63.7:4990.

POTTERY

Cooking Pot

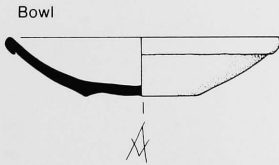


Fig. 586.



Fig. 587.

Cup

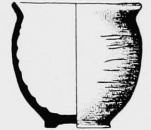


Fig. 588 P63.599:5809.

Lid



Fig. 589.

LAMP



Figs. 590–592 L63.59:5831 top, bottom, section.



Fig. 593 Pipes and arch under floor, as excavated, 1959. Looking W.

Finds below the Floor



Fig. 594 P59.546:2149 1:2
with stamp at 1:1.



Fig. 595 P59.571:2190. 1:2

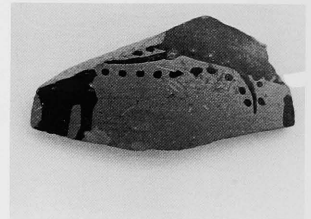


Fig. 596 P59.472:2047. Not to scale.



Fig. 597 P59.489:2073. 1:2



Fig. 598 T59.45:2024. Ca. 1:3

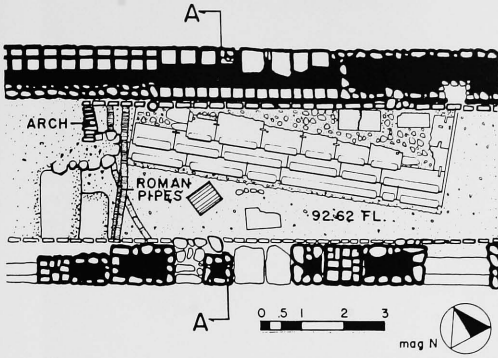


Fig. 601 The Hellenistic Steps as excavated, 1963. Looking NE.

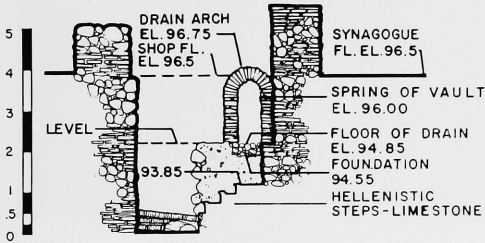


Fig. 599 Plan and section of the 1964 exposure under E 15 and E 16.

Finds below the Floors



Fig. 602 P63.656:5899. 1:2

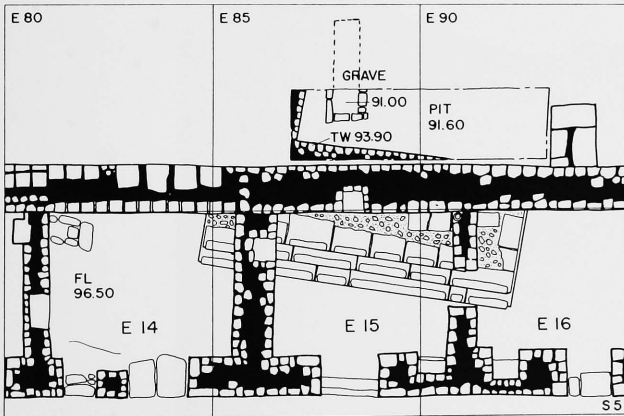


Fig. 600 Plan of the Hellenistic Steps and the structures under the SE corner of Syn MH, 1970.

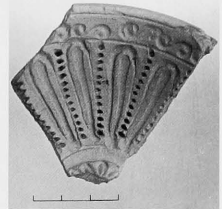


Fig. 603 P65.170:6820. 1:2



Figs. 604, 605 M63.63:5888 with detail of head at 1:2.



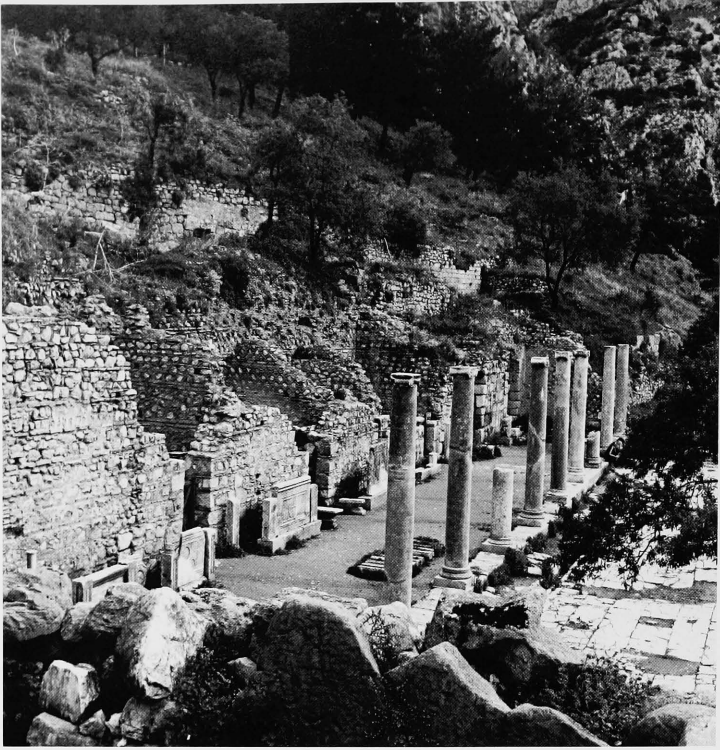
Fig. 606 Anemurium. Houses built into the palaestra of the baths.



Fig. 607 Ephesus. The Arkadiane looking S toward the harbor buildings.



Fig. 608 Ephesus. The Arkadiane.



Figs. 609, 610 Delphi. The Roman agora.

