

ARCHAEOLOGICAL EXPLORATION OF SARDIS

Report 8

ORDINARY LYDIANS AT HOME

The Lydian Trenches of the House of Bronzes and Pactolus Cliff at Sardis



Red on White stemmed dish, heavily burned, from the Destruction Level
725–700 B.C.
Watercolor of **HoB 325**/Manisa 5346 by Catherine S. Alexander

ORDINARY LYDIANS AT HOME

The Lydian Trenches of the House of Bronzes and Pactolus Cliff at Sardis

VOLUME I: TEXT

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Archaeological Exploration of Sardis

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ARCHAEOLOGICAL EXPLORATION OF SARDIS

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In memoriam
Gustavus F. Swift, Jr.



Gustavus F. Swift, Jr., conferring with sector foreman Mehmet Yavuz in HoB, 1970

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EDITOR'S PREFACE

One of Prof. G. M. A. Hanfmann's primary objectives in starting excavation at Sardis in 1958 was to investigate the culture of the Lydians, the native Anatolian people who inhabited this region of Asia Minor in the first millennium B.C. or earlier, invented coinage, and, under a series of powerful kings, conquered and ruled over most of western Anatolia. Howard Crosby Butler, in his excavations of 1910–1914 and 1922, had dug hundreds of Lydian tombs, discovering marvelous objects of pottery, gold, silver, ivory, and other materials; but the tomb groups remain largely unpublished, and even the location of the city of Sardis during the Lydian period remained entirely unknown.

In his first season, Prof. Hanfmann excavated at a number of sectors throughout the ancient site, including two Roman baths and the Temple of Artemis; but at only one did he reach Lydian levels: across the modern (and ancient) highway from the Bath-Gymnasium Complex, at a sector he named after a Late Roman dwelling found there, the "House of Bronzes." In the very last week of excavations, digging under one of the rooms of the Roman house, he found for the first time remains of the earlier city: a room containing a large number of characteristic Lydian vases, sherds, and other artifacts, which he nicknamed the "Lydian Shop." While his other excavations that summer produced important results, this was a unique find, since Sardis was not only the capital, but indeed the only city of the Lydians. So exciting was this discovery that he immediately sent a telegram to John Coolidge, director of the Fogg Art Museum, on August 22, 1958, announcing that "climaxing a two months' search, American archaeologists

claimed today to have located the Lydian city of Sardis, the capital city of Croesus. Large gaily painted jars and some house walls were the tip-off that the great city of golden Lydia had been found. . . . Prof. Detweiler of Cornell, Field Advisor of the Expedition, said, 'this is what we have been looking for.'"

Excavation at this sector, which came to be known as HoB–Lydian Trench, continued nearly every year until 1970, primarily under the direction of Gus Swift, but also with other archaeologists, including Donald Hansen, William Collins Kohler, John G. Pedley, and Andrew Ramage. The work was undertaken on a grand scale, with scores of workmen eventually excavating an area of more than 3,000 square meters through complex stratigraphy of the Roman, Hellenistic, and Persian eras to reach a series of Lydian levels, which Swift labeled Lydian I, II, and III. In three "deep soundings," excavations reached depths of 13 meters below the surface, uncovering remains dating to the Early Iron Age and Late Bronze Age, the earliest remains then discovered at Sardis. They uncovered an enclosure of the seventh century B.C. with individual units along its perimeter, domestic and working areas of many different periods, and a wealth of artifacts, from Orientalizing vases decorated with lions and sphinxes to rusty iron. For the first time, this sector provided a stratigraphic sequence and a general absolute dating for Lydian pottery and material culture, and HoB still remains the sector that has produced the widest variety and richest collection of Lydian artifacts from Sardis, accounting for about a quarter of the total number of artifacts of all periods inventoried during more than sixty years of excavations at the site.

Meanwhile, Lydian remains were also excavated at sectors along the Pactolus stream, including Pactolus Cliff (PC), about halfway between HoB and the Temple of Artemis. As recounted here by Nancy Ramage, excavations at PC were more short-lived than those at HoB, but were very productive, particularly of remains of the early Lydian period, which have been rarer at other sectors.

Naturally, the Expedition's interpretations of these discoveries have changed over the years. For instance, Prof. Hanfmann initially believed that the early destruction level designated as "Lydian III" might "reflect the Cimmerian raid in the first half of the seventh century."¹ Later analysis of the Corinthian pottery by Judith Schaeffer showed that the destruction was rather earlier, as is further discussed in the current volume.

Most fundamentally, our understanding of the place of these sectors in Lydian Sardis has shifted, thanks to the Ramage. Hanfmann had interpreted the large enclosure of Lydian II as a market or early bazaar, and referred to the sector fairly consistently as the Lydian Market, broadly invoking Herodotus' description of the city of Sardis in 499 B.C. as ranged along the Pactolus. He concluded from his excavations at PC, PN, HoB, and elsewhere that these sectors formed the core of Lydian Sardis. On a stroll past HoB one evening in 1976, long after excavations there had concluded, Andrew and Nancy recognized that the prominent rise just east of the excavation sector was not a natural hill, but was largely made of mudbrick. They immediately identified this as the remains of the Lydian city wall. It took another generation to prove that the fortification enclosed the area to the east of the wall, not to the west where Hanfmann believed the Lydian city to be; leaving HoB, PC, and the other sectors as suburbs outside the defended area of the city. Andrew and Nancy's discovery obviously profoundly affects our understanding of Lydian Sardis and specifically of HoB and PC, as reflected in this monograph.²

Well after work at Pactolus Cliff had been completed, largely by Mario Del Chiaro, Prof. Hanfmann asked Nancy Ramage, author of articles and monographs on Hellenistic and Roman sculpture and on Attic pottery from Sardis, to publish the results of those excavations.³ It was a logical step to include this with the publication of Hanfmann's other major Lydian sector, HoB. Responsibility for publishing the excavations of the Lydian Trench at HoB had been given to Gus Swift, the main excavator of the sector. But following Swift's untimely passing in 1976, Hanfmann asked Andrew Ramage to take on this task. This was an enormous undertaking, with thousands of inventoried and uninventoried artifacts to study, scores of fieldbooks and reports, drawings and other records that allowed him to reconstruct the excavations and stratigraphy. Andrew Ramage's primary

focus was on the history of occupation at the sector, the development of its buildings, and Iron Age pottery, as well as evidence for production, industry, and trade.

We were fortunate, therefore, that Prof. Dr. Gül Gürtekin-Demir agreed to contribute to this monograph by assembling the catalogue of pottery and other artifacts from archaic levels at HoB. The selection includes artifacts with reasonably secure architectural and stratigraphic contexts, which could be tied to a particular building or level, and which thus contribute to our understanding of the sector as a whole. Gürtekin-Demir did her PhD dissertation on Lydian pottery from Sardis, working closely with Crawford H. Greenewalt, jr., and the Ramage, and is one of the world's foremost experts on Anatolian ceramics. Their thoughtful and careful work on the assemblages of artifacts has helped make this the first thorough and comprehensive publication of Lydian material culture from Sardis, a goal of archaeologists at the site for more than a century.

As always, a long list of scholars, students, and supporters have contributed in many different ways to this publication, and to thank them properly would be the work of another monograph. Talented architects and photographers documented the excavations over the decades. Among the architects in the 1960s were Thomas Canfield, Stuart Carter, Anthony Casentino, Donald P. Hansen, A. H. Hyatt, Ralph Iler, Robert Mayers, Richard Penner, Leon Satkowski, David Stieglitz, and Robert Lindley Vann. Brianna Bricker took this diversity of plans, sketches, fieldbook drawings, and other data and brought them into order, producing the new phase plans for this volume under the direction of Andrew and Nancy Ramage, and enormously aiding in their study of this material. Among the many photographers in the earlier years were Polly Bart, Jonathan Boorstin, Elizabeth Gombosi, Crawford H. Greenewalt, jr., Martha Hoppin, Richard Hoyle, Raymond Liddell, Charles Lyman, Peter Machinist, James R. McCredie, S. E. Myers, Richard Petkun, Bonnie Solomon, and Robert Whallon Jr. (Apologies to architects and photographers whose names were inadvertently omitted here.) For more recent documentation of the finds from the excavations we are grateful to the Sardis photographers, including Sara Champlin, Jivan Güner, Ellen Jordan, Jessica Salley, and Richard Taylor. And particular thanks must, as always, go to Catherine Alexander, draftsperson extraordinaire, whose laser-keen eye noticed so many details and whose critical mind asked so many questions that otherwise might have gone unseen or unasked. She took great delight in creating watercolors of a few special pieces, and worked closely with Rana Irmak Aksoy, who digitally textured many of the pottery drawings. Other draftsmen whose work is represented in this volume include Nancy Ramage and Crawford H. Greenewalt, jr.

Editing, design, and layout were done by Kerri Sullivan and Brianna Bricker, who as always brought their remarkable perception, creativity, and care to the contents and the look of this volume. Katherine Kiefer, Theresa Huntsman,

¹ Hanfmann, "SARDIS 1960," p. 12.

² Greenewalt, "SARDIS 1976," pp. 64–65; for a summary, Cahill 2019a.

³ See her earlier studies of the sector, for instance Ramage 1994.

and Jane Ayer Scott, previous editors of the Sardis Reports and Monographs series, contributed to its development over the years. It has been a pleasure for me to work with these very talented individuals.

Since 1958 the Ministry of Culture and Tourism (and, previously, the Ministry of Education) of the Republic of Turkey has generously supported archaeological research at Sardis. We are particularly grateful to them, to the Ministry of Foreign Affairs, and to the General Directorate of Cultural Heritage and Museums for their ongoing support, and for permission to work at this fascinating ancient site. Over the years we have enjoyed the interest and concern of many Ministers, General Directors, and their dedicated staff, and wish we could thank them individually; in thanking the current Minister of Foreign Affairs Mevlüt Çavuşoğlu, Minister of Culture and Tourism Mehmet Nuri Ersoy, and Director General of Cultural Heritage and Museums Gökhan Yazgı, we extend thanks to their gracious predecessors as well. Excavations Department Director Umut Görgülü and his predecessor Melik Ayaz have offered wise guidance for many years, and we are particularly indebted to them and their staff. Eren Sülek, director of the Archaeological and Ethnographic Museum in Manisa, and his predecessors Lütfi Ekinci, Harun Güllü, Sevgi Soyaker, Müyesser Tosunbaş, Hasan Dedeoğlu, Kubilây Nayır, and Kemal Ziya Polatkan, were particularly generous in allowing us to study, re-photograph, and draw objects in the museum even when it was particularly inconvenient for them, and we are especially grateful for their help.

Martha Tedeschi, the director of Harvard Art Museums, has generously continued the tradition of housing the Sardis Expedition's office under the auspices of the Museums, and we are grateful for her continued interest and support. Cornell University made offices, facilities, and other support available to the Ramages in their research on HoB, PC, and other matters Sardinian, greatly aiding their studies. The Faculty Oversight Committee for the Sardis Expedition at Harvard, and particularly Prof. Mark Elliott, Vice Provost for International Affairs, and Prof. Adrian Stähli, chair of the committee, have been staunch supporters of Harvard's role at Sardis.

Since 1958 the Harvard-Cornell Sardis Expedition has relied financially, logistically, and spiritually on a strong group of interested friends, the Supporters of Sardis, many of whom have maintained their ties to the project for decades. We are deeply grateful to each of them. Among the individuals and organizations who should be especially mentioned here are Dr. Alexandre Balkanski, Mr. and Mrs. Max Barus, the Bollingen Foundation, the Ruth Covo Family Foundation, the J. Stephens Crawford Trust, the Ford Foundation, Mr. and Mrs. William Frederick, Mrs. Margaretta Frederick, Dr. and Mrs. David Greenewalt and the David Greenewalt Charitable Trust, Dr. Richard Hamilton, Mr. Patrick J. Healy, the Hyacinth Foundation, the Institute for Aegean Prehistory, the J.M. Kaplan

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Andrew and Nancy Ramage worked together at Sardis in the 1960s during these excavations, fell in love at the site in 1968, and have been together at Sardis now for more than half a century, collaborating on this and many other archaeological projects. I am deeply gratified to see this book come to fruition, and inspired by their devotion to Sardis and to each other.

Nick Cahill
Madison, Wisconsin

⁴ The Department of State made grants in Turkish funds to Harvard under the Mutual Educational and Cultural Act Public Law 87-256 and Agricultural Trade Development and Assistance Act, Public Law 480 as amended (SCC 29-543). National Endowment for the Humanities grants to Harvard University for work at Sardis and for publication work in the Cambridge office are: 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-21414-87, RP-10050-80-0387, RP-20247-81-2162, RP-20360-82, RP-20754-86; to Cornell University GM-21549-83. Recent conservation work at Sardis has been funded by a grant from the U.S. State Department, U.S. Embassy, Ankara: S-TU-150-17-GR-051-A01. The opinions, findings, and conclusions stated herein are those of the authors and do not necessarily reflect those of the United States Department of State.

AUTHORS' PREFACE

This book discusses the stratigraphy and objects from two areas of ancient Sardis where Lydian material was found. The first is the “Lydian Trench of the House of Bronzes,” so called because of the bronze vessels found in the Late Roman house just to the north of the sector under discussion in Part I. The material presented here comes from the Lydian periods that predate the Roman house, some by more than a thousand years. The second sector, discussed in Part II, is called “Pactolus Cliff,” a term that describes its location on a bluff by the Pactolus River.

The responsibility for publishing an account of the excavations in the sector referred to as HoB (for “House of Bronzes”) fell to Andrew Ramage after the death of Gustavus F. Swift, Jr., the principal excavator of the trench between 1960 and 1970. Ramage had worked at HoB with Gus Swift for two seasons: in 1965 as an occasional helper, to relieve him for his administrative duties and to aid in sorting pottery; and in 1966 as a full-time assistant. In that season, Swift generously shared his responsibilities with Ramage, and they took turns day by day in supervising the actual excavation and working with the finds at the trench. Of course there was a great deal of discussion; Swift kept a watchful eye on his new assistant and patiently explained what he had learned over his years of working in the Lydian levels. After this apprenticeship, so to speak, Ramage was transferred the following year to work in the sector Pactolus North (see Fig. 2.2: no. 10), another area of Lydian occupation, and did not excavate again at HoB.

Nancy Ramage [then Nancy Hirschland] also occasionally worked as an assistant to Swift at the Lydian Trench site at HoB over three summers, 1964 to 1966, when she wasn't drawing the objects from there and elsewhere as the

excavation draftsman. She also had the memorable experience of traveling with Swift from Istanbul to Sardis when she arrived there for the first time. She sat in his Land Rover, on a distinctly uncomfortable seat, for eight or ten hours at a time, and shared with him the excitement of her first exposure to the Hermus Valley and the beauty of the Lydian landscape. In that first year, 1964, he became a great friend, not only in the trenches of HoB, but also sitting on the terrace while he smoked cigarettes and told her stories of his earlier travels and excavations.

After working with Swift at HoB, Andrew Ramage gained additional experience over several seasons at Pactolus North (so called because it was north of Pactolus Cliff), where he dealt with Lydian artifacts and architectural remains. This may explain why Professor George M. A. Hanfmann, director of the Sardis Expedition, invited him to take on the task of publishing the results of the excavations at HoB after Swift's death in 1976. Furthermore, Ramage was familiar with Swift's manner of recording in the fieldbooks, his way of excavating, and his method of describing Lydian pottery.

Nancy Ramage, who was asked by Hanfmann to take on the job of publishing sector PC, did not have the opportunity to work there because the site had fallen in and had been washed away by the rains and the river before she arrived at Sardis. Because she never worked with the excavator, Mario Del Chiaro, she found it challenging to try to determine as clearly as possible what the stratigraphy had been, and to reconstruct the Lydian remains in this elusive site.

We are deeply indebted to the field directors of the Sardis Expedition over the years: first, George M. A. Hanfmann, who invited Nancy [Hirschland] and then

Andrew Ramage (1964 and 1965 respectively) to join the Sardis team and who mentored us as graduate students at Harvard University; then Crawford H. Greenewalt, jr., who as the succeeding field director of the excavations, and as an expert in Lydian pottery himself, supported us in our ongoing work, and collaborated with Andrew Ramage, who was by then one of the associate field directors of the dig; and finally Nicholas D. Cahill, who enabled us to finish this project over the following years, and helped enormously with his great knowledge and many probing questions that undoubtedly made the volume a better product.

The anonymous reader, who eventually revealed herself to us, was an enormously knowledgeable, supportive, and sensitive colleague, and an indispensable contributor to this book. Elspeth Dusinberre must have put everything aside to read the text carefully and swiftly when we needed her. Her observations have hugely improved the book (but any errors remain our own). We are deeply indebted to her, and offer our heartfelt thanks for the many ways in which she enhanced these volumes.

Bahadır Yıldırım and Elizabeth Gombosi were always there when we needed them. Among the many other friends and colleagues over the years who in different ways supported us in this work are Andrea Berlin, Jennifer Clarvoe, Suna Güven, Edward C. Hirschland, Theresa Huntsman, Peter Kuniholm, Christina Luke, Kathleen Lynch, Joan Ramage Macdonald, Carol Mattusch, Recep Meriç, Joan R. Mertens, David Mitten, Michael Morris, Coşkun Özgünel, Michael Ramage, Marcus Rautman, Lynn Roller, Christopher Roosevelt, Hugh Sackett, Kenneth Sams, Tony Sigel, and Teoman Yalçınkaya; and more recently, Neziha Aytacılar, Ümit Güngör, Michael Kerschner, and Penelope Mountjoy, who all helped on dating the pottery. Gül Gürtekin-Demir, who has been a member of the Sardis Expedition since 1991, was brought on board because of her great knowledge of Archaic pottery; Andrew and Nancy Ramage are so pleased that she became our collaborator.

Editors Jane Ayer Scott and Katherine Kiefer were always highly supportive over many years; and more recently, Brianna Bricker and Kerri Cox Sullivan have been truly indispensable in the final push to finish these volumes. To these two we offer warmest thanks for their intelligent collegiality, caring attention to detail, and unwavering patience with our endless requests. Brianna Bricker also served as architect for many years, and helped to design the book and to bring the plans and illustrations to their final form—no mean accomplishment. We are deeply grateful.

Those who recorded the finds in more recent years were guided by the colossal accomplishments of Ilse Hanfmann, the recorder from 1958 to 1976. Among her early assistants were Alice and young Eleanor Swift, who remember washing potsherds from HoB when they were teenagers. Mrs. Hanfmann was followed by many others, of whom we would like to single out particularly Salpi Bocchierian, Frances Gallart Marqués, and Jessica Plant. In the long list

of those who served as assistant recorders are Lenore Keene Congdon, Patricia Erhart, Elaine Kohler, Susan Langdon, Christina Luke, William Mierse, Richard Neer, Alice Swift, Eleanor Swift, and Katherine Welch.

Among the many conservators who put pots together and performed miracles of restoration was that most distinguished of teachers and experts, and a great friend, Lawrence J. Majewski; as well as Harriet Beaubien, Brian Castriota, Carlie Cleveland, Emily Frank, Lisa Goldberg, Ann Heywood, Jennifer Kim, Hande Kökten, Stephen Koob, Henry Lie, Evelyn Mayberger, Jessica Pace, Kent Severson, Jennifer Sherman, Tony Sigel, Jack Soutanian, Jr., Richard Stone, Isabelle Tokumaru, and many others.

A long string of photographers recorded on film and then digitally the many thousands of objects catalogued from sectors HoB and PC. We would like to thank those recent photographers who worked on preparing this material for publication, including Sara Champlin and Jivan Güner. We especially thank Elizabeth Gombosi, Douglas Nickel, and Stephen Shipps for their tireless and outstanding photographs over many seasons.

Catherine S. Alexander's superb drawings have enriched this publication immeasurably. Her knowledge and intuition have materially improved the book, not only by her drawing skills, but also by her observations in the field and her reconstructions of obscure fragments that help to make them understandable. In the later stages of the book, Rana Irmak Aksoy used her expertise to add texture and schematic coloration to show slip and paint on hundreds of Lydian pots, thus making the drawings more instructive. We again offer our wholehearted thanks; LauraLee Brott drew the maps; and among the other draftsmen who worked on HoB and PC were Güven Bakır, Elaine Gazda, Nancy Ramage, Elizabeth Wahle, and Fikret Yegül.

Lauren DiSalvo, while still a graduate student at the University of Missouri, took on the job, along with Nancy Ramage, of helping to write the catalogue descriptions of the earlier HoB material. Lauren was a pleasure to work with and made an enormous contribution to these volumes.

We are, furthermore, deeply grateful to the friends who contributed to Sardis in order to enable the dig to carry on its work in HoB, PC, and elsewhere. Among them were Alice Swift Riginos, Nanette Rodney Kelekian, Carolyn and Harvey Sampson, Valerie Smallwood, Eleanor Swift, and Genevieve and Richard Tucker.

✱

Whereas Andrew Ramage learned a great deal from Gus Swift, this knowledge in turn was extremely helpful to Nancy Ramage and to Gül Gürtekin-Demir, both of whom are indebted to Gus and Andrew for passing on their understanding of Lydian pottery and stratigraphy. We thus offer this account as a tribute to the pioneering efforts of Gustavus F. Swift, Jr., a friend and mentor who was not able to bring the results of his work to completion.

SUMMARY

The ancient city of Sardis, capital of the kingdom of Lydia, was famed in antiquity for its gold, and for luxurious textiles and fast horses. Its most famous king, Croesus, was so wealthy that “rich as Croesus” has become a household expression. He was wealthy enough to send tons of gold to the oracle at Delphi, according to the historian Herodotus (1.92).

Croesus was the last of the Lydian kings, who was overthrown by Cyrus the Great of Persia. The story is shrouded in legend because it is claimed by Herodotus that none other than Apollo saved Croesus’ life. Croesus had been put on a funeral pyre and was to be burned to death, but Apollo sent a huge rainstorm that quenched the fire just in time. This event, which took place in the middle of the sixth century B.C., is the point at which this book ends. It begins in an era shrouded in even more darkness, but one that is beginning to take better shape through the illuminating light of archaeology. The material here begins in the Late Bronze Age, approximately the twelfth century B.C., when Sardis was not much more than a small village. It was only later that it became one of the great cities of Asia Minor. But it is not Croesus or his royal predecessors who are the subject here; rather, it is the humble workman, farmer, and craftsman, and their womenfolk, who lived and worked in small houses, that are our subject.

In two areas of the city where these people made their homes, the Sardis Expedition found buildings with walls made of stone foundations, sometimes topped by mudbrick; streets and alleys between the buildings; and the contents of these houses, sometimes lying about as if the inhabitants

had just left. Not only pottery, but also metal knives and tools, objects made of bone, and the occasional terracotta were found here. It was our job to try to make sense of the masses of finds discovered in over a decade of digging in these two archaeological areas.

The first and larger of these sectors is called “The Lydian Trench at HoB,” for the Late Roman House of Bronzes that had been discovered nearby (1958–1960) and that had shown the first indications of Lydian occupation beneath its floors. The Lydian Trench was excavated from 1959 to 1970, mostly under the expert supervision of Gustavus F. Swift, Jr., and again in smaller probes in the 1980s. Our account details the features found from archaeological layers covering more than 650 years, ca. 1200 to ca. 550 B.C.

The second, and much smaller, sector is called “PC,” for Pactolus Cliff. This was a small area on an eastern bluff by the Pactolus River. This site came to light when some sculpture from a Roman sarcophagus and large marble blocks fell into the streambed over the winter months of 1958 and 1959, instigating work here that took place in the summers of 1959 and 1960. In the excavation, overseen by Mario Del Chiaro, the Lydian remains were found beneath Roman tombs.

In these two areas of Sardis were excavated the humble homes of local people. In some periods, only small traces of their lives emerged, but enough to enable us to try to make some sense of the history of the site. The Lydians were a little-known people before the investigations of the Harvard-Cornell Expedition, which began in 1958. The long-standing excavation has elucidated many aspects of ancient Sardis; this volume reports on two areas

that revealed Lydian occupation, giving us a picture of everyday Lydians—their housing, streets, and domestic objects—in an effort to make sense of the stratigraphy and finds documenting the lives of these ordinary Lydians at home.

As the city grew over time, it traded with its Greek neighbors to the west, and its Anatolian neighbors to the east. These foreigners had a noticeable influence on the Lydians, especially on their pottery. One of the best ways of determining these influences is to study the shapes and decoration on Lydian pots, and this has been one of the major thrusts of the book. To set the guidelines, the first chapter addresses issues concerning the ceramic output of potters at Sardis: first a description of the shapes of Lydian pots, followed by observations on how pottery was repaired and reused; then, an explanation of the body fabrics; and finally, the types of decoration and techniques used on Lydian painted pots. The introductory chapter thus discusses Lydian pottery as a foundation for the study of the stratigraphy and the interpretation of the finds from HoB and PC.

Following the pottery chapter, the authors bring together observations about this area of Sardis, including the overall topography of the site, with a concentration on the physical factors that have shaped the north flank of the Acropolis, and the alluvial deposits that helped to form the landscape. The remainder of Part I deals with the stratigraphy of sector HoB, and then Part II with that of Pactolus Cliff. Finally, in Part III, we present a catalogue of the finds, first from HoB and then from PC. After the catalogues, the reader will find an appendix with a summary of scientific analyses, the bibliography, illustration credits, concordances, and the index.

We start the Lydian period in the Late Bronze Age (1100–1000 B.C.), which is not to say that there were no Lydians before then, but that is when the majority of the evidence for people living in Sardis itself begins to appear. We do know that peoples earlier than this were living around the Gygaean Lake just to the north of Sardis, and that there was a great city, newly discovered, at Kaymakçı, on the western side of that lake. But this current book deals with Sardis itself, and that is why our earliest finds are from the Late Bronze Age. These were retrieved from the lowest levels of three deep soundings, excavated in 1960, 1962, and 1966, each of which is discussed in detail. Among the exciting finds at those low depths were the floor of a hut, a pithos burial, walls, pottery, and metal objects as well as, remarkably, the skeleton of a donkey.

The centuries following these earliest levels are divided into four periods, Lydian IV through I, ranging from the eleventh to the mid-sixth centuries. Each of these periods is discussed as appropriate, both for sector HoB and for sector PC.

Not much of Lydian IV survives, but there are traces of walls and some pottery with Greek Geometric influence. Lydian III is distinguished especially by widely evident signs of a major conflagration as well as of death and disastrous destruction. Quite a few human skeletons, including that of a small girl, tell of violence in this period. The date of this destruction has been identified as late eighth century, based on the pottery of this level. Who the attackers were is not clear.

Lydian II is the period when we have, for the first time, considerable evidence of how people lived at Sardis. A series of houses that may also have served as workshops was found within an enclosure wall on the western side of the trench. In several of these structures, pottery and other artifacts were found on the floor as if the inhabitants had just left the house. Built-in structures for storage, cooking, and workshops, as well as streets and alleys, survived from this period. The inhabitants of Sardis in Lydian II made use of large pits that they dug into the ground for storage or garbage (or both). The bottoms of many of these pits, or bothroi, showed on the floor levels of Lydian III because the diggers had cut through the thick layer of gravel that had been deposited on top of the burned layer of Lydian III.

In the period of Lydian I, far more evidence of living arrangements and types of activities conducted in the houses could be read from the surviving remains. In evidence were not only the walls of houses and pots on the floor, but also artifacts from a bone-working establishment and the making of loom weights. It was a floor and walls of this period, found beneath the Roman House of Bronzes, that first alerted the excavators to the fact that remains from the Lydian period lay just below the Roman floors.

At sector PC, beneath the Tomb of the Lintel and two Roman vaulted chamber tombs, Lydian walls began to appear so close to the later levels that in one case, a Hellenistic wall in the Tomb of the Lintel was built right on top of the Lydian Wall 9. PC had many walls, as well as floor levels, that had to be sorted out as to their chronology. In general we can say that the period under discussion is similar to that of HoB, although it doesn't start as far back. Lydian IV is the earliest level at which material was found in sector PC.

Neither HoB nor PC seems to have flourished after the fall of Sardis to Cyrus the Great. HoB may have become something of a dumping ground and, in the northern section, an industrial area. Little of the Persian period showed up in PC.

This book sets out for the first time a comprehensive study of Lydian pottery in the context of the floors and buildings where it was found. The pottery here is intended to work hand-in-hand with the stratigraphy, the walls, and the other remains in order to paint a picture of the work and life of ordinary people in a Lydian town over the centuries.

ÖZET

Lydia Krallığı'nın başkenti Sardis eski çağda altınıyla, lüks tekstil ürünleriyle ve hızlı atlarıyla ün yapmıştı. En meşhur kralı olan Kroisos o kadar varlıklıydı ki "Kroisos kadar zengin" söylemi günümüze kadar ulaşan bir ifade haline gelmiştir. Tarihçi Herodotos'a göre Delphi'deki kehanet merkezine tonlarca altın gönderecek kadar zengin bir kraldı (I.92).

Pers kralı Büyük Kyros tarafından yenilgiye uğrayan Kroisos, Lydia kralları içinde son kral olarak karşımıza çıkmaktadır. Bu olayın hikayesi bir efsanenin içinde saklıdır; çünkü, Herodotos'un iddiasına göre yakılarak idam edilmek üzere odun yığınının üzerine yerleştirilen Kroisos'un hayatını Apollon'dan başkası kurtarmamıştır. Apollon güçlü bir yağmur fırtınası yollayarak ateşi tam zamanında söndürmüştür. Bu olayın meydana geldiği M.Ö. 6. yüzyılın ortası, bu kitabın da sona erdiği noktadır. Kitap, daha da karanlık olan, ancak arkeolojinin aydınlatmaya başladığı bir tarih aralığı ile başlar. Burada konu edilen en erken arkeolojik malzeme, Sardis'in henüz küçük bir köyden öte olmadığı bir dönem olan yaklaşık M.Ö. 12. yüzyıla, Geç Tunç Çağı'na aittir. Kentin Küçük Asya'nın önemli büyük kentlerinden birisi olması daha sonra gerçekleşecektir. Ancak, burada konu olan Kroisos ya da onun krali selefleri değildir; daha ziyade, küçük konutlarda yaşayan ve çalışan mütevazi işçiler, çiftçiler ya da zanaatkarlar ve kadın halk konu edilmektedir.

Sardis Kazı Araştırmaları, bu insanların kentte kendilerine mesken tuttıkları iki alanda önemli buluntular ortaya koymuştur: taş temelli, üst yapısı bazen kerpiç duvarlı binalar; binalar arasında yer alan caddeler ya da geçitler; aynı zamanda, bu evlere ait, bazen sanki evin sakinleri tarafından daha henüz yeni bırakılmış hissini veren buluntular meydana

çıkartılmıştır. Buluntular sadece seramik değildir, aynı zamanda çeşitli kesimler ve aletler, kemik objeler, kimi zaman da cam boncuklar ele geçmiştir. Bizim görevimiz, bu iki kazı sektöründe on yılı aşkın süre içerisinde bulunan buluntu topluluklarından bir anlam çıkartmaya çalışmak olmuştur.

Söz konusu sektörler arasında ilk konu edilen alan en büyük olanıdır ve "HoB (Bronzlar Evi) alanındaki Lydia Açması" olarak adlandırılmıştır. Bu ismin verilmesinin nedeni hemen yakınında 1958–1960 yılları arasında ortaya çıkartılan ve taban altı seviyelerinde Lydia yerleşim izlerine işaret eden Geç Roma Bronzlar Evi'nin yer almasıdır. Lydia Açması, 1959'dan 1970 yılına kadar çoğunlukla Gustavus F. Swift, Jr.'ın uzman gözetimi altında, ayrıca 1980 yılında daha küçük çaplı sondajlar şeklinde kazılmıştır. Bu çalışmaya konu olan incelememiz yaklaşık M.Ö. 1200'den 550'e kadar olan 650 yılı geçkin bir zaman dilimine ait arkeolojik katmanlardaki buluntuları ilgilendirmektedir.

Nispeten daha küçük bir alan olan diğer kazı sektörü "PC" ("Pactolus Cliff"/Kayalık Paktolos) olarak adlandırılmaktadır. Bu kazı alanı Paktolos Nehri'nin doğusundaki bir yamaçta yer almaktadır. Alan 1958–1959 kış aylarında Roma dönemine ait bir lahdin kabartmalı parçaları ile büyük mimari blokların nehir yatağına yuvarlanması üzerine ortaya çıkmış ve ardından 1959 ve 1960 yaz sezonlarında kazı yapılmasına neden olmuştur. Mario Del Chiaro tarafından yürütülen kazı çalışmaları sonucunda Roma mezarlarının altındaki seviyelerde Lydia kültür katmanlarına ulaşılmıştır.

Sardis'in bu iki alanında yerli halkın mütevazi konutları ortaya çıkartılmıştır. Bazı dönemlerde bu insanların yaşamlarına ait bilgiler kısıtlıdır; ancak, yine de yerleşim

tarihi hakkında bir fikir edinmemiz için yeterlidir. 1958 yılında başlayan Harvard-Cornell araştırmaları öncesinde Lydialılar hakkındaki bilgilerimiz çok daha azdı. Uzun soluklu kazılar sonucunda, Sardis'teki antik kentin pek çok yönü aydınlığa kavuşmuştur; bu kitap, Lydialıların nasıl yaşadıklarını, gözümüzde canlandırabileceğimiz bir şekilde, Lydia yerleşim izleri gösteren iki alanın kalıntılarını incelemektedir: barınma şekilleri, yapılar arasındaki geçitler ve günlük yaşamda kullanılan eşyalardan yola çıkarak anayurtlarında yaşayan sıradan Lydialı halka ait buluntuları ve kültürel tabakalaşmasını anlaşılabilir kılmaya çaba sarf edilmiştir.

Dönem ilerledikçe büyüyen kent, batıdaki Yunan ve doğudaki Anadolu komşularıyla ticari ilişkilerde bulunmuştur. Bu yabancı komşulardan gelen etkileri Lydialılar üzerinde ve özellikle de onların seramiklerinde görmek mümkündür. Bu etkileri belirlemede izlenecek en iyi yollardan bir tanesi de Lydia seramiklerinde görülen form ve bezemeleri incelemektir; böylesine bir inceleme kitabın ivme kazandırıcı temel özelliklerinden bir tanesidir. Kitaptaki bölümler hakkında kısa bir bilgi vermek gerekirse, ilk bölüm Sardis'teki seramik ustalarının yaptığı üretimlerin genel özelliklerini ortaya koymaktadır: öncelikle, Lydia seramiklerindeki formlar hakkında açıklamalar sunulmuş, ardından da seramiklerin nasıl onarım gördükleri ve yeniden kullanıma hazır edildikleri konu edilmiştir; sonra, hamur tipleri ve ardından Lydia seramiklerindeki boyama teknikleri ve çeşitleri yer alır. Böylece, kitabın giriş kısmı sonraki bölümlerde tartışılacak olan HoB ve PC sektörlerindeki stratigrafi ve değerlendirmelere bir temel oluşturabilmesi amacıyla Lydia seramikleri hakkında genel bir bilgi sunmaktadır.

Seramiklerle ilgili olan kısmın ardından, kitabın yazarları Sardis yerleşimi konusundaki gözlemleri bir araya getirmişlerdir. Bu kısımda, özellikle Akropolis'in kuzey yamacının oluşumunu etkileyen fiziksel faktörler ve doğal kent peyzajını meydana getirmiş olan alüvyal birikintiler üzerinde yoğunlaşan yerleşim topografyası hakkındaki açıklamalara yer verilmektedir. Bölüm I "HoB" sektörünün, Bölüm II de "Pactolus Cliff" (Kayalık Paktolos) sektörünün stratigrafisini tartışmaktadır. Son olarak, Bölüm III'de önce HoB daha sonra da PC olmak üzere buluntuların katalogu sunulmuştur. Katalog kısmının hemen ardından kimyasal analizlerin yer aldığı bir ek, kaynakça, görsellerin kaynakları, uyumluluk dizinleri ve indeks yer alır.

Kitapta Lydia dönemi, Geç Tunç Çağı'nda (M.ö. 1100-1000) başlar. Bu durum, daha önceden Lydialı halkın olmadığı anlamına gelmez; bunun nedeni, Sardis'teki yaşam izlerine ait verilerin ancak bu dönemde yoğunlaşmasıdır. Daha erken dönemlere ait yerleşim izlerinin Sardis'in hemen kuzeyindeki Gyges Gölü çevresinde olduğu ve son yıllarda da gölün batısında yer alan Kaymakçı'daki büyük bir kentin ortaya çıkartıldığı bilinmektedir. Ancak, bu kitapta sadece Sardis kenti esas alınmaktadır, bu nedenle de bahsi geçen en erken buluntular Geç Tunç Çağı'na aittir. Söz konusu en erken buluntular 1960, 1962 ve 1966 yıllarında

kazılan üç tane derin sondajın en alt seviyelerinde ele geçmiştir ve burada her biri detaylı olarak tartışılmıştır. Alt derinliklerde ele geçen heyecan verici buluntular arasında kulübe tarzı bir yapının tabanı, pithos gömüsü, çeşitli duvarlar, seramik ve metal eserler ile özellikle bir eşeğe ait iskelet dikkati çekmektedir.

Söz konusu olan en erken tabakaları izleyen yüzyıllar Lydia IV'den başlayıp Lydia I'e kadar devam eden, diğer bir deyişle 11. yüzyıllar ile altıncı yüzyıllar arasındaki zaman dilimini kapsayan dört tabakaya ayrılmıştır. Bu tabakaların her biri HoB ve PC sektörleri için ayrı ayrı tartışılmıştır.

Lydia IV tabakasına ait fazla kalıntı yoktur ancak, bazı duvarlara ait izler ve geometrik etkili seramikler gözlenmektedir. Lydia III tabakası, özellikle büyük bir yangınla birlikte ölüm ve yıkıcı bir tahribata ait belirgin izleri taşınması açısından ön plana çıkmaktadır. Küçük bir kız çocuğuna ait iskeletin de yer aldığı az sayıdaki insan iskeleti kalıntısı bu dönemde meydana gelen bir şiddete işaret etmektedir. İlgili seviyede ele geçen seramiklere dayanarak bu tahribatın tarihi 8. yüzyılın sonu olarak tespit edilmiştir. Saldırıyı gerçekleştirenler hakkında bilgimiz yoktur.

Sardis'teki halkın nasıl yaşadığına dair belirgin verilerin ilk kez ortaya çıktığı dönem, Lydia II tabakasının ait olduğu zaman dilimine aittir. Kazı sektörünün batısındaki çevre duvarının içerisinde işlik olarak da kullanılmış olabilecek bir seri konut ele geçmiştir. Bu binaların birkaç tanesinde evin tabanlarında ele geçen seramik ve farklı objeler sanki sakinleri evi henüz terk etmiş izlenimi verecek şekilde ortaya çıkartılmıştır. Bununla birlikte, bu döneme ait depolama, pişirme ve işlik amacıyla yapı içerisine yerleştirilen iç mekanlar, caddeler ve geçitler de ele geçmiştir. Lydia II döneminde yaşayan Sardisli sakinler taban altına kazdıkları büyük çukurları depo alanları ya da çöplük olarak, belki de her iki amaç için de kullanmaktaydılar. Bu çukurların, ya da diğer bir deyişle bothrosların çoğunun alt seviyesi Lydia III tabakasının taban seviyelerinde ele geçmiştir; bu durum, çukurları kazınların Lydia III'deki yangın seviyesinin üzerinde biriken çakıl taşlı kalın tabakayı yararak alt seviyeye ulaşmasından kaynaklanmaktadır.

Lydia I dönemine ait buluntular bize konutlarda yürütülen farklı etkinlikler ve yaşamsal düzenlemelerle ilgili çok daha fazla veri sunmaktadır. Sadece evlerin duvarları ya da taban üstünde bulunan seramikler değil, aynı zamanda kemik aletler ve dokuma tezgahı ağırlıkları üreten mekanlara ait buluntular da elimizdeki veriler arasında yer almaktadır. Arkeologlara Lydia kalıntılarının Roma tabanlarının hemen altında yer aldığı gerçeğini gösteren aslında Roma dönemi Bronzlar Evi (HoB) alanının altında ele geçen Lydia I dönemine ait bir taban ve çeşitli duvar kalıntılarıdır.

PC sektörüne baktığımızda, Lento Mezarı ve iki adet Roma tonozlu oda mezarının altında ele geçen Lydia duvarları geç dönem seviyelerine o kadar yakındır ki bir seferinde Lento Mezarı'na ait bir Hellenistik dönem duvarının Lydia Duvarı 9'un hemen üzerine inşa edilmiş olduğu gözlenmiştir. PC sektörüyle ilgili çalışmalar

yürütülürken sektörde ele geçen birçok duvarın tabakasına ve ait oldukları taban seviyelerine göre düzenlenmesine gerek duyulmuştur. Genel olarak, her ne kadar HoB'daki kadar erken bir dönemde başlamasa da PC sektöründeki tabakalaşmanın HoB sektöründekiyle benzer olduğunu söyleyebiliriz. PC'deki en erken buluntu veren tabaka Lydia IV'tür.

Sardis'in Büyük Kyros tarafından ele geçirilmesinin ardından ne HoB, ne de PC sektöründe yerleşimin devam ettiğini gösteren bir bulguya rastlanmamıştır. HoB sektörü

belki de bir çöplük alanına dönüştürülmüştür ve sektörün kuzey bölümü de endüstriyel bir alana çevrilmiş olabilir. PC sektöründe de Pers dönemine ait veriler oldukça kısıtlıdır.

Lydia seramikleri ilk defa bu kitapla birlikte, buldukları yapı ve taban kontekst bilgileri ışığında, geniş kapsamlı bir çalışma olarak ortaya konmuştur. Burada yer alan seramikler stratigrafi, duvarlar ve diğer buluntularla birlikte bir Lydia kentinde yüzyıllar boyunca hayatını sürdüren sıradan halkın yaşamı ve çalışma hayatının resmini çizer gibi değerlendirilmesi planlanmıştır.

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CHRONOLOGY

Phase	Date
LATE BRONZE AGE	Thirteenth to twelfth century B.C.
EARLY IRON AGE	Eleventh to tenth century B.C.
LYDIAN IV	Iron Age, ninth through mid-eighth century B.C.
LYDIAN III	Last quarter of eighth century B.C., Destruction Level
LYDIAN II	Early to third quarter of the seventh century B.C.
LYDIAN I	Later seventh to mid-sixth century B.C.

ORDINARY LYDIANS AT HOME

The Lydian Trenches of the House of Bronzes and Pactolus Cliff at Sardis

Chapter 1

LYDIAN POTTERY

An Overview

by Andrew Ramage and Nancy H. Ramage

Ancient historians, describing the Lydians, wrote mainly about the kings and palaces, although Herodotus (1.7) gave us some insight into the common people and the city of Sardis as he understood them to be. In contrast to the historical view of rulers and their wealth, this book introduces the reader to those finds from ancient Sardis that show how ordinary Lydians lived and worked. The two sectors, House of Bronzes (HoB) and Pactolus Cliff (PC), under discussion here, shed light on the houses and workshops, the streets and refuse pits, the objects of daily life and tools for industry, of the people who lived in this city in the centuries before it was destroyed by the Persians in the middle of the sixth century B.C.

We start with a chapter on Lydian pottery, since this is the most ubiquitous material throughout the site, as well as the most helpful for seeing the relationships of the Lydians with their neighbors to the west and the east. Studying the pottery enables us to understand the chronology, the trade relationships, and the local taste in eating and cooking wares.

Masses of pottery came from both of these areas at Sardis, providing a rich cache of Lydian ceramics that ranges from delicate tableware to heavy “breadtray” and massive storage jars. Although the archaeological finds also included pottery imported from Greek and Anatolian centers, this summary here in Chapter 1 concentrates on local Lydian pottery.¹ It provides a framework for understanding the favored shapes of Lydian pots, the range of decorative designs used by Lydian pot painters, and the makeup of the clay itself; and along the

way, a look at how Lydians made use of their pottery even after it was broken and turned into a reused product.

SHAPES

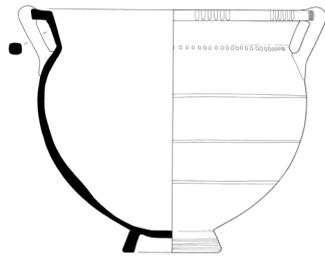
Since most of the pottery shapes in the later levels found in the Lydian Trench of sector HoB approximate forms well known to students of Greek pottery, the conventional Greek terms have been used here.² However, the details of the profiles in some instances differ considerably from the Attic or Corinthian norms that are the common points of reference. Whole vessels are rare in the occupation levels at sectors HoB and PC, and few graves that might have preserved whole pots are known from this period.

Lydian pottery shapes are related both to Anatolian and to Greek examples. It is unclear to what degree Greek terms for the shapes of pots should be applicable to those that are related to native Anatolian traditions. This is particularly an issue in the earlier periods, when the shapes (especially of the monochrome ware) are more closely related to vessels found at Gordion or Midas City in Phrygia than to those from Greece.³ In some cases the shapes are so similar to Anatolian parallels that they must either come from the same source or belong to a tight local tradition that is widespread in western Anatolia. Many similarities to the shapes

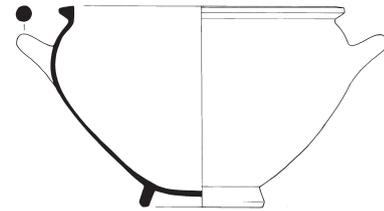
² The order of discussion of shapes follows, roughly, the arrangement of the pots in Fig. 1.1.

³ Note especially Haspels 1951, pl. 14d, e. Haspels's description remains the best concise, general account of Phrygian pottery. See also Sams 1994 for both painted and monochrome wares.

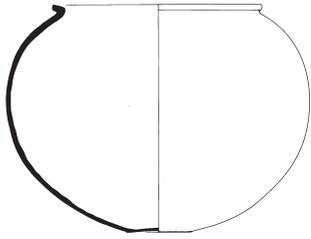
¹ See R. Gül Gürtekin-Demir, *Lydian Painted Pottery Abroad: The Gordion Excavations, 1950–1973* (Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology, forthcoming).



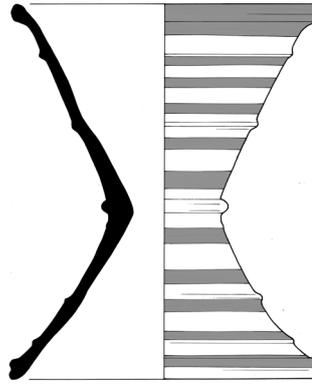
Column krater
(P86.46)



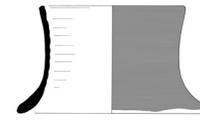
Skyphos krater
(based on HoB 446)



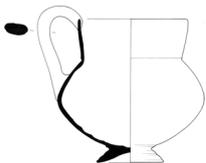
Lebes
(based on HoB 750)



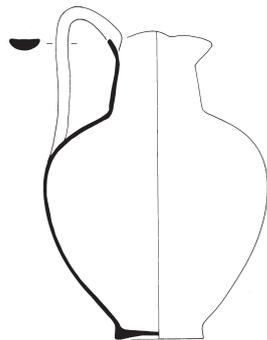
Biconical pot stand
(HoB 386)



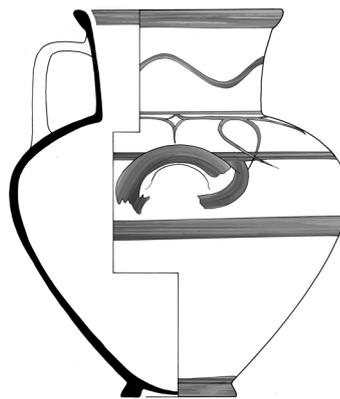
Pot stand
(HoB 535)



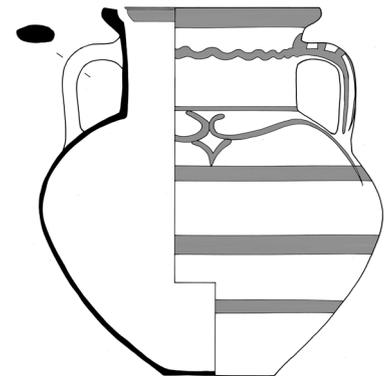
Round-mouthed jug
(HoB 376)



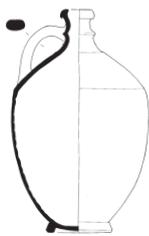
Jug/Oinochoe
(based on HoB 753)



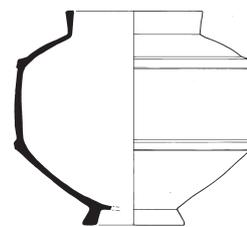
Waveline hydria
(HoB 577)



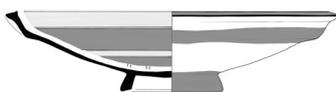
Amphora
(HoB 410)



Lekythos
(HoB 520)



Pyxis
(P86.47)



Low-footed bowl or dish
(HoB 740)

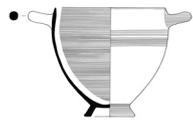


Low-stemmed dish
(HoB 374)



High-stemmed dish
(based on HoB 325)





Skyphos
(HoB 465)



Ionian cup
(HoB 635)



Small cup
(based on HoB 113)



Baby feeder
(based on HoB 435)



Lydion
(HoB 541)



Mesomphalic bowl
(HoB 271)



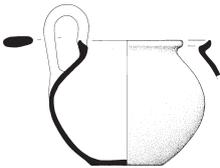
Bowl
(HoB 516)



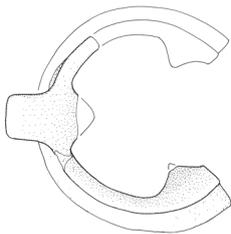
Lydian lamp
(HoB 650)



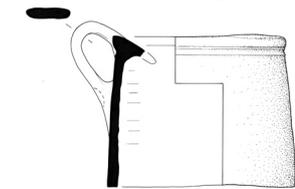
Lid with cutout for ladle
(HoB 340)



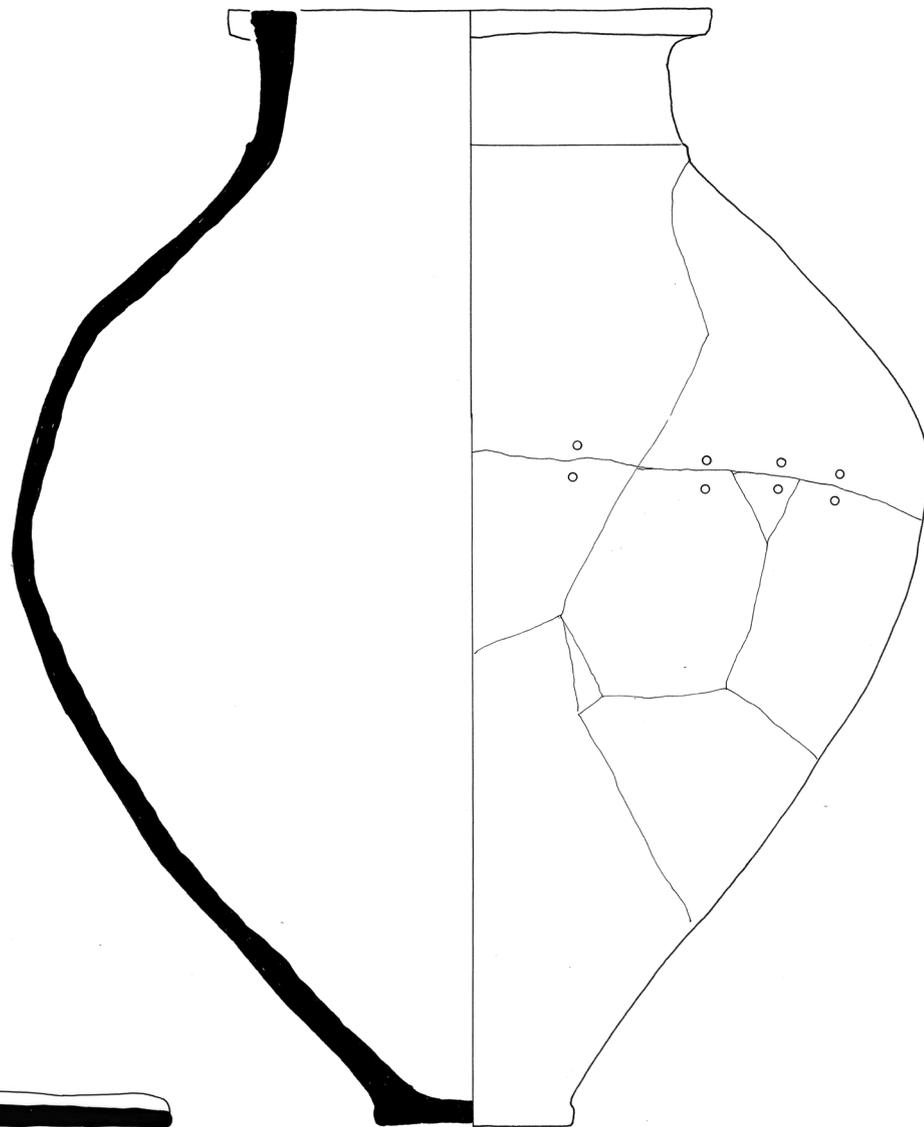
Cooking pot
(HoB 462)



Hearth stand
(HoB 727)



Breadtray
(HoB 492)

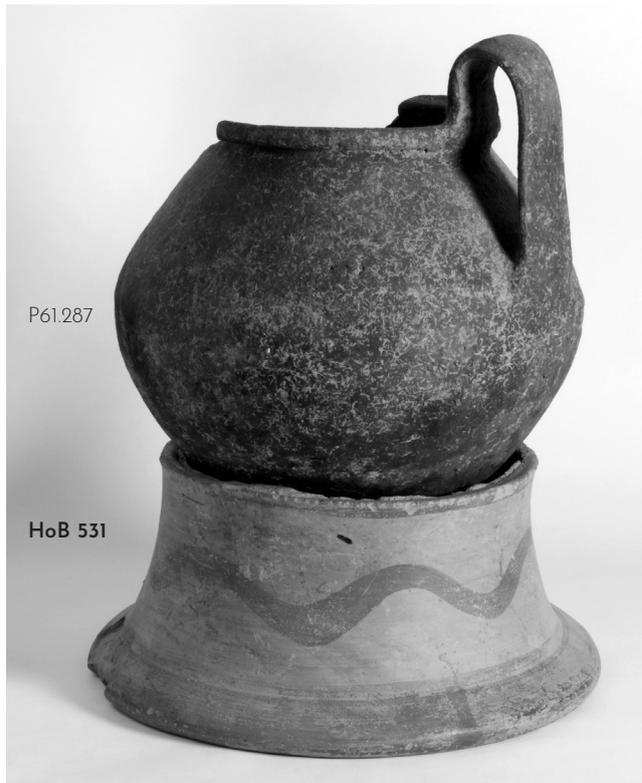


Pithos
(HoB 216)



FIGURE 1.1 (PAGES 2–3). Lydian pottery shapes.

FIGURE 1.2.
Cooking pot
sitting on a
broken-off hydria
neck that serves
as a pot stand.



and surface treatment of pots from Larisa on the Hermus can be found, once again most notably among the monochrome pieces assigned to the pre-Greek settlement, but continuing into the Orientalizing period.⁴ The Aeolic pieces from Old Smyrna raise the issue of terminology.⁵ What might properly be called an oinochoe in a later level would more likely be called a jug in an earlier level, since the use of Greek terminology would be inappropriate. We use “jug” for such vessels in the earlier periods, and “oinochoe” in the catalogues of Lydian II and Lydian I objects.

For specific shapes, see Figure 1.1, which shows the typical Lydian forms, most of which are mentioned in the following pages. In addition to these standard pottery shapes, there are clear signs of daily life in occasional pieces such as strainers (**HoB 213**, **HoB 555**), racks for holding a roasting spit (**HoB 106**, **HoB 230**), and an oven grate (**HoB 251**).

KRATER, LEBES, AND POT STAND

Kraters with a high foot, like those found at Exochi on Rhodes, were favored in Lydian III (see the chronological chart on page 31), and we suppose many to be local imitations, although some were certainly direct imports.⁶ One such import is a large krater, with concentric circles and wiggly vertical lines in a reserved panel (i.e., a panel with no

paint), which can be reconstructed on paper (**HoB 351**). It was found on the late eighth-century Destruction Level and is important for its dating. The shape does not appear in Lydian II, and one supposes that its role was absorbed by large bowls on stands. Later forms (**HoB 556**) are close to the typical shape for Corinthian column kraters (in Lydian I),⁷ but imitation of their decorative scheme is not attempted. The skyphos krater is another large open form (**HoB 447**, **HoB 749**), and others stem from differing treatments of the neck or turn of the shoulder.

A variation of the krater with a high foot is the round-bottomed lebes that must be set in a stand so as not to tip over. Both the krater and the lebes held large amounts of liquid that would be scooped out and then poured from a smaller vessel. The introduction of the lebes shape may be proposed for the end of the eighth century, even if no “certified” pieces appear until Lydian II (**HoB 750**).

The early pot stands for the lebes are biconical in shape (**HoB 386**), and tended to be fancier than the simple cylindrical type that came later. Imported versions of the biconical stand are decorated with bands around the belly in Brown on Buff; Lydian versions are elegantly decorated in Black on Red with geometric designs (**HoB 179**).⁸ But not only the large lebes needed a pot stand. Any round-bottomed pot (cooking or otherwise) would require a stand to stay upright wherever it was set down. It typically took the form of a cylindrical ring on which to set a pot (**HoB 535**). Frequently a substitute was made out of the broken neck of a hydria or amphora (Fig. 1.2), especially during Lydian I. See the many examples from HoB, such as **HoB 524–HoB 533**.⁹

JUG/OINOCHOE

Jugs, also called oinochoai, were common items, found everywhere, and were much needed in daily life for water and wine. A particularly fine example of the trefoil oinochoe is a red Bichrome and streaky vessel, **HoB 753**, where elaborate concentric hooks decorate the shoulder, while streaky glaze covers the body (see Fig. 1.11). Another is a broad Bichrome jug with strong concentric hooks, again on the shoulder (**HoB 620**). Trefoil oinochoai ranged from large examples like these to small and delicate ones (**HoB 754–HoB 762**).

Round-mouthed jugs in many sizes make up a large proportion of the closed shapes; both tall and squat profiles are found in most wares. The round-mouthed jugs start early (**PC 1**). A typical later example is **HoB 376**, and there are the Phrygian-inspired round-mouthed jugs, **HoB 331** and **HoB 369**.

⁴ Boehlau and Schefold 1942, pp. 21ff. and 58ff. for gray and banded ware.

⁵ Implied in Cook 1958, pp. 10, 13; and see Akurgal 1983, p. 15 and pl. 6a–h.

⁶ Friis-Johansen 1958, fig. 61.

⁷ See Greenewalt 2010b, p. 112, no. 5; *LATW*, p. 466, no. 73.

⁸ It is not clear whether this stand was a krater with a high foot or a biconical stand.

⁹ And also **HoB 630**, **HoB 702–HoB 707**, **HoB 711**, and **HoB 765**.

HYDRIA AND AMPHORA

The other common large shape for liquids is the hydria or amphora, similar in the body but different in the handles. The hydria (meaning “water jar”) has three handles: one on each side of the belly and one that goes from neck to shoulder, used to lift the vessel for pouring. The amphora, in contrast, has two handles, both reaching from the neck to the shoulder of the pot.

The Lydians had their own version of the popular decorative scheme of wavy lines that was widely used on East Greek pottery. It is particularly frequent for amphorae and hydriae that, in fragments, are notoriously difficult to distinguish from each other because the shapes preferred by the Lydians are identical except for the number and position of the handles.

Lydian amphorae and hydriae are normally wide-necked and boxy in proportion. Especially a type called “Waveline hydriae” (or amphorae, depending on the handle arrangements) has a body width that is close to its height (**HoB 577**).¹⁰ In fact no Lydian examples of the narrower, more elongated type of amphora that conformed to Greek taste were found in sectors HoB or PC.

It is standard on Lydian amphorae to find a marked articulation at neck to shoulder. A simple low ring-foot is also the norm. It is not clear yet when any vessel that could be properly described as an amphora first makes its appearance in Lydia, because so many of the fragments are ambiguous and may well belong to large jugs, identified by their handle attachments or trefoil mouths. The earliest piece (**HoB 356**) with a complete neck and handles dates to the late eighth century, but handle fragments from the Late Bronze Age levels may come from amphorae too.

The decoration is a variation of a scheme using horizontal bands at intervals down the body of the pot (**HoB 522**).¹¹ The rim has a broad band inside and out, and the neck a wavy line. The shoulder carries a pair of lines set just below the band marking the articulation at the neck, which is treated like a crisscrossing festoon. More formally, and perhaps under stronger Greek influence, two horizontal S loops are set tangentially and linked by an open triangle above. On occasion this is elaborated with a doubled palmette pattern reminiscent of the “star-and-scroll” motif on Lydian architectural terracottas (**PC 55**).¹² This may be a later development in the early sixth century. The color of the paint is usually dark brown and somewhat streaked, although there is a considerable range toward red; the body is usually yellowish brown. Since boldness rather than delicacy characterizes the Waveline class, the variety in the decoration may have arisen as easily from misjudgment as invention.

LEKYTHOS

Lekythoi are not common until the sixth century and are based on an Attic prototype, but a bulging wider type was found a bit earlier. Their shape is cylindrical, perhaps slightly concave in the body, with a sharp shoulder and short narrow neck roughly at the height of the handle attachment (**HoB 520**). A typical feature on Lydian lekythoi is a prominent band in relief on the neck. The handle usually runs in a circular arc from under the mouth to the shoulder. A ring foot spreads abruptly from the narrowed cylinder.¹³

PYXIS

The pyxis is a closed shape that normally had a lid (**HoB 540, PC 115**). It is a boxy form that could be used as a container for all kinds of small household goods, but is usually associated with more delicate items such as toilet articles or cosmetics; one must assume that in the Lydian period, there were not many such delicacies for ordinary folk, so the box would have held any kind of small object.¹⁴

STEMMED DISH

The stemmed dish (sometimes called a fruitstand), with a high or low stem, is common at Sardis and much less so on Greek sites, although it has been found in such places as Emporio on Chios and Tocra in Cyrenaica.¹⁵ Perhaps it is more an Anatolian shape that was adopted in smaller quantities in East Greece. It seems to have been a widely used serving dish for everyday use, although twenty-three were found together in a house (elsewhere at Sardis), suggesting that they may have been used simply as plates.¹⁶ They make up a large proportion of the domestic ware from the late eighth century in Lydian III. The usually shallow bowl was conducive to some of the most inventive and exuberant patterns for Lydian pot painters (**HoB 325** and frontispiece).¹⁷ A shallower version without a stem is sometimes called a plate or dish (**HoB 740**). Examples of open bowls and shallow dishes have either a stem or a short flaring foot descending from the center of the dish. The shape continues to be popular even after the introduction of specialized shapes like skyphoi or flat plates. The rim profiles are quite bewildering in their profusion, showing that one must be cautious in making chronological judgments on this basis alone.

¹⁰ See *LATW*, p. 465, no. 72.

¹¹ Hanfmann, “SARDIS 1958,” p. 31, fig. 14; and Ramage 2008, pp. 82–83 and fig. 4.

¹² See also **HoB 587**. Ramage, *Sardis M5*, frontispiece and p. 26, fig. 83; Åkerström 1966, pls. 44–45. For a good color image, Shear, *Sardis X*, pl. XI.

¹³ Greenewalt 2010a, p. 210.

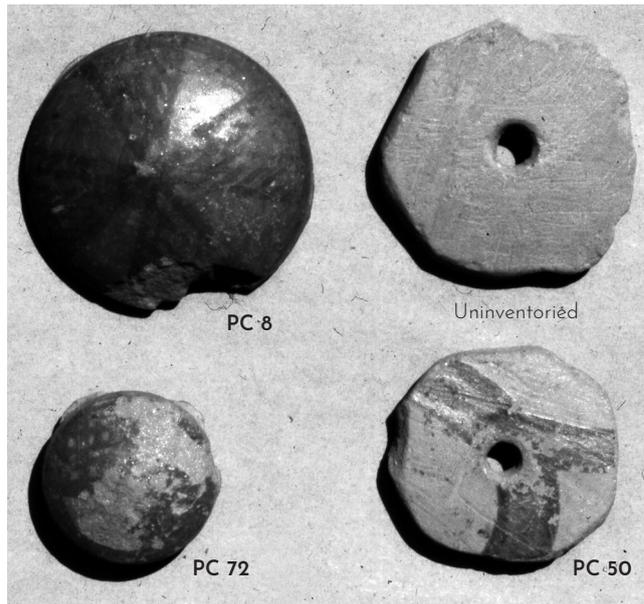
¹⁴ *LATW*, p. 474, no. 87.

¹⁵ Boardman 1967, pp. 128–30 and pl. 40, fig. 80, no. 403; Boardman and Hayes 1966, pp. 49–52. See now Dusinberre, Lynch, and Voigt 2019.

¹⁶ See Cahill 2010b, pp. 95–96, figs. 29–30.

¹⁷ See also **HoB 374, PC 26, PC 74, PC 92**.

FIGURE 1.3. Four purposely cut-down pieces that could have served as stoppers or game pieces. The two with holes could, alternatively, have served as loom weights. Two are omphaloi from mesomphalic bowls, and one is a fragment from a Waveline hydria.



CUP AND SKYPHOS

The cup is most prevalent in Gray Ware (**HoB 113**),¹⁸ but several examples were also found in the local Brown on Buff (**HoB 75**, **HoB 394**), which at the end of the Bronze Age was often polished. The shape is in fact popular over several hundred years, but is particularly frequent in our Early Iron Age levels. It can be compared in shape and chronological range to cups from peninsular Greece and from Samos or Chios.¹⁹ Cups with a slight flare in the walls and a low chamfer at the base, many of them in Gray Ware, bear a strong resemblance to those from Gordion (**HoB 113**) and also to those from Emporio. Later cups, wider, shallower, and with two handles, look more like those from Ionia and often copy bird bowls.²⁰

The skyphos²¹ is another kind of cup, but has a decidedly different shape. It depends closely upon painted Corinthian prototypes of the Late Geometric period (**HoB 467**),²² but the shape seems to have been adopted, first in local Gray Ware and with a rounded body (**HoB 329**), in the latter part of the eighth century.²³ The decoration of the Lydian skyphos bears only a rough resemblance to the more delicate painting of the Corinthian prototype, and they never adopted the fine horizontal lines on the body. The borrowing is mainly in the organization of the handle zone as a separate area, either reserved, or for decoration (e.g.,

¹⁸ Also **HoB 21**, **HoB 23**. See Boardman 1967, figs. 75–77.

¹⁹ One-handled cup: Boysal 1969, pp. 17–18, pl. 21; Furumark 1941, pp. 48–49, figs. 13–14; Boardman 1967, pp. 123–24, fig. 76; Eilmann 1933, pp. 57–58.

²⁰ *LATW*, p. 482, no. 101.

²¹ At Sardis we habitually use the term “skyphos” where some others would use “kotyle”; the only deviation from this practice is for actual Corinthian pieces or references to the work of other scholars, where we, too, use “kotyle.”

²² Also **PC 40**, **PC 41**, **PC 46**, **PC 47**.

²³ These two skyphoi were found on the Destruction Level, Lydian III.

HoB 500).²⁴ On the other hand, Lydian skyphoi are not nearly as fine and thin-walled as those from Corinth. The most obvious deviation from the original Greek shape is the way in which the Lydian potters play with the profile of the foot, among later skyphoi setting the bowl on an improbably high conical stand (**HoB 517**).²⁵

The frequency of skyphoi increases through the seventh and into the sixth century. Streaky skyphoi gain significantly in popularity around the middle of the seventh century; and latest of all comes the addition of white bands or dots to the rims, feet, or interiors. Several variations for the addition of white paint are used, and the decoration is not confined to skyphoi.

BABY FEEDER

Baby feeders combine the comfort of a tiny globular pot suitable for the small hands of a baby drinking milk, with a spout that works like the nipple of a breast. They start already in the Late Bronze Age (**HoB 215**), from a ninth- or eighth-century level in Deep Sounding C (one of the three deep pits dug in HoB in order to reach the earliest levels above the watertable), and continue in use through the life of the Lydian period (**PC 12**).²⁶ These attractive little pots are normally found in Gray Ware.

LYDION

The lydion, named for Lydia, is the one indigenous shape, and corresponds to the aryballos in the Corinthian repertory.²⁷ It is small and globular, with a distinctly small foot and wide flaring neck. The use of a tall, unstable foot common in later Lydian skyphoi is paralleled in the lydion (**HoB 541**, **HoB 542**), and in the sometimes baggy lekythos. The shape is frequent at Sardis in Lydian I after about 600 B.C., both among grave goods and in domestic contexts (**PC 116**).²⁸ It was widely exported; examples have been found as far away as Etruria and Sicily. It has been suggested that it served as a container for the famous and widely admired Lydian perfume known as *bakkaris*,²⁹ but its occurrence in domestic contexts suggests that the container may also have been particularly suitable for liquid or greasy extracts of several kinds used in cooking, or for powdered herbs.

²⁴ See also **HoB 573**, **HoB 742–HoB 747**, and **PC 14**.

²⁵ A. Ramage 2008, p. 83 and fig. 5. See also Greenewalt 2010b, p. 113, fig. 6; *LATW*, pp. 468–70, nos. 77–80.

²⁶ Also **HoB 344** and **PC 136**.

²⁷ Rumpf 1920; Greenewalt 1966; and Greenewalt 2010a.

²⁸ Cahill 2010b, pp. 98–99, figs. 3233. See Greenewalt 2010a; *LATW*, pp. 479–80, nos. 95–97.

²⁹ Greenewalt 2010a, esp. pp. 201–204 on *bakkaris*.



FIGURE 1.4. Reconstruction showing how an exceptionally large lid (**HoB 339**) might have been used to smoke food over a fire.

MESOMPHALIC BOWL

The mesomphalic bowl goes back to the eighth century at least and probably was current in Lydia and Phrygia before becoming popular among the Greeks. The shape is most common in Gray Ware (**HoB 299**),³⁰ which is appropriate enough if it were originally a metal form and introduced before painted ware became the most frequent decorative style. The omphaloi from pots of this shape were often cut down in order to make game pieces or stoppers (Fig. 1.3).³¹

LAMP

Lydian lamps were highly practical, and must have been everywhere, as everyone needed them. They were normally round, with a well for the oil, a raised portion in the center, and a spout with a hole in it for a wick. Many of these were found together (**HoB 579**) from east of Building A, at the level of Lydian I.

HEARTH STAND

The hearth stand (**HoB 378**) was used for cooking pots to rest upon over the fire. The basic form is that of an incomplete cylinder, designed to allow air to reach the coals. It has three triangular lugs at the top, pointing inward and slightly downward. This ensures a good balance for the pot that rests on top, and also helps the flow of air, since there would be a gap between the bottom of the pot and the walls of the cylinder. Function may not only have conditioned the form but probably further ensured that there was little change in shape or fabric over several hundred years.

Because hearth stands³² were actually put on the hearth and exposed to open flames (**HoB 727** and Fig. 1.2), they were normally made of cooking ware material.³³ The surface of the pot is often somewhat smoothed, but not enough to disguise the grits in the body.

COOKING POT

Cooking ware is used almost exclusively for one- or two-handled globular cooking pots (**HoB 462**, **HoB 460**).³⁴ The shape and wall thickness of cooking pots change over time. The Early Iron Age examples are obviously handmade and thick, with a wide, flat bottom and a re-entrant curve in the profile; by the end of the eighth century (Lydian III) they are more likely to be rounder and thinner with a rather constricted neck.

The pots would have had lids, sometimes with round or square cutouts for a spoon or ladle (**HoB 340**).³⁵ One enormous lid may have been for smoking food over the fire (**HoB 339**; Fig. 1.4). It had an interesting and so far unique decoration, namely wool pressed into the clay when it was still wet. Other lids in red polished clay (**HoB 518**) probably sat directly on top of a pot rather than over the fire.

Most of the pots made of cooking ware fabric are in fact, as the name suggests, cooking pots or lids, or hearth stands, and few pots that had any purpose other than these were made of cooking ware; but if exceptions prove the rule, then a rare amphora made of cooking ware serves this purpose (**HoB 711**).

³⁰ Also **HoB 271**, **HoB 300**, **HoB 301**.

³¹ Lushey 1939, p. 162, nos. 9 and 10. Also, for a high omphalos, Greenewalt 2010b, p. 114, fig. 7.

³² Cahill 2010b, p. 95, fig. 28. Also Greenewalt 2010c, p. 128 and fig. 3; *LATW*, pp. 457–58, nos. 61 and 62.

³³ See Cahill 2010b, p. 95, fig. 28.

³⁴ *LATW*, p. 458, no. 63.

³⁵ Also **HoB 320**, **PC 33**, **PC 118**.

FIGURE 1.5.
A stick or other
tool was used to
make a decorative
mark in the wet
clay of a pithos
(PC 54).



FIGURE 1.6.
A finger was
wiped through
the wet clay to
create part of this
design on a pithos
(HoB 57).



BREADTRAY

The term “breadtray” is almost always used for just one shape, that is, large, flat, squarish pieces of lightly fired clay, typically ca. 0.50 × 0.50 m.³⁶ Normally a breadtray has three raised edges, while the fourth side is open (HoB 492). Two small horizontal projections, like diminutive handles, rise from the corners of the open side. Considerable variety occurs in the profiles of these raised edges and also of the open edge (from half-round to nearly square), but so far no chronological pattern has been discerned. The underside often has sooty traces, sometimes in a regular pattern as if the tray had been set on the ledge of a built hearth. It could thus have served as a griddle or frying pan.

³⁶ Breadtray was normally noted but rarely kept; thus we have no complete example preserved. Furthermore, early in the excavation there was confusion between roof tiles and breadtrays.

PITHOS

Lydian pithoi of the Iron Age tend to be globular, with a somewhat constricted neck (HoB 216), but can be narrower (HoB 463). Because they often had pointed bottoms, they would have been set in the ground, where they would be more stable. A much more rounded pithos from the Late Bronze Age, one that had been used for a burial (HoB 105), had small lug handles.³⁷ This one was a half-meter tall, but the size of the pointed pithoi seems to range from a height of about three-quarters of a meter to one and a half meters and about one meter in diameter, although the number of examples with complete profiles is small.

Early in the Iron Age, potters favored raised bands, often decorated with a herringbone pattern (short lines in one or two different directions) suggesting a rope around the shoulder of the jar (PC 58).³⁸ Other patterns on the surface included crosshatched incised designs such as diamonds or triangles (PC 35). Sometimes a design or mark was inscribed with a stick or other tool in the wet clay (PC 54; Fig. 1.5); at other times it was made by drawing a finger across the wet surface, thus making a rounded groove (HoB 57; Fig. 1.6). Later potters abandoned these decorative flourishes.

THE REPAIR AND REUSE OF LYDIAN POTTERY

The Lydians found ways to reuse pottery that had been cracked or broken. Sometimes the purpose was to make repairs to damaged pots so as to be able to continue to use them as before, although liquid contents would then be ruled out. Pithoi (HoB 216) as well as other shapes (HoB 338, HoB 765, PC 112) had holes along the edge of the break (Fig. 1.7) to bind the pieces together with leather, fabric, lead strips, or, in the case of a Waveline hydria, three metal cramps that were found *in situ* in its base (HoB 522). In another instance, a stemmed dish was smoothed where the stem had broken off so that it could be used as a stemless plate (PC 74).

Alternatively, new uses that were totally different from the original purpose were found for the fragments of broken pots. An example of this kind of reuse was turning the necks of amphorae or hydriae into pot stands (Fig. 1.2; see p. 4).

It has already been shown that broken pieces of pottery, especially the omphaloi of mesomphalic bowls but also fragments of any other kind of pot, were cut down for use as stoppers or game pieces (see Fig. 1.3). Some of these pieces have central holes bored into them, perhaps for reuse as spindle whorls. Additional fragments that were apparently

³⁷ Third-millennium B.C. burial pithoi were found around the Gygaean Lake. See Hanfmann, *Letters from Sardis*, figs. 160–61.

³⁸ Also HoB 58, PC 59, and PC 100.

used for other purposes are the converted stems of broken dishes (**HoB 511–HoB 514**, **HoB 737–HoB 739**) or the broken foot of a skyphos (**HoB 517**), which would have made good stoppers or possibly toys. The foot of a Gray Ware bowl, **PC 65**, was purposely cut down and carefully burnished to be used as a stopper or lid. A broken rim and handle may have been trimmed to make a toy animal for a child (**PC 114**).

BODY FABRICS

The local Lydian clay is micaceous, and the mica has a distinctive gold color.³⁹ The clay also contains a considerable amount of iron oxide, which is responsible for the reddish color of much of the pottery. Gray Ware is the same material, but fired in a reducing instead of an oxidizing atmosphere.

Lydian pottery has four main fabric types:

Cooking ware: made from a coarse mixture of clay and various mineral tempers (components), with a high proportion of obvious quartz inclusions.

Breadtray: made from a coarse mixture of clay with talc, schist, and large pieces of mica but few quartz inclusions.

Coarse ware: made from the same material as most Lydian pottery, only thicker and less well finished. Used mainly for pithoi.

Fine and tableware: made from a finely levigated (ground) clay including only the naturally high proportion of minute flakes of mica common in the clays of this region. This category includes Gray Ware, red and buff monochrome, and painted pottery.

The colors of the clay bodies, and the paint or slips (that have a finer consistency than that of the clay body) used for surface decoration, are quite uniform within many of the different categories of Lydian pottery described here. For that reason we did not give each piece a Munsell number when describing it.⁴⁰ We instead took several readings in the field to generate a typical Munsell number or occasionally a range for some of the separate wares or decorative schemes, and these are the Munsell numbers identified here in the pottery overview. Many classes of imported pottery have typical colors of body and decoration, and

³⁹ At Gordion it is the gold color of the mica that helps to distinguish Lydian imports from local Lydianizing wares. See Gürtekin-Demir 2007, p. 48.

⁴⁰ This refers to the system used for taking an objective reading of the color of a soil or soil product by giving separate numerical values to three components which go to make up the color of a sample: chroma, value, and hue. The Kollmorgen Corporation, Baltimore, Md., publishes the sheets appropriate for the colors in unglazed pottery as a separate booklet. Readings were taken outdoors in open shade.



FIGURE 1.7. A marbled skyphos fragment (**PC 112**) with three repair holes along the broken edge at right.

these colors are frequently the reason for their attribution. However, the number of instances of color alteration after firing makes unselective quoting of Munsell numbers of questionable value.

Coarse Wares

COOKING WARE

Munsell numbers: black: N3.5, sometimes with a brownish core; red: 5YR 5/4

In cooking ware, the clay body is gritty and full of quartz inclusions. It is normally black and fairly thin, although a red variety is found; the color and surface are often altered by the fire to which it was subjected during use.

BREADTRAY

Munsell numbers: red: 2.5YR 5/4 (core 5YR 4/1.5); dark reddish gray to brownish gray: 2.5YR 4/6

The linkage of fabric and shape is even closer in the case of breadtray, since only one shape is invariably made of it: all breadtrays are made of the breadtray fabric.⁴¹ This fabric is even coarser than cooking ware and has large inclusions of micaceous schist, as can be seen in a fragment of a basin made of breadtray (**HoB 88**). Because the pieces are only lightly fired, they tend to disintegrate in water. The color is usually a “pale red” (Munsell number: 2.5 YR 6/2).

The upper or working surface is smoothed so that only a few inclusions show, because the potential voids between

⁴¹ We must add the caveat that now and again a different shape uses the same breadtray clay mixture.

the flat pieces of mica are filled with the clay body. The underside, by contrast, is left rough so that one can often see marks of the surface on which the piece was made.

The raw material for the breadtray appears to come from an area about 25 kilometers northwest of Sardis, where the rocks are rich in magnesium compounds rather than quartz.⁴² An intermediate clay mixture between coarse and fine has smaller grits as inclusions.

Except for the minerals mentioned, the Lydians seem not to have used much temper in their pottery proper, although it is found in other ceramic items like loom weights (**HoB 645**),⁴³ sarcophagi, and furnace walls. Occasionally one finds a piece of fine ware that is Lydian in character but has no mica in it, as though Lydian imitation of Greek styles sometimes extended beyond the decoration to the fabric.⁴⁴

PITHOS

Pithoi, very large jars (**HoB 463**, **HoB 632**) that were often set in the ground and used for storage (Figs. 3.7, 6.23), were usually made of the ordinary red clay without much additional temper. Pithoi were frequently incompletely oxidized, with the result that there is a considerable core of gray within the walls, which are often ca. 0.02 m thick.

Tablewares

MONOCHROME POTTERY

The most frequent body colors of Lydian tableware are gray, light brown (buff), and reddish. The clay was often used in refined form as a slip, thereby producing a more intense color for overall surface coloration as well as decoration. The identical nature of the slipped surface and clay body has been demonstrated in laboratory tests, as has the local origin of the clay.⁴⁵

GRAY WARE AND BUFF WARE

Munsell numbers:

Gray Ware:

Body: N5.5, 5Y 6/1 (greenish gray)

Surface: N7.5, N4, 5Y 5/1

Buff Ware:

Body: 7.5YR 6/6

Surface: 7.5YR 7/4

⁴² Middleton, Hook, and Humphrey 2000, p. 167.

⁴³ Also **HoB 716**, **HoB 733**. See Cahill 2010b, p. 97, fig. 31.

⁴⁴ C. H. Greenewalt, jr., suggested that potters at Sardis may have sometimes worked with clays other than the typical highly micaceous variety used for most ordinary wares; see Greenewalt 1971b, p. 163.

⁴⁵ D. Kamilli in Ramage, *Sardis M5*, pp. 12–14; Kealhofer, Grave, and Marsh 2013.

At its best, Gray Ware⁴⁶ has a light, silvery, self-slipped, and polished surface with a body reduced to a uniform gray throughout (**HoB 18**).⁴⁷ A metallic-looking shiny coat on some examples is in fact a silvery wash (**HoB 68**).⁴⁸ Polishing or burnishing was done on the leather-hard body. Gray Ware is closely related to what is generally referred to as “Aeolic bucchero,” such as was found at Larisa on the Hermus, Bayraklı, and at Thermi on Lesbos, but that ware really belongs to the western Anatolian tradition rather than the Greek.⁴⁹ Occasionally one finds borderline cases where it is hard to determine what is coarse Gray as opposed to rather fine cooking ware.

Color variation in buff monochrome can be found in earlier levels. It is possible that in early times the buff color was not intentional, but may have been overheated Gray Ware. Buff Ware is not restricted to any one shape or size and overlaps considerably with painted shapes. Mesomphalic bowls and dishes with spool handles that are related to metallic prototypes, and cups with sharp carinations, are more often found in Gray Ware (**HoB 185–HoB 186**, **HoB 188–HoB 189**) than Buff (**HoB 187**).⁵⁰ Decoration may consist of incision in the form of shallow grooves around the pot, or stamping with circular or triangular patterns.

In the earliest level, the Late Bronze Age, Buff Ware is the most common monochrome color. Gray Ware is found at all levels from the Late Bronze Age to Lydian I (the earlier sixth century), when it peters out, but it is particularly prevalent in the eighth and early seventh centuries B.C. Careful smoothing, incision, or impressed decoration is normal for the monochrome wares, and the Lydians made use of a large number of decorative surface treatments for their pottery. The finish can vary from “stick polished” (**HoB 399**, **HoB 561**), where the marks of the polishing tool still show, to “dipped” (**HoB 752**), where there are no brush marks.

GOLD DUST WARE

Gold Dust Ware can have a coarse body, but its surface is covered with a fine mica wash that gives it a gold tinge (**PC 138**, **HoB 730**).⁵¹ Although not common, it is a distinct type of monochrome.

⁴⁶ See Bayne 2000.

⁴⁷ See also **HoB 111**, **HoB 180**, **HoB 219**.

⁴⁸ See also **HoB 79**, **HoB 181**, **HoB 203**, **PC 12**, **PC 21**, **PC 86**, **PC 90**, **PC 134**.

⁴⁹ Boehlau and Schefold 1942, pp. 21ff.; Greenewalt 2010b, pp. 110–13; and Kerschner 2010, p. 255, fig. 3. See also Haspels 1951, pl. 14; and Sams 1994, p. 177.

⁵⁰ Cf. Gürtekin-Demir 2014.

⁵¹ See also **HoB 321**, **PC 60**, **PC 61**.

PAINTED POTTERY

Much Lydian pottery, except for coarse ware and the bulk of the pithoi, was decorated in some way. The application of several colors often adds to the variety, but before the second half of the eighth century, most pottery is Gray Ware or other monochrome, and only a smattering of painted ware is found in earlier levels. For painted pots, geometric patterns put together with an essentially protogeometric syntax are common until the second half of the seventh century, when the Lydians' lively adaptation of the East Greek Wild Goat style, a style they altered to suit their own taste, became dominant.⁵²

Lydian tablewares generally use a dark-on-light system. Black or a purplish brown are common for the more complicated decorative motifs; red and white are most often used as background or for simple bands and space fillers. An unusual feature of much Lydian pottery is the use of manganese paint for dark (black, brown, purplish) colors. This allowed the potter to achieve both red and dark colors in a single oxidizing firing.⁵³ White slip in general tends to be rather thick, as a sort of ground (**HoB 289**) that makes for a strong contrast with the dark, chocolate brown favored in the late eighth century; and it brightens the reds common in the more elaborate patterns of the accompanying motifs that were formerly called "Phrygianizing."⁵⁴ But white from white Bichrome of the seventh century, especially, is thin and fugitive, although there is some use of a thick added white as dots or bands at the end of the seventh or beginning of the sixth century. The bright effect is maintained in some of the later marbled surfaces and many architectural terracottas, which have a chemistry similar to the pottery (**PC 55**).⁵⁵ The later white bands or dots over streaky surfaces are often inadequately opaque. Other influences, affecting the Black on Red particularly, undoubtedly came from an Anatolian Iron Age practice that stretched as far east as Tarsus and that may have had roots in Cyprus or the Near East.⁵⁶

Most of the decorative vocabulary (but not the chemistry) was similar to Greek Protogeometric styles. One of the most important criteria for dating, as well as a tool for assessing trade connections and the artistic taste of the Lydians, is the style and quantity of pottery imported from various places in the Greek world. A secondary corroboration of the Lydians' taste for imported styles, and a confirmation of the contemporary nature of the actual imports, is the widespread borrowing and adaptation of Greek shapes and

decorative patterns for local products.⁵⁷ Clearly East Greek and Island Geometric schools were an important source, and one or two pieces that may be from Euboea have been recognized (**HoB 281**). It is likely that in the late eighth century, the change to painted decoration for many domestic vessels was spurred on by the elegant shapes and clear decorative schemes that Greek potters in Corinth and Euboea had been developing, and that made their way to Sardis as models.

Two fragments from large cups found near each other below the Destruction Level (see p. 33 and Chapter 5) show the relationship of Lydian to imported Greek pottery. One, a large Geometric cup of imported Greek manufacture, **HoB 396**, has groups of vertical straight lines and of wiggly lines in the reserved metopal area below the rim. Its cousin, **HoB 395**, has exactly the same shape and decoration, but is made in local Lydian clay. This is a good illustration of how the local potters are inspired by, and copy, the work of their Greek neighbors.

Black on Red

Munsell numbers: body: 2.5YR 5/6; red slip: 2.5YR 5/8; black paint: 5R 5/2

A number of variations of Black on Red decoration can be identified, although one must be aware of differences in the firing of the pots. The description is also used for pieces that share the decorative scheme exactly but have a much yellower and browner cast to the decoration. It is probable that the discoloration comes from the burial environment rather than from a distinct form of decoration. In general, these variations are all dark paint on a lighter clay background. The relative popularity of two distinct varieties of Black on Red⁵⁸ may someday become important for chronology, but at present the range is imprecise. One variety has a dull red clay surface with geometric designs in matte black or purplish paint, found as early as the beginning of Lydian IV (**HoB 159**);⁵⁹ its sources can be traced eastward, across the Konya plain, as far as Cilicia and Cyprus. The other, not unlike the Greek traditions, is a shiny Black on Red (**HoB 122**).⁶⁰

A number of Black on Red stemmed dishes from Pactolus Cliff bear a strong resemblance to those from another sector at Sardis, ByzFort (see Fig. 2.2: no. 23), which is located partway up the Acropolis on the north side. From a deep hole dug into a basement near bedrock came a number of Black on Red dishes that have not only the same decoration—with repeated crosshatched squares—but also the same shaped bowl and flat rim as several from PC

⁵² As described by Greenewalt (1970).

⁵³ Greenewalt 1970, p. 61; Hostetter 1994, pp. 47–50; Farnsworth and Simmons 1963.

⁵⁴ Gürtekin-Demir 2014 and Farnsworth and Simmons 1963.

⁵⁵ D. Kamilli, pp. 12–15 in *Sardis M5*; Hostetter 1994, pp. 47–48.

⁵⁶ Hanfmann 1963; Gürtekin-Demir 2011; Gürtekin-Demir and Polat 2015.

⁵⁷ Greenewalt 2010b.

⁵⁸ Gürtekin-Demir 2011, pp. 363–68; Akurgal, Kerschner et al. 2002, pp. 233–35; Kerschner 2005a, pp. 133–37; Ramage 2018.

⁵⁹ See also **HoB 146**, **HoB 246**, **HoB 284**, **HoB 285**.

⁶⁰ This example is a diagonally crosshatched meander pattern. Cf. Farnsworth and Simmons 1963; Gürtekin-Demir 2011; and Jones 1986, pp. 749–820.



FIGURE 1.8. Decorative designs on Lydian painted pots.

(PC 26).⁶¹ In this group, the bowl is flatter than those from later levels at HoB, and the rim has a horizontal squared lip. Based on datable imports from yet another sector, Field 49, these dishes apparently belong in the early years of Lydian IV, or the ninth century.

The most frequent patterns (Fig. 1.8) in Lydian IV and Lydian III are concentric standing or pendent semicircles (HoB 278),⁶² concentric circles (HoB 179),⁶³ crosshatched squares (PC 26),⁶⁴ crosshatched meanders (PC 6),⁶⁵ false meanders (PC 73), diamonds (HoB 179),⁶⁶ triangles (HoB 160),⁶⁷ and butterfly or double-axe patterns, also called opposed triangles (HoB 146).⁶⁸ Sometimes squares are filled with wiggly lines (PC 81, PC 82), while another pattern is the checkerboard (HoB 244).⁶⁹ Most of the elements of this ware are similar to Greek Protogeometric conventions, and they are commonly linked in arrangements familiar from East Greek or Attic schools of the late eighth century.

The second variety, popular in the late seventh and early sixth centuries, has an intense black on bright red slip and is found on stemmed dishes, plates, and shallow bowls.⁷⁰ Unusual in decoration is a round-mouthed jug decorated with small concentric circles (HoB 331). A Bichrome jar has decidedly bold and stunning hooks (HoB 625).⁷¹ Designs regularly include concentric semicircles and other decorative vocabulary seen also in the duller Black on Red. A rather ornate, fine-lined variety of this style often uses rows of boxes with dots or short lines, referred to as dogtooth (HoB 675); numerous varieties of meanders appear in this period.⁷² These characteristics link the designs to the manner of “Ephesian Ware” and “Phrygianizing” decoration, described separately below (p. 17).

In Black on Red, concentric circles and semicircles (PC 31) are drawn with a special kind of compass that has

⁶¹ Also PC 27 and PC 74. For the shape, see *LATW*, p. 478, nos. 92 and 93. One dish especially, P11.130 (so far unpublished), has exactly the same decoration with crosshatched squares as PC 26 and PC 27. See Greenewalt, Ratté, and Rautman, “SARDIS 1988 AND 1989,” pp. 27–31 and fig. 26; Greenewalt, Ratté, and Rautman, “SARDIS 1990 AND 1991,” pp. 24–27. However, in these articles the dating of the basement and pottery is put in the seventh century, and this material is now to be dated significantly earlier due to further study and more recent finds.

⁶² See also, for example, HoB 162, HoB 174, PC 74.

⁶³ See also HoB 281.

⁶⁴ See also HoB 284, HoB 374, PC 15, PC 27, PC 48, PC 84.

⁶⁵ Also PC 26.

⁶⁶ Also PC 22.

⁶⁷ Also HoB 161, PC 8, PC 20, PC 24.

⁶⁸ Also HoB 349, PC 20.

⁶⁹ Also HoB 245, PC 88.

⁷⁰ See Cahill 2010b, p. 96, fig. 30.

⁷¹ Compare Greenewalt 2010b, p. 115, no. 10.

⁷² R. M. Cook (1981, pp. 81–85) explains broken meanders (HoB 587, HoB 677, HoB 709), bracket-form broken meanders (PC 98), false meanders (HoB 346, PC 73), and hook meanders (HoB 406, HoB 633, HoB 691).

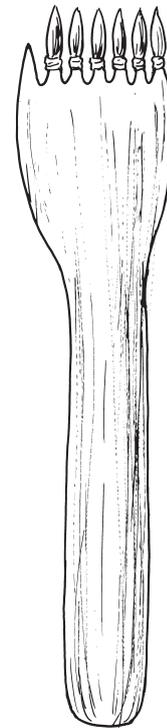


FIGURE 1.9. A reconstruction of a multiple brush, which had several brush heads and a hard tip that acted like the point of a compass. See Figs. 1.10–1.12.



FIGURE 1.10. Concentric circles were made by a multiple brush for the two outer circles, but the inner circles were drawn by hand. The point in the center, made by the hard tip of the multiple brush, has been highlighted with a dot. Fragment of a Bichrome dish, PC 109.

several tiny brushes attached to a single wooden handle (Fig. 1.9).⁷³ The technique was normally accomplished by a painter moving it in a circular motion, using the pointed frame of the brush as if it were the pivot of a compass.⁷⁴ The inner circle is often quite small, however, and not suitable for this technique because it would make too thick a circle. A number of pottery samples show the solution to this problem: compass-drawn circles for all but the inner one, which is drawn freehand. This is seen, for example, in fragments of plates, both with full circles and with semicircles (PC 31, PC 109; Fig. 1.10).⁷⁵ Another solution was to paint a blob in the center rather than a hand-drawn small circle (HoB 162, HoB 314).

⁷³ See also HoB 73 and many others. Many of these observations have already appeared in N. H. Ramage 2018.

⁷⁴ On the multiple brush, see Boardman 1960; also Petsas 1964 and Eiteljorg 1980.

⁷⁵ See also PC 109 and PC 74; and compare HoB 327 and HoB 328, with hand-drawn semicircles (made without the use of a compass or pivot point).

FIGURE 1.11 (L). A trefoil oinochoe (**HoB 753**) with three-quarter circles, or hooks, on the shoulder and streaky glaze on the body.

FIGURE 1.12 (R). Pendent hooks made with a multiple brush. The painter of the upper fragment picked up the brush in the middle and then continued the curve. The painted ornament on the lower fragment was made with eleven brushes.



Black on Buff
fragment **PC 51**



Red Bichrome
fragment **PC 97**



When making his design around the bowl of a plate, the painter would be going along, making his concentric semi-circles, but it would be hard to calculate the space ahead of time; sometimes he would run out of room, in which case he had to overlap the semicircles on the last section of decoration (**PC 74**).

Concentric hooks, which are made the same way but without completing the curve, do not make an appearance in Lydian pottery until Lydian II, when they are favored for the decoration of the shoulders of large jugs (**HoB 753**; Fig. 1.11). A highly skilled painter could turn his multipointed brush (in this case with eleven brushes on a Bichrome fragment) with remarkable control (**PC 97**; Fig. 1.12). The outer brush is often the thickest because it would then be able to hold more paint than the inner brushes; this was useful because the outer brush had farther to travel to complete the circle. Another able painter purposely added an extra wiggle, and stopped midstream to pick up his brush and dip it once again in the paint before continuing the curve to its completion (**PC 51**; Fig. 1.12). One of his brushes was fatter than the others, which makes an uneven effect in the design. The compass point shows here as it made a slight depression in the clay. Another example with an uneven pattern is **HoB 620**, where two brushes were too close together; on some of the hooks, the paint looks as though it was applied by one fat brush instead of two separate ones.

The multiple brush is used, too, in crosshatched squares and rectangles, and for wavy lines. On **PC 81** and **PC 82**, six vertical wavy lines were placed within alternating squares,

making a large checkerboard pattern.⁷⁶ Sometimes the painter moved his tool up and down in such a way that the effect was rather like a pattern of knitted stitches, as seen here with a five-tipped brush (**PC 63**; Fig. 1.13). Compare this to a sherd made exceptionally neatly by a seven-tipped brush on a fragment found by the first Sardis expedition, early in the last century (Fig. 1.13).⁷⁷ Different painters, some highly skilled, others less so, handled the multiple brush in so many different ways. Observations such as these show that even the most humble potsherds can reveal how pieces were decorated and how the painter worked.

Brown (or Black) on Buff

Munsell numbers: Body, rich and well preserved:
2.5YR 6/8–5/8; body, duller: 5YR 5/4–4/6; paint:
10R 4/2

“Brown on Buff” refers to the dark, purplish-brown paint on buff fabric that is used to make geometric schemes like those described under Black on Red. The variety of patterns,

⁷⁶ Nine other Black on Red plate fragments turned up in the same area (Zone 1 *88.75–88.00).

⁷⁷ The first Sardis expedition was under the leadership of Howard Crosby Butler. The piece was found in 1914, and is in the Metropolitan Museum of Art, New York, inv. no. 26.199.232, Gift of The American Society for the Excavation of Sardis, 1926. We are grateful to Joan R. Mertens, Curator, Department of Greek and Roman Art, for her assistance.



FIGURE 1.13. Two Black on Red fragments with wavy lines painted by using a multiple brush. **PC 63** (left) can be compared to a master painter's sherd from Sardis in the Metropolitan Museum, New York (right). THE METROPOLITAN MUSEUM OF ART 26.199.232, GIFT OF THE AMERICAN SOCIETY FOR THE EXCAVATION OF SARDIS, 1926



FIGURE 1.14. Lydian fragments with painted geometric designs of crosshatched meander designs and, in one case, triangles.

however, is smaller. There is much use of sets of parallel wavy lines arranged radially between bands on stemmed dishes or jugs (**HoB 170**), and, overall, the geometric arrangements are much looser in organization than in Black on Red. The execution is often more clumsy and not so neat, so that the whole effect is less sophisticated. The Early Iron Age marks the heyday of this style; it goes out of fashion in the mid- to late eighth century.

Lydian Geometric decoration of the eighth century in Black or Brown on Buff is frequently characterized by meanders filled with right-angled (as opposed to diagonal) crosshatching (**PC 131**; Fig. 1.14).⁷⁸ This preference is quite unusual, since East Greek potters prefer diagonal

crosshatching. The vertical hatching may be a variety of late eighth-century Lydian Geometric. On the other hand, we also have examples in Black on Red with diagonal crosshatching within meanders: **HoB 504** and **PC 3**.

Bichrome

The principle behind the description of a piece as “Bichrome” is that there is a background color that is allowed to show (i.e., it is “reserved”), and at least two colors are added to complete the decoration. There are two Bichrome varieties: white and red.

White Bichrome, which starts earlier, has a white slip over part of the body of the pot (**PC 115**).⁷⁹ There

⁷⁸ See also **PC 6**, **PC 25**. Examples are from the diagonal cut in PC Zone 3 *88.00–87.50, which equates to the eighth century.

⁷⁹ See also **HoB 245**, **HoB 508**, **HoB 661**.

FIGURE 1.15.
Two Bichrome
pots, with the
same design, by
the hand of the
same pot painter;
one found in
HoB, and the
other in PC.



is no regular use of an overall white color except for later pieces that are imitating East Greek Orientalizing and Ephesian Ware. Two groups use a wide swath of white that functions much like the reserved background of the red Bichrome, described below. One must have had fugitive coloring, because in many examples very little of it remains beyond traces; the other is opaque and smooth. There is a rough chronological indication that the more opaque variety is the earlier, probably going back to the ninth century; that with less well preserved white is most popular in Lydian II, in the second half of the seventh century. Red Bichrome, instead, uses the reserved and smoothed body of the pot as the background color, with added designs in black, red, and white (**HoB 740**).⁸⁰ A popular design in red Bichrome is the concentric hook that has already been discussed under Black on Red (**HoB 673** and **PC 97**).

The nomenclature that we use has given rise to considerable confusion. Why call something “Bichrome” when it clearly has at least three colors (including the background)? The explanation is contained within the description above: the bichrome refers to two (or more) colors *in addition* to the one regarded as the background.⁸¹

At Sardis there are, interestingly, two Bichrome works by the same painter (Fig. 1.15), but they were found in different parts of the excavation. The first is a fragment of a large Bichrome jar (**PC 29**) from PC, and the other, a smaller piece with the same unusual design from HoB (**HoB 334**). The fact that they were found at a great distance from each other is in itself interesting, and shows that the locals in different parts of town were patronizing the same pot painter.

Lydian Orientalizing

The East Greek Orientalizing style was popular in western Anatolia from about the middle of the seventh century until the later sixth. Its basic characteristics include a white slip all over the body of the pot as a ground for a decoration that consists of bands of animals, regularly but not exclusively wild goats, as well as floral designs and filling ornament (**HoB 556**). East Greek Orientalizing wares differ from most examples from mainland Greece in that there is much use of outline rather than silhouette; and furthermore, the seventh-century mainland Greek style does not usually use white ground. In later examples they use incision for the clarification of details within figures. Orientalizing pottery represents a broad class, with many subcategories and centers of production, and our treatment of it here is not meant to be an exhaustive study. Further archaeological and archaeometric work will greatly enhance our understanding of the different wares and subcategories.⁸²

C. H. Greenewalt, jr., called a particular style of what is typically called “Wild Goat” in Greece the “Sardis Style.” He described it as characterized by a pink-brown highly micaceous clay covered by a white-cream-colored slip. A dark paint is used for outlines and filling, and a dull purple-gray for some details. Red paint is used as a highlight, as well as to make spots on the animals, birds, and filling ornament. Local products depict a variety of animals, but deer, dogs, goats, and lions form the main subjects, as in a stunning lebes with white ground and colorful animals (**HoB 750**). The style is “bold and sure, often a bit sloppy.”⁸³

As in the East Greek examples, the preferred shapes in Lydian Orientalizing wares are jugs, the lebes, dishes with

⁸⁰ Also **HoB 741**, **HoB 442**, and **HoB 625**.

⁸¹ See Gürtekin-Demir 2014, pp. 233–34.

⁸² E.g., Cook and Dupont 1998; Ayaçlar 2004; Akurgal, Kerschner et al. 2002.

⁸³ Greenewalt 1970, pp. 58–59.

either a low foot or a high stem, flat plates, and belly-handled amphorae.⁸⁴ The predominant colors are black, brown, purplish red, and the white background of Bichrome. The decorative scheme for jugs requires a series of broad zones created by thin, dark bands that serve as a groundline for the procession of varied species set around the circumference of the pot.

In addition to the usual fare of wild animals, here and there an exotic mythical beast such as a sphinx or a griffin (**HoB 597**) is admitted, and charming fish are found too (**PC 39**; Fig. 1.16).⁸⁵ Human figures are nonexistent. Usually the animals are following each other, nose to tail, but every so often the pattern changes so that one will turn to confront the follower. Not all the animals are on the move; many of the goats and deer are browsing. The various predators adopt threatening attitudes, but overall most of the presentations resemble a tableau vivant more than a vivid narrative. Painters used a varied stock of filling ornament, including a range of rosettes and sometimes birds (**HoB 660**), as well as many small geometric shapes like triangles, semicircles, and swastikas.

Ephesian Ware and “Phrygianizing”

Two particularly colorful and attractive wares are related in their color schemes to Lydian Bichrome and Orientalizing, using an all-over white slip with dark brown paint and added red.⁸⁶ Ephesian Ware is best known from the finds of the British Museum excavations at the Temple of Artemis at Ephesus in the early years of the twentieth century,⁸⁷ and more has been found by the Austrian excavators in their reinvestigation of the site, especially near the Archaic altars in front of the temple.⁸⁸ The ware is typified by its rich dark brown decoration over bright pearly white slip, normally embellished with extra red. Narrow concentric brown bands broken up into white squares are common, as are dots within them. The style should be included within the general category of East Greek Orientalizing styles; it is given special mention here because it is less widely known than many Ionian styles. Furthermore, it may be a local, Lydian (rather than Ephesian) production, and it offers a transition between the Phrygian tradition and the white slip ware of the East Greek cities.

Some pieces of Ephesian Ware have been found in **HoB** (e.g., **HoB 426**),⁸⁹ as well as a considerable number that imitate it, with varying degrees of success (**HoB 611**).⁹⁰ The



FIGURE 1.16. Swimming fish on an Orientalizing krater fragment (**PC 39**).

imitations, called Ephesianizing, may even represent an early stage in its development. Ephesian Ware has been discussed by Crawford H. Greenewalt, jr., who suggested that it may have been produced at Sardis, a site with both “Anatolian or specifically Lydian as well as Greek cultural elements” characteristic of the ware.⁹¹ In A. Ramage’s opinion, and that of Michael Kerschner, who has done the most detailed work on the provenience,⁹² the evidence in Greenewalt’s article and the results of further stratigraphical and analytical study make a good case for an Anatolian origin for the style and for Sardis as a main center of production.

“Phrygianizing” is a catchall and usefully imprecise term invoked frequently by Swift and others to describe a miniature style of geometric designs, most commonly found on dishes, plates, and stemmed dishes. We have now stopped using the term, but continue to acknowledge the relationship of Lydian pottery to its sources in Gordion and other Phrygian sites. A number of distinctively Phrygian shapes are found among local Lydian products, such as the spouted mug and bowls with spool handles (**HoB 297**),⁹³ and also the round-mouthed jug (**HoB 331**). But now we must consider whether the relationship was really so close, as no identifiable Phrygian pottery has yet been identified at Sardis.⁹⁴

The most distinctive trait of “Phrygianizing” decoration is the use of fine dividing lines to form small squares that are then filled with oblique crosses (saltires) and dots. The slip is usually pale but not so white as that of the Ephesian group. For that reason, although the organization of the designs is much the same, two wares have been distinguished. Sometimes the term “white slipped” has been used to sidestep the question of origin. A full study of the interrelationships of Greek, Lydian, and Phrygian pottery has yet to be written, although enormous progress has been made in recent years. At this point, the name should not be

⁸⁴ Cf. Greenewalt 1970 and Greenewalt 2010b.

⁸⁵ For sea monsters, see Greenewalt 2010b, p. 108, fig. 1.

⁸⁶ Greenewalt 1973 and Greenewalt 2010b, p. 122, n. 5.

⁸⁷ Hogarth 1908; and Smith 1908, pp. 218–31 and pl. 49.

⁸⁸ Brein 1978, p. 724, pl. 222; Kerschner 2007, pp. 235–36.

⁸⁹ Also **HoB 426**, **HoB 534**, **HoB 653**.

⁹⁰ See also, e.g., **HoB 453**, **HoB 454**, **HoB 654**, **PC 98**.

⁹¹ Greenewalt 1973, p. 119.

⁹² Kerschner 2005, pp. 138–39; Kerschner 2006, p. 274; Kerschner 2007, pp. 235–36; Gürtekin-Demir 2002, pp. 114–19.

⁹³ Gürtekin-Demir 2014.

⁹⁴ Kealhofer, Grave, and Marsh (2013) did not identify any obvious imports from Gordion among the wide variety of nonlocal Archaic pottery they sampled at Sardis.

taken as an acceptance of Phrygian priority. There is still no reason to insist that this miniaturist style be Phrygian in origin, but continued study of white-ground painted ware does suggest that it is an indigenous Anatolian tradition.

Streaky, Banded, and Marbled

These first two categories are often combined because part of a pot may be Streaky and part Banded. When Streaky is used, it implies some intention on the part of the potter. That is, the decorator purposely uses an overall color wash and seeks variations in color, density, and tone produced by different consistencies of paint and the loading of the brush (see, for instance, **HoB 753**; Fig. 1.11). Associated with these techniques is the Waveline class of water jars, where the lower bodies have either streaked or banded decorative schemes (**HoB 522**). The use of streaked paint for desirable effects is most common in the later seventh and sixth centuries and seems to be a particularly Lydian phenomenon.

Some rather thick bands have the same appearance as Streaky, and pots from earlier periods might accurately be described as streaked but not Streaky. Deciding whether streaky glaze is intentional or not is easier with banded decoration than with an overall covering. There is no point in it for bands, where the division of one zone from another is the main purpose; thus, where it appears, it has to have been done purposefully. In contrast, where streaky glaze is used as an overall covering, one might say the texture was the apparent aim.

Streaky is most common on skyphoi, often those with a reserved band at the rim (**HoB 722–HoB 724**),⁹⁵ on small jugs, sometimes in combination with tongues that form a dependent ring around the shoulder (**HoB 759**),⁹⁶ and on column kraters. The decoration of skyphoi and kraters is occasionally enlivened by the addition of white bands or rows of dots. There is a tendency for both red and black streaked ware to be much shinier than usual, and the body is often much harder. Both conditions result from firing at a higher temperature and are often indicators of a later sixth century date.

A particularly attractive variation of the technique is found in “Marbled” ware, which varies the normally horizontal lines of standard Streaky to produce effects like the patterns in variegated stones. Sometimes Marbled decoration is set vertically on the pot (Fig. 1.7), and sometimes it looks rather like small, rounded whorls, which can be placed on the exterior or interior of a skyphos.⁹⁷ Marbled comes in coarser and finer varieties, and the result at its best is most elegant. It is clear that decorators were imitating real stone (oolitic limestone) with this particular pattern, as comparison with actual specimens shows. Whether the simpler examples of marbling may be associated with individual varieties of mineral is not so clear, but at least some connection is plausible. The use of colored or variegated stones like jasper for bowls or plates, as found at Sardis, Ikiztepe, Daskyleion, and Persepolis, supports this conclusion.⁹⁸

Banded is a category, like Streaky, that sometimes refers to the decoration of a whole pot but more often is used during the sorting process to describe smaller pieces that are not obviously from any of the clearly distinct categories. Thus, a piece with black bands might in fact come from a vessel with Bichrome decoration elsewhere, or it might be part of a Waveline hydria (**HoB 410**). The term “Banded” is not used for Black on Red or Brown on Buff, even if the piece happens to have bands.



The decoration of Lydian pottery is closely related to the schemes devised in both Greece and Anatolia; but the local potters and pot painters of Sardis had their own character, producing decorative programs often based on lively geometric designs that they combined and recombined in myriad creative ways. The concentric semicircles and hooks, triangles, diamonds, zigzags, meanders, and—from the seventh century onwards—animals, rosettes, dots, and so on are usually applied with a fine sense for the shape of the pot. The lively colors of the paint and slips together with the effective designs leave the viewer with admiration for the local Lydian styles.

⁹⁵ Also **HoB 742–HoB 747**.

⁹⁶ Also **HoB 761–HoB 762**.

⁹⁷ See Greenewalt 2010b, p. 115, fig. 11; and Greenewalt 1966.

⁹⁸ Sardis: Greenewalt, Rautman, and Cahill, “SARDIS 1985,” p. 80; Greenewalt, Cahill et al., “SARDIS 1986,” p. 160 (mistakenly identified as chalcedony). Ikiztepe: Özgen, Öztürk et al. 1996, p. 130, no. 85. Daskyleion: Özdemir 2007. Persepolis: Schmidt 1957, pl. 57, nos. 5–7; pl. 59, no. 3; pl. 62, nos. 5, 9, 11; Curtis and Tallis 2005, no. 146.

Part I

Lydian Trench—Sector HoB

by Andrew Ramage and Nancy H. Ramage

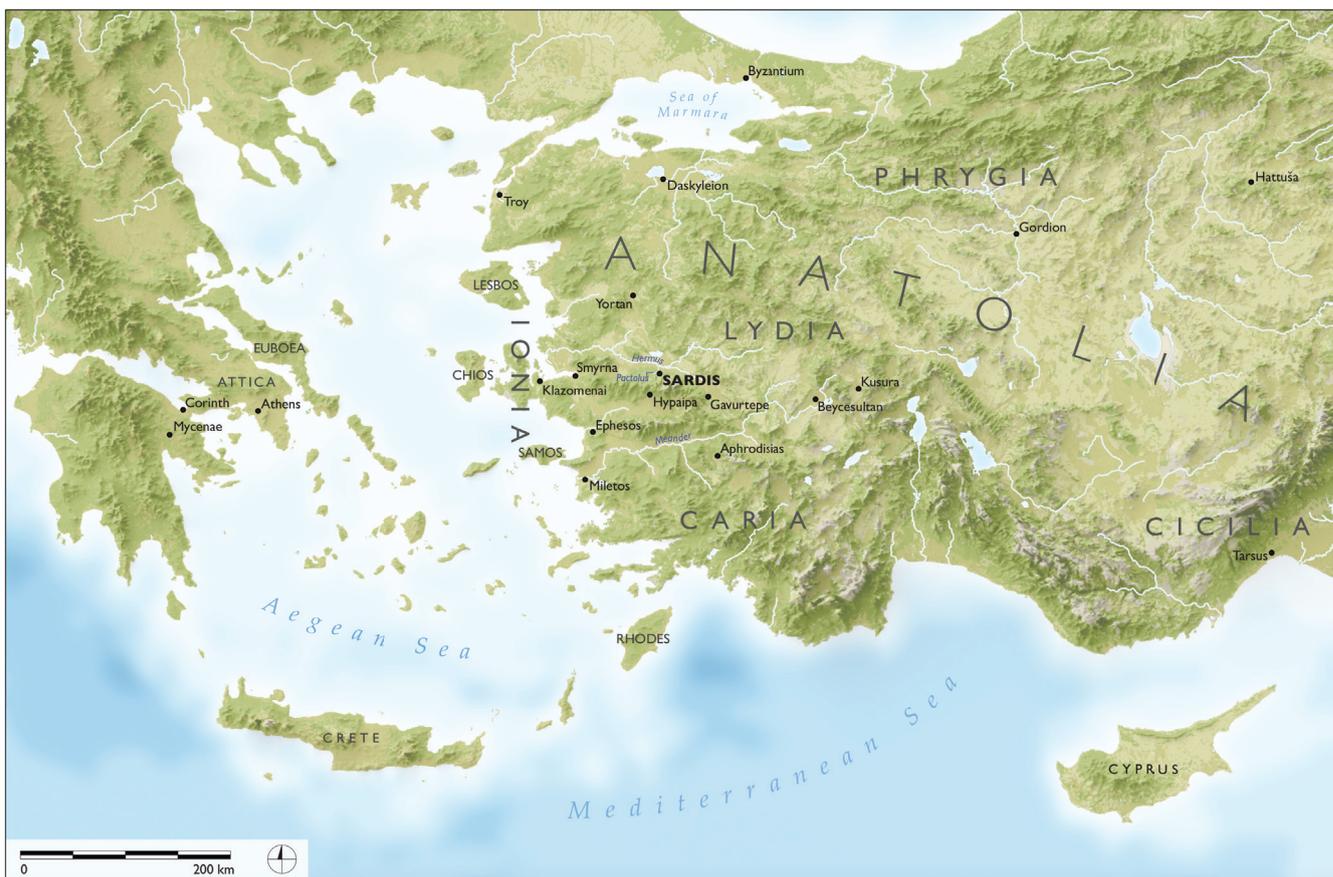


FIGURE 2.1. General map of Turkey and Greece, showing sites mentioned in this book.

Chapter 2

INTRODUCTION

Sardis, the capital of the kingdom of Lydia, became one of the great cities of antiquity. Lying about 80 kilometers (50 miles) inland from the Aegean Sea (Fig. 2.1), in the valley of the Hermus River, it boasted a high, steep, and defensible hill that served as a fortified Acropolis (Fig. 2.2/Plan 1). To the west lay a more rounded massif of sandy conglomerate that would become the hill of the Necropolis. Its position below the mountains of ancient Tmolus (modern Bozdağ) to the south and the Hermus River plain to the north allowed the Lydians to command varied and fertile lands that supported the agriculture needed to feed a growing population (see Fig. 2.7). While Sardis originated as one of a number of humble villages in the area, it expanded to ever-greater size and wealth, famed in the Greek literary sources of the sixth and fifth centuries B.C. for its luxury and gold, its textiles and horses.

The Lydians as a people were little known before the investigations of the Harvard-Cornell Expedition that began in 1958. But the site of Sardis has been recognized since Cyriacus of Ancona visited in the mid-fifteenth century and recorded the inscriptions that he found there.¹ Other early travelers, such as Robert Wood, Giovanni Battista Borra, C. R. Cockerell, and Thomas Allom, also wrote about their observations and made drawings over the centuries;² but Howard Crosby Butler, of Princeton University, was the first to dig systematically at the city. Excavating between 1910 and 1914, he concentrated on the Temple of Artemis and

the tombs of the Necropolis.³ It was under George M. A. Hanfmann of Harvard, however, that digging in the earlier levels of the city began, work that continues to this day.

The excavation that is the subject of Part I of this volume was undertaken in a plot of land named for a large building, the House of Bronzes, found nearby (Fig. 2.2: no. 4 and Fig. 2.4).⁴ The Lydian levels in this area were excavated in most seasons between 1960 and 1970, and, in smaller campaigns, in 1983, 1984, and 1985. In this book the term “House of Bronzes” without other qualification will be reserved for the actual Late Roman house. Digging through the Late Roman building served as the impetus for excavation in the Lydian levels when earlier remains were found beneath the House of Bronzes. The Lydian finds discovered in this area were immediately recognized by the excavators as important features, and the acronym “HoB” (as an abbreviated sector name) was used to denote workings in the general area that had been started with the excavation of the actual House of Bronzes, but that now referred to the earlier levels of the “Lydian Trench” at HoB.

Once it had been determined that Lydian occupation levels lay below the House of Bronzes,⁵ there was great interest in finding out how far back in time that habitation went. Because the open ground to the south of the House of

³ Butler, *Sardis* I.1, and Butler, *Sardis* II.1.

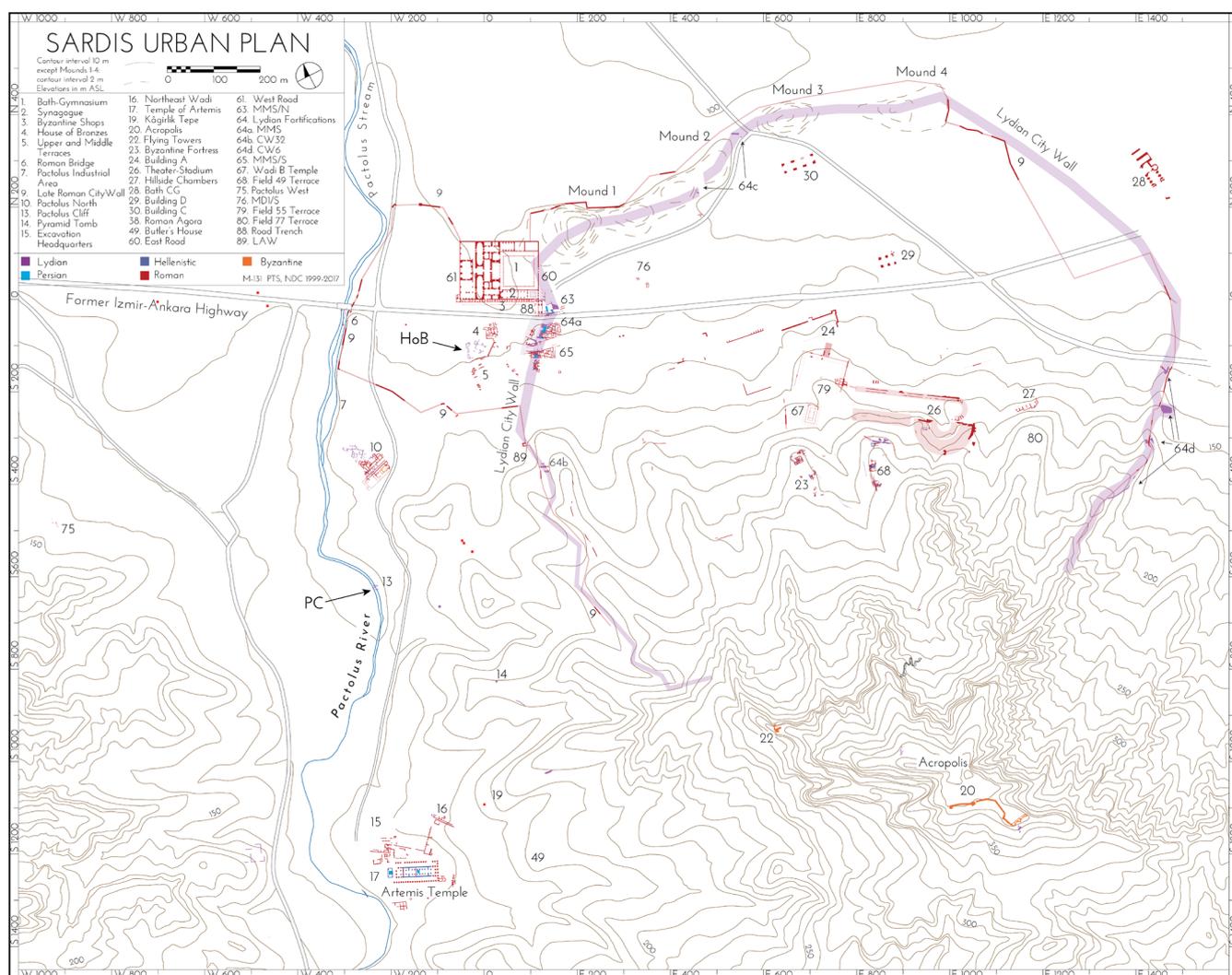
⁴ Hanfmann, “SARDIS 1958,” pp. 22–27.

⁵ Hanfmann, “SARDIS 1958,” pp. 27–30; Hanfmann, “SARDIS 1959,” pp. 30–32. More details are to be found on pp. 24, 90–92, where the Lydian Shop and the Lydian Room are described, as well as other exploratory test trenches below the House of Bronzes.

¹ Butler, *Sardis* I.1, p. 4.

² Scott 2001; Hanfmann and Waldbaum, *Sardis* R1, pp. 1–2; Greenewalt 2003.

FIGURE 2.2
(= PLAN 1).
Urban plan of
Sardis. Sector
HoB appears at
no. 4, and sector
PC at no. 13.



Bronzes was free of Roman buildings, it offered an excellent opportunity to lay bare not only a wide exposure, but also a stratigraphic sequence that would help to clarify the chronology of the sporadic finds of early Lydian pottery that had so far been discovered.⁶ The Lydian Trench at HoB came to take the form of a rough rectangle with boundary lines from E20 to W42 and from S80 to S130 on the site grid plan (see Fig. 2.4).⁷

PHYSICAL DESCRIPTION OF THE SITE

The sector HoB forms part of the gentle slopes that extend like a wide skirt about 1,200 meters to the north of the Acropolis, below the precipitous cliffs and large spurs of original Tertiary conglomerate that forms the bedrock beneath the city of Sardis (see pp. 26–31 below). HoB actually lies roughly 900 meters from the Acropolis heights

and about 300 meters to the east of the present bed of the Pactolus stream.

At the east side, the boundary of the sector is formed by a low hill, rising about five meters above the general level of the ground. For a long time it was thought to be a natural ridge, but investigations since 1976 have shown that it is formed from the core and fallen superstructure of the monumental mudbrick city wall of the seventh century B.C. (Fig. 2.2: no. 64a).⁸ The wall runs southwest, across a low saddle and into a steep hill to the south of sector HoB. This hill rises a total of about 20 meters and is the result of Roman terracing operations that were undertaken to accommodate several rows of slope houses, referred to as Middle Terrace East and Middle Terrace West (visible in Fig. 3.2).

Extensive sectional trenching into this hillside failed to reach bedrock, and revealed only mixed Roman fill that appears to have been purposely dumped, since there were unusually large quantities of bones and potsherds in distinct levels. Digging at the top of the ridge beside the Late Roman

⁶ Early Lydian pottery was not well known at the time, largely because many of the Lydian finds from Butler's excavations came from graves not earlier than the seventh century.

⁷ On the grid system in use at Sardis, see *Sardis R1*, pp. 8–10.

⁸ The observation that this hill was artificial, and made of mudbrick, was first put forward by Andrew Ramage while on an afternoon promenade with Nancy Ramage. "SARDIS 1976," p. 64, and preliminary reports since; see also Greenewalt 2006; Cahill 2010b.

**FIGURE 2.3.**

Roman pipes (visible at back right) are just above the levels of Lydian remains, looking south. The long wall in the middle of the photo, at the far west side of HoB, is the Lydian II enclosure wall.

city wall nearby (Fig. 2.1: no. 9)⁹ also revealed nothing but Roman fill. We assume that there was a rise in the ground in Lydian times too, but the degree of the incline certainly became exaggerated as a result of the tenacity of the deep Roman foundations and massive Roman dumping.

The surface before excavation was relatively even, and sloped downward only about two meters toward the north, over about 300 square meters, from about level *103 to *101.¹⁰ It had been ploughed and was being used as a melon field when first acquired in 1958. The area of the trench proved to be surrounded on three sides by substantial Late Roman buildings but did not itself have any structure built upon it that was later than the third century B.C. We do not know why this large area of more than 60 by 50 meters should have remained open and unpaved during the Roman period, since it was neither a cemetery nor obviously a storage area for merchandise or other materials. Certainly the area of HoB was an accessible and important location, as it lay near the Roman Marble Avenue that ran through town along the east-to-west axis, a main road that was in use until recent times. The chief signs of Roman activity within the specific area are the terracotta water pipes that run across the trench and that were in places immediately above the Lydian remains (Fig. 2.3).¹¹ We do not yet know whether they serviced the entire lower city to the northeast or if most of them were destined to supply the Bath-Gymnasium Complex to the north.

⁹ Hanfmann and Waldbaum, *Sardis R1*, pp. 1, 44, figs. 13, 25; and “SARDIS 1959,” p. 20.

¹⁰ The Harvard-Cornell Expedition made use of several datum systems for referencing the levels at which archaeological features and objects were discovered; for sector HoB, this is the “B datum,” which references a specific point assumed to have an arbitrary elevation of 100 meters. This system and others used at the site are described in detail in *Sardis R1*, pp. 10–16.

¹¹ There were six pipes at the west side (ca. W30–35) and three or four at the east (E5–10), all running south to north, and one in the middle, running west to east at ca. S117.

TOPOGRAPHY OF SARDIS

The Lydian levels in sector HoB were situated in a fairly low but important place in the town, just outside the official boundary defined in the late seventh century by the city wall.¹² This wall ran along the north slopes of the Acropolis and extended into the Hermus valley, encompassing the large area that was the city center. But since the section of the city wall nearest to HoB contains a gate (Fig. 2.2: no. 63), the area was well placed for travelers and traders moving along the main route between the coast and the interior.

The identification and subsequent exploration of the massive Lydian city wall upset many of the previous assumptions made about the siting of the city, as it became clear that all the sectors that had already been excavated lay outside the boundary of the Lydian city. This was not critical for the interpretation of many of the buildings in sector HoB itself because they had been built and occupied before the creation of the wall; it did, however, make a difference to our understanding of the rationale behind the siting of some other features. For instance, the Hellenistic and earlier Roman graves alongside the east–west road leading toward Magnesia-by-Sipylos (Manisa) and Smyrna (Izmir) are no longer an anomaly when one realizes that they were outside the formal boundary that lasted until the Late Roman wall was built to encompass a new area at the west as far as the river (Fig. 2.2: no. 6).

For the most part, the Lydian levels of HoB illustrate growth and enhanced activity in the handicrafts and daily life of the community from the Late Bronze Age into the sixth century B.C. A decline in the intensity of occupation in the later sixth century indicates that something changed after the sacking of Sardis by the Persians in 547 B.C.¹³ Any

¹² Cahill 2004a.

¹³ Cf. Cahill 2019a; A. Berlin, “The Post-Lydian Occupation in HoB” (Sardis Expedition field report, 2015). Persian and Hellenistic activity

new construction happened elsewhere, and the site was neglected and left open for much of the fifth century. It seems to have been regarded as an unofficial dumping ground with only sporadic occupation and a pronounced lack of substantial walls.

THE COURSE OF THE EXCAVATIONS IN SECTOR HOB

The northern boundary of HoB was formed first by the Roman House of Bronzes and, to the west of it, by the south wall of another large building or enclosure, still unexplored. At the east, the boundary was defined by the west wall of the Roman Building R, which ran at an oblique angle to the trench edges, northeast to southwest (see Fig. 2.4). To the south, a late terrace or enclosure wall with Roman residential buildings framed the excavated area. A trace of the seventh-century Lydian city wall was found beneath the Late Roman city wall¹⁴ as it climbed a ridge toward the Acropolis. Its disintegrated remains would have formed a fine uniform basis for holding in the Roman terracing, since its massive and well-prepared construction would have easily resisted the weight of the buildings. Only at the west edge have no late buildings been found, but exploration here has been hindered by the presence of the modern village.

It is clear that the Roman boundaries have nothing to do with the Lydian uses of the space. The Lydians took the ground as they found it and built accordingly; the Romans altered the ground to suit their needs. Besides the disturbed remnants of Lydian buildings found within the House of Bronzes, their presence is implied in the area of Building R (see Fig. 2.4), where large deposits consisting of almost pure Lydian pottery were found in what would otherwise be Roman levels. This suggests that while cutting their foundation trenches, the Romans encountered the Lydian occupation levels, and that material was then deposited at the contemporary ground level. What only slowly became apparent is the extreme depth and unevenness of the Lydian deposit, and the way in which the combination of Roman buildings and erosion altered the topography.

In 1958, the first year of work by the Harvard-Cornell Expedition at Sardis, excavations were begun along the former Izmir–Ankara highway, not far from the visible remains of a Roman gymnasium (Fig. 2.2: no. 1). The aim was to investigate a Late Roman building, soon dubbed the House of Bronzes for the bronze vessels that were found there. The excavations were carried on here in the summers of 1958 and 1959.¹⁵ Already in these first seasons,

in the sector is under study and will be the subject of a future volume on post-Lydian remains.

¹⁴ On the Roman city wall, *Sardis* R1, pp. 35–52, fig. 11. On the Lydian wall south of HoB, Greenewalt, “SARDIS 1999,” pp. 416–17.

¹⁵ “SARDIS 1958,” pp. 22–27; “SARDIS 1959,” pp. 22–28.

sondages (small soundings) beneath the floors of the Roman house uncovered Lydian pottery and walls, and were nicknamed the “Lydian Shop” and “Lydian Room” (see Fig. 2.4). After excavating the so-called shop and an adjacent area of later tombs to the west, the excavator, Donald P. Hansen, resumed operations a little to the south in the early part of the 1960 season. His intention was to capitalize on the exciting discoveries of 1958 and 1959, but then he took on other tasks. At that point Gustavus F. Swift, Jr., was put in charge of the area of the Lydian Trench, and excavation continued under his supervision until 1970.

The only writing on sector HoB that Swift left at the time of his death in 1976 was an extensive outline of eleven pages that he had prepared in 1970, as well as the annual season reports for each year of excavation. These normally do not attempt to synthesize the accumulated material, since they purport to summarize the finds of one particular season.¹⁶ Throughout this volume, where a description in Swift’s words seemed the most vivid and accurate, passages from his writings are included verbatim. His preliminary conclusions, stated or implied in the season reports and the published *BASOR* reports,¹⁷ have been in most cases confirmed by Andrew Ramage’s studies. Where there is a difference, the reasons for the revisions, some of which derive from later work in HoB itself, have been stated.

The incentive to expand the Lydian Trench was provided by the discovery of Lydian pottery in beds of sandy soil within the first explorations of 1960. The stratigraphic situation was similar to that of the Lydian levels encountered beneath the floors of the House of Bronzes in 1958 and 1959,¹⁸ except that it was now possible to gain a much wider exposure. The areas in the northeast corner, nearest to the House of Bronzes, were opened first, and in subsequent seasons the trenches were extended to the west and south.

In the course of these extensions, several deep soundings were dug to test the stratigraphy and develop a chronology for the Lydian levels. They were called “deep pits” in preliminary reports, but, wishing to avoid possible confusion with ancient pits, the excavators came to refer to them as “soundings” or “test trenches.”¹⁹ The first, Deep

¹⁶ It is customary at Sardis for the individual excavators in charge of sectors to prepare typed descriptions of their progress halfway through the season, and again at the end. These are called mid-season and final reports for the particular year. To avoid confusion with the final publications of the sectors and various other annual reports, they will be referred to here as “mid-season reports” or “season reports.” Specialists on-site prepare similar reports, e.g., for bones or conservation.

¹⁷ Reports describing the annual Harvard-Cornell excavations at Sardis appeared in the *Bulletin of the American Schools of Oriental Research* and its supplements from 1959 until 1990; see the bibliography at the end of this volume.

¹⁸ “SARDIS 1958,” pp. 27–30; “SARDIS 1959,” pp. 30–32.

¹⁹ In this book, “pit” is to be understood as an ancient feature for rubbish, storage, or industrial purposes, not as a modern investigation.



FIGURE 2.4 (= PLAN 2). Composite phase plan of the Lydian Trench in sector HoB.

Sounding A, was dug in 1960; two larger and deeper ones, Deep Soundings B and C, followed in 1962 and 1966, respectively (see Fig. 3.1/Plan 3). B and C were contiguous at the outset, but the trenches diverged as the levels descended and the soundings narrowed. The finds and stratigraphy of all three deep soundings, although not identical, are closely related. Later, in the 1980s, several smaller and less ambitious sondages were undertaken to answer particular questions.

Structures uncovered in the Lydian Trench were given identifying letters running from A to H and J to O (see

the composite plan in Fig. 2.4/Plan 2). Roman Building R forms part of another series. To some extent the identifying letters given to the Lydian structures reflect the movement of the excavations from east to west; thus, Building A is in the eastern part of the trench, and Building N is at the extreme west.

In 1960 the east end of the Lydian Trench and some of the Roman Building R were dug, as well as Deep Sounding A. There was considerable disturbance in the area from Roman pipes, which ran north–south toward the

House of Bronzes. Building A, the first complete example of the small rectangular buildings typical of the Lydian Trench, was cleared during this season. In 1961 the trench was extended to the north and west; the digging exposed Building B, the eastern end of Building C, the northern part of Building D, and the Stone Circle industrial area just east of Building C. The rest of Building C and an area to the south of it were excavated in 1962, when Deep Sounding B was also undertaken.

In 1963 a large area was exposed adjacent to the 1962 trench on the south and west. Buildings D, E, and F were added to the list of Lydian buildings. Investigations of Lydian remains in 1964 concentrated on a trench that revealed the stratigraphy in the southwest corner of the area. No additional Lydian buildings were discovered, but a comprehensive east–west section at S120 illuminated the occupation levels of what we call the South Side, being at the southern end of the trench (see Fig. 3.3). Additional work was undertaken in the Roman levels at the south, in Middle Terrace East and Middle Terrace West (Fig. 2.2: no. 5), where two long north–south cuts were made into the hill at the south of the area. These revealed the colonnaded street and a series of Late Roman houses stepping back in terraces, much like the now-famous slope houses (*Hanghäuser*) at Ephesus.

Lydian levels formed the focus of the work in 1965, largely in the central and western part of the trench. We concentrated on opening a level of the late eighth or early seventh century B.C., characterized in the annual reports as “Kimmerian burning” (although that designation is problematic and will be discussed later, pp. 57–58).²⁰ In 1966 we had the double aim of clarifying further the later seventh-century walls found at the west side of the trench in 1965—formerly referred to as the “Lydian Bazaar” precinct, and now considered to be a group of houses. We also exposed deep levels (Deep Sounding C)²¹ over a much larger area than before on the eastern side of the trench.

There was no digging at HoB in 1967. The excavations of 1968 were largely concerned with extending our knowledge of the seventh-century phase, the Lydian II levels, although there was some work in Roman areas near Building R and the adjacent street. The most notable discovery there was an early Byzantine inscription that implied that the street should be thought of as the Hypaipa Road.²²

There was again no digging at HoB in 1969, but work was taken up again in 1970. The targets were seventh-century levels to the west, and the earlier burned levels at the south.

Almost all the area within the trench had by now been dug to a depth of two to five meters, although the deep soundings, of course, were substantially deeper, up to 11 meters below the original grade. Additional work in the Roman colonnaded street brought to light an arched façade of brick and reused marble blocks, which may correspond to a tetrapylon referred to in the inscription mentioned above.

After that time there was no excavation here until 1980, when a project to complete work on the House of Bronzes was initiated. In 1983 three stratigraphical soundings were sunk beneath the Lydian II levels at the west end of the trench, and in 1984 another was started, continuing in 1985, just to the south of Deep Sounding C, in an attempt to get more detailed information from the Iron Age levels.

The intermittent excavations of each level over more than a decade produced a huge quantity of pottery, most of it local, that was discarded with minimal comment upon its implications. The remaining sample has been necessarily skewed because more attention was focused upon Greek and painted pieces that would offer chronological, if not commercial, connections. The bias may be most acute for the early levels, but it is built-in everywhere. Although much domestic coarse and plain pottery was discarded, we need to put back, as best we can, the weight of domestic activities that must have been present, even in buildings that may also have served as workshops. Some of the extant pottery might well have served purposes for both the household and light industry.

Estimating the extent to which the Lydians used organic materials is a puzzle, where accepting the general proposition that they used perishable materials still leaves us shy of the actual quantities required for comfortable (or more probably uncomfortable) existence. Certain soft goods like textiles are easy enough to imagine, and are confirmed by ancient texts. Harder items like wood and bone are more difficult; some pieces last, but how many more should be imagined for a full accounting? Evidence for wooden furniture is absent except for iron hardware that must have served as “brackets.” Such items, which turned up frequently, should be connected with furniture because of imprints of wood grain on the corrosion product.²³ Very few lumps of charcoal to represent the actual wood have survived, although patches of crumbled charcoal were widespread. Similarly, there was hardly a trace of leather.

ALLUVIAL DEPOSITS AND STRATIGRAPHY

The general position of the site in its geological and geomorphological setting has been described previously,²⁴ and the soils of Sardis were made the subject of a special study in

²⁰ “SARDIS 1960,” p. 12.

²¹ As laid out, Deep Sounding C covered a rough quadrangle within the area of E5–W9 / S98–109. By the end of the excavation in C, the much-reduced area of the trench covered from E3–W4 / S103–107.5.

²² IN68.19 and IN68.20; Foss and Hanfmann in *Sardis* R1, p. 3; Foss, *Sardis* M4, pp. 44–45 and sources 18–19; “SARDIS 1968, 1969,” p. 29; “SARDIS 1985,” p. 20. See Hypaipa on the map in Fig. 2.7.

²³ A bracket was found in HoB at W6–15 / S90–95 *98.9–98.2. Others were found but not saved.

²⁴ D. F. Belknap in “SARDIS 1978”; Donald Sullivan in “SARDIS 1981, 1982,” pp. 53–57; W. Warfield in *Sardis* I.1, pp. 175–80; *Sardis* R1,

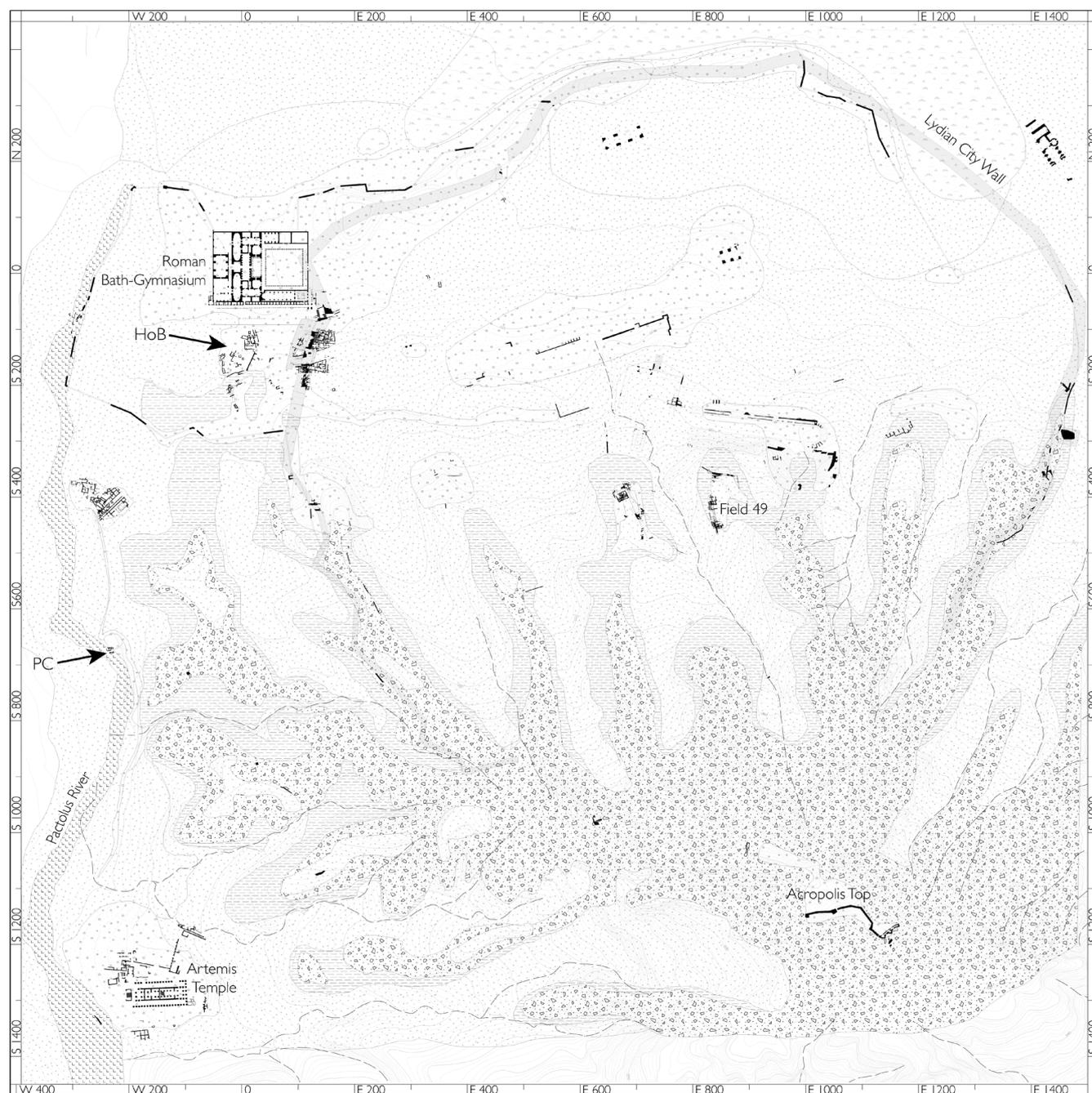
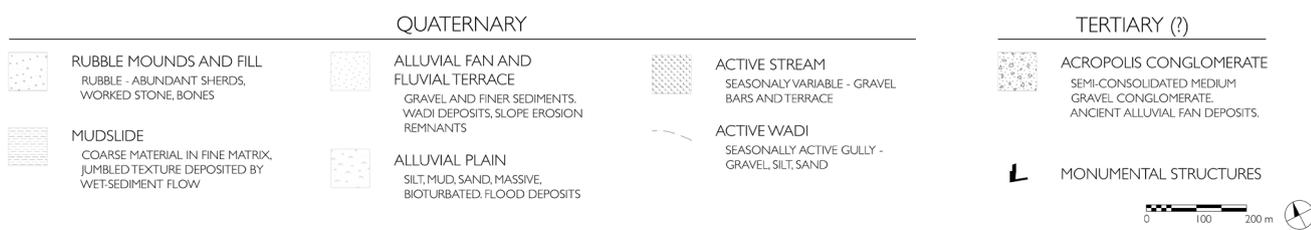


FIGURE 2.5. Geological map of Sardis.



1970.²⁵ Essentially, the Acropolis and the Necropolis form a narrow layer of conglomerate set against the metamorphic mass of Mount Tmolus (Fig. 2.5). The discontinuity, which runs roughly east–west, is about two kilometers south of the Temple of Artemis (Fig. 2.2; no. 17) and can be strikingly observed in a fifteen-minute walk from the temple (Fig. 2.5).

The erosion of the loose conglomerate of the Acropolis accounts for the many deposits of gravel and soil that washed down the hill and into the area of the Lydian Trench of HoB. Some of these inundations probably occurred when the inhabitants stopped maintaining terraces uphill that had been built to avoid such events. Periodic catastrophic inundations caused by slope destabilizations also buried the Temple of Artemis to the west of the Acropolis.

pp. 17–18; Hanfmann and Mierse, *SPRT*, pp. 2–3. Brinkmann 1971. See also Cahill 2016.

²⁵ Olson 1970 and Olson 1971.

A description of the landscape may be quoted from the publication of the first archaeological expedition to Sardis in the early twentieth century (Fig. 2.6):

At the northern edge of the marble [of the Tmolus range] a non-conformity marks the beginning of a new geological series. This series consists of unfolded beds of alluvium exhibiting three distinct phases. The first, or lowest, phase, is composed of massive homogeneous beds of fine red clay. These thin out very much at the edge, so that no adequate measurements can be obtained of their thickness which is approximately 30 m. This material bears every resemblance to deep-water marine deposits, being evenly distributed, perfectly sorted so that it contains no coarse material, and stained an even dark-red color by oxide of iron.

The second phase consists of grey or pale green beds, in all about 200 metres thick, of fine sandy clay interbedded with gravel containing pebbles of quartz and occasionally of schist rarely more than 2 cm. in diameter. The fine beds vary in thickness from 5 to 50 cm. and the coarse beds from 10 cm. to 5 metres. Their texture is frequently quite loose, though more often the material is solidified by lime cement. The beds dip slightly toward the north because of having been deposited against the ridge. They are evidently shallow-water deposits; the succession of coarse and fine layers indicates a seasonal variation in the streams bringing down the material deposited and an absence of currents to sort it out. That these are subaqueous deposits is shown by the continuance of the beds; their light colour is probably due to a growth of reeds which leached out the iron oxides.

The third phase, by far the most conspicuous because it has most resisted erosion, is exposed in the bare cliffs of the Acropolis and Necropolis Hills. It is composed of fine grains of kaolin, muscovite, biotite and probably other ferro-magnesian minerals, and a little quartz, with quantities of pebbles; the flat pebbles of schist usually about 10 cm. in diameter but frequently much larger or smaller, irregular pebbles of gneiss often slightly angular, but always water-worn, quartz and pebbles of all sizes up to 20 cm., but usually not over 10 cm., in diameter.²⁶

It is the interaction of the erosion processes on these two rock formations that has produced the Sardis landscape. The most active erosion agent was water: first through the direct action of the rain and the creation of smaller and larger streams; and then by the cutting and filling action of the Pactolus and, to some degree, of the river Hermus.²⁷ Since the poorly cemented conglomerate is particularly susceptible to erosion, the frequently heavy rainstorms of the Lydian winter (which were probably no less heavy in antiquity) contributed to its movement in

great quantities at one time. Periodic earthquakes may also have caused large masses of conglomerate to spall from the Acropolis, which would then disintegrate and flow downhill, leaving massive deposits of sand and gravel.

These processes have generated several large alluvial fans in the valley, where small streams like the Pactolus spill from the steep confines of their narrow valleys into the broad, flat plain of the Hermus. Besides sand, gravel, cobbles, and other components of the conglomerate, these fans contain much larger pieces of the matrix and inclusions of the Tmolus bedrock, such as gneiss, schist, and quartz. The field or river stones, mostly smaller than 25 centimeters, provided (and still do) a basic building material for inhabitants of the valley. Cut stone is so far rarely attested in Lydian vernacular architecture.

Another possible source of gravel deposits in Lydian and prehistoric times is the overflow from the main course of the Hermus. Until the middle of the last century it was not unheard of for the whole valley to be inundated, and for villages to be cut off, but the building in 1960 of a large dam at Demirköprü (Fig. 2.7) removed that threat. This kind of flooding would have deposited fine sand or silt, however, rather than gravel or cobbles, because Sardis is at the edge of the valley; floodwaters here would flow more slowly and deposit the lighter materials.

The Pactolus fan was probably wider and further south in ancient times than it is now,²⁸ and some of the levels in HoB may have resulted from its buildup if the river was turning rather more to the east than at present. We know that the river has changed its course since antiquity because it has cut into ancient structures, both Lydian and Late Roman, at several places on each bank between the Temple of Artemis and the Roman bridge (Fig. 2.2: no. 6). The extent of the alluvial fan in Lydian times, however, is rather obscured by modern buildings and cultivation near the bridge and crossroads. The Late Roman city wall also had an important effect in altering the topography and, presumably, later local drainage patterns, and may have contributed to the deposition of sediments. For the area of HoB, the stretch of city wall between sections 30 and 29²⁹ (Fig. 2.2: no. 9) would have acted as a barrier and encouraged the buildup of debris beside it in late antiquity, once the pattern of city life had been interrupted. In addition, the sections to the west and north formed part of an embankment on the east side of the Pactolus and will have contributed to the regularization of its channel, causing the fan to be moved further downstream. The Roman bridge and its abutments would also have contributed to the channeling of the Pactolus. Without much more extensive digging or a considerable program of systematic coring, this theory will remain a hypothesis.

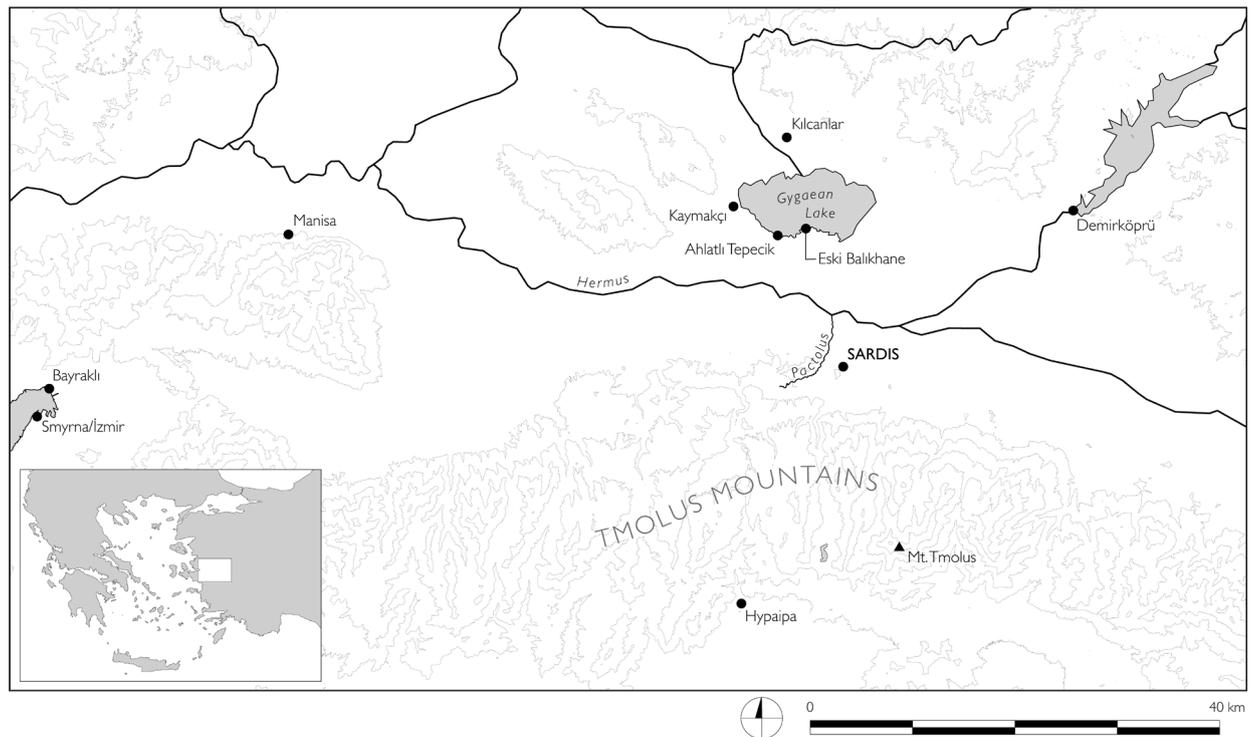
²⁶ Warfield, "Report on the Geology of Sardis," in *Sardis* I.1, pp. 176–77.

²⁷ Cf. Cahill 2000, pp. 183–84 and n. 11.

²⁸ Opinion of the Turkish geologist Cengiz Saran, cited in *Letters from Sardis*, p. 144. See also *Sardis* R1, p. 26; and *SPRT*, pp. 20, 26.

²⁹ Ca. W200–E100 / S200–250. See *Sardis* R1, p. 52, table 4.

FIGURE 2.7.
Map of
central
Lydia.



From the first, the excavations in the Lydian Trench of HoB produced a consistent pattern of natural stratigraphy. Again and again the excavators reported finding strata of sandy gravel in different grades and thicknesses, between which were beds of clayey soil. These beds have provided most of the evidence for human occupation in the area: remains of buildings, floors, great quantities of pottery, and small artifacts of various materials. Much of the soil matrix is probably derived from the decomposition of mudbrick, which was the standard material for the upper parts of Lydian walls. At first this was only a suspicion, following traditional wisdom, but finding isolated bricks in the excavation (described at the time as “potter’s clay”)³⁰ and later bricks *in situ* on the wall socles made it certain.

In general the gravel layers were lacking cultural remains, except for one or two waterworn potsherds and the occasional object. Every so often there might be an isolated patch of clayey material within the gravel, which was otherwise not connected to anything else. Such flooding must have been particularly devastating in periods when the terraces further up the slopes of the Acropolis were not maintained. It is as if there were a range in the intensity and spread of the flooding, such as what insurance agents refer to when they speak of a “100-year flood.” In any case, while requiring attention in the course of excavation, these isolated patches add little to our understanding of the course of Lydian occupation in the area, other than to suggest that there were more frequent attempts to establish structures than most of the record shows.

³⁰ This is not so absurd as it sounds: the clay of a great many of the bricks used for the face of the city wall was quite plastic and contained very little sand or straw.

To avoid oversimplification and exaggeration of the contrast between water-laid gravels and evidence of human occupation in clayey or earthy levels, certain facts must be kept in mind. To begin with, although the gravel layers were sparsely provided with potsherds and other small objects, they were never (even those below the Late Bronze Age material at level *90.00) totally devoid of them. Such sherds had worn surfaces and were rubbed and rounded, and might well have originated from other parts of the settlement upstream. The occasional beds of pure fine sand were, on the other hand, regularly sterile or nearly so. Architectural remains were confined to the clay layers, and features such as hearths and mouths of pits were only occasionally found on gravel surfaces. One could imagine rebuilding on parts of the alluvial fan after a thin skin of soil and vegetation had reestablished itself, and the vagaries of the weather would determine the length of successful occupation. Again, small intermediate bands and patches of the clay material occurred among the gravel beds, but with only a few artifacts for content. Finally, some deposits clearly consisted of an unstratified mixture of gravel, earth, and artifacts and could have been deposited by either natural or human agency. But the major beds of the yellowish clayey material have defined the stratigraphic and cultural sequence throughout the excavations.

With the aid of the section drawing and general view of the South Side (see Figs. 3.2 and 3.3), we can get an idea of the succession and relative thickness of the different strata that were contained within the Lydian Trench. Drawings and descriptions of the deep soundings help us arrive at a composite picture of the levels to ca. *90.00. This is, of course, a generalized construct and varies, both absolutely and in degree, at some points in the trench, but overall the picture is remarkably uniform.

Chronological Phase	Date	Elevation
Late Bronze Age	Thirteenth to twelfth century B.C.	*94.25–89.90
Early Iron Age	Eleventh to tenth century B.C.	*94.75–94.25
Lydian IV	Iron Age, ninth through mid-eighth century B.C.	*96.50–94.75
Lydian III	Last quarter of eighth century B.C., Destruction Level	*97.60–97.00
Lydian II	Early to third quarter of the seventh century B.C.	*98.50–97.50
Lydian I	Later seventh to mid-sixth century B.C.	*99.00 floor
Persian period	Fifth to late fourth century B.C.	*99.50–97.20
Hellenistic	Late fourth to first century B.C.	*100.50–99.00
Early Roman graves		
Roman water pipes		*101.00–100.50
Surface		*103.00–101.50

It goes without saying that the ancient people of Sardis did not erect monumental buildings, or even residential quarters, in a streambed, where they would have been constantly threatened with destruction by flood. Given this area's tendency to become overwhelmed by inundations of gravel, one is driven to the conclusion that the site of the Lydian Trench in HoB was valued because of its position near lines of communication and its proximity to other parts of the settlement (see Fig. 2.2). In addition, access to the northern slopes of the Acropolis is much gentler and more open from this area than from higher up the Pactolus valley. But it is clear that the uses to which this place could be put were limited by the risk of loss of permanent constructions or moveable property of any great intrinsic value. That an apparently unpromising site was in fact usable is supported by the evidence from the excavations, which confirm its use for commercial, domestic, and industrial purposes from the end of the second millennium through the middle of the sixth century B.C.

STRATIGRAPHIC AND CHRONOLOGICAL SUMMARY

The results of the excavations in sector HoB, set out in detail in the following chapters, reveal a long tradition of occupation at the site, as well as consistency in the manner of living and the use of materials. The thick layers of gravel show that there were occasional catastrophic floods, which would have interrupted life in the area and destroyed many buildings. It would have taken time to rebuild them, but no significant gaps showed in the stratigraphic sequence from

the Late Bronze Age through the Early Iron Age and the time of the Lydian kingdom.

The evidence produced from sector HoB for Late Bronze Age occupation is one piece of a small but growing body of information about life in this region in that period. The long-standing project has elucidated many aspects of ancient Sardis, but only recently have other levels been found within the city that are as early as those found in sector HoB, described below, dating back to the Late Bronze Age.³¹

At the site of Sardis itself, occupation levels of the Early Bronze Age have been recognized only recently, even in the deep soundings (see below). But earlier, at Eski Balikhane, about 30 miles (48 kilometers) to the north of Sardis, on the shores of the Gygaean Lake, an Early Bronze Age habitation site had been found; and at Ahlatlı Tepecik, also by the lake and not far away, an Early Bronze Age cemetery had been excavated.³² To the north of the lake lay another site, Kılcanlar. These places in central Lydia (Fig. 2.7) show that there was a considerable scatter of such sites and that small settlements had been established in many locations.

Since 2005, survey work in central Lydia, led by Christopher H. Roosevelt and Christina Luke, has identified a number of larger sites around the Gygaean Lake.³³ One of these, at Kaymakçı, is much larger than the rest. Satellite

³¹ Excavations in 2017, 2018, and 2019 on Field 49 at Sardis revealed occupation levels of the Late Bronze Age, and below them, fill, perhaps terrace fill, apparently dating to the Early Bronze III B period. See Cahill, 2019b, p. 124.

³² *SPRT*, p. 17.

³³ Roosevelt 2009; Roosevelt and Luke 2009; Roosevelt 2010; Roosevelt et al. 2018.

images show the destroyed remains of three concentric rings of fortification walls enclosing about 8.6 hectares. This is by far the largest circuit in western Anatolia or the Aegean area, including mainland Greece and the Ionian coast. Surface surveys over several years have indicated that the Late Bronze Age was the floruit of this site. This discovery is most important for the local picture in Lydia. Here, then, is the ideal predecessor to Sardis as the center, or core, of Lydia. Excavations now in progress will test the validity of this idea, but whatever turns up, one must address the question about the mechanism involved in a sudden change of the regional center of gravity from Kaymakçı to Sardis.

DESCRIPTION OF MAJOR OCCUPATION LEVELS

The occupation levels in the Lydian Trench of HoB are divided from one another by obvious bands of gravel and sand, as mentioned above, some as much as a meter thick. The main levels in the excavated area are summarized in Table 2.1, which gives approximate levels that vary from place to place depending on the slope of the land.³⁴ The

³⁴ See note 10 above for the system used to record the elevations listed in Table 2.1.

G. F. Swift's original version is included below because it is implicit in the *BASOR* excavation reports and other publications, and a new version should not be offered without explanation and comparison. He distinguished eight main trench levels in his 1970 season report, which reflected his overall conclusions about the interpretation of the trench and his intentions for publication. These can be set out as he wrote them, from later to earlier periods:

1. Late Roman mixed fill
2. Roman: water pipes and traceable ground surface
3. Hellenistic: *100.00–99.00
4. Lydian level I (end of seventh century): ca. *99.00 (floors)
5. Lydian level II (later seventh century): *98.50–97.50
6. Lydian level III, Destruction Level (early to mid-seventh century): ca. *97.50–96.50
7. Protogeometric (eleventh or tenth century): *94.75–94.25
8. Late Bronze Age (pithos burial, etc.): *91.00

The most important divergence of opinion between Swift and A. Ramage is the absolute date and, following from that, the characterization of Lydian level III. In Ramage's view, Lydian III dates from the middle to the end of the eighth century, a substantive difference of up to fifty years from Swift's dating. The end of Lydian III is marked by a widespread destruction level, probably caused by an unrecorded enemy about 725 B.C. Lydian II should also be earlier than allowed by Swift, i.e., early to mid-seventh century (rather than late seventh). This avoids squeezing Lydian II, where some of the most substantial buildings are found, into too narrow a time span. The argument over the dating is, in fact, easier to settle for Lydian III because there is a wider range of well-dated imported pottery securely associated with it than there is for Lydian II. Lydian I must be allowed to proceed later, to the middle of the sixth century, i.e., to the end of the Lydian kingdom.

The wide spacing between some of the higher levels in Swift's

descriptive table of periods and levels set out here is meant to provide a general framework and a set of working definitions to be used in the main text of the following chapters. Of course, one must remember that the sloping topography and uneven surfaces have caused variations in elevations, and the range of levels must not be considered inflexible.³⁵

This table differs in several respects from tabulations published previously³⁶ and from opinions implied in the preliminary reports. The Lydian periods defined here are in principle derived from the major stratigraphic levels, usually surfaces or floors, with reasonable indications of occupation; they are only secondarily reflections of changes in pottery styles. As shown in Chapter 1, most styles of Lydian pottery do not belong exclusively to any one level but instead overlap. At issue is the relative quantity of a style within a level, and the introduction of certain new forms and styles over time, or the gradual disappearance of others.

While this chronological division may be satisfactory for the present, work continues, at Sardis and elsewhere in western Anatolia, that may call for revisions or provide a much richer picture of Iron Age cultures in the area. The first use of "Lydian" in the chart, for the early historic levels, is not meant to suggest that Lydians only came into being or arrived at Sardis in the ninth or eighth century. This is, however, the period of their rise to preeminence in western Anatolia, when they became politically powerful, as suggested by textual sources.³⁷ The structure of their language and its relationship to Hittite and other Anatolian languages³⁸

tabulation can usually be explained by the presence of gravel layers, but the levels between *96.50 and *94.75 held much more occupation material, even if not many formal floors could be distinguished. For that reason, the designation "Lydian IV" has been created. It fits between Swift's level 6 and level 7 on the table and should correspond to most of the Geometric period at Greek sites. This is the least defined of the Lydian categories and corresponds frequently to a more general term like "Early Iron Age."

Swift's level 7 presents a problem, because it refers to a stratum consisting of a thick layer of occupational debris, such as pithos sherds and mudbrick lumps, that straddles the transition from the Late Bronze Age to the Early Iron Age. In reality most of these divisions are somewhat arbitrary at the moment because of the small sample and lack of reliable chronological markers.

Level 8, which is really specific only to Deep Sounding B, is distinct again. This separation of the levels, which nature has forced on us, has turned out to be convenient for the division of later cultural phases without much argument, but for the centuries before the destruction of the mid- to late eighth century the natural sequence makes it awkward to estimate the chronological setting in the absence or scarcity of imported or datable potsherds from some levels.

³⁵ For instance, some objects from Lydian III come from as high as *98.2 (**HoB 360**); and from Lydian I, up to *99.45 in the floors south of Building C (**HoB 728**).

³⁶ Ramage, *Sardis* M5, p. 3; Hanfmann and Mierse, *SPRT*, p. 26.

³⁷ Herodotus I.7 (Pedley, *Sardis* M2, no. 26).

³⁸ On the Lydian language, see Gusmani, *Sardis* M3; Melchert 2010 with bibliography. See also Beekes 2002; Beekes 2003.

indicates that the Lydians were already a separate people early in the second millennium B.C., but we cannot be sure that they are the same group that inhabited the shores of the Gygaean Lake at that time.³⁹ Indications that the Lydians' occupation goes far back into the Bronze Age can be found in the stories of the dynasty descended from Lydos himself, before the accession of the Heraklid dynasty.⁴⁰

Exposure of the Late Bronze Age stratum was small, and the principal finds, consisting of the floor of a small round hut and a cremation burial (in Deep Sounding B, pp. 46–47), tell little about the use of the area at the time. The hut was presumably a dwelling, but the single cremation burial does not indicate the existence of a cemetery. No other burials of this period are yet known from the Sardis region, although, as mentioned above, several inhumation burials from the Early Bronze Age were found together at Ahlatlı Tepecik. Those burials clearly formed a cemetery, but there were few signs of contemporary occupation close by.⁴¹ At present it can be said only that the hut and accompanying potsherds indicate settlement with at least one nearby burial.⁴²

We were able to uncover only very small areas in HoB that went back as far as the Late Bronze Age, but by the time of the Early Iron Age and Lydian IV we are on firmer ground, given the large numbers of pithoi and the quantity of monochrome pottery. In the case of Lydian IV, the occupation has been inferred from the finds. The sub-Mycenaean fragments and a variety of the Protogeometric style of pottery seem to have flourished concurrently at Sardis: at least they are found together on one floor, so that their value for labeling chronological periods at Sardis, following the Greek model, is dubious (see pp. 43–44).

The principal floor of the Early Iron Age, or Lydian IV, stratum (at level *94.75), especially in the area of Deep Sounding C, is more illuminating, even though the only structure consisted of a flimsy wall (Fig. 3.8). Much of the soil in the thick stratum above the floor was burned red, while other parts had many particles of charcoal, suggesting the presence of some unidentified industrial activity nearby. This is an inference from the character of the fill, which seems to derive from activity on a larger scale than the finds themselves would indicate. There were fragments of large pithoi throughout, as well as a complete but oddly broken example of one *in situ* with its neck found inside it (HoB 216; see Figs 3.6, 3.7). However, the burning was not intense enough or sufficiently widespread to bear an interpretation of purposeful destruction.

In addition to the large numbers of pithoi, Lydian IV produced a few objects of daily life such as a whetstone (HoB 240), a pounder (HoB 239), a quern (HoB 103), a piece of flint, and some knives (HoB 37 and HoB 101).⁴³ Although identifying activities that might have been undertaken during this period is difficult, it can be surmised that one focus required the presence of considerable storage capacity, presumably of staple foodstuffs. Since almost nothing in the way of structures was found here, it may be that it was a seasonal or outdoor working space, or that the structures were made of perishable materials.⁴⁴

This general account can be set beside an analysis of the relative proportions of pottery types in the different levels, which shows an overall decline in gray or buff monochrome wares, changing from over 80 percent of all pottery finds in Lydian IV to 20 percent or less in Lydian I. A corresponding change is the dramatic rise in the proportion of painted to plain pottery, also in an increasing variety of shapes. These changes are particularly marked between Lydian III and II, and rather less so between II and I.

The architectural remains of Lydian III were both scanty and fragmentary. A small furnace or oven (see Fig. 5.14) was found⁴⁵ with an associated three-sided structure too small for occupation, and no use of the area other than commercial or industrial can readily be seen. Several bothroi (rounded pits; see Fig. 5.1) that were dug into the clay covering of Lydian III from above, some of them lined with a lime plaster, probably originated in Lydian II, or they may have been connected with the laying of an intermediate clay surface directly over the destruction debris. These were more likely intended for an industrial purpose rather than for storage of food, given the probable dampness.⁴⁶

The buildings of Lydian III are distinctly flimsier than those of Lydian II, and the density of structures is much less, even if one reconstructs walls out of almost every heap of stones. The finding of several human skeletons or *disiecta membra* that had (presumably) not received any last rites adds to the impression that the area was not highly prized or subject to ideas of tidiness or propriety—a feeling that has endured to this day in connection with factory yards or mining dumps. Because this level shows much evidence of having been the site of a battle, we call it the Destruction Level.

In Lydian II, we ought to be able to rely on a resumption of the flow of better-documented imports (or imitations)

⁴³ Including grindstone S62.58; flint F62.3.

⁴⁴ Compare Lydian IV from Pactolus Cliff, pp. 117–118.

⁴⁵ At W12 / S97.

⁴⁶ It must be admitted that the practice of storing grain in pits was continued until not long ago in central Anatolia, but these were so different in construction and circumstance that they support our suggestion that the Sardis bothroi were not used to store food. See Schmidt and Krogman 1933, p. 115, and the massive underground silos at Boğazköy that were able to contain thousands of kilograms of grain: Secher 2006.

³⁹ Mitten and Yüçrüm 1971.

⁴⁰ Herodotus I.7 (Pedley, *Sardis* M2, no. 26).

⁴¹ Hanfmann, Mitten, and Ramage, "SARDIS 1967," p. 7; J. Spier in Hanfmann and Mierse, *SPRT*, pp. 17–20; Mitten and Yüçrüm 1971; Mitten and Yüçrüm 1974.

⁴² An Early Iron Age child burial was found in a trial trench dug in 1985. See p. 44 below. Greenewalt, Rautman, and Cahill, "SARDIS 1985," p. 84 and fig. 32.

to delimit the chronological boundaries, but in fact, because we have been restricted to pots that continue the Protocorinthian tradition, which is in itself difficult to disentangle, this period is harder to pin down than Lydian III. In most situations evaluating individual potsherds is not so much the problem as balancing the evidence of several.

Lydian II is the first level in which coherent architecture is preserved, including a series of rectangular buildings connected by an enclosure wall (Fig. 2.3). Each one had a single-room plan in which built-in furnishings could be distinguished. Similar fittings are found in those of the succeeding level (Lydian I), sometimes rather better preserved. These structures were previously referred to as shops, following the identification of this area as Herodotus's Lydian Agora, but we do not consider them equivalent to the retail establishments of the modern world, nor even to the later Byzantine Shops to the north of HoB (Fig. 2.2: no. 3), where goods were displayed in the street outside the premises.⁴⁷ Rather, we now look upon these small structures as spaces that served as both houses and workshops. A distinguishing feature of Buildings G, H, and K was the number of iron objects they contained, and objects from Lydian II produced several indications of industrial activity.

We may restore Lydian II to include craftsmen in a place that combined dwellings and workshops selling new things but also repairing old ones. Some outsiders might have come to exchange foreign goods for local ones, but the use of coins had not yet begun. It is unlikely that the small-scale artisans would make use of pre-weighed bullion either, but our knowledge of the day-to-day details of ancient commerce at this period is slim. Most of the premises in the Lydian Trench could have been used as living spaces too, although one or two seem much too small (unless some kinds of temporary structures made of perishable materials were tacked on), even if one allows for a quite different understanding of space requirements and the number and type of household goods necessary for a family.

The evidence for specialized activity was most plentiful in Lydian I. Buildings A, B, and F (and M and N as far as excavated) and the "Lydian Room" and "Lydian Shop" were all small, rectangular single-room units, apparently scattered over the area at random, usually ten meters or more apart from each other. Inside and between them, several finds suggested shopkeepers' or a homeowner's stock: at one point ten unused lamps (**HoB 579**); at two others, concentrations of fired and unfired loom weights (**HoB 645** [twenty-six loom weights] and **HoB 716** [six loom weights]). Clearly a repair workshop was here. Sherds showing drill holes at their broken edges were not unusual, and excavators found the small lead strips used as cramps to repair pottery. The "Lydian Shop," found in 1958, which belongs in Lydian I, is of the greatest importance. Here were found the corner of a kiln (Fig. 7.20) and a stock of Waveline amphora necks and

other vases, some having drill holes for repair (**HoB 524–HoB 533**).⁴⁸ In the area of Buildings A and B, another place where there must have been an industrial workshop, many simple bone pins were found (**HoB 590**)⁴⁹ as well as a blank for a bone pin (**HoB 593**) and several other examples in various stages of manufacture.⁵⁰ In the area of Building B, dies used in jewelry-making turned up, including **HoB 602** and **HoB 603**, and two more came from nearby, just outside Building F (**HoB 604**, **HoB 605**). From south of Building C came a small, flat square of copper alloy, an intaglio die that was used as a pattern for impressed ornaments of gold foil (**HoB 734**). Thus, at various places from the periods of both Lydian II and Lydian I, much evidence supports the idea that these buildings housed small industries, even if they were also, probably, the simplest kinds of living spaces.

In general, the dating of the levels has been set rather loosely, because no external framework for the chronology of Lydian pottery yet exists. Imported pottery, where available, offers clues, but the dating and attribution of imported Late Geometric and Orientalizing wares found in East Greece and the islands of the Aegean are not really precise enough to do more than provide a broad indication.⁵¹ Furthermore, Sardis lacks a widespread sampling of figural Protocorinthian pottery, which might have allowed us to fix the chronology for the critical years between 700 and 650 B.C.⁵²

After the Persian conquest of about 547 B.C., little of note was found in the Lydian Trench of HoB. This situation is mirrored in the sector Pactolus Cliff (PC), and one might wonder whether Sardis became a backwater then; but many graves containing fine jewelry, seals, and other luxury items from that time were excavated by the Butler expedition, and sector Pactolus North (PN), not far from sector PC, produced significant levels of the Persian period.

Possible explanations for this scarcity of remains in HoB and PC in the Persian period are that these areas' function in relation to the surrounding district was altered so that

⁴⁸ Ramage 2008.

⁴⁹ Also found here were **HoB 606–HoB 609**.

⁵⁰ **HoB 591**, **HoB 592**, **HoB 610**.

⁵¹ The authors follow Coldstream for Geometric chronology (Coldstream, *GGP*, p. 330 [repeated in Coldstream 1977, p. 385]), but there is still plenty of room for overlapping styles or debate over where in a series any particular piece falls. See Cook 1960, pp. 118ff., and more recently Kerschner and Schlotzhauer 2005. Special thanks go to Michael Kerschner and Nezih Aytaçlar, who helped identify pottery during a series of productive meetings at Sardis.

⁵² According to Judith Schaeffer's report (*Sardis M10*, p. 6, table 2), all but one of the Early and Middle Protocorinthian pieces found at Sardis are linear kotylai. It is difficult to distinguish between specific periods when one is dealing with small sherds of these styles rather than whole profiles. Late Protocorinthian kotylai are represented by two pieces only (*Sardis M10*, cat. Cor 26 [P65.64] and Cor 37 [P87.82]), one of which has a scale pattern with added red (from another sector, ByzFort). Several of Schaeffer's chronological judgments have dates that are too low by current standards, in the opinion of Kathleen Lynch.

⁴⁷ Crawford, *Sardis M9*, pp. 86–87 and 90–91.

the commercial activities were moved elsewhere or were drastically reduced. Another possibility is that the buildings of this period in HoB and PC were so insubstantial (as Herodotus describes them [5.101]) that they left no trace in the archaeological record and only ceramics of the period survive here. It is also possible that some buildings now dated to the Lydian or Hellenistic period actually belong, perhaps at least in part, to the intervening Persian era.⁵³

Although the detailed discussion in the following chapters ends with the Achaemenid conquest of Sardis ca. 550 B.C., a quick overview of the Achaemenid and later levels in HoB is included here for the sake of completeness. Occupation continued in the fifth and much of the fourth centuries B.C., and post-Lydian structures clearly show the resumption of industrial use of the area. The large Building C, which roofed over a single enclosed space (perhaps with half-height walls) of 8 × 18 m, is best understood as a workshop or warehouse. The Stone Circle, Buildings E and F, and the well next to F were also in use in this period. In the later fourth century, the well was partially filled and the area essentially abandoned. Sometime in the mid- to later third century the well was completely filled in, and for the duration of the Hellenistic period the excavated area of HoB seems to have been a vacant lot where people camped and trash accumulated. The site again lay unoccupied in the later Hellenistic and early Roman period, during which time parts of Building C were robbed. This gap in occupation may be explained by the growth of the late Hellenistic and early Roman cemetery that was situated beside the main road nearby toward the north and west (see Fig. 2.4).

Later construction within the boundaries of the Lydian Trench of HoB itself amounted only to the laying of more than a dozen Roman terracotta water pipes having a general flow from south to north, and in a few cases from west to east. One major group of pipes ran through the east edge of the trench and another through the west edge (see Fig. 2.3); could they mark the lines of small Roman streets or tracks? It is quite fortunate that the laying of the pipes did not require deeper trenches that would have disturbed the seventh-century Lydian levels. A contemporary ground surface, not more than one meter higher than the pipes, could be traced by plotting hard-packed earth surfaces found during excavation. All that these show, however, is that the Lydian Trench area appears to have been composed of an open space among the surrounding buildings during later Roman times.

The overlying two meters of Late Roman fill, mixed with earlier materials, may be attributed to occupation wash that was carried downhill after the decline of the city in the seventh century A.D. or later. At any rate, the latest materials in this fill are not evidence for occupation in the Lydian Trench of HoB, but rather for the occupation on the slopes above, from which the material must have originated.

SUMMARY

In the remainder of Part I, the chapters present the evidence that both supports the descriptions given in this introduction and justifies the general conclusions offered about the growth of a grand urban center. Starting with the Late Bronze Age and the Early Iron Age, the finds from sector HoB shed light on the early eras at Sardis, as recorded in the Lydian Trench, followed then by the four periods of Lydian occupation, from Lydian IV through Lydian I. The excavated area of HoB is large and deep; it has produced rich and revealing remains of Lydian life at Sardis on the one hand and, on the other, many incomplete and tantalizing architectural fragments and artifacts without meaningful contexts. The final chapter of Part I, then, offers a cultural and historical summation based on the artistic and technological connections of the finds.

In the discussion that follows, we present the objects and their contexts according to their levels, beginning with the earliest, an arrangement that in general terms follows the development of occupation at the site rather than the sequence of discovery; however, within the deep soundings, we follow the levels encountered as we were digging down. Chapter 3 thus begins with the deep soundings that were required to reach the early levels, where in each section we describe the stratigraphy from the Destruction Level (at ca. *97.00) and proceed downward to the level at ca. *90.00, which represents an unknown time in the Late Bronze Age (thirteenth to twelfth century B.C.).

The large and small finds presented here have been selected from the much greater number of inventoried objects from this sector (and the even greater number that were discarded or never inventoried) in order to present a general picture of the uses of different spaces and to provide a general chronological framework for the different levels of sector HoB. The following five chapters contain the discussion of the periods, from the Late Bronze Age to the middle of the sixth century. Then comes Part II, with a discussion of the finds from Pactolus Cliff; and finally, Part III of the volume presents a catalogue of the finds from HoB and PC to illustrate and back up our claims, accompanied by a second volume with plates containing photographs and drawings of each object.

⁵³ See Cahill 2017; Cahill 2019a; Dusingberre 2003.

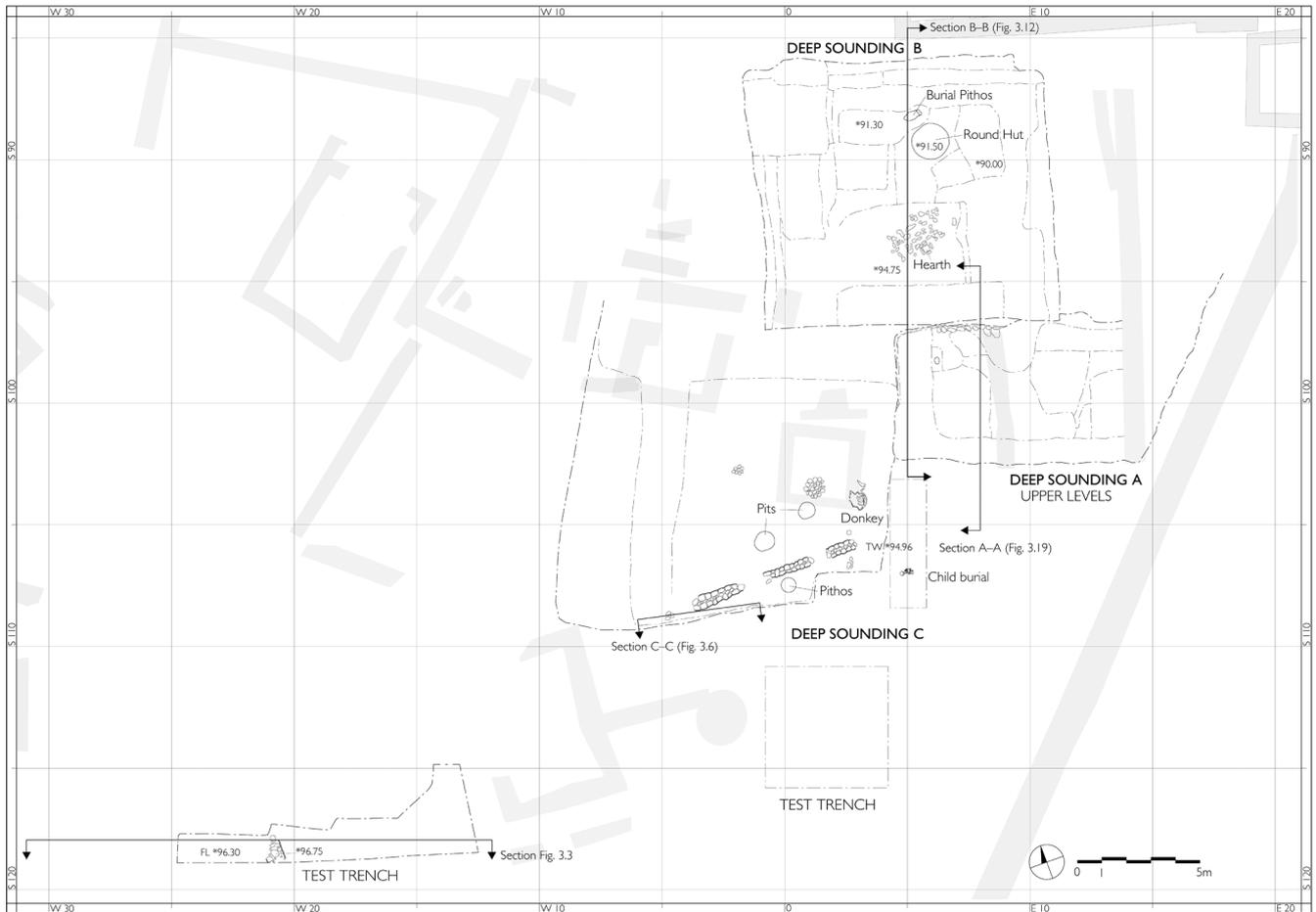


FIGURE 3.1 (= PLAN 3). The three deep soundings, A, B, and C, and some of the test pits, with Lydian IV features nearby.

Chapter 3

LATE BRONZE AGE AND EARLIEST IRON AGE

THIRTEENTH TO TENTH CENTURY B.C.

Because of the difficulties involved in clearing a wide area of HoB to the depth required to reach levels of the Late Bronze Age or Early Iron Age, sondages in a few areas were undertaken in 1960, 1962, and 1966; they are referred to in the preliminary reports as “deep pits,” but in this volume are called “deep soundings.”¹ The three deep soundings are all in the northeast area of the trench (Fig. 3.1/Plan 3) and were set close enough together to provide evidence that would be comparable to that from a wide continuous surface at the lower levels.

The stratigraphy of the three soundings displayed an appropriate uniformity, when one allows for the probable unevenness of the ancient surface and the slight slope downward to the north described in the Introduction. In all the soundings, ample numbers of potsherds and indications of organic matter were mixed with layers of clayey earth (exemplified by Fig. 3.3). In other words, the texture of the earth, when it had a heavy clay content, was a sure indication that we were in a habitation level. These layers were separated by bands of sandy gravel, sometimes containing a few worn potsherds, but frequently barren of any occupational material.

This finding is similar to the situation in the upper levels, except that on the South Side of HoB, thick bands of coarse gravel are less in evidence between *98.40 and *97.60, and sandy lenses are more frequent (Fig. 3.3). Although a surface or floor can sometimes be recognized,

these earth bands are better thought of as the remains of an occupational level brought to an end by flooding, only to be covered with erosional debris as a result of desertion and neglect. Judging from our experience in later levels, where there is wider exposure, not every band of clay in the separate deep soundings should be turned into a subphase, since isolated patches of occupational debris are often found at slightly different levels. One has to be content with positing continual but intermittent habitation over the long period of the Late Bronze Age and Earliest Iron Age.

Within the range of levels of the following period, Lydian IV, little differentiation of levels or strata could be distinguished, although bands of clay and soil, as well as some occupational debris separated by gravel bands, were identified (see Chapter 4).² But from the nature of the debris in Late Bronze Age levels, we can propose structures of the same kind as, but flimsier than, those found in the Lydian III Destruction Level at ca. *97.0 (see Fig. 5.1), to be discussed in Chapter 5. The evidence agrees well with the overall historical picture that suggests a gradual increase in settled populations, trade, prosperity, and eventually urbanism during the Early Iron Age across the Aegean region. It is however completely different from Gordion, where the site was remarkably urbanized, and home to several monumental buildings, by the ninth century B.C.³

¹ A number of other exploratory soundings, on a small scale, reached low levels. These are mentioned in connection with the areas from which they were started, in both sector HoB and sector PC.

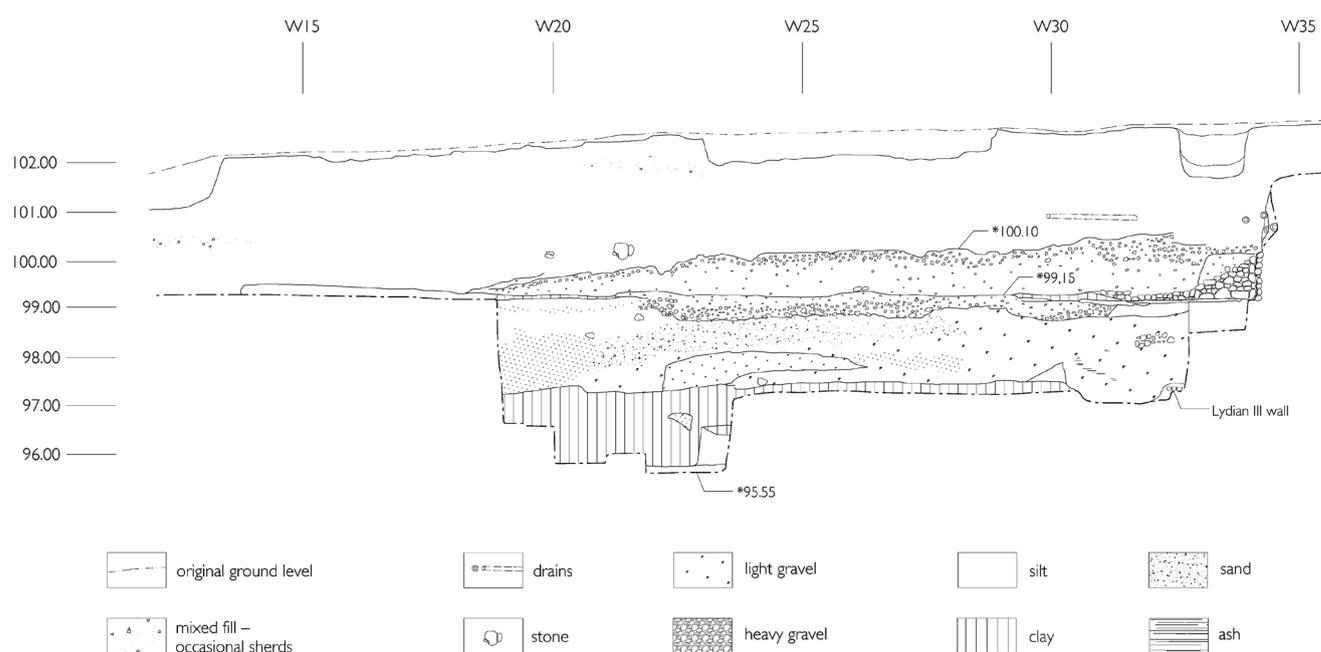
² Note the paucity of floors and walls from Lydian IV, the subject of the next chapter.

³ Rose and Darbyshire 2011; Rose 2013a.

FIGURE 3.2.
Southernmost scarp of sector HoB, at S120.
Middle Terrace East and Middle Terrace
West are visible higher up on the hill.



FIGURE 3.3.
South face of
test pit in South
Side of HoB at
W15–35, section
at S120
(see Fig. 3.2).



All of the deep soundings began at the level of the heavily burned layer of the late eighth century, below the Lydian III Destruction Level (see Chapter 5). A second burned level was located lower down, not necessarily the result of an attack but more likely a domestic fire.⁴ In the catalogue, finds from just below the Destruction Level (down to *96.5) have been placed in the Lydian III phase, and those from *96.5 to *94.75 in the Lydian IV phase, both discussed separately in the following chapters.

The catalogue of finds from each of the deep soundings starts with finds from the *94.75 floor. Thus, in each case, the deep soundings begin below Lydian III. This means that pottery and other objects that came from a higher level—in other words, those that were found above the levels of Lydian IV—are not considered part of the deep sounding, even if they come from the same grid coordinates as the deep sounding at the lower levels.

Let us postulate that the kernel of what was to become “Golden Sardis” originated during the Early Iron Age. We can even turn to the Herodotean tradition of the founding of the Heraklid dynasty in the late second or earliest first millennium⁵ and suggest that it reflects the memory of a renaissance or an indirect reference to closer political and economic relations with the Aegean. Some such pattern of events may be inferred from the radical change in the tradition of decorated pottery seen between the Early Iron Age and Lydian IV, to be described in the following chapter.⁶ We can at least allow the existence of a village, now that the remains of these deep soundings and the implications

⁴ At *95.08–94.56.

⁵ The main source for the descendants of Herakles founding a dynasty at Sardis comes from Herodotus (1.7 = *Sardis* M2, no. 26), where Agron is named as the first Heraklid king, 505 years, or twenty-two generations, before Candaules, although the family origins go back three generations earlier. Kaletsch 1958; Lanfranchi 1996; Haider 2007; Högemann and Oettinger 2018.

⁶ Seen between *95.00 and *94.00.



FIGURE 3.4. The upper part of Deep Sounding C, looking southeast, after the deep pit was dug (1966).

of the finds have been studied. For whatever the specific attributions of particular pots, imported or local, early or late, we must recognize the quantity and variety, and note the presence of the resources necessary either to acquire them through trade or to make them locally in imitation of external models. It is possible, too, that the thicker clay layers, the “major strata,” were the result of more sustained occupation and perhaps more prosperous times than we are accustomed to allow.

DEEP SOUNDING C

Because Deep Sounding C was the largest of the three soundings, and yielded the most features and artifacts, we shall discuss it first (even though it was excavated last), to be followed by Deep Soundings B and A, in that order.

In 1966 we reached the deepest levels excavated to that point at Sardis,⁷ digging down seven meters below the Lydian III Destruction Level. Although starting from a relatively wide area of exposure at ca. *97.00 (Fig. 3.4), at the late eighth century level,⁸ the trench was very small at its lowest level, the Late Bronze Age or possibly Middle Bronze Age, at *89.90.

Just over a meter below the destruction surface, about 1.7 m of thick bands of dense earth appeared.⁹ The upper 30 centimeters overlay a floor,¹⁰ indicated by patches of charcoal and groups of small stones resting on the surface, including a collection of stones piled up into a square (Fig. 3.5). In the considerable concentration of pottery at this level, pithos sherds were particularly abundant. Pithoi here are plainer than those found in earlier levels in this trench



FIGURE 3.5. Floor near the bottom of Deep Sounding C (at WO-5/S105-109 *95.5), with potsherds and a group of stones piled into a square at right, in shadow.

(see below, pp. 40, 45), and most are of red clay. Typically at this level, pithos sherds might account for 50–80 percent, by bulk, of a day’s finds, which would run from ten to fifteen wooden boxes.¹¹ Even allowing for the high number of pithos sherds, which take up a lot of room, this was a heavy concentration of pottery.

Despite the small size of the exposure, Late Bronze Age as well as Early Iron Age painted pottery¹² was recovered daily from these strata (see Figs. 3.11 and 3.12). It is noteworthy that these different types of pottery were found on the same levels.

The finds included many pieces that were stylistically similar to Greek Protogeometric and Geometric wares, and show either actual imports or close local imitations; they bear witness to contact with mainland Greece and its islands. Among the objects other than pottery from these strata were a stone celt (**HoB 241**) and a group of a dozen loom weights (**HoB 220–HoB 229**) as well as an iron sickle. Also of interest was a clay rack for holding an iron spit that would have been used for cooking food over the fire (**HoB 230**).¹³

⁷ Previous published accounts are to be found in Hanfmann, “SARDIS 1966”; Hanfmann and Waldbaum 1970, pp. 308–9; and J. Spier in Hanfmann and Mierse, *SPRT*, pp. 20–25.

⁸ At E5–W9/S98–109.

⁹ Between *95.8 and *94.1.

¹⁰ At *95.5.

¹¹ A box could hold five or six pithos fragments, and up to 250 small sherds of the tableware variety.

¹² **HoB 133, HoB 134, HoB 142, HoB 144, HoB 146, HoB 151, HoB 157, HoB 158, HoB 161**, and many other fragments.

¹³ *95.5–95.2. Note a complete example from Miletus: Weickert and Hommel 1960, pp. 48–49, fig. 41, with further comparisons.

FIGURE 3.6.
Pithos in Deep
Sounding C
(**HoB 216**). The
pithos neck was
broken and
found inside it.

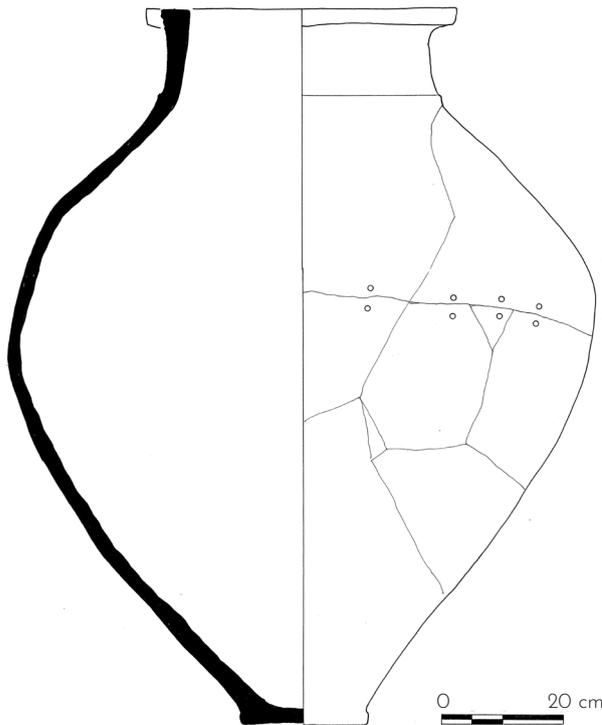


FIGURE 3.7.
Pithos **HoB 216**
as found, looking
east, with only its
neck projecting
from the floor at
*94.75 in Deep
Sounding C. It
was dug in the
ground beside a
flimsy stone wall,
which is visible in
the foreground
and continues
next to the pithos.



At the center of the area, a floor level emerged in association with a line of stones and a good deal of charcoal and a piece of iron.¹⁴ This area produced about fifteen pieces of painted ware, mostly Black on Red with concentric circles, and a little fine Gray Ware and Buff Ware as well as pithos fragments. There were a few artifacts of an occupational or

¹⁴ E1–W7/S105–109 *95.5–95.2. Reported in Fieldbook HoB 1966.III:113 (sketch). After conservation, the iron implement mentioned was shown to be a double hook.

domestic kind, namely, a straight bronze pin with a rolled end (**HoB 235**) and another that was not inventoried, probably because it was rather corroded; and also a strainer (**HoB 213**). From just above the floor came fragments of an oven or furnace grate (**HoB 251**). A large iron double hook (**HoB 238**) lay on the floor, and nearby, an iron sickle blade (**HoB 237**). The presence of these iron tools and a knife (**HoB 236**) suggests that the Iron Age began rather earlier at Sardis than is usually acknowledged.

This pattern of finds is paralleled at another floor level, just below *95.00,¹⁵ with perhaps a little more Gray Ware. This level is Late Bronze Age or earliest Iron Age. Here we found a long, thin bronze needle (**HoB 234**) and an iron nail,¹⁶ as well as six pieces of grinding stone and an iron sickle (**HoB 237**). A notable object, a piece of clay with stick impressions (**HoB 276**), substantiates the idea that some of these stones carried a wattle and daub superstructure. Whether this was a piece of wall or roof is not clear. It could be that the area was in operation only seasonally in this period, and buildings were left untended between times of use; however, the quantities of pithos sherds imply a real investment and suggest a degree of settlement in one place. The thickness and extent of the bands of clayey earth, and the quality of the occasional painted and imported wares and metal items, attest to a life more prosperous than that of hand-to-mouth subsistence.

Swift recorded quantities of monochrome pottery, especially Gray Ware, which we connect with the Anatolian tradition.¹⁷ By far the most notable find was a nearly complete red clay pithos, set in the floor at *94.75, with its own neck fallen inside it (**HoB 216**; Fig. 3.6). It had mending holes, which means that it could not have held liquid and must have been used for dry storage.

The pithos was dug into the ground with only its broken neck projecting above the floor (Fig. 3.7). Inside, in addition to its own neck, were one complete doughnut-shaped loom weight (**HoB 231**) and fragments of three others, as well as one complete hammerhead loom weight and fragments of four others.¹⁸ Also inside was pottery sufficient to fill four boxes; many of these pieces were other pithos fragments made of red or red-buff clay, often with a gray or black core. Typically they had a flat rim forming a ledge toward the outer diameter, a short vertical neck, an ovoid body, and a flat base. Many would have stood over a meter high. A few were decorated on the neck with incised cross-hatching, hatched triangles, or wavy lines, sometimes on raised bands.

¹⁵ At W4–6/S100–108.

¹⁶ The needle: L. ca. 0.12 m; the iron nail: L. ca. 0.045 m.

¹⁷ Levels from *95.8 to 94.1. G. F. Swift, "The Lydian Trench of the House of Bronzes: Final Report of the 1966 Season" (Sardis Expedition field report, 1966), pp. 3–4.

¹⁸ **HoB 223, HoB 224, HoB 225, and HoB 226.** See discussion of hammerheads on pp. 50–51.

Associated pieces of pottery, in addition to the pithoi, were fragments of a fine small Gray Ware cup (**HoB 23**) and a coarse hand-formed basin made of gritty clay that had been fired at a low temperature (**HoB 217**). Of particular importance were fragments of two Mycenaean kraters with wavy lines (**HoB 155, HoB 156**),¹⁹ fragments of two jugs or amphorae (**HoB 167, HoB 169**),²⁰ and the handle from a cup (**HoB 141**), all of which have been identified as Late Mycenaean or elegant local imitations. These pieces are particularly important for indicating contact between Sardis and the Aegean. Based on these fragments, the period to be assigned to this level (roughly *94.75) is Late Bronze Age. However, these levels have a certain fluidity because in a level basically overlapping this one, Protogeometric-influenced pottery was found.

The large number of pithos fragments provides telling evidence that either the material requirements for daily life in this period—Late Bronze or Early Iron Age—were quite different from those of the seventh century,²¹ or that remains from a specialized activity, like the processing and storage of liquid or cereal products, have been preserved. The pithoi noted here and in Deep Sounding B suggest that an area requiring storage of materials lay close at hand.

The painted and finer wares give a hint that this activity was not carried out in an isolated industrial area but was associated with household activities like eating and drinking as well as preparing food in the cooking pots. The walls of cooking pots at this time are thick and handmade (**HoB 30**), while in later periods, in Lydian III, they become thinner and more regular.

A high-arched bronze fibula (**HoB 233**) found in this area²² points to external relations with the Aegean world, since its closest counterparts are Greek Island types rather than those found to the east.²³ The Greek pieces were previously dated Geometric to Archaic,²⁴ but several more high-arched fibulae now known from Protogeometric graves at Iasos are similar to ours.²⁵



FIGURE 3.8. The flimsy stone wall at level *94.75 on the south side of Deep Sounding C, looking south.

A small, greenish schist disk with a lightly incised design of a goat or deer has been interpreted as a seal (**HoB 242**); but a decorated jar stopper or a game piece are more likely possibilities, since there is no perforation or handle for use as a seal. It comes from the same level as the arched fibula mentioned above (**HoB 233**).²⁶

We must rely on the stratigraphy and not the typology to determine the date of the deposits. At the very latest, this level (ca. *95.00) could be put around 900 B.C., because there is little gravel intervening between it and the floor level below. This floor at *94.75,²⁷ lying 0.25 m below the one just described, should be dated to the Late Bronze Age based on the painted pottery (see below).

At the south side of Deep Sounding C, and associated with enormous pottery numbers, were four surviving sections of a flimsy stone wall (Fig. 3.8; and plan, Fig. 3.1) that lay close to the pithos (Fig. 3.7).²⁸ Small stones, presumably the base for a mudbrick wall, stretched in a straight but interrupted line for about eight meters.²⁹ This wall was two to three stones in width where best preserved, measuring 40 cm wide and 20 to 30 cm high. Clusters of similar stones in the space to the north of the wall formed roughly circular masses about a meter in diameter and one stone high.

According to Swift's report, across the southern end of the sounding lay a bed of practically pure clay, much denser than the somewhat sandy earth directly above and below it, with indications of a habitation surface (Fig. 3.9).

A little below the eastern edge of the trench, at *94.7, was a large cup painted in a manner close to the Greek Protogeometric style (**HoB 1**). Analysis by neutron activation analysis (NAA) shows this to be of local manufacture.³⁰ Michael Kerschner noted that its low ring foot, instead of the high conical foot that was normal for Greek Protogeometric, could indicate a later date. Its decorative scheme is inspired by Protogeometric, but its shape is more

¹⁹ Penelope Mountjoy (2016) considers them to be LH IIIC.

²⁰ Originally published as all coming from the same piece (Hanfmann, "SARDIS 1966," p. 25, fig. 9), they were recognized as coming from three separate pots by Coşkun Özgünel when he visited Sardis; the mistake was corrected in Hanfmann and Mierse, *SPRT*, p. 225, n. 35. The pieces are stored together.

²¹ A similar tally of typical proportions for the seventh century would be: painted 40 percent; plain 40 percent; Gray Ware 10 percent; cooking 10 percent. Pithos would be much less common, and the fabric of Buff Ware much closer to painted ware.

²² Waldbaum, *Sardis M8*, cat. no. 670; W2.5/S103 *95.

²³ Waldbaum, *Sardis M8*, p. 113 for description, discussion, and bibliography. See also Caner, *Fibeln*; and Sapouna-Sakellarakis, *Die Fibeln*.

²⁴ Caner, *Fibeln*, p. 39, following Waldbaum, *Sardis M8*. Our fibula is closest to Sapouni-Sakellarakis's and Caner's type IIIe. Caner's no. 69 is our piece.

²⁵ Those from Iasos, Caner type IIIb, are similar to our type, Caner type IIIe. Caner, *Fibeln*, p. 37, type IIIb, nos. 49–54. See Vassileva 2013.

²⁶ E1–W1/S107–108 *95.4–95.2.

²⁷ At ca. E1–W5/S107–109 and extending as far north as S99.

²⁸ At W0–5/S105 *94.75.

²⁹ From ca. W5/S109 to E3/S106.

³⁰ M. Kerschner's unpublished analysis in 2004 (sample Sard 40). He discussed this and related pots during a pottery workshop at Sardis, July 1–2, 2016.

FIGURE 3.9. Section showing south face of Deep Sounding C (W1-6/S108.5-9; section C-C in Fig. 3.1).

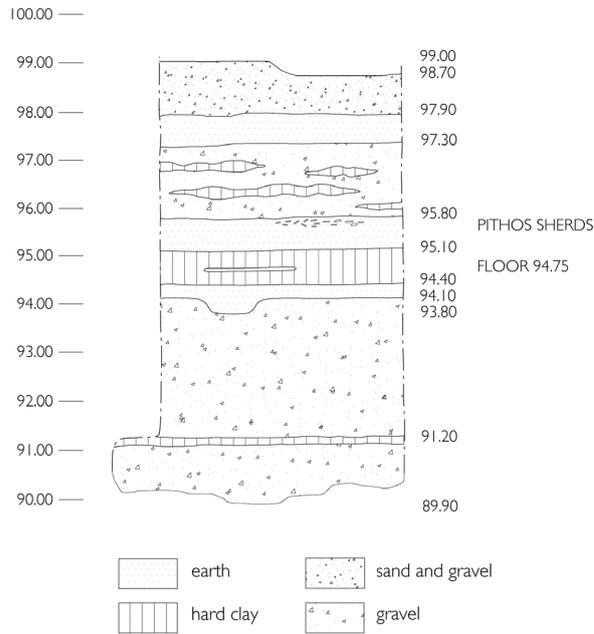


FIGURE 3.10. The bones of a donkey found near the bottom of Deep Sounding C, at *94.2. Oddly, the ribs from only one side were present.



like Middle Geometric examples. Overall Kerschner would describe these as “sub-Protogeometric” and estimates a date in the ninth century or early eighth century B.C. However, he acknowledged that local developments in shapes could be different from examples along the coast, and we would argue for an earlier date for the Lydian examples. **HoB 1** was found near **HoB 155** and **HoB 156**, which are actual Mycenaean or sub-Mycenaean kraters.³¹

Another Lydian Protogeometric cup (**HoB 2**) was found nearby, and other pottery included two cooking pots (**HoB 30** and **HoB 31**), a deep Gray Ware bowl (**HoB 18**),³² and about half of a shallow Gray Ware cup with a handle scar. Taken together, these pots appear to belong toward the end of the eleventh century, based on correspondences with well-studied items from the mainland Mycenaean world as well as from Chios.³³

³¹ Note that those two do not come from the floor but from fills potentially below the *94.75 floor, to *94.2.

³² It is similar to **HoB 66** from Deep Sounding B, found at about the same level.

³³ Hood 1986.

Two ancient pits of about one meter in diameter (at W2/S106 and E2/S104) were lined with a heavy layer of charcoal of 2–3 cm in thickness. They were presumably dug down from a floor that is apparently the same one observed in Soundings A and B at nearly the same level (see below, pp. 44–45, 48).

Half a meter below the floor of *94.75, at about *94.2, and not far from the pithos and wall described above, was the surprising discovery of the bones of a donkey (Fig. 3.10). Swift’s report describes the find:

In the brown earth below this floor, a row of stones 1.20 meters long, some of the stone being flat and set on edge, projected from the east face of the excavation. Directly northwest of these stones, the partial skeleton of a small but apparently mature donkey (?), curiously missing the ribs from one side, lay on its right side.³⁴ Nearby were the remains of another small pit that penetrated from the base of the brown earth into the sand below. The deepest part of the sounding³⁵ produced only gravel and three sherds: one gray, one pinkish [**HoB 46**], and one red with a coarse body. It was impractical to dig any deeper.

Closely associated with the stratum in which the donkey appeared was a small piece of bronze that may well be the catch mechanism from a fibula (**HoB 36**). If this identification holds, it will be one of the earliest known from western Anatolia, strengthening our impressions of the important connections with the Aegean coast in this period.³⁶

An iron knife blade (**HoB 236**) comes from just over the floor level above the donkey and rather to the north of the bones themselves. It had been made with sophisticated hammering and folding techniques. A second iron knife (**HoB 37**) was found close to the level and findspot of the donkey (E3-5/S100-102 *94.4–94.24), together with the leg of a three-legged cooking pot (**HoB 33**). The finding of objects of iron, a material still unusual at this early date, attests to the importance of the area and the skills of the inhabitants. The other material has a domestic flavor, in the form of cups, jugs, and storage jars. The evidence for household activity is provided by artifacts associated with the life and tastes of the Aegean people of this period, rather than those of inland Anatolia. Other than these items, there were few finds associated with the donkey, and the reason for the animal’s presence remains unknown. It is remarkable that the bones of the animal were undisturbed, given that only one side of its rib cage was found. This fact, and because two knives and a cooking pot were found nearby, makes one wonder whether

³⁴ At E3/S104 *94.20.

³⁵ It was taken to *91.9 and a small area on the east side to *89.9. The previous day’s digging, at *92.4–91.9, in a clayey material, produced less than a quarter of a box of sherds, 80 percent medium to fine orange-buff ware; 10 percent coarser orange-buff; and 10 percent coarser red-brown cooking pot.

³⁶ Caner, *Fibeln*, p. 200 (esp. Iasos and Caria).

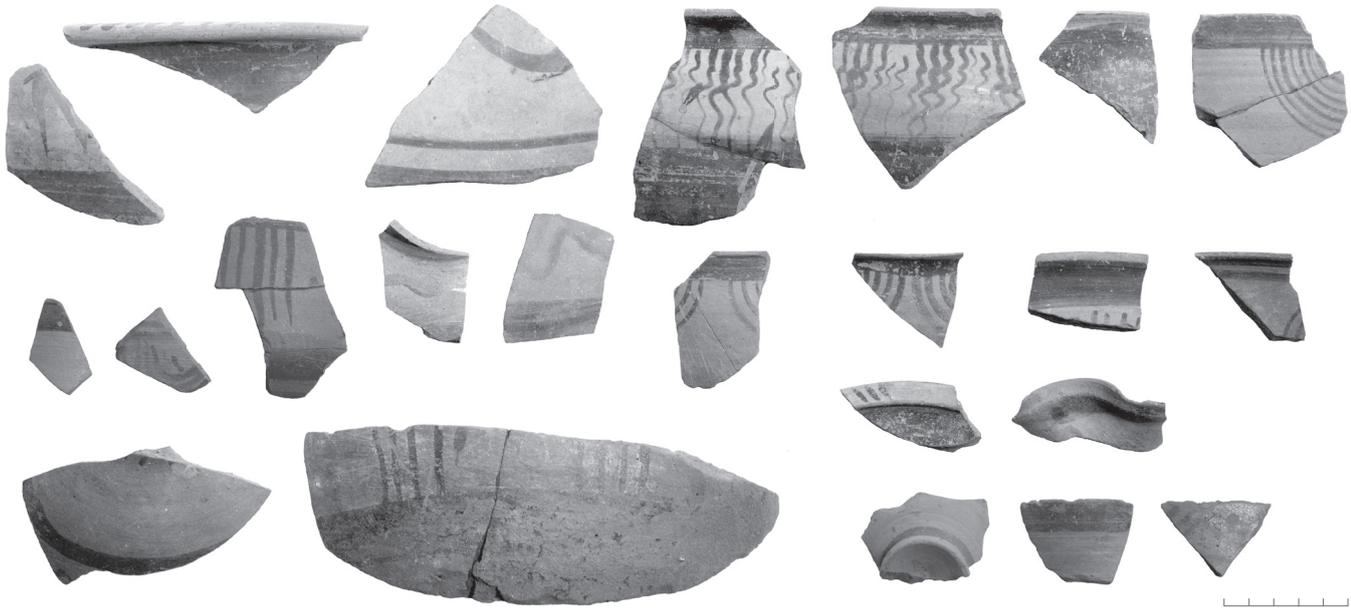


FIGURE 3.11. A selection of later Mycenaean and Lydian Protogeometric potsherds found near each other in Deep Sounding C. Assembled by G.F. Swift, Jr.



FIGURE 3.12. Mycenaean-influenced and Iron Age potsherds found near each other in Deep Sounding C. Assembled by G.F. Swift, Jr.

perhaps the locals were making donkey stew, and had cut off the other half, as one would a “side of beef.”

Additional finds from on or below the floor at *94.75 include a small flattened and perforated bronze bead with a zigzag design on the exterior (**HoB 35**), a bone toggle (**HoB 38**), a Gray Ware bowl fragment (**HoB 16**), and about two hundred painted sherds (Figs. 3.11, 3.12).³⁷ While only a

few sherds were closely associated with patches of floor, the totality forms a coherent group in which pieces stemming from the sub-Mycenaean tradition are found with pieces that are distinctly Protogeometric. The two styles appear to be contemporary at Sardis, and both were even found on the same floor (at *94.75), as described above. While

imitation, is an interloper that cannot belong here; it must have been kicked in from the trench above.

³⁷ A black-glazed rim (P66.188), Attic or a top-quality Ionian

FIGURE 3.13. Bones of a small child lying in a fetal position in a clay-lined pit beyond the southeast corner of Deep Sounding C. Eleventh or tenth century B.C. An earring was found beneath the head.



some of the Bronze Age sherds may be residual, displaced from lower levels, it is possible that earlier styles continued to be used at Sardis well after they had gone out of fashion in other places. Given the later tendencies to conservatism among Lydian potters, there should be little surprise in their having continued an old style while welcoming a new one. This is, of course, most easily argued if all the pieces are local versions, but several have been regarded as imports (**HoB 155**, **HoB 156**, **HoB 169**), and so have one or two of the Protogeometric sherds with particularly glossy paint. The overwhelming majority are clearly local in spite of their high quality.

Given the limited exposure and the difficulty of discerning actual floors, it is not possible to insist on a significant chronological division between the level at *94.75 and that at *94.2, although a gap is likely in view of our experience of the buildup of debris in later levels. The pottery below *94.2 (**HoB 24**, **HoB 27**, **HoB 29**, **HoB 39–HoB 52**) is all coarse ware, including pithos or cooking ware, or else reddish micaceous or plain buff monochrome. Floor or no floor, it is clear from the change in the pottery below ca. *94.2 that we are at the transition between the Iron Age and the Bronze Age.

Test trenches were dug in 1983, 1984, and 1985 in order to further clarify the evidence from Deep Sounding C.³⁸ The stratigraphy was similar to that of the earlier finds in the deep soundings, but the ceramic finds were inconclusive. However, an inhumation burial of a small child was found under or beside what had been the wheelbarrow ramp for one of these test trenches farther to the south (Fig. 3.13; see Fig. 3.1). The burial rested in layers of water-deposited silt, gravel, and sand, at about E5/S107, the level being about *94. The child, lying in a fetal position in a clay-lined pit (diameter ca. 0.50 m), was found with an earring under its head. This burial is thought from the stratigraphy to date from the eleventh or tenth century B.C.³⁹

³⁸ Greenewalt, Rautman, and Meriç, "SARDIS 1983," pp. 18–19; Greenewalt, Cahill, and Rautman, "SARDIS 1984," pp. 33–34; Greenewalt, Rautman, and Cahill, "SARDIS 1985," p. 84.

³⁹ Greenewalt, Rautman, and Cahill, "SARDIS 1985," p. 84.

DEEP SOUNDING B

Exploration of the deeper levels in the Lydian Trench in sector HoB was attempted also in 1962, when an area measuring roughly 15 × 10 m⁴⁰ was opened at what would become Deep Sounding B (Figs. 3.1, 3.14). A burned level at *98 to *97.75 corresponded well with the "upper burning" level found in Deep Soundings A and C,⁴¹ now interpreted as the late eighth-century Destruction Level (Lydian III, see pp. 57–58 below).

Below that level, floors for supposed occupation levels were difficult to distinguish for the next two and a half meters,⁴² where the matrix is described as "earth, pebbles, debris" on the section drawing (Fig. 3.14). The ceramics from these strata, grouped with the Lydian IV phase, included important Early Iron Age examples such as a trefoil jug neck in the duller version of Black on Red (**HoB 246**) and the foot of a much heavier white Bichrome krater decorated by a hatched meander with white paint (**HoB 245**). The pieces all can be seen as forerunners of later popular styles, a point that is important in the discussion of Lydian artistic origins and cultural borrowing. In Deep Sounding B there were no obvious floors and not many strikingly decorated pieces of pottery among the overwhelming mass of pithos and Gray Ware sherds. A find unique at Sardis was a small Gray Ware globular vessel (**HoB 250**) decorated with oblique ridges on the lower body, and an incredibly fine incised wave-like pattern, bordered by even finer hatchings above and below the wave pattern. It was handmade, and might be an import from Troy.

A second thick burned layer at *95.00, called the "lower burned level," corresponds to one in Deep Sounding A, but we did not find a comparable burned level in Deep Sounding C. No evidence of a building in the area survives, and it is assumed that the lower burned level was the result of burning at an outdoor or summer facility, rather than due to hostilities.

*94.75 HEARTH LEVEL AND BELOW

(CA. 1100–1060 B.C.)

At *94.75, at a level 0.25 m below the beginning of the lower burned level, was found a clear floor level, at least part of which, to the north and east, seems to have been cobbled. Here was also a hearth made of fragments of pithos and stone slabs over an area about 0.50 m square at E11/S94 at *94.75 (Figs. 3.14 [marked **h**], 3.15). It was made of two stone slabs standing on edge with the base of a pithos forming the third side. Ash and a few bits of animal bone were recovered from the hearth and its surroundings, as well as sherds

⁴⁰ At ca. *103–102, E0–10/S85–97. See Hanfmann, "SARDIS 1962," pp. 4–9.

⁴¹ At ca. *97.75. Compare Deep Sounding C at *97 and Deep Sounding A at *97.65.

⁴² Between *97.5 and *95.0.

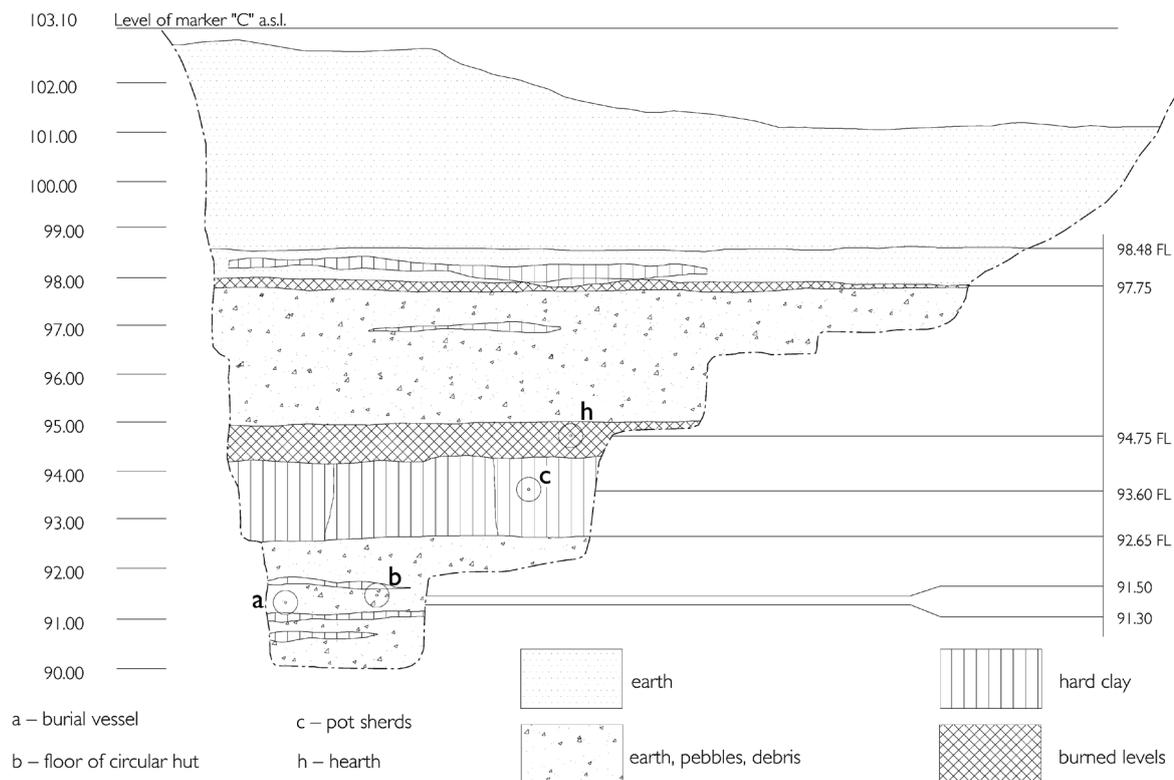


FIGURE 3.14.
Section B–B
in Deep
Sounding B.

of red-buff plainware and cooking ware, and pieces of a Gray Ware bowl (**HoB 54**). In addition, one fragment of a heavy-walled pithos lay within the hearth, and fragments of pithos, including many pieces decorated with incised patterns from one pithos (**HoB 57**) and other fragments that may come from different jars (**HoB 58**, **HoB 275**), were also strewn about on the floor. The designs include incised diamond patterns, horizontal herringbone bands with three and five rows of diagonal incisions, and patterns made by drawing a finger through the damp clay (**HoB 57** and Fig 1.6). The proportions of the ceramic material at the hearth level are 45 percent Gray Ware, 45 percent coarse red ware, 5 percent pithos, and 5 percent painted wares.

Below the hearth, the occupation levels in clay that continued for another three-quarters of a meter, to *94.00, produced a few painted sherds of importance for understanding early Lydian pottery, such as early examples of the use of concentric semicircles (**HoB 65** and **HoB 73**). Also below the hearth, to the east and south of the floor, the ceramic material is similar, including pithoi with exactly the same patterns as mentioned above: 45 percent pithos, 30 percent red-buff ware, 10 percent cooking pots, 5 percent Gray Ware, and 10 percent finer and painted wares.

A piece of a large domical pithos (?) lid with red concentric circles is covered with a thick reddish slip over a coarser body (**HoB 56**). It has faint traces of a handle attachment at the rim, suggesting that it had two or four loops on the circumference. This unusual piece is perhaps in the Anatolian traditions prevalent in Lydian IV and continuing into the seventh century. A sherd from a large vessel painted with matt Black on Red checkerboards also belongs to the same tradition (**HoB 61**).



FIGURE 3.15.
The hearth at
*94.75 in Deep
Sounding B,
looking south.
Two stone slabs
and the base of
a pithos form
the edges of the
hearth, and many
fragments of
pithos lie about.

Still lower, near the west edge of the sounding, at *94.1–93.9, were found a part of a fine black whetstone 4 cm long (**HoB 102**) and a piece from the middle of a granite quern with traces of burning (**HoB 103**),⁴³ a pithos fragment with a hole through it (**HoB 71**), and a shoulder fragment of a pithos (**HoB 62**). Gray Ware was scarce in this area.

A patch of floor at *93.7 was identified by bits of charcoal, small stones, and possibly a piece of mudbrick.

At the southern edge, another apparently contemporary small patch of floor, ca. 0.30 × 0.60 m, was made of limey plaster with pebbles. An unusual find here was a cache of a dozen ceramic pieces resembling Lydian breadtray, but thicker (0.016–0.02), among which only one piece had a rim or raised edge (**HoB 88**). They are, however, smooth on one side and show burning on the rough side just like

⁴³ A second quern, found nearby, was cracked and left in place.

FIGURE 3.16.
Floor of the round hut at *91.75 in
Deep Sounding B, looking north.



the later breadtrays. Perhaps they were from the center part of a basin such as was found at higher levels in Deep Sounding C (**HoB 217**). In addition, an iron knife blade found just above the floor level (**HoB 101**) is one of the earliest iron objects yet found at Sardis, and is comparable in level and context, again, to the two knife blades found in Deep Sounding C (**HoB 236** and **HoB 37**).

A floor described as a layer of hard clay was encountered at *93.60, where there was a concentration of potsherds (**c** on Fig. 3.14). Among these was a buff sherd with brown paint (**HoB 75**), the upper part of a trefoil jug (**HoB 76**), the body sherd of a large jar (**HoB 77**), and another painted sherd.⁴⁴ A boar's skull was recorded at that level too but seems to be an isolated piece, without any way of determining a context. Perhaps it was the remains of someone's dinner.

Another floor was found at *92.65, and below that was another mixed layer.⁴⁵ Within this stratum were three separate levels: the first, with disintegrated building material;⁴⁶ the second with a floor and outline traces of a circular hut (Fig. 3.16);⁴⁷ and below that, a pithos burial. A total of one box of sherds was retrieved from a small area ca. 2.0 × 1.5 m at the level to *93.4, and a decided change in the pottery was noted when compared to samples from above: the proportion of pithos sherds was much smaller, and some of them were of a different, yellow-buff ware and were finer and smoother. There were fewer gray monochrome examples, but red-buff ware was about the same. There was relatively more fine and polished Buff Ware. This transition was found across all three soundings, as discussed below.

⁴⁴ P62.470.

⁴⁵ Similar to that between *97.75 and *95.0.

⁴⁶ Between *92.5 and *92.0.

⁴⁷ At *91.8–91.5.

ROUND HUT AND CREMATION BURIAL

The lowest level at which actual occupation could be established in Deep Sounding B consisted of the floor and outline of the circular hut just mentioned (Figs. 3.1 and 3.14; labeled **b**);⁴⁸ it was about two meters in diameter. A patch of “red burned floor” of ca. 1.70 × 0.70 m was found at *91.75 within an irregular layer of reddened earth with many pieces of charcoal.

Associated with this floor were numerous lightly baked fragments of wattle and daub from the walls or roof of the structure (Figs. 3.17, 3.18). The fragments themselves are small, and the imprints preserved on them do not indicate the use of large timber or poles: the maximum diameter of any of the imprints was about one centimeter. The imprints were generally parallel, although some had two series of impressions crossing at right angles. The striations are more compatible with those found on the stems of stout grasses and reeds such as *Arundo donax*, a large Mediterranean grass not unlike bamboo; there is no sign of the branching one would expect if twigs had been used.

The circular shape of the hut was quite clear, but because so few indications of the structure were preserved and the floor was not substantial, we must imagine a distinctly flimsy, perhaps temporary structure. The pottery associated with it consisted of less than half a box, of which about 50 percent was cooking ware, together with a few pieces of pithos and coarse ware, and twelve pieces of finer yellowish buff ware with a pink core.⁴⁹ A few of these were darkened, perhaps by fire, and two or three were slightly polished. One piece was apparently a

⁴⁸ At *91.5–91.0. See Hanfmann and Mierse, *SPRT*, p. 22 and notes, where the relevant bibliography is collected.

⁴⁹ Including Uninv. HoB 26/viii/62 #1 and #2.



FIGURE 3.17 (L). Fragments of baked mud showing the imprints of reeds from the roofing (?) of the hut in Deep Sounding B.

FIGURE 3.18 (R). Detail of baked mud showing the imprints of reeds from Deep Sounding B.

self-standing spit holder or some sort of rest for kitchen tools (**HoB 106**).

About 0.20 m below the level of the hut floor, and about one meter to the northwest,⁵⁰ was found a pithos that had been used for a cremation burial (**HoB 105**; labeled **a** in Fig. 3.14 and visible in Fig. 3.1). The complete but broken pithos lay on its side with its neck facing east (Fig. 3.19). Inside were broken and partially burned human bones. They were not well preserved, but enough fragments were left to show that the deceased was an adult and that the long bones had been broken before they were put inside. The pithos contained nothing else except earth and stones that may originally have been used to stop up its mouth. The lack of grave goods is entirely in keeping with the poverty of the hut remains. The most significant fact is the very existence of a cremation burial of this era—the Late Bronze Age—in western Anatolia.⁵¹

Excavation continued in Deep Sounding B to ca. *90.00, 13 meters below ground level, in a small area (3.1 × 1.2 m) to the east of the hut floor. A new level of ca. 0.40 m of brown earth was encountered here after digging through gravel with “strips of earth and pockets of concentrated burning.” The sherds were similar to those found with the hut, with a few additional potsherds of the same buff polished ware and some pithos fragments. Excavation in this area, as in the other deep soundings, never reached a sterile level even though finds became sparse enough to indicate that this specific place was uninhabited.

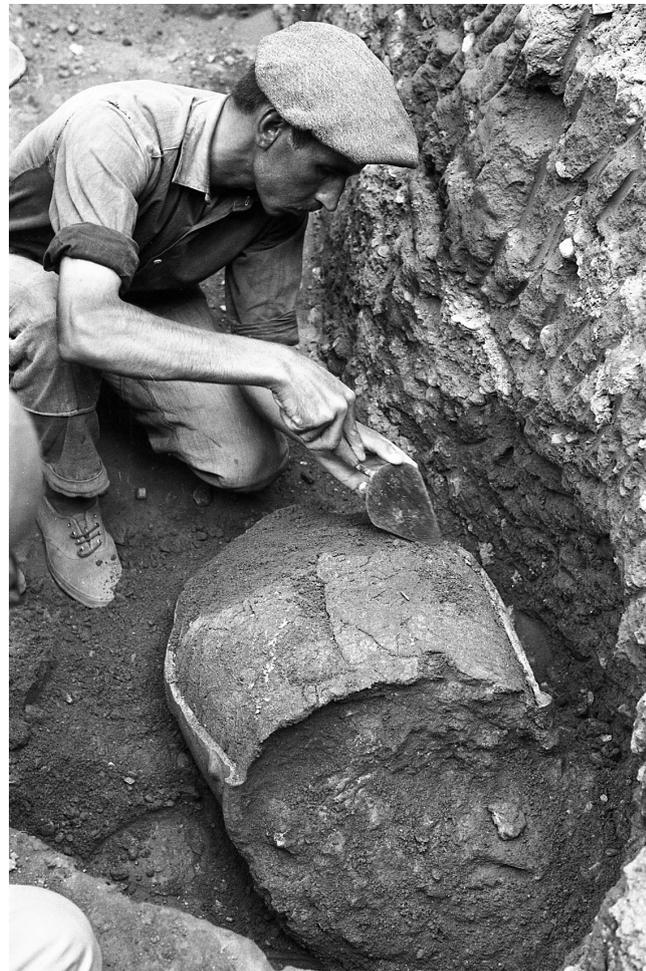


FIGURE 3.19. Mustafa Gürtekin excavating the Late Bronze Age pithos that had been used for a cremation burial in Deep Sounding B. Its opening faced east.

⁵⁰ At *91.7–91.3.

⁵¹ The evidence and literature for cremation burials was extensively reviewed by J. Spier in Hanfmann and Mierse, *SPRT*, pp. 20–22. A cemetery at Beşiktepe near Troy is reported by Korfmann (1984), but the Sardis example remains unique in southwestern Anatolia.

FIGURE 3.20
Section A–A of Deep
Sounding A. See Fig. 3.23.

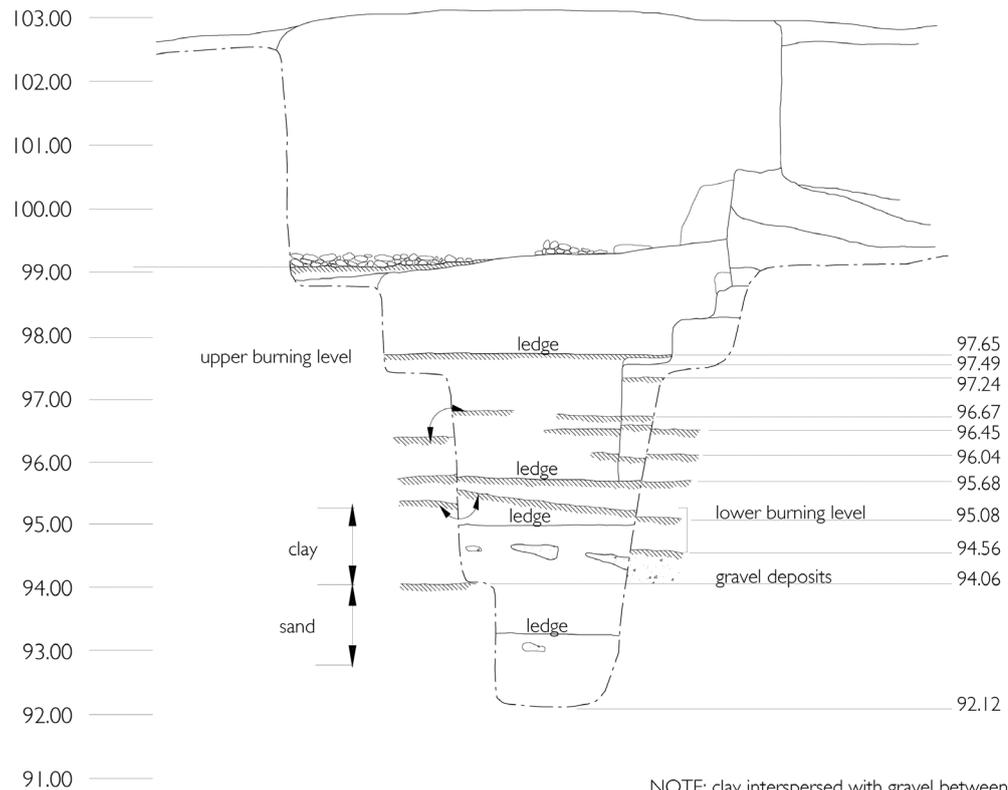


FIGURE 3.21.
Deep Sounding A
(top right corner)
when excavation
there was just
starting, looking
south. The wall
in the center is
from Lydian I,
and the regular
wall of stones and
bricks at the left
is from the Roman
Building R, which
marks the eastern
edge of the
Lydian Trench of
sector HoB (1960).



DEEP SOUNDING A

Deep Sounding A, dug in 1960, started as an area ca. 8×5 m (Fig. 3.21).⁵² The purpose of this trench was to get a better sense of the stratigraphy at lower levels than had been possible in excavations at Sardis thus far. What was found here and somewhat tentatively defined as Late Bronze Age and Lydian IV was later confirmed in the other two deep soundings, dug in 1962 (B) and 1966 (C), as already discussed.

Below the Destruction Level of Lydian III,⁵³ five harder surfaces were distinguished between layers of pebbly

gravel, defined in some cases by a stub of wall (Fig. 3.20).⁵⁴ One can track the change in the proportions of different classes of pottery as the sounding was deepened. In the upper levels beneath the Destruction Level, several Greek Geometric or Lydian imitations of the same were found (Fig. 3.3): **HoB 312** (a Greek import), **HoB 311**, and **HoB 313**, as well as pithos fragments, including one (**HoB 264**) bearing the thumbprints of the potter, who apparently added an extra ring of clay near the rim to thicken and strengthen it.

Geometric pottery continued to appear in even lower levels (*95.41–95.2), including **HoB 254**, **HoB 257**, and **HoB 258**. There were also imitations of sub-Mycenaean and Mycenaean pots and possible imports (**HoB 107** and **HoB 255**). A glass bead (**HoB 267**), probably the earliest piece of glass from Sardis, and a bronze button were also found in Deep Sounding A. As the digging advanced downward, we continued to find Mycenaean imports (**HoB 120**), but there was a higher proportion of coarse ware, especially pithos fragments. Then came an increasing proportion of first gray and then reddish and buff monochrome near the lowest levels. A few sherds were still found at the bottom (Fig. 3.24), and the excavation never reached sterile soil.

A tabulation of finds here gives an idea of the proportions in the lowest levels of the sounding, and in some cases a

⁵² The sounding started from level *97.65 within the area E4–14/S97–102, and reached down to level *92.12. See Hanfmann, "SARDIS 1960," pp. 12–16.

⁵³ At *97.65, called the "Upper Burning Level" and ascribed to the Kimmerians in the early reports, such as Hanfmann, "SARDIS 1960," pp. 12–16. See Chapter 5, pp. 57–58.

⁵⁴ The layers were at *97.49, *96.67, *96.45, *96.04, and a much thicker layer extending from *95.08 to *94.56. This last level does not show on the plan, Fig. 3.1, because it was drawn before we reached the lower depth.



FIGURE 3.22. Apparently purposely laid stones near the bottom of the trench in Deep Sounding A.

notation of the quantity of sherds recovered provides a way of gauging what weight may be placed on the figures. The finds were 30 percent coarse red, 20 percent cooking ware, and 50 percent Buff Ware. A large lump of iron (**HoB 119**; axe or adze) is one of the earliest iron objects ever found, thought to have been made by the layering technique, which involves hammering together iron blocks with different carbon contents.⁵⁵

A brief description of specific sherds helps to enhance the picture at each of the different levels. Several Greek Geometric sherds and Lydian imitations from different floor levels below the Destruction Level⁵⁶ offer a measure of control on the absolute dating. Below the *95.1 level, intriguing connections with the Greek world are suggested through imports or local imitations of Mycenaean, sub-Mycenaean, and Geometric pieces.⁵⁷

The trench was progressively narrowed and ultimately reached the small area of only 1.50 × 1.00 m at the bottom, where several apparently purposely placed stones had been laid (Figs. 3.22, 3.23). At the very bottom of Deep Sounding A, from *93.80 to *92.00, the excavator ran into a deposit of sand that yielded only isolated sherds and bones and a horn core.⁵⁸



FIGURE 3.23. Deep Sounding A from the surface, looking 11 meters to the bottom.



FIGURE 3.24. Sub-Mycenaean and Lydian Geometric sherds and one imported Greek sherd (**HoB 312**, bottom center) from Deep Sounding A.

⁵⁵ Waldbaum, *Sardis M8*, cat. no. 127. Extensively discussed in *Sardis M8*, chapter 5, p. 178 (Fieldbook HoB 1960.iv:8).

⁵⁶ Ca. *97.65 to as low as *96.7.

⁵⁷ Hanfmann, "SARDIS 1960," p. 14, nn. 10–16, fig. 5. Hanfmann and Mierse, *SPRT*, pp. 20–25. It is not always clear which are imports and which are local products.

⁵⁸ Hanfmann, "SARDIS 1960," p. 16.

CONCLUSIONS

The deep soundings that were undertaken to explore the earliest levels in 1960, 1962, and 1966 progressively validated the previously speculative conclusions about the finds and their meaning. In 1960 the pottery suggested connections with the Mycenaean Greeks; in 1962 this was shown to be even more likely, along with direct evidence for occupation in the Bronze Age in the form of a small hut and a cremation burial within a pithos; and finally, in 1966, a sufficiently large area was opened—to a depth of more than ten meters—that demonstrated convincing connections with the Mycenaean world. The sequence revealed at Sardis offers a framework for ordering the finds from the Late Bronze Age in a larger geographical area, where until recently most known artifacts had come from accidental finds or limited excavations.⁵⁹

In terms of prehistoric sites, Sardis lies in a wide area of virtually unexplored territory that ranges from Beycesultan and Kusura to the east, Troy and Yortan to the northwest, Aphrodisias to the southeast, Bayraklı and Klazomenai/Liman Tepe to the far west, and Kaymakçı to the west (see Figs. 2.1 and 2.7). There is no lack of intermediate sites, but they are only now being systematically investigated.

During the Late Bronze Age, a burst in the production of painted pottery imitating Mycenaean Greek prototypes in local fabric was seen at Sardis as well as at Troy.⁶⁰ But the native preference for monochrome wares remained constant, and the stratigraphical analysis reported over the years shows that as one descends to earlier levels in the excavation, there is a marked increase in monochrome wares whose profiles continue to be dependent on Anatolian prototypes. As a result of closer study of the material from Deep Sounding C, it is clear that many of the earlier Lydian shapes are closer to an Anatolian tradition than had been realized at the time of excavation. Pieces that had seemed odd, rare, or out of place as they were found can now be put into the pottery sequence, and accepted as being contemporary rather than intruders from earlier levels. Painted pottery does not disappear, but becomes rare in our sample until about the middle of the eighth century (or a bit earlier), when both Black on Red and Brown on Buff wares become more common.

The deep soundings thus revealed that Sardis was already a place where Greek and Anatolian cultures mingled. The cultural connections that are well known from the time of Alyattes and Croesus in the sixth century, specifically reflected in the Greek literary tradition,⁶¹ were already

beginning in the Late Bronze Age. There are interesting affinities within the pottery finds at those early levels: on the one hand what one might call an Anatolian *koine*, showing a preference for monochrome, and on the other, shapes and a painting vocabulary that point toward Mycenaean and Greek Protogeometric styles. This is a situation also clear at Troy and Old Smyrna,⁶² and it is being observed at an increasing number of other places in western Anatolia as more sites are excavated and more tombs come to light.⁶³

At Sardis the quantity of sherds leaning toward Greek Protogeometric is higher than it is at Troy, and the Mycenaean is lower,⁶⁴ but in both styles, most pottery at Sardis is to be regarded as a local version inspired by Greek imports. Trefoil jugs, cups, and kraters are the most popular shapes in Lydian versions of Protogeometric; jugs and kraters are common in gray and tan wares. Buff Ware, usually inspired by Anatolian sources, predominates among monochrome fabrics at this period, and within that category the color is a pinker and a yellower version than in similar wares from later periods. Gray Ware is still found as low as the gravel layer that belongs to the Bronze Age.⁶⁵ The proportion of Gray Ware increases as one moves upward in the trench until it dominates in the ninth century.⁶⁶ The favorite shapes in monochrome are the same, be they tan or gray, and the color seems to be a question of taste, since examples of several colors occur side by side.

The ceramic artifacts other than pottery most frequently found in these early levels are cylindrical hammer-shaped objects (called hammerheads). They are narrower in the middle section, which is pierced transversely, and have been identified as loom weights, even though they have a much heavier weight module than those from the eighth century and later. With a texture more like mudbrick than pottery, they are quite lightly fired, as is especially noticeable in those with temper. The light firing seems to have been intentional, which contrasts with later usage, because the texture is uniform and no crude pieces or half-baked fragments were found. The hammerhead (**HoB 34, HoB 220–HoB 229**)

military expeditions are described in Herodotus Book I, for example I.16 on Alyattes' sack of Smyrna; I.46ff. on Croesus' dealings with Delphi; and I.70 on general relations with Laconians.

⁵⁹ See Blegen, Boulter et al. 1958, pp. 254–55, pls. 242–48, 276–79; and Akurgal 1983; compare pls. 6 to 9.

⁶⁰ The finds from Iasos are the best described, but the tombs at Panaztepe near Menemen offer tantalizing possibilities, and news of other finds keeps trickling in. For Iasos: Levi 1961–62; Levi 1965–66; Levi 1967–68; Levi 1972; Laviosa 1973. Panaztepe: Erkanal 1989; also Ersoy 1988. Others are mentioned in M. J. Mellink's annual newsletters in the *AJA* as well as in *Archaeological Reports*. See also Greaves 2012; Stampolidis, Maner, and Kopanias 2015.

⁶¹ Blegen, Boulter et al. 1958, pls. 302, 314.

⁶² Between *90.8 and *89.9. Among the sparse finds at the very bottom of Deep Sounding C, one of only three sherds was a piece of Gray Ware, the second was a stick-polished sherd of reddish-orange micaceous clay (**HoB 46**), and the third was a coarse-bodied red one.

⁶³ Ca. *95.5 and above.

⁵⁹ Surface surveys by James Mellaart, David French, and others: Mellaart 1954; Mellaart 1955; French 1955; and more recently by C. H. Roosevelt. But see now Roosevelt 2009; Roosevelt and Luke 2009; Roosevelt 2010; Roosevelt et al. 2018.

⁶⁰ Blegen, Boulter et al. 1958, pls. 276–79.

⁶¹ Extensive comings and goings on economic, diplomatic, or

is quite different from the later pyramidal loom weight (see pp. 103–104), and is rare elsewhere; however, numerous examples were found at Klazomenai, and a single example can be cited from a grave at Exochi dated to just after 700 B.C.⁶⁷

In addition to loom weights and spindle whorls, a considerable number of pieces from coarse, fired basins and fire grates (**HoB 251**) are recorded, and there is frequent mention in the fieldbooks of fragments of fired mudbrick found in the fill. One wonders if a small-scale industrial center had been in the area from early times. This possibility should be considered when evaluating the frequent and persistent remains of burning, for which specific and hostile connections have often been suggested.⁶⁸

Other cultural objects are hardly common enough to establish anything more than a hint of the pattern of life, and certainly do not allow us to recreate many specialized activities in the area; but the recurrence of iron objects in an era when they were supposedly scarce is suggestive. The weight of many substantial lumps of iron was not inconsiderable and would be hard to explain unless there were a forge fairly close.⁶⁹ A small, squarish iron ingot (**HoB 390**) of the eighth century, which was found during a follow-up stratigraphical excavation just south of Deep Sounding C, lends weight to the suggestion that a traditional use of the area might have been ironworking.

The iron lumps and knife (**HoB 101**) should be considered together with the iron tools published by J. C. Waldbaum, several of which were subjected to extensive technical analyses.⁷⁰ One of these, an adze (**HoB 119**),⁷¹ is regarded as particularly important for showing the sophistication of Lydian metalworkers at the transition to the Iron Age,

and Waldbaum indicates that Lydian smiths had begun to understand the importance of laminating in the forging,⁷² which produces in the charcoal fuel furnaces a superior form of the metal. In effect the Lydians had a rudimentary example of steel.

It remains to be seen what historical identity the artifacts and stratigraphy can be given. It now appears that the major fortified regional capital in the Bronze Age was not at Sardis but on the Gygaean Lake, at Kaymakçı, with another major center near Alaşehir at Gavurtepe. One would look to Kaymakçı rather than Sardis for direct contact with other Bronze Age peoples.⁷³ The evidence from the ceramic tradition grows ever stronger for Anatolian connections in this early period. Changes in the ceramic preferences for shape, color, and surface in the stratigraphic sequence revealed at Sardis must be compared with the excavated Bronze Age pottery from other sites in the region.⁷⁴

The finds from the lower levels of the Deep Soundings C, B, and A complement one another, and the tentative conclusions drawn from A and B about the cultural connections and external relations of Late Bronze Age and Early Iron Age Sardis were thus decisively confirmed by the evidence of Deep Sounding C. The evidence for bold propositions—such as Hanfmann's suggestion, originally advanced with caution, that there should be Bronze Age remains under the Archaic levels⁷⁵—is now firm, and some hypotheses may be claimed with confidence. As described above, then, the deep soundings at sector HoB demonstrate affinities to both inland Anatolia and the coastal Aegean throughout the Late Bronze Age and the Early Iron Age, with preferences for or ties to one or another area changing to and fro over time.

⁶⁷ Aytaçlar 2004, p. 22 and fig. 7. And Friis-Johansen 1958, Grave A.28, p. 18 and fig. 26; L. 0.057. Handmade of coarse clay; described as a yarn winder. See Gleba 2007; Burke 2010.

⁶⁸ Hanfmann, "SARDIS 1960," for "Lower Burning" and hostile action. This level is used to support the assertion that Sardis was burned at the end of the Bronze Age (Hanfmann and Mierse, *SPRT*, p. 24).

⁶⁹ Some lumps were noted but not kept; others were cleaned, after which they could be recognized as iron implements.

⁷⁰ Waldbaum, *Sardis M8*, cat. nos. 118, 127 come from early Lydian phases.

⁷¹ Waldbaum, *Sardis M8*, cat. no. 127.

⁷² Waldbaum, *Sardis M8*, cat. no. 178–80.

⁷³ Roosevelt 2010; *AST* 24.2:135–54; *AST* 25.3:305–26; *AST* 26.2:433–50; *AST* 27.2:1–24; *AST* 28.3:55–74; *AST* 29.1:383–400; *AST* 30.1:237–54; *AST* 31.1:333–55; *AST* 32.2:239–58; *KST* 37.2:243–68; *KST* 33.2:251–62. Gavurtepe: Meriç 1989; Meriç 1990; Meriç 1992.

⁷⁴ Erkanal 1989; Ersoy 1988.

⁷⁵ Hanfmann, "SARDIS 1962," p. 5.

Chapter 4

LYDIAN IV: IRON AGE

NINTH TO EARLY EIGHTH CENTURY B.C.

The term “Lydian IV” designates the strata in HoB between the Early Iron Age floor and associated deposits at *95.00–94.75 and below (discussed in the previous chapter), and the late eighth-century Destruction Level of Lydian III (see the following chapter). Because of the lack of floors¹ and walls from this period, selected sherds have been presented in the catalogue, arranged more or less by level, fabric, and shape. This will provide a sequence with which other finds (from Sardis or elsewhere) may be associated, without prejudice as to the absolute date within the presumed time span. In addition to painted pottery, the catalogue includes many pieces of Gray Ware, which is by far the most common tableware, to elucidate the sequence of shapes and decoration in these levels. Some objects made of other materials have been included in order to add detail to the picture of daily life at Sardis, which is necessarily dominated by the pottery.

There is no reason to regard the area as deserted for a long time during this period, despite the absence of organized building remains. Except for the quantity of painted pottery from the turn of the Iron Age in the eleventh century B.C. (i.e., the Mycenaean or sub-Mycenaean, or imitations thereof, and the local Protogeometric pottery, such as **HoB 1**), painted pots are rare until levels that we understand are from the early part of the eighth century, or the end of Lydian IV.² As many as possible of the painted

pieces datable to Lydian IV (such as **HoB 245**, a fragment of a Bichrome krater), whether local or imported, have been included for future reference, but they are as yet insufficient to serve as the basis for firm stylistic or chronological conclusions. We do not have enough painted pieces from any particular level to make specific internal divisions as far as the chronology of the Iron Age (Lydian IV) at Sardis is concerned. We are hoping that careful study of the mass of Gray Ware will provide more precision, at least in terms of favored shapes and rim profiles. A selection is presented here as a beginning.

The preservation of items from daily life in Lydian IV is less rich than it was in the earlier levels, but the characteristic tools are maintained. A few artifacts, tools, and raw materials, usually of inorganic materials, were found with the pottery, as these few pieces will demonstrate:

HoB 240, a well-worn whetstone with a suspension hole

HoB 239, a small stone conical polisher or pounder made of a dense igneous stone with iron stains and inclusions

HoB 277, a bone toggle

HoB 266, a brecciated stone bead, about 4 cm long, with a natural perforation

HoB 103, a grinding stone³

HoB 237, an iron sickle

Pieces of flint⁴

¹ See below for the one clearly defined Lydian IV floor, at *96.4 in the South Side deep test pit.

² At ca. *96.0. Cf. Jackson and Postgate 2010, p. 437.

³ Also S62.58.

⁴ F62.2 and F62.3.

more southerly of the two test pits also revealed the stubs of two flimsy walls, one of which was from Lydian IV, with the top of the wall at *96.75, and the other, a Lydian III wall, a meter higher at *97.70 (see Fig. 4.2).

A thoroughly hardened and reduced piece of mudbrick with one face preserved was kept from a generally reddened matrix from the Lydian IV floor.⁸ Coarseware and pithos fragments were the most frequent in volume and number in this level. According to Swift's calculations, Gray Ware comprised the largest proportion of sherds, amounting to 30–50 percent or more of the finds. He also observed that pithos sherds, usually of coarse pink fabric, occupied up to half the volume or more, since the sherds were so large. Smaller and finer pink-buff sherds with a sandy texture and often a gray core, the tableware of the day, were found in smaller quantities than Gray Ware. A. Ramage noted in the fieldbook at the time that from about a meter below the top of Lydian IV, the proportion of Gray Ware is less, its place being taken by coarse pink or buff ware and pithoi. In addition, small quantities of cooking pots and breadtrays made up most of the remaining fragments except for a small number of painted wares.

Although most pottery in Lydian IV is monochrome or pithos, Black on Red was the dominant style among the few painted wares. Examples will be found in the catalogue,⁹ but one in particular, a Black on Red biconical pot stand or foot of a large krater (**HoB 179**; Fig. 4.3), is noteworthy. The vocabulary is reminiscent of Greek Geometric patterns, but on the other hand, it may also be associated with Phrygian or Anatolian designs. Perhaps an explanation lies in the Lydian role as a mediator between the traditions of the coast and the plateau, between the West and the Orient.

Early Bichrome wares from these levels include **HoB 280** and **HoB 289**, in a lively mix of colors that continues for a long time. Some of these pieces are best known from parallels at the Heraion of Samos and at Emporio on Chios, where they were found in a seventh-century context;¹⁰ but since our pieces come from below the clayey destruction layer of the late eighth century (Lydian III), we can be confident of a date in the eighth century or earlier, and may use this evidence to strengthen the basis for the chronology of Lydian pottery.

*96.5–95.5

The levels under those just described can be characterized as mixed beds of clayey earth, sand, and gravel. A substantial occupation level can be made out in several areas of the main trench, where small soundings or explorations went below the clay level.¹¹ These additional tests showed



FIGURE 4.3. Black on Red biconical pot stand or the foot of a large krater (**HoB 179**). A fine example of a rich geometric design. From a Lydian IV level of Deep Sounding C.

that a level reported at ca. *96.5 should be taken seriously and not regarded as an isolated patch. This stratum is used to define the end of Lydian IV, which, based on Greek imports, corresponds roughly to the Middle Geometric period in Greece.

The pottery from the level at the end of Lydian IV still includes a certain number of Greek imports,¹² as well as the Lydian Geometric and Bichrome pots inspired by those models.

Among the Lydian IV pieces whose motifs depend directly upon Greek sources, some, using the compass-drawn, concentric pendent semicircles and incomplete circles (**HoB 73**),¹³ are common, and find parallels in Klazomenai.¹⁴ Others have a wavy line set between close bands (**HoB 162**),¹⁵ perhaps based originally on sub-Mycenaean prototypes. This way of decorating seems to be a local preference, especially in Brown on Buff ware,¹⁶ and it is one that continues throughout Lydian IV.



In all, despite some strikingly decorated pottery, Lydian IV seems to be characterized by poverty and isolation. This is a situation that changes dramatically in the eighth century.

and northeast by the mass burial: see below, p. 62).

¹² **HoB 281, HoB 286, HoB 288.**

¹³ Also **HoB 151, HoB 287.**

¹⁴ Cf. Ersoy 2004, p. 45 and fig. 3.

¹⁵ Also **HoB 170, HoB 256.**

¹⁶ **HoB 73, HoB 174.**

⁸ In contrast to most mudbricks of later periods, it contained a considerable amount of grass or straw temper. Found at *96.10.

⁹ **HoB 278, HoB 279**, and, from lower down, **HoB 284.**

¹⁰ Gürtekin-Demir 2011.

¹¹ At ca. *97.0 and below (e.g., two separate places: the South Side,

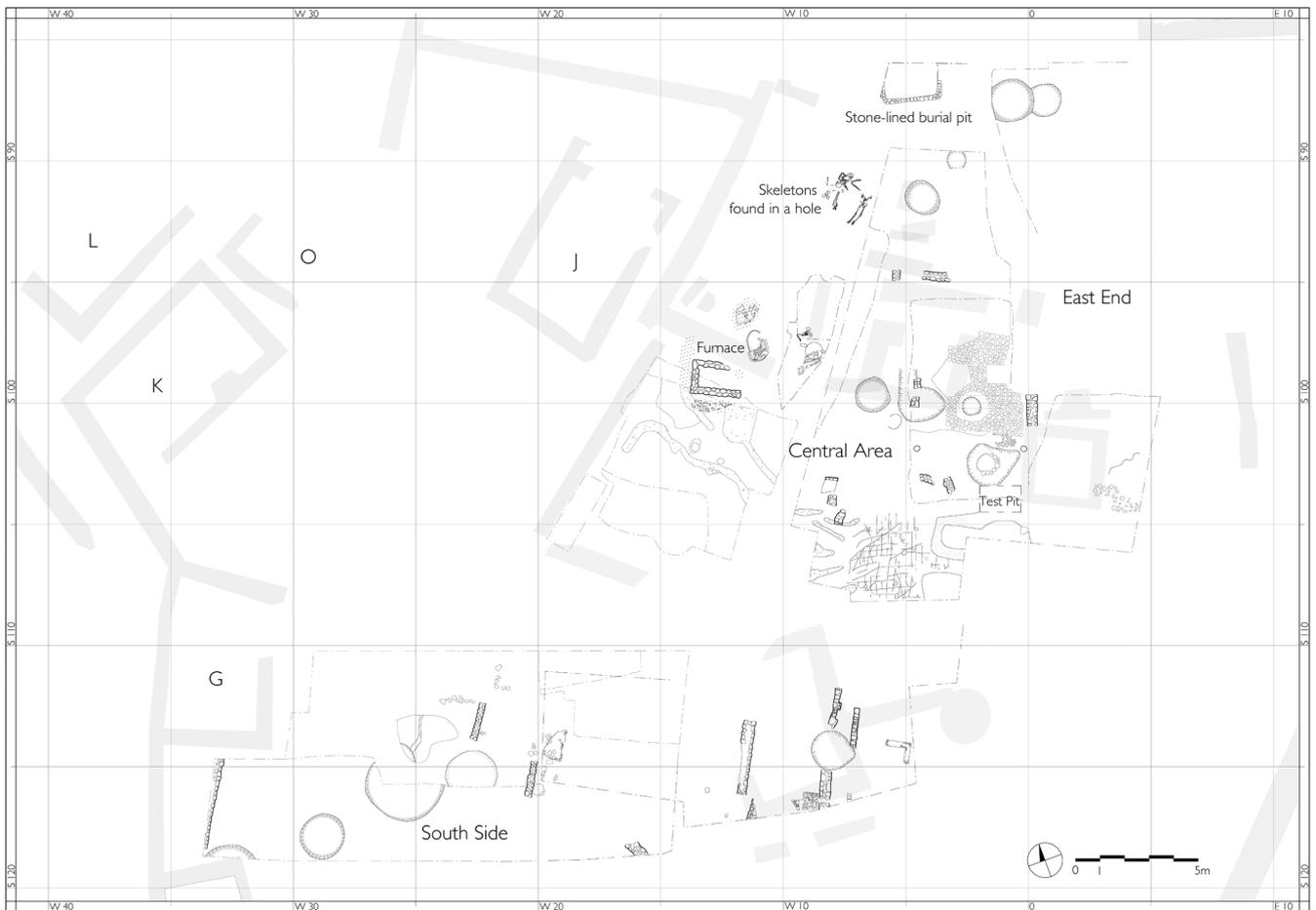


FIGURE 5.1 (= PLAN 4). Lydian III features in the Lydian Trench of sector HoB.

Chapter 5

LYDIAN III: THE DESTRUCTION LEVEL

LAST QUARTER OF THE EIGHTH CENTURY B.C.

The first clearly defined occupation floor above the Iron Age levels in the Lydian Trench at HoB—and the lowest level that had large-scale exposure in the excavations—gives us a glimpse of the quickening life of Sardis as it began to grow into an international center. The elevation of the surface varies by about 0.6 m, from *97.6 to *97.0, according to the slope of the ground and accumulations of debris around specific features, such as the remains of walls, but in general it is remarkably uniform. The finds from this phase all over the excavated area bear out a characterization of growing prosperity and the renewal of foreign, especially western, contacts at the end of the long period of isolation and assumed poverty of the Iron Age.¹

The Lydian III occupation surface showed consistent evidence of damage from fire, as well as indications of a major battle. Among the many signs of violence were the remains of a young girl, another child, and at least fifteen adults.² The Destruction Level, as we call it, has provided the opportunity to observe the local life of ordinary Lydians at a particular moment in time, a moment that was

interrupted by catastrophic burning. Through the pottery and other objects found here, one must try to envision their activities through the lens of the material remains, as if the destruction had been held back for another moment, the broken crockery restored, and the activities resumed. We had to concentrate on the inorganic remains, particularly the pottery, as almost all perishable materials had been consumed in the fire. Putting together the evidence for the fierce burning, the scatter of potsherds, and the skeletal remains, it is clear that there was a major conflict here.

The destruction was originally associated by George Hanfmann with the attack on Sardis in ca. 652 B.C. by the Kimmerians, a group of Central Asian nomadic tribes who are said to have entered Anatolia in the eighth and seventh centuries, and to have attacked or destroyed such cities as Gordion, Ephesus, and Sardis.³ This speculation was readily accepted and not really doubted until Judith Schaeffer noted that a critical Corinthian jug (**HoB 355**; Fig. 5.2), found in pieces scattered on the floor of the Destruction Level, was Late Geometric rather than Protocorinthian as had previously been thought. A reappraisal of the imported Greek

¹ The open siting of the buildings of Lydian III is somewhat at odds with the close urban pattern of the eighth century revealed in the excavations at Old Smyrna, Zagora on the island of Andros, and Lathuresa in Attica, where defense seems to have been an important consideration. See on Old Smyrna: Cook 1958; Akurgal 1983, pp. 22–35, fig. 13f. Zagora: Cambitoglu, Coulton et al. 1971, pp. 13–36. Lathuresa: Lauter 1985. For a general overview, cf. Stampolidis, Maner, and Kopanias 2015.

² “SARDIS 1966,” p. 33, n. 5.

³ First proposed in Hanfmann, “SARDIS 1960,” p. 12, n. 8, with bibliography; Hanfmann and Mierse, *SPRT*, pp. 28–29; see *Sardis* M10, p. 7. See also Kristensen 1988, with review by P. Zimansky (1994); Sauter 2000; Ivantchik 2001a; Bouzek 2007. On Gyges’ correspondence with Assurbanipal of Assyria for aid against these raiders, see Cogan and Tadmor 1977 and Spalinger 1978. At the time, the Early Phrygian destruction level at Gordion was also attributed to the Kimmerian attack; it has now been redated to a century earlier (Rose and Darbyshire 2011).

FIGURE 5.2. Corinthian Late Geometric jug, **HoB 355**, that was found in many pieces, scattered over a wide area, and burned. It was crucial for the dating of the Lydian III Destruction Level.



pottery in this level at Sardis has led to the present conclusion that the destruction should be dated to the later part of the eighth century B.C., and not to the Kimmerian attack of ca. 652 B.C. Therefore, although earlier publications refer to this as the “Kimmerian Destruction,” we will refer to it simply as the Destruction Level.

The overall extent dating to Lydian III can be broken down into the East End, the Central Area, and the South Side (Fig. 5.1). A sub-area, which could be attached to the Central Area, is formed by the space around an oven or furnace (see Fig. 5.14); since this was clearly a place for a special activity, it is appropriate to deal with it separately.

AREA	GRID COORDINATES	SQUARE AREA	YEARS DUG
East End	E5–15/S85–102	170 m ²	1960, 1961, 1962
Central Area	W10–E5/S85–107	330 m ²	1965, 1966
Oven/Furnace	W10–16/S95–105	60 m ²	1968, 1970
South Side	W5–33/S110–119	252 m ²	1964, 1970
<i>Total area</i>		<i>812 m²</i>	

The total area exposed in the Lydian Trench of HoB measured ca. 77 × 25 m, or 1,925 square meters,⁴ and thus

⁴ Or perhaps a little more, because we have not included the area

the excavated area of Lydian III represents somewhat more than 40 percent of the total exposure of sector HoB.

From the southwest corner of the trench, the destruction surface slopes down to the north.⁵ In the middle of the trench it is more or less horizontal, and toward the east it rises a little over half a meter.⁶ This surface can be followed across the whole width of the trench from north to south,⁷ a distance of more than 30 meters. Traces of this surface can be found at the northeast and southeast corners of the trench too, but it is absent at the northwest. Over it was a layer of clay about 0.20–0.40 m thick that apparently had been laid down on purpose;⁸ above that, a layer of heavy gravel about one meter thick, deposited by floods, clearly divided it from the occupation level above (Lydian II; see Chapter 6), as seen elsewhere in the trench.

As we explored the 800 square meters of the Destruction Level, a consistent pattern of occupation emerged. Evidence for the unity of the level, in addition to the continuous layer of hard clayey earth across the trench, was the frequent occurrence of patches of heavy burning indicated by quantities of charcoal, ash, and reddened lumps of clay. In several instances, the heat was sufficient to alter the color of the pottery—in some cases to such an extent that joining pieces from the same pot have quite different colors, with no intermediate shades, showing that the vessel had been shattered into pieces, some of which landed in the conflagration, others not (**HoB 326**, **HoB 338**). The fire itself, destructive though it was, would not have compared to the heat and devastation observed at Gordion that arose from a major fire during the ninth century.⁹ The burning of the heavy wooden beams used in construction in that city had a much more dramatic effect on the pottery and other items, even causing pottery to melt,¹⁰ while the reed and straw buildings at Sardis could not have burned so hot as that.

A large quantity of occupational debris in the form of potsherds, disintegrated mudbrick, and miscellaneous artifacts was found in the layers of clayey earth separated by strata of mixed sand and gravel overlying the burned floor. Although the pottery recovered from two areas in the southern area of the trench was not taken directly off a floor, it was sealed between the Lydian III floor at *97.0 and the Lydian IV floor at *96.4, and therefore provides a useful general picture of ceramics and other finds in the early or middle of the eighth century (**HoB 278**).¹¹

between W20–30/S120–125 that was not taken much deeper than the Hellenistic level in this part, at *100.0.

⁵ At level *97.4.

⁶ Going to the east from E0, it rises almost to *98.0 around E3/S104.

⁷ At W5.

⁸ G. F. Swift, Jr., in Hanfmann, “SARDIS 1965,” pp. 10–11.

⁹ Rose 2013b, p. 6.

¹⁰ Sams 1994, pp. 2–7, esp. p. 3.

¹¹ Also **HoB 279**, **HoB 280**, **HoB 281**.



FIGURE 5.3. Bothroi in the Central Area, looking south. These are the bottoms of Lydian II pits that had been dug into the Lydian III levels. One of the bothroi (front center) was excavated by removing the loose gravel around it.

Low, scattered remains of narrow fieldstone walls were found over the whole area.¹² They apparently supported mudbrick or wattle and daub superstructures with reed and clay roofs. In both the southwest and central areas of the trench, the surface is interrupted by a large number of storage pits (bothroi) that were dug into the Lydian III level from above during the period of Lydian II (see Chapter 6, pp. 85–86) (Fig. 5.3). The burning was particularly intense and was closely associated with the remains of structures in the form of stumps of walls, piles of stones, and lumps of mudbrick.

When the finds from the many different places in the trench that go to make up the Destruction Level were combined, there were many matches (if not always joining) among pieces of pottery that had been found in different years. The Corinthian Late Geometric jug (**HoB 355**; Fig. 5.2), mentioned above, that was critical for dating the Destruction Level, was composed of many pieces found over the years and finally combined by Judith Schaeffer, who wrote, “The fragments were scattered, as though broken and trampled underfoot during the siege.”¹³ A striking example of the spatial displacement of fragments from the same pot occurred when a banded body

fragment of an East Greek Geometric krater from a 1985 test trench was found to join a piece that had been found in 1966, nineteen years earlier and at least 13 meters away.¹⁴ Even so, sufficient numbers of whole pots or large pieces found close together put the integrity of the level beyond doubt and offer an important “fixed point” for the development of Lydian pottery. They also allow a glimpse of the penetration of Greek pottery in substantial quantities to the domestic and industrial levels of ordinary Lydian society in this period.

Since the surviving architectural fragments are scanty and do not yield sufficient evidence for an unassailable interpretation of either the inside or the outside of any structures, it is not possible to present the finds by building, as will be done for Lydian II and I. Whether the structures were houses or workshops is not clear because of the circumstances of their destruction and the removal of many stones. The bits of walls and the rich pottery and other finds that go with them suggest that the inhabitants in this period were better off than their predecessors, and help us to picture Lydians working with the artifacts and living in the buildings of which so little is preserved.

¹² See Ramage, *Sardis M5*, pp. 4–5 for additional details of Lydian walls.

¹³ *Sardis M10*, pp. 17, 19, cat. Cor 1, pl. 4. Hanfmann, “SARDIS 1965,” p. 10; Hanfmann and Mierse, *SPRT*, p. 29, fig. 38.

¹⁴ **HoB 353A**. A piece from E4–6/S109.5–111 *97.74–97.64 was found by A. Ramage to join another from W9/S104–109 *97.40–97.00.



FIGURE 5.5. Central Area, looking north, with grooved floor (foreground) and the bottoms of several overlapping bothros. The bothros where the loose gravel was removed from around it can be seen at the back. A runnel appears at front right.



FIGURE 5.6 (L). Grooved floor (bottom left) and horseshoe-shaped runnel beyond.



FIGURE 5.7 (R). Lydian III Destruction Level in Central Area, showing erosion of surface of clay levels, at W10-18/S100-105 *97.6-97.0. Gravel visible in upper part of photo.

clay levels was found (Fig 5.7). An irregular grooved surface nearby (Fig 5.8) may have traces of the impressions of the sticks of wattle and daub. The runnels as well as the erosion of the clay surface would have to be placed directly after the destruction of Lydian III and before the deposition of the thick layer of gravel that rose to above *98.0 in some areas.

The Central Area gives us the most coherent view of the Lydian III Destruction Level and the densest and most varied evidence of human activity. In spite of their poor state of preservation, buildings had clearly been here. Two short wall fragments, one at the east at W0/S100 and one at the north at W3/S95 (see Fig 5.4), are the nucleus of the Central Area. They may have formed the outline of a rectangular building ca. 8.5×5 m, perhaps with the south wall dependent on two large supports whose postholes were found directly to the south of the interrupted lines of wall stubs. A slightly shorter building with a porch is also a possibility, but at present no other Lydian building is known with this kind of design.

There were many fragments of individual pots, such as the Late Geometric Corinthian jug mentioned above (HoB 355; Fig 5.2) and the large imported East Greek Geometric krater (HoB 351). Also found were more personal artifacts—like a bronze fibula (HoB 363), a pair of tweezers (HoB 362), or straight pins—than had been found elsewhere. Lying on the floor were a Greek Geometric cup rim with a geometric “tree” design (HoB 347) and a bone handle for a knife with



FIGURE 5.8. Lydian III, Central Area: grooved floor at the southern edge.

part of an iron rivet (HoB 367). The fiery aspect of the destruction was more obvious in patches of reddened earth and pieces of pottery so burned or reduced that the color of their body or decoration is sometimes altered or obscured. Again, many fragments of burned wattle and daub with reed impressions (HoB 358–HoB 361) bear witness to the conflagration that destroyed any building remains at this level.

FIGURE 5.9. Skeleton of a small girl lying on the Destruction Level in the Central Area, at W9/S97 *97.4. She was missing one of her legs and her skull was crushed.

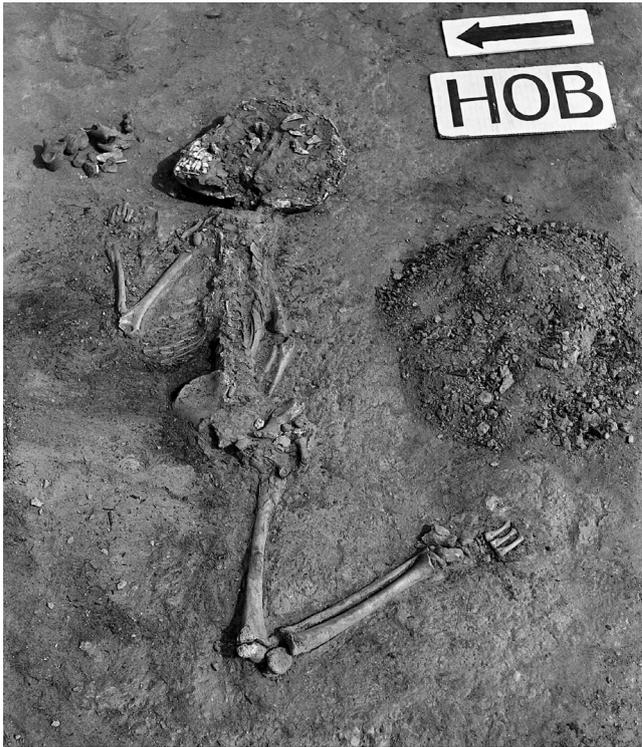


FIGURE 5.10. Lydian III, Central Area, looking south: light rubble structure forming the lining of a pit into which human and animal bones had been thrown, at W4-6/S88-89 *96.9-96.3.



HUMAN REMAINS

Among the grisly reminders of the effects of the catastrophe on the human occupants of HoB was the skeleton of a girl of about six or seven years discovered on the destruction surface among carbonized reeds or straw (Fig. 5.9).¹⁷ A recent reexamination of her remains confirmed that there was no sign of disease on the bones, and the breakages on the cranium were postmortem.¹⁸ As found, the skeleton was missing her left leg and foot—for what reason we cannot tell—and her cranium was fractured. Otherwise, the rest of the bones were in good condition and not much disturbed at the time of discovery.¹⁹ This would seem to

¹⁷ Joel S. Savishinsky, “1966 Grave and Human Skeletal Remains” (Sardis Expedition field report, 1966), p. 3.

¹⁸ Melis Koruyucu, “2016 Anthropological Report of Sardis Bones from Ankara DTCF” (Sardis Expedition field report, 2016).

¹⁹ According to Savishinsky, “1966 Grave and Human Skeletal Remains.” See Hanfmann, “SARDIS 1966,” p. 33, fig. 5, and Hanfmann and Mierse, *SPRT*, p. 27, fig. 34.

make the action of dogs or jackals unlikely, but one would expect a stump if the unfortunate girl had only one leg. Perhaps she was asleep when fire overtook what seems to have been a light structure, and the reeds might have fallen on her, or she might have been asphyxiated. This individual may have been associated with the more substantial building represented by a considerable pile of stones to the south, some of which had been burned and cracked by the heat. The partial remains of another child and two young adults were found nearby.²⁰

Further evidence of the human toll of the disaster was found in the northwest corner of the Central Area where a stone-lined pit was filled with human and animal bones. The wall lining the pit, ranging in width from one to four stones, widened to a maximum thickness of about 0.2 m and a maximum height of 0.6 m (Fig. 5.10).²¹ The pit ran for two meters, west to east, with a rounded corner at each end. The north side was buried under the edge of the trench.²² The pit clearly belonged with the Destruction Level, as indicated by its level and contents. A large fragment of the rim of a Corinthian Geometric kotyle from the area (**HoB 349**) helps to define the chronology of the whole level.²³ The sherd must have been near the top of the pit, because the bone report states that there were no sherds in the matrix.

This stone-lined pit contained a mass of bones, 90–95 percent of which showed evidence of burning. Human and animal bones were charred and mixed together. Human cranial fragments indicated that both males and females, ranging in age from childhood to maturity (ca. 35+ years), were present. An analysis of the human vertebral remains gave a minimum estimate of ten individuals in the pit, the rest being the bones of sheep or goat, cow, and horse.²⁴ We may suppose that a number of domestic animals from yards or stalls were caught in the attack and fire. The disposition of the bones within the pit does not indicate any formal burial, as there was no directional orientation in the layout. No signs of disease or violent death were found, suggesting

²⁰ Those remains included the mandible of a male, aged 19–20, of a female, aged about 8, and the radius of a male perhaps in his 20s, according to the account and bone report by anthropologist Joel Savishinsky. Hanfmann, “SARDIS 1966,” p. 33, n. 5, and Hanfmann and Mierse, *SPRT*, p. 27, fig. 34.

²¹ G. F. Swift, “House of Bronzes: Lydian Trench: Midseason 1966” (Sardis Expedition field report, 1966), p. 2. It was located at W4-6/S86-87 *96.9-96.3.

²² Fieldbook HoB 1966.I:119, 143, 125, 153, 159; Fieldbook Bones 1966.II:17-39. Hanfmann, “SARDIS 1966,” p. 33, n. 5.

²³ *Sardis* M10, cat. Cor 2, pp. 19–20, pl. 4 (“from earth with bones”). This piece could have been in use at the same time as the Late Geometric jug that came from the destruction floor, **HoB 355**.

²⁴ Joel S. Savishinsky, “Human and Non-Human Bones, Mid-Campaign Report” (Sardis Expedition field report, 1966), pp. 5–9; Joel S. Savishinsky, “1966 Grave and Human Skeletal Remains” (Sardis Expedition field report, 1966), p. 3.



FIGURE 5.11. Lydian III, Central Area: remains of five skeletons thrown into a hole about a meter below the floor level, ca. S90-93/W6.3-8.4 *96-96.2.

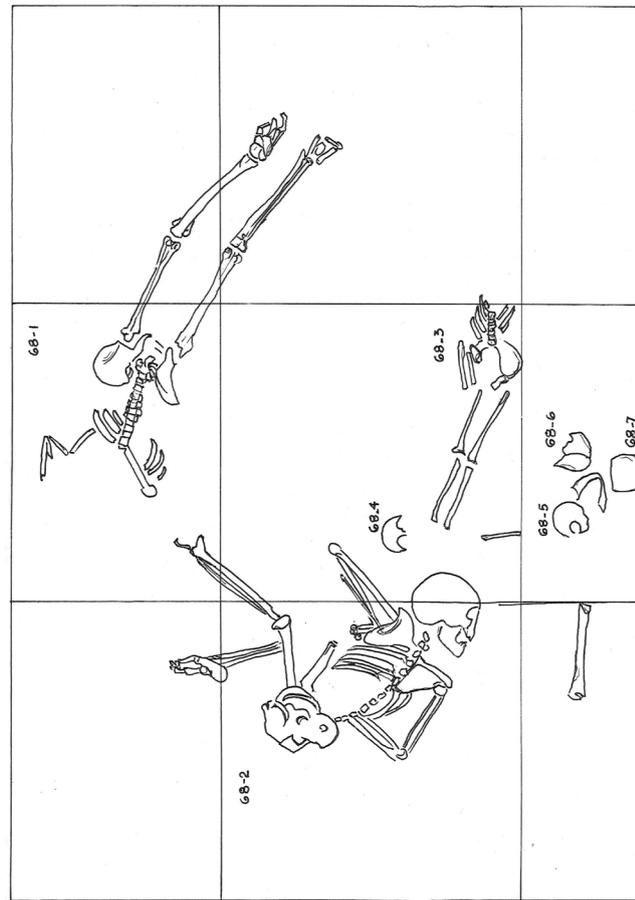
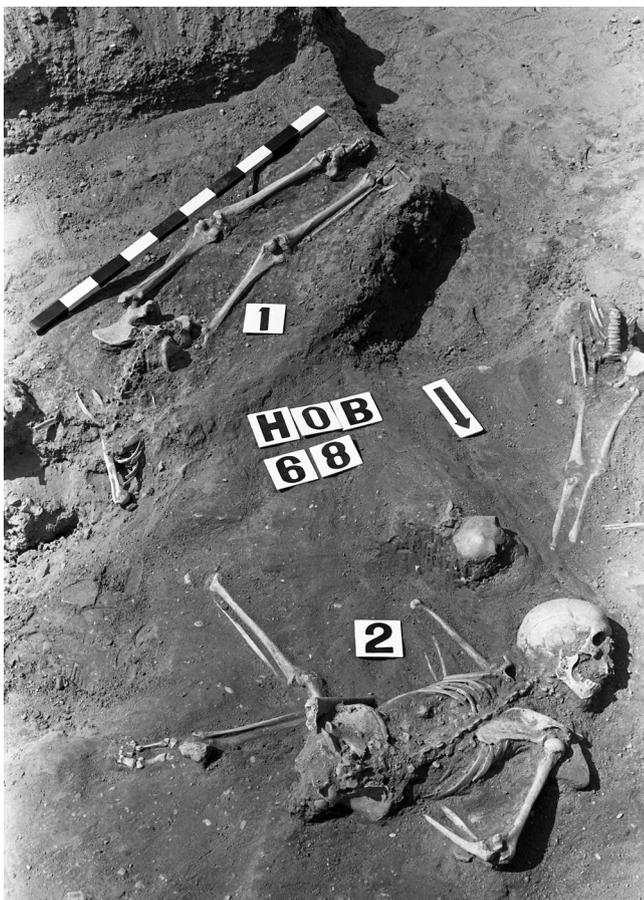


FIGURE 5.12 (L). Two of the skeletons, plus an additional skull and bones, from the shallow hole in the Central Area.

FIGURE 5.13 (R). Field drawing of skeletons thrown into the shallow hole in the Central Area. DRAWN BY C. S. ALEXANDER AFTER DRAWING SHEET 68.105 AND EXCAVATION PHOTOGRAPHS.

that the bodies were burned after death; but on the other hand, the fact that the pit lies not far below the burned layer suggests that it served as an emergency burial resulting from the disaster associated with that level.

Five more victims of the destruction were found nearby, again having been put in what was apparently a hastily dug shallow hole about one meter deep below the floor level

(Figs. 5.11, 5.12, 5.13).²⁵ Unlike the burned and mixed bones in the other pit, these skeletons were more or less articulated. It is likely that the bodies were thrown in hurriedly, together with some rather fine pots. At least one of this group was a woman, one a child aged about 9, and one a

²⁵ W6.3-8.4/S90-93 *96.2.

FIGURE 5.14. Lydian III, Central Area, looking north: three-sided structure (left) and small oven or furnace found nearby, with ash beyond. At W12/S103–105 *97.0.



man who seems to have been a soldier, as indicated by the fact that he had survived a serious cut to the head.

The peculiar, contorted positions of the bodies seem to indicate that they were thrown, already dead, into the pit. The man had suffered a broken neck, either before or on entry into the pit, and the front and sides of the skull had received heavy blows. It is impossible to say which of the many broken bones represented the cause of death and which occurred after the individual had already died. Various slash marks on the left parietal bone appear to be healed sword cuts that, apparently, have nothing to do with the cause of death. The damage to the skull was obviously inflicted, caused by a blunt object, a fall, or both.²⁶ The wounds to his head, face, and neck suggest that he died in an attack.

The sand and gravel beds above the remains of the five humans in the shallow pit were disturbed. The excavator remarked that all the bones had been found in an area with a diameter of 2 to 2.5 m. Other *disiecta membra* were found in the same area, but, since they were either loose on the surface or sticking out of the edge of a modern gully created by rains between excavation seasons, we cannot tell just how many individuals might have been killed in the same conflagration.

The shallow hole seems to have had grave offerings dumped in with the articulated bones, as opposed to the other bone pit nearby, with the bones thrown in helter-skelter, that had none. A number of unusually elegant ceramics and bits of bronze found near and within the shallow hole might have been deposited there for this purpose. Among them were some small pieces of bronze,²⁷ including what was probably

a piece of a fibula; a fine Phrygian-shaped round-mouthed jug (**HoB 369**); other fine pottery, such as a tall base of a riotously decorated white Bichrome pot (**HoB 370**) that is unparalleled at Sardis, with two kinds of checkerboard patterns, circles, and zigzags; also, a Black on Red stand (**HoB 371**) and a Black on Red plate (**HoB 368**). A Bichrome fragment that was found two years earlier, but quite near the skeletons, has a design that is unique among Sardis finds (**HoB 333**). On the other hand, it is possible that the shallow hole was part of a tidying up operation after hostilities had ceased, and the pottery could have been just part of the debris.

OVEN/FURNACE AND SURROUNDING AREA

West of the possible building in the Central Area were the remains on the Destruction Level of what was apparently an industrial installation in the form of an oven or furnace (Fig. 5.14).²⁸ Close by, in several areas, were substantial patches of burned clay and ash.²⁹ The persistent reddening indicates a freer flow of air and a higher temperature (ca. 600°C?) than is usual in a domestic facility, where there is normally considerable blackening from soot. This oven or furnace was not so obviously fired, nor so substantial, as the late seventh- through mid-sixth-century furnace groups in the sector Pactolus North that have been associated with the parting of gold

²⁶ David Finkel, bone report 1968 (Sardis Expedition field report, 1968).

²⁷ Fieldbook HoB 1968.II:13 “Bronze – 5 bits, incl. 1 pc. of fibula? 1 pc. Sheet.”

²⁸ W12–13 / S87–88 *97.0.

²⁹ Sidney M. Goldstein, archaeologist and conservator, wrote a report on several trial trenches and tests conducted on the recovered material. He thought it was impossible to draw firm conclusions about the purpose of these structures, but favored the idea of an oven beside a storage bin in the courtyard of a house.



FIGURE 5.15. Three of the four pots seen in the group in Fig. 5.16. For **HoB 376**, see PL. 94.

and silver.³⁰ It was, furthermore, smaller and of a different shape. The fired clay surface showed sufficient differentiation of color and texture to make it clear that the oven or furnace had a raised oval wall around it, certainly forming a retaining curb and possibly a domed roof. Fragments of “tile” mentioned in the fieldbook, described as reddish pieces of partly fired clay in flat, slightly curved forms of no particular shape, may be remnants of walls and roof. The pieces were 0.02 to 0.03 m thick and 0.10 to 0.15 m on a side.

A small three-sided rectangular foundation associated with the oven at W12–14/S98–99.26 was neatly made with stones that were one course high and two stones wide (see Fig. 5.14). The earth was packed hard within it, but showed no signs of the burning that was so obvious in the surrounding area. It measured 2.06 × 1.26 m on the outside although the north wall was preserved for only 1.34 m. The east end was open.

The finds from the oven include pottery compatible with other groups from the same level, useful for chronology but not specialized enough to shed light on activities in the area. The most reliable count of the proportions of the different pottery categories, from a total of about 5½ boxes, was: Gray Ware 70 percent; cooking ware 10 percent; painted 10 percent.³¹ The proportions fit well with those recorded in the Central Area and the East End at this level, and a fragment of an East Greek skyphos (**HoB 348**), dated to the fourth quarter of the eighth century or beginning of the seventh century by Michael Kerschner,³² helps to refine the dating of the Destruction Level. A Lydian Black on Red globular jug (**HoB 331**), decorated with bands of small concentric circles, has a Phrygian flavor and is remarkably like a piece in Gray Ware (**HoB 376**; Fig. 5.16) from a cache of pots in the Central Area.

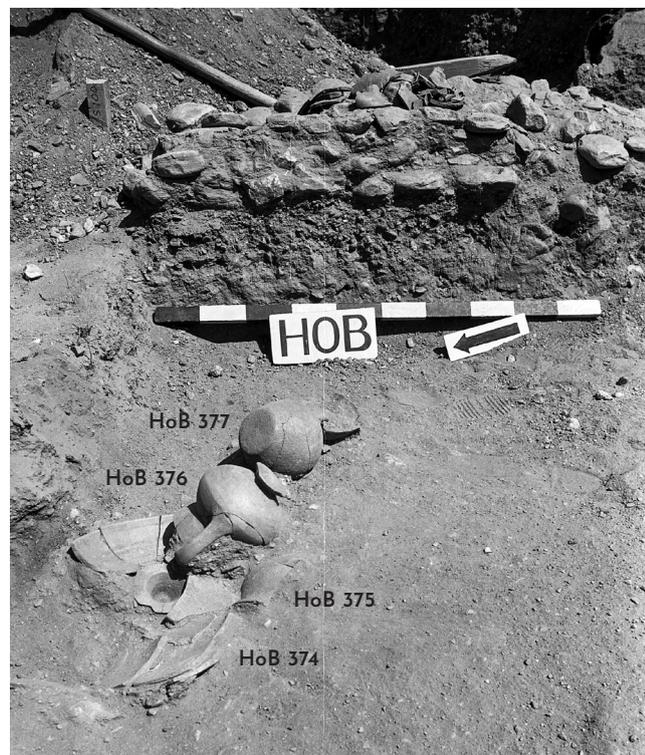


FIGURE 5.16. Four pots *in situ* on the Destruction Level, Lydian III, at W1/S100 *97.3.

The group of sherds from the oven area is in striking contrast to the pottery from a patchy sandy floor that was not burned.³³ In the one and a half boxes that came from this area, the sherds were more varied and in better condition than was usual at this level. In addition, the excavator reported that “compared to most samples [from around here] Gray Ware is low, painted and cooking are high.”³⁴ There were also seventeen pieces of pithos and two pieces of breadtray—but no mention of intermediate coarse ware. The painted ware included Lydian Geometric types, Bichrome, and Streaked ware, and some pieces over-painted with white bands. The Gray Ware consisted of the usual types: large jars with sloping necks, several different band handles, and a variety of bowls. The cooking pots were of the normal globular shape. Rather unusual was a

³⁰ Hanfmann and Mierse, *SPRT*, pp. 34–41; Ramage and Craddock, *Sardis M11*, pp. 83–87.

³¹ Pithos fragments and coarseware sherds are sometimes taken together, and cooking and coarse ware share some characteristics, so pithos and coarseware sherds have not been included in the specific proportions here.

³² Personal communication at Sardis, July 1–2, 2016. Cf. Coldstream, *GGP*, p. 277, pl. 61d, his Bird-Kotyle Group.

³³ Nearby at W14–18/S103–108 *97.00–96.80.

³⁴ Gray 40 percent, painted 30 percent, plain buff 15 percent, cooking 15 percent.

FIGURE 5.17. Plan of Lydian III Destruction Level, South Side, with the bottoms of Lydian II bothroi dug into the Lydian III level, and fragments of walls. The stub of a Lydian IV wall can be seen in the most southerly test trench, at W18/S21.

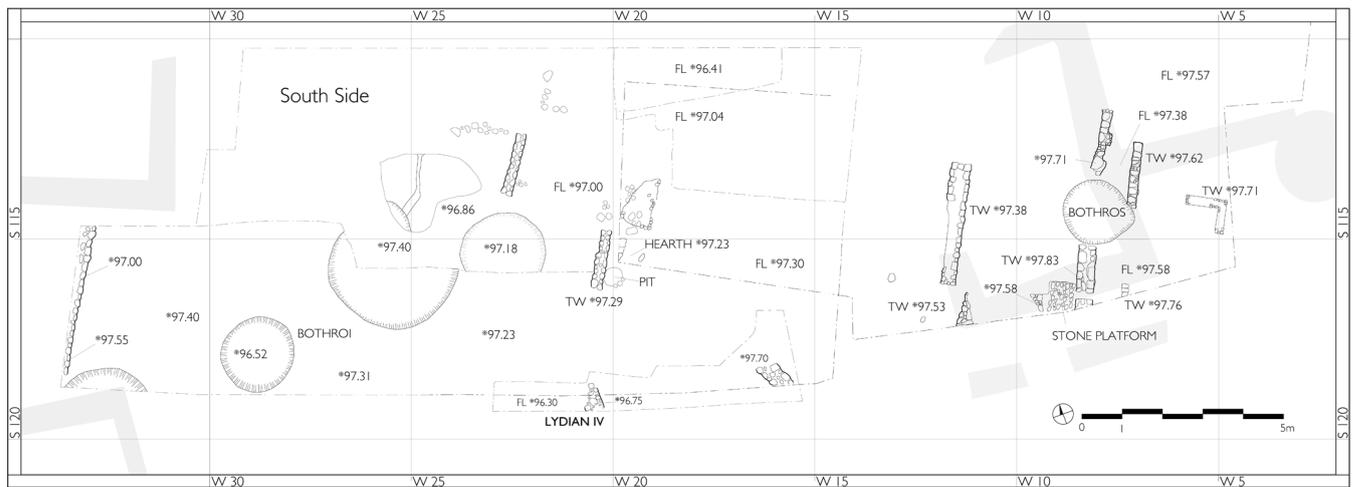


FIGURE 5.18. The bothroi in the South Side, looking east. The enclosure wall (of Lydian II) between Buildings G and H is visible in the foreground.



considerable number of fragments of Buff Ware plates. Only one import was noted.³⁵

Since there were no structural remains here and the sandy floor became rather spotty, it is difficult to reconstruct the relationship between the oven, the rectangular foundation, the Destruction Level, and the sandy patchy area. There appears to be a distribution pattern in the proportions of pottery transitional between that frequent in Lydian III and II. How this came about is unclear, since there is no record of disturbances like pits. A line at ca. S105 was the limit of fierce burning and destruction, and the burning at W10/S113–114 was rather localized.

³⁵ Fieldbook HoB 1968.III:17: “1 pc Greek amphora or hydria; pale gray-buff surface, black bands somewhat streaky” and III:19: “1 pc Greek pale buff jar.” Not catalogued.

SOUTH SIDE

Three parallel north–south walls in the South Side, although scanty, offer an indication of coherent planning or, at any rate, consistent orientation.³⁶ At the western edge of the trench,³⁷ the top of the east face of a wall at least four meters long was exposed in the scarp (Fig. 5.17, at left edge of plan). Its thickness is unknown but the stones are of a scale comparable to those of the narrow parallel walls located further east at the same general level. This westernmost wall disappeared into the north scarp,³⁸ and it was apparently interrupted in the southwest corner of the trench. Its top can be associated with a level that slopes from *97.4 at the south end (ca. S119) to ca. *97.0 at the north (ca. S115), but we suppose that the interior of the building was to the west, under the scarp, since there are no hints of building debris nearby on its east side.

In two small test pits at the south side of the trench³⁹ we were able to establish the existence of the fiercely burned clay floor of Lydian III (see Fig. 5.1 and Fig. 5.17), thus extending the evidence for the conflagration that was so consistently recorded on the Destruction Level. Catalogued finds other than pottery included a straight bronze pin with a rolled head (**HoB 389**) and a bronze cosmetic spoon or spatula (**HoB 388**). Also in the southernmost test pit (near the bottom in Fig. 5.17) was not only a wall of Lydian III,⁴⁰ but also, at the lower level of *96.75, a surprising and rare wall spur of Lydian IV.

The long narrow trench of South Side was filled with the bottoms of bothroi from Lydian II, as well as a number of short scraps of walls of Lydian III (Fig. 5.18). The nearest structural remains are substantial fragments of two parallel walls 2.5 m apart, running on the same alignment as the

³⁶ W5–33/S110–119.

³⁷ At level *97.0.

³⁸ The wall runs from W33–34/S114.5–118.4.

³⁹ At W21–25/S118–119 and at W16–20/S110–111 *96.40. Only the more southerly one is shown on the plan in Fig. 5.1.

⁴⁰ Top of wall at *97.70.

westernmost wall, both about 1.5 m long (Fig. 5.19).⁴¹ Near both these walls were piles of stones that were probably fallen debris but might have formed a patch of pavement or a working platform such as we see later in Building H and Building J. A line of single stones⁴² that forms a right-angled corner might be the remains of one of the small rectangular storage bins or foundations that become a standard feature in the better-preserved buildings of Lydian II and I (e.g., Buildings G and F). Just to the east of the more southerly wall were a small pit and a hearth with a broken quern set on end (marked on the plan, Fig. 5.17). The floor continues to the east beyond these walls, running northwest to southeast, and rising higher toward the south scarp.⁴³

Another group of three parallel wall fragments (or four if one counts the small scrap at the south scarp) was found nearby to the east,⁴⁴ but the remains had been disturbed and dug into. In one place the circular outline of the base of a bothros that had been dug in from above, from a Lydian II level, showed clearly. These walls are taken to be the long sides of the original structures rather than crosswalls, by extrapolating from probable lines of the buildings to the north and the general lines of the later Lydian II structures, which may have followed traditional practice in determining their layout.

At the southern end of the wall at W8/S115–116, there is a gap of 0.20 m after which the wall continues southward. This gap is surely too close for adjoining houses, even by Lydian standards, but we have not been able to explain why it is there. A group of small stones all on one level (*97.58) makes a neat corner at the west side of the wall. The stones are carefully set, suggesting that they made a small platform that continued uninterrupted even where there was the gap in the wall. This same north–south wall is interrupted on the north side by the base of another bothros of about 0.60 m in diameter, after which the wall appears to continue to the north, but with a narrower width. The alignment of north and south fragments of the wall is such that there can be no doubt of their unity even if there were a doorway or opening to account for some of the gap. As with many of the other walls, there was one fine face and one less carefully made, even when the wall is only one stone thick, as is the northern portion of this one.

About 0.70 m to the east of the north–south wall just described is another narrow wall only one stone wide, and this one is made of smaller stones. It too was interrupted by the east edge of the bothros.⁴⁵ This group of walls in the South Side represents the most substantial of the wall fragments of Lydian III, but even so, most of them are hardly more than one course high and two stones wide. Still further

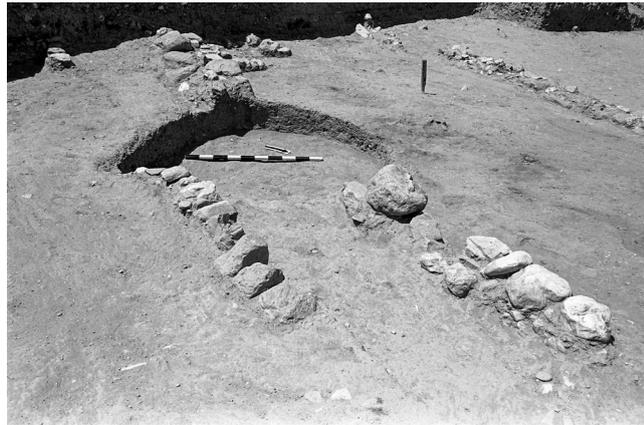


FIGURE 5.19. Lydian III Destruction Level, South Side, looking southwest: parallel north–south walls.

to the east in the South Side is a narrow wall ca. 0.25 m wide that makes a corner extending about one meter west and one meter south.⁴⁶ Its function is unknown.

Overall, the floor level of the walls on the South Side ranged from *97.4 to *97.0, where the pottery from this area was found. It consisted of rather more Gray Ware than in some other parts, but it is not characterized by the increase in cooking or pithos wares that is the mark of the earlier levels. Among the group of standard Lydian wares, including various simple red slip and Lydian Geometric, such as the Black on Red stemmed dish (**HoB 379**), were two imported wares, including fragments of two East Greek Geometric cups (**HoB 382** and **HoB 383**). The second of these is a predecessor of the later bird bowls. Insofar as it is a recognizable import from a known series, this piece is important for the dating of the area. A wide span has been suggested: Hanfmann, at the time of discovery, thought it should be placed in the first half of the seventh century. Boardman puts similar pieces from Emporio in the range of 690–630,⁴⁷ and Coldstream puts the beginning of the type in Rhodes at 745.⁴⁸ But Michael Kerschner and Nezi̇h Aytacı̇lar, who examined **HoB 383**, suggest a date in the second half of the eighth century.⁴⁹ The presence of the Corinthian jug (**HoB 355**; Fig. 5.2) in the same horizon makes a stronger case for an earlier date, ca. 725 B.C., although the piece does not have to be at the beginning of the series and suggests that Boardman's range is on the low side.

Among the several metal finds were fragments of a bronze fibula (**HoB 387**). The circular bosses that would have decorated the bow are preserved, as well as part of the catch plate. This personal item accompanies other bronze pieces found in the Lydian III level of the South Side (**HoB 388–HoB 389**).

⁴⁶ At ca. W5/S114. Its top is at *97.71, and the floor in the area is at *97.55.

⁴⁷ Boardman 1967, p. 192 and closed shapes 547, 551, 554. These are said to be current in his periods II and III, which includes most of the seventh century.

⁴⁸ Coldstream, *GGP*, pp. 277–79, the Bird-Kotyle Workshop; another example, from the Central Area, is **HoB 348**.

⁴⁹ Personal communication, Sardis 2016.

⁴¹ One at W22.5/S112.5–114, and the other at W20.5/S115–116.5.

⁴² At W22/S111.5 *97.13.

⁴³ To *97.5.

⁴⁴ Between W5 and W12.

⁴⁵ It ran from S112.5–116.5 at W7.5.

CONCLUSIONS

A change occurs among the pottery shapes in Lydian III: suddenly there are more cups, and of a different kind, because of the appropriation of the Corinthian skyphos: for example, a Lydian skyphos with two handles, a rounded body, and a high ring foot was found on the Destruction Level (**HoB 329**). This shape (or rather a less rounded version of it) eventually replaces the one-handled cup seen so widely in the Gray Ware of the previous period (see on cups and skyphoi in Chapter 1, p. 6). Lydian dishes become more common, and have a different profile than earlier examples. Compare, for instance, **HoB 325**,⁵⁰ with an earlier example such as **HoB 278**,⁵¹ which has a much shallower bowl and flat rim (again, see Chapter 1, p. 5). Considerable differences in the storage vessels also may be seen in the Lydian III level. Pithoi, found in such abundance in earlier levels, showed that the locals in those periods had very high storage requirements; there seems to have been less reliance on storage in large jars in Lydian III than in Lydian IV and the Late Bronze Age. Perhaps in earlier periods the Lydians were more dependent on individual household storage, while the people living during the Lydian III era could procure supplies as they needed them, rather than having to keep large stocks in big vessels.

In addition to pottery fragments, iron objects from the area included a small “spear point” with a tang that had been purposely bent over and a large piece of iron that may have been part of a hammer or pick (**HoB 364**, **HoB 365**). An iron hook (**HoB 366**) was found on the floor at *97.4 together with large amounts of pottery.⁵² Several iron arrowheads or points, some corroded together in a cluster,⁵³ were also found in the debris. In excavations elsewhere at Sardis, as opposed to areas by the city wall, arrowheads are rare, and it is significant that so many more were found all in one civic or residential area and associated with a widely fatal conflagration. Traces of reeds or straw could also be observed in the iron corrosion product. Another object from the same “lump” was a riveted furniture fitting of uncertain use but conventionally called a bracket.⁵⁴ There are also traces of wood grain on its interior and clear imprints of straw and grains on its exterior. The same area also produced pieces of two large knives⁵⁵ and another piece

of iron, best described as a spear butt that tapers and has a hollow end.⁵⁶

In the Central Area, around and just under the five skeletons that had been thrown in a shallow hole (Figs. 5.11–5.13), the pottery included much reddish pithos and Gray Ware. The painted ware is mostly local, and there is more Bichrome than was observed further south in the trench. We would take this to be accidental, perhaps a result of digging from a later level into an earlier one, since Bichrome is more common once again in the southwest corner, where there was also considerable interruption from the digging of bothroi. The distribution holds up whether the sherds are tabulated by estimated proportion or, as was the case with small lots, actually counted. There were no striking imported pieces of pottery except for a small body sherd from a Greek Geometric krater (**HoB 353**), found in sand a bit to the south of the stone-lined burial pit (Fig. 5.10).⁵⁷ This find indicates that the revival of Greek imports goes back well into the eighth century. Black on Red predominates among the painted pots. Bowls in this ware and in Gray Ware were particularly noted, and the large white Bichrome stand (**HoB 370**) and the Black on Red stand with flaring base (**HoB 371**) are noteworthy.

Several good examples of pottery typical of this phase were retrieved from the heavy gravel that overlay the Destruction Level. They can be confidently associated with the level in general, although their original context is lost. Here and there in Lydian III a special function might be assigned to a particular area, such as where the proportion of cooking pots and animal bones rises far beyond the usual numbers, and a kitchen might be inferred. But in general the interrupted nature of the level defies anything like certainty. A typical box at this level contains much plain ware and Gray Ware, but also a consistent mixture of utilitarian ware, finer decorated ware, and imports. Since we are dealing with areas of gravel with mixed contents as well as areas of disintegrated mudbrick or floors maintaining their original (i.e., destroyed) definition, we must approximate the succession of pottery wares. It is clear, however, that this Destruction Level coincides with the highest frequency of painted Lydian pottery in the Black on Red and Brown on Buff styles. The association with Greek imports of Geometric style can give us some help with the chronology.

The Bichrome style, which relies upon different combinations of geometric motifs for its decoration, has not yet reached its peak. This is clear for the plates and stemmed dishes that grow in popularity rather later, at the same time as the general introduction of the East Greek Wild Goat style. No piece of Wild Goat or any imitation of it has been identified in the pottery found in the Destruction Level.

⁵⁰ Also **HoB 374** and **HoB 379**.

⁵¹ Also **PC 26** and **PC 27**.

⁵² **HoB 328**, **HoB 336**, part of **HoB 338**, **HoB 342**, **HoB 345**, **HoB 351**, **HoB 356**.

⁵³ **HoB 366A**. Compare Cahill 2010c, p. 352. Also Greenewalt and Rautman, “SARDIS 1994 AND 1995,” pp. 490–93.

⁵⁴ Several of these “brackets” were found with many other pieces of iron in the debris of Lydian houses side of the Lydian city wall: Greenewalt, Rautman, and Cahill, “SARDIS 1985,” p. 64.

⁵⁵ The first with dimensions of 0.095 × 0.065 m, a piece now lost; max. W. 0.02. The second, M17.5, found at E5 / S95–100 *97.6, was ca. 0.20 m long, 0.015 wide, and more than 0.003 thick.

⁵⁶ It measures 0.13 × 0.035 m and the diameter of the socket is ca. 0.022.

⁵⁷ Sherd found at W4 / S94 *96.4.

In the past, as already explained, this level had been associated with the second (and successful) attack of the Kimmerians in ca. 652 B.C. A reappraisal of the imported Greek pottery in this level at Sardis, however, has led to the present conclusion that the destruction should be dated to the last part of the eighth century B.C. Among the imported ceramics belonging to this level is the Late Geometric Corinthian jug (**HoB 355**; Fig. 5.2),⁵⁸ found over several years in many pieces. The combination of shape and decoration on this pot has a range between 750 and 700 B.C. We cannot just pick an arbitrary date within that range because it must fit with other Greek imports whose ranges do not precisely match that of the Late Geometric jug. For example, the East Greek paneled krater on a high foot (**HoB 351**) might be described as sub-Geometric and its range can spread from the later eighth, continuing into the beginning of the seventh century.⁵⁹ The same is true for the cup fragments that belong to the bird skyphos class (**HoB 347**).⁶⁰ By balancing the various ranges in which any of the pots might have been made, and the understanding that they were all broken at one specific time, we believe that the last quarter of the eighth century is the best estimate for the date of this destruction.

Whether this destruction should still be regarded as the result of an unrecorded attack of the Kimmerians, or the result of some local disturbance arising from traditional jealousies within the Lydian aristocracy, or even an attack by another foe altogether, we cannot tell from the archaeological record. The Kimmerians are leading contenders as the enemy, since they are well attested as ranging over Asia Minor and attacking established cities with considerable success in the late eighth and early seventh centuries B.C. What might also be inferred here to lend weight to the theory

of outside attack is the fact that only 100 meters to the east of HoB, a huge fortification wall was erected sometime in the seventh century; this was built on the foundation of a yet earlier wall.⁶¹

A civil war among the Lydians cannot be ruled out entirely, however, since the circumstances of Gyges' coming to power are obscured in romantic details.⁶² One interpretation of the story might be a series of "palace coups" in an unstable era, in the generations before Gyges, perhaps centering around a passionate intrigue as at Rome during imperial times or at the Byzantine court. If this were the case, it would probably have been settled within the palace circle, with minimal effect upon the commercial and domestic affairs of ordinary Lydians. If, however, this is only the excuse or final act of substantial and traditional hostility between factions of the Lydian nobility, then it is possible that an army marched from elsewhere in Lydian domains (Daskyleion or Adramyttion?) and forced the issue.

To summarize: The Destruction Level of Lydian III dates to the last quarter of the eighth century B.C. The traditional interpretation of the historical sources puts the successful Kimmerian attack on Sardis that resulted in the capture of the citadel in the mid-seventh century, at a period that does not fit the chronological horizon proposed for the Destruction Level as recorded in HoB. As will become clear in the next chapter, there is no sign of general fiery destruction within the next level above it. We conclude, as other excavations have, that if the Kimmerians captured Sardis, we have not yet discovered any archaeological traces. The Lydian III Destruction Level seems to have included significant human death by violence, but the identification of the aggressor(s) remains uncertain.

⁵⁸ *Sardis M10*, pp. 5, 7, and cat. Cor 1, p. 19, pl. 4; Hanfmann and Mierse, *SPRT*, p. 29 and fig. 38.

⁵⁹ Boardman 1967, p. 106, fig. 62.

⁶⁰ See Coldstream, *GGP*; Boardman 1967, p. 134, no. 440.

⁶¹ Attempts to clarify this point in the excavation seasons of 2009 and 2010 produced no answer. See Cahill and Kroll 2005; Cahill, "SARDIS 2009"; Cahill, "SARDIS 2010."

⁶² Herodotus 1.8ff. and a different but more political version in Nicolas of Damascus, *FGrHist* 90 F 45 (*Sardis M2*, no. 35 with comments).

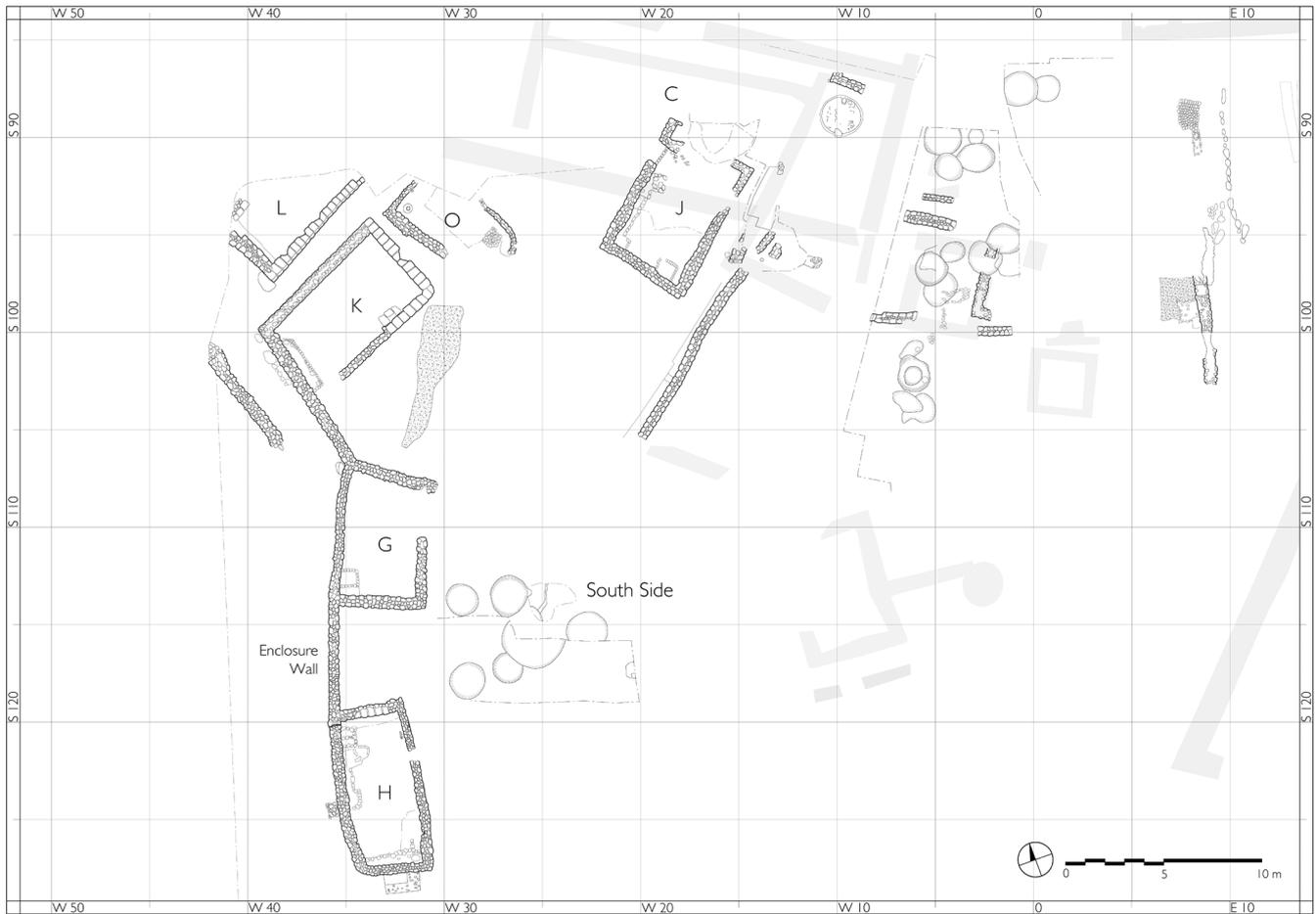


FIGURE 6.1 (= PLAN 5). Lydian II features in the Lydian Trench of sector HoB.

Chapter 6

LYDIAN II

EARLY TO THIRD QUARTER OF THE SEVENTH CENTURY B.C.

THE WESTERN EDGE OF THE LYDIAN TRENCH

Nowhere else in Sardis do we get such a good sense for a Lydian town as we do in the Lydian II level at HoB. The best-preserved structures from this period are in the western part of the Lydian Trench;¹ they form a group, of which several are physically linked to an enclosure wall (Fig. 6.1).

Buildings H, G, and K are connected by a long, gently curving north–south wall that continues for a length of roughly 20 meters (Fig. 6.2; see Fig. 2.3) along Buildings H and G. At the northwest corner of G, there is a curious triple bond between two of G's walls and the enclosure wall (Fig. 6.3). The enclosure wall then turns slightly to the northwest for another eight meters before turning a corner to the east² to form the north and east walls of Building K. There are no constructions attached to the outside (or the west side) of this long wall.

The maximum preserved height of the stone socle is ca. 2.0 m at the south end, dropping to ca. 0.60 at the north. Floors slope too, reflecting a fall in ground level that was still visible at the time of excavation.³ The width of the wall is uneven, averaging ca. 0.70 m. Both because there are no projections on the west side and because of its size, the wall

is interpreted as a perimeter enclosure of an area of small houses or workshops (see Fig. 6.4). The southwest corner of Building H is the corner of the enclosure (see Fig. 6.5).⁴

The three rooms attached to the enclosure wall are of comparable size (H: 8 × 3.12 m; G: 6.5 × 4 m; K: 7 × 4 m), and finds from the floors suggest that all of them were built and occupied in the mid-seventh century B.C., although their floor levels vary by up to a meter, following the natural slope just mentioned.⁵ They have similar interior features, such as the stone foundations found in the corners of both Buildings G and H. The purpose of these interior constructions is unknown, but several others have been found in Lydian structures of this period and later;⁶ they may have been storage containers.

Buildings H and G are better preserved than K and the roughly contemporary L, which are lower in elevation and have a street running between them. It looks as though a flood might have destroyed the lower buildings (K and L), while the higher survived for a little while longer. The floodwaters may have run down the street between K and L, knocking out both the stone socle and mudbrick walls to either side.

The fragmentary Building O is included within the group of Lydian II houses at the western edge of the trench because it is aligned with Buildings K and L, and shares the

¹ Especially between W15 and W40.

² At W34–36, the enclosure wall runs from S128 to S107, as the west walls of H and G, then turns northwest and continues as far as W39/S100, the northwest corner of Building K.

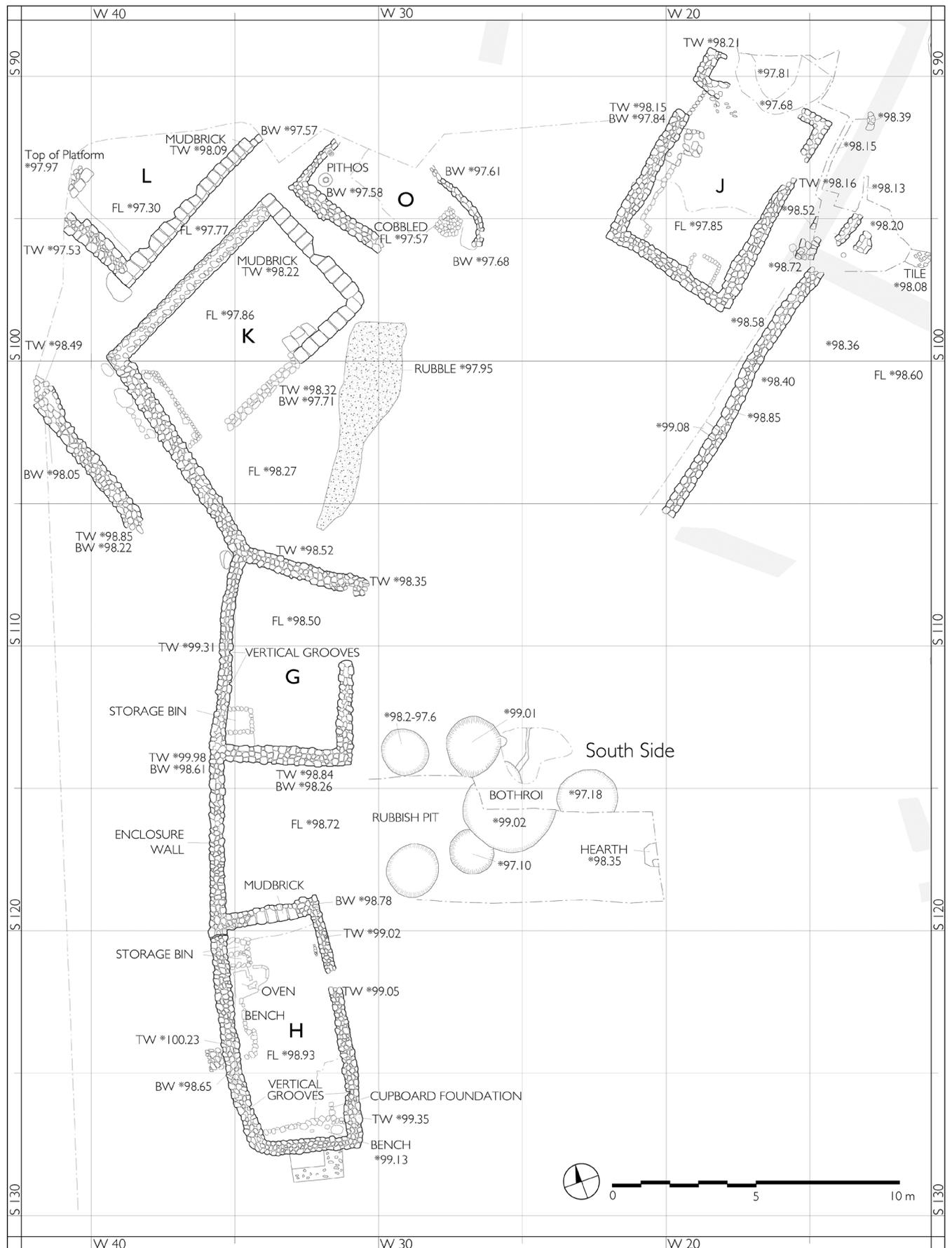
³ The base level of the precinct wall, however, shows less variation. It is ca. *98.4 at the south and *98.1 at the north.

⁴ Its east–west wall has not been traced beyond W24. The south wall of H appears to continue to the east, but that continuation is from a much later period.

⁵ The two floor levels of H are at *99.0 and ca. *98.8; of G, at *98.4; and of K, at *97.9.

⁶ For example, in Buildings J, A, and D.

FIGURE 6.2. Plan of Lydian II buildings on the western edge of the Lydian Trench in sector HoB.



passageway between them (see Fig. 6.2). Although only the corner of a building is represented by O, its date and finds, as well as the wall type and apparent function, are closely related to the other four buildings in the area.

Each structure and its associated finds will be described in detail in the following sections.



FIGURE 6.3. The northwest corner of Building G and the enclosure wall continuing toward the northwest. A large stone protects the juncture of the diagonal walls on the northwest side of G.



FIGURE 6.4. Building H, looking north. Just beyond the shadow on the left are the two compartments of the oven, and beyond that, the stone foundation for a storage bin. The bench on the west wall is in shadow. The mudbrick that fills the north wall is visible here. The pots on the floor are the same ones seen in Figs. 6.10 and 6.11. The enclosure wall continues northward, toward Building G.

Building H

There is no doubt that the doorway of Building H was toward the northern end of its east side⁷ because the stones of the wall, of which only one course remains, are fitted to make a squared end. The opening for the doorway was 0.60 m, a frequent size for Lydian doors.⁸ There are no traces of any walls joined to the east wall of H, so we may conclude that it was a single independent unit except insofar as it is tied to G and K by the enclosure wall. The walls of the building show a neat packing of stones that were mostly small and irregular in shape, but with a few larger stones at or near

the bottom of the wall. Part of the west wall was laid in quite regular horizontal rows, while at the southern end the layering of stones becomes more irregular. The southwest corner of H was distinctly rounded (Figs. 6.4, 6.5).

A large mass of mudbrick that had evidently fallen from the walls was found in and around Building H. Some of this material had been described as blocks of potters' clay when excavated, but it is now clear that these are mudbricks.⁹ Some of the bricks remained on the north wall to a height

⁷ At W31.5 between S122 and 123.

⁸ Ramage, *Sardis* M5, p. 6.

⁹ The earlier assumption was not entirely unreasonable: there was little experience with actual mudbricks up to that time and certainly no notion that some of them might be almost as plastic as potters' clay. It required the excavation of the Lydian city wall to show the variety of composition in mudbricks.

FIGURE 6.5. The southern end of Building H with rounded corner, looking east. The wall that seems to continue the south wall of Building H actually belongs to Lydian I.



FIGURE 6.6. Mudbricks found on floor of Building H at *99.1, reconstructed with offset joins.



of up to three courses, apparently from a repair, since that section was found in the middle part of the wall, at a lower level than the stones at the ends of the wall (visible in Fig. 6.4). Conceivably this repair might have collapsed into a window opening, since the north side is an especially suitable location for windows in climates where light, but not heat, is required, and there is no sign of any breakage in the other walls. The idea of a repair or conversion is suggested by the haphazard nature of the bond. In many cases the joins were located over one another, whereas it would have been better for them to be offset, as reconstructed with the same bricks (Fig. 6.6). The sizes of individual bricks *in situ* could be determined (roughly $0.40 \times 0.25 \times 0.08$ m), and these measurements match the size that recurs in the bricks of K and elsewhere, as well as in the city wall built nearby.¹⁰

¹⁰ The saved mudbricks from Building H (all of them with stone inclusions) had the following dimensions: (1) a complete one:

A number of features in Building H indicate the presence of interior furniture of sorts. Attached to the west wall was a raised bench-like structure made of stones, ca. 2.0×0.50 m and about 0.15 – 0.20 m higher than the floor (Figs. 6.7, 6.8). Behind it, up to the wall, was earth fill. It would have provided a useful working surface for someone squatting on his or her haunches.¹¹ On the north side of the bench and just beside it was an oven with two compartments made of hard, burned red clay, and to the north of that was the stone foundation of a storage bin, also divided into roughly equal compartments (visible in Fig. 6.9). It was 1.0 m long by 0.75 m deep and survived to a height of ca. 0.30 m. The stones may be supports for a wooden cupboard or chest, or perhaps they were storage containers for household items in themselves. Thus, on the west side, there was a long narrow working platform or bench, an oven, and a double storage bin nearby.

Just over the storage bin¹² was a narrow slit in the exterior wall, perhaps a channel for a wooden fitting or timber framing. At the south end of H, in its east and west walls, were two matching vertical grooves, 1.25 and 1.50 m from the south wall (Fig. 6.10). A line running between them is more or less parallel to the south wall. They are too close to the south wall to have served for a useful room partition and are more likely to have been for built-in furniture like a counter or shelves. Also at the southern end of H was another bench-like structure, 0.20 m high and made of stones and clay.¹³ It was approximately 0.50 m in width, widening toward the southeast corner, where there seems to have been another cupboard foundation 0.75 m long by 0.50 m deep and 0.20 m higher than the bench.

Many of the finds in Building H were actually on the floor or close to it; others were on the benches. We can, therefore, be confident that the artifact assemblage represents a grouping that was in use in the building at the time of the flood or whatever event put an end to occupation in this period. Several of the better-preserved pieces can be given exact positions within the room, and others at least general indications of their original whereabouts. A number of finds indicate or imply activities in the building. In the southwest corner, apparently on the bench or partly knocked off it, was a collection of fourteen knucklebones. Six of them were from sheep and the rest from cattle (**HoB 424**). Some of them were ground on both faces and one of each kind had

L. 0.40 , W. 0.25 , Th. 0.07 – 0.08 ; (2) a complete one: L. 0.38 , W. 0.25 – 0.26 , Th. 0.07 – 0.09 ; (3) a partial one: pres. L. 0.32 , W. 0.26 , Th. 0.08 ; (4) a half-brick: L. 0.210 – 0.225 , Th. 0.07 – 0.08 ; (5) one uneven across the top: Th. 0.07 .

For sizes and use of mudbricks at Old Smyrna, Nicholls 1959, pp. 100–106; for bricks in the city wall at Sardis, Greenewalt, Rautman, and Meriç, “SARDIS 1983,” p. 27, n. 14.

¹¹ Compare the benches in the Lydian houses in MMS-I: Greenewalt et al., “SARDIS 1986,” pp. 146, 153.

¹² At W35.5/S120.5.

¹³ Second “bench-like structure”: W. ca. 0.50 , H. 0.20 m.

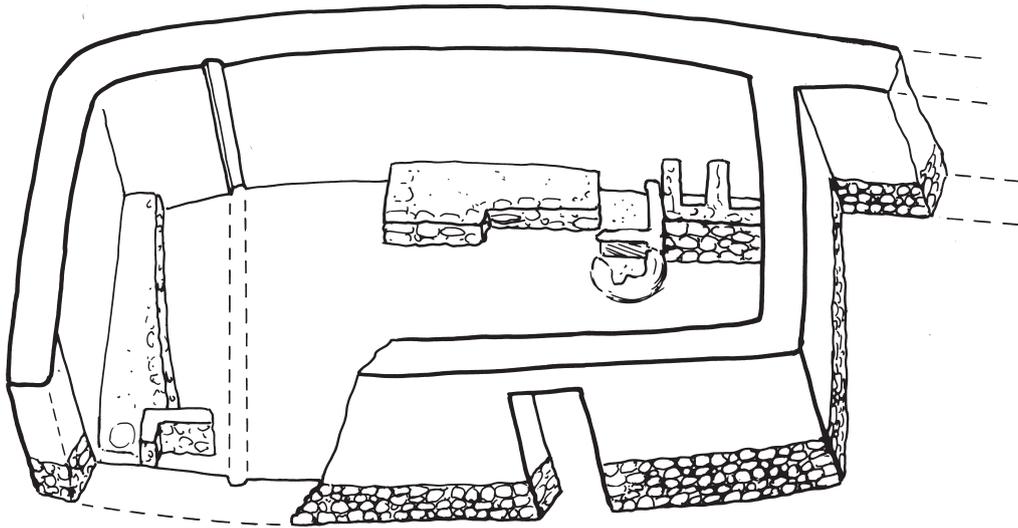


FIGURE 6.7. Isometric drawing of Building H, facing west (same view as Fig. 6.8). The oven, with two compartments, and a storage bin, also with two compartments, are at back right. A bench is on the west wall, with another on the south wall. A second storage unit (?) is at the end of this second bench. Grooves in the wall may indicate spaces for a room divider.



FIGURE 6.8. Building H, inner face of west wall, looking west. A bench in front of that wall is to the left of an oven. A storage bin is at right. The east wall of H is in the foreground, with space for the door at lower right.

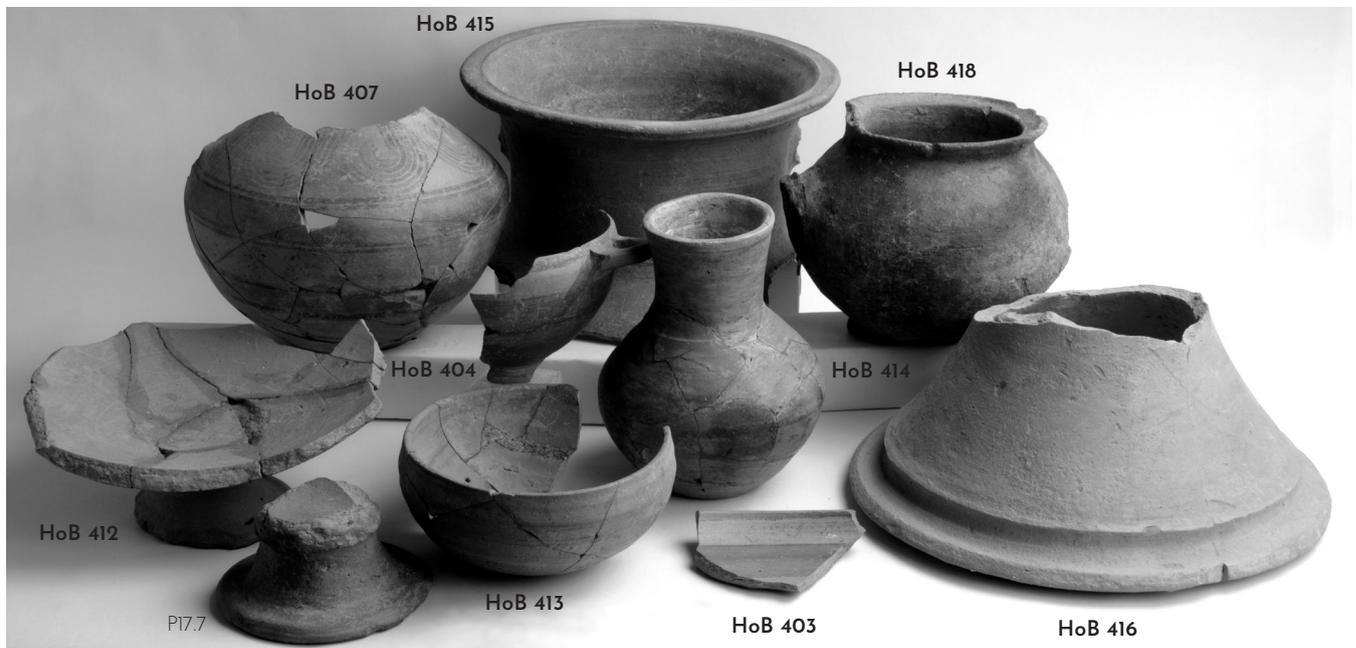


FIGURE 6.9. Interior of Building H, from above. At lower left (northwest corner), a storage bin with two compartments of stones, which may have supported a wooden chest above. This was early in the excavation of H, which was completed three years later, when the oven and bench were discovered. The door is visible on the far (east) wall.

FIGURE 6.10. Building H, looking south: the bench along the south wall is clear, in the shadow. Two matching vertical grooves can be seen in the walls to the south, one on each side. Several pots are lying on the floor (see Fig. 6.11).



FIGURE 6.11. The pots found on the floor of Building H.



a hole drilled in it. Several were found close together, but there was no indication of a container to suggest a standard set that could have been used for a game.¹⁴ In the southeast corner were many fragments of a large cooking pot, oddly an amphora in shape but made of cooking pot fabric, with a perforated base (**HoB 417**). The holes were made after firing. The condition of the blackened external surface suggests that it saw service as a regular boiling vessel before being turned into a strainer or steamer.¹⁵ Either way, the

narrow base would have fit well in the mouth of a cooking pot such as that found on the floor of L (**HoB 460**), acting much like a double boiler.

Roughly between the vertical grooves in the east and west walls, in the middle of the room, was a standard Lydian Waveline amphora (**HoB 410**). A group of smaller vessels was found further to the north, also in the middle of the room (Fig. 6.10 and Fig. 6.11): a Bichrome jug (**HoB 407**) on the upper floor; and, on a slightly lower floor, a small Gray Ware bowl (**HoB 413**) and a large, coarse stemmed dish (**HoB 412**). In the northeast corner was the neck of a Gray Ware amphora (**HoB 415**) as well as several loom weights and a large iron implement (**HoB 423**) that was over a meter in length.¹⁶ It was a spit that was presumably

¹⁴ Others were found in Building D; see p. 98. Compare to 1985 finds; mid-sixth-century group in a domestic context: Greenewalt, Rautman, and Cahill, "SARDIS 1985," p. 84. On the supposed invention of the game of knucklebones in Lydia, see Kurke 1999.

¹⁵ The holes were quite clearly knocked into it after firing, and not very skillfully either.

¹⁶ 1.07 m long (Waldbaum, *Sardis M8*, cat. no. 215).

meant to be used in the hearth/oven in the northwest corner of the room. In the middle of the room, opposite the hearth and other fixtures, were a cooking pot (**HoB 418**) and the foot of a plain krater or stand (**HoB 416**). In addition to these pots and the spit, some catalogued items were not precisely located, although they were definitely associated with H: many joining pieces of a Gray Ware jug (**HoB 414**) and about half of a red streaked skyphos with a reserved band and handle (**HoB 404**). A considerable number of miscellaneous but typical potsherds also help in providing a firmer base for our picture of a Lydian house or workshop and its contents.

As illustrated by Figure 6.11, the character of the finds in H is both local and ordinary. No imported pottery is mentioned in the fieldbooks as coming from the floor itself,¹⁷ nor was much of note found in the fill above the floor except the base of a small Protocorinthian closed shape (miniature oinochoe **HoB 420**).¹⁸ Apart from the Waveline amphora (**HoB 410**), there were no obvious Lydian imitations of imports like bird bowls or stemmed kraters. Skyphoi are present, but neither abundant nor varied in decoration. The most common single fabric is Gray Ware, mostly fragments from vessels like jugs, amphorae, or kraters, and although there is some variety in the painted wares, they are not represented in quantity. The most obvious difference from the previous level (Lydian III) is the much lower incidence of Lydian Geometric (Black on Red or Brown on Buff) and of pithos sherds, although some of the Buff Ware is decidedly coarse and thick. The Waveline amphora (**HoB 410**) and an amphora or oinochoe with pendent hooks (**HoB 411**), considered together, indicate a date solidly in the seventh century, which fits with the finds in the other attached buildings of Lydian II. But if the pottery represents equipment for a household industry in addition to the regular complement of domestic wares (i.e., dishes, a bowl, two skyphoi, and a jug),¹⁹ the lack of fine ornamental tableware is more understandable.

Many pieces of iron were found here, two of which were quite well preserved: a sickle (**HoB 422**)²⁰ and the spit mentioned already (**HoB 423**); and two others of significant size but uncertain purpose. There were also ten other pieces “sent to the lab,” but not characterized as to size or shape nor later reported as artifacts. The installation beside the small stone foundation for a storage bin on the west side²¹ was likely an oven, even though it is basically the same shape as the furnaces in the gold refinery

¹⁷ One sherd from the floor (**HoB 419**) may be an imported Anatolian Black on Red.

¹⁸ *Sardis* M10, cat. Cor 30, fig. 13 (Middle Protocorinthian to Late Protocorinthian).

¹⁹ See **HoB 403–HoB 407, HoB 413**.

²⁰ Waldbaum, *Sardis* M8, cat. no. 119. Waldbaum dated the sickle to the sixth century, but given its context, it must be seventh century in date.

²¹ At W34–35/S121.5–122.5.



FIGURE 6.12. Buildings H (upper) and G; south is at the top of the image. Photo was taken by balloon photography in 1965, before many of the internal features were uncovered.

area in the sector Pactolus North.²² Similar examples were found nearby and in the sector Northeast Wadi, a Lydian occupation area near the Temple of Artemis (see Fig. 2.2: no. 16).²³ The presence of loom weights adds to the domestic feeling, although knucklebones can, presumably, be enjoyed anywhere.

Building H and the other linked buildings could all be living spaces with some domestic industry within them, as would be completely normal in this period. Perhaps they even belonged to a compound of small houses inhabited by related people.

Building G

Building G, which is separated from Building H by a space of about five meters, is almost a mirror image of H in its main internal arrangements. Where H has a stone foundation in the northwest corner and then an oven or furnace just to its south, G has a stone foundation in the southwest corner. The floor levels of the two units were close: H at *99.0–98.8, and G at *98.5.²⁴ The two units (G and H), as well as the space between them and the area immediately to the east, should be considered together (Fig. 6.12).

Building G had no benches, nor matching vertical grooves across the room, but two grooves were found in the west wall, separated by a distance of 1.2 m. The southernmost was 2.2 m from the southwest corner and lay just

²² Hanfmann, Waldbaum et al., “SARDIS 1968, 1969,” p. 23; Ramage and Craddock, *Sardis* M11, pp. 83–87.

²³ Hanfmann and Waldbaum, *Sardis* R1, pp. 118–25.

²⁴ A second floor at *98.3, mentioned in Hanfmann, “SARDIS 1965,” p. 12, has been reinterpreted as a layer of mudbrick.

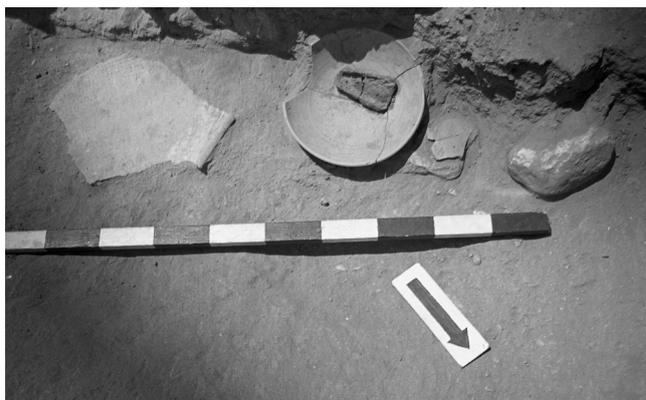
FIGURE 6.13.
Building G: two vertical slots
and the stone foundations of a
storage bin on left.



FIGURE 6.14.
Building G: pots
(**HoB 431** and
HoB 432) on
floor by hearth
in southwest
corner. Vertical
groove on west
wall shows near
right edge of
photo.



FIGURE 6.15.
Stemmed dish
(**HoB 425**) with
iron dagger
sheath (**HoB 438**)
resting inside it, *in
situ* on south side
of Building G.



beyond the storage bin (Fig. 6.13). They can be interpreted as provision for built-in furniture, like shelves. Certainly the size of the slots in the wall, with a width of ca. 0.10 m, is insufficient for them to have been structural elements of the building itself, and the fragmentary state of the east wall did not show anything to match. Another groove in the south face of the north wall, near the line of the east wall, might have served as a place to site a doorpost. There must have been a door in the east wall, but the gap there now is too wide for any typical Lydian door.

Construction and layout, in reverse, connect H and G, as well as their shared west enclosure wall, but there is nothing among the finds to unite them in terms of specific function. Several pieces of iron were found in G, but it was unclear whether they were finished artifacts. There was a smaller number of potsherds than in H, but three whole or nearly complete pots were found together (Fig. 6.14)—a cream-buff jug, **HoB 431**; a gray jug, **HoB 432**; and a small gray jar, **HoB 433** (not pictured in the figure)—as well as a fragment of a quern. A Black on Red stemmed dish (**HoB 425**) with an iron dagger sheath in it (**HoB 438**) that left a stain on the surface of the pot was found beside the wall just to the east of the stone foundation (Fig. 6.15).²⁵ Farther to the north in the room were several other pots, including a gray stemmed dish (**HoB 430**); the base of a gray jar (**HoB 434**); and an elaborately patterned but rather worn white-slipped sherd of Ephesian type (**HoB 426**). The relative dearth of finds may be attributed to the more serious damage suffered by the north and east walls, which were preserved only to a height of about 0.30 m.

A piece of bird bowl of early type, datable to 675–650 B.C.²⁶ (**HoB 437**), was found in the area between Buildings G and H, as was an almost intact jug with banded decoration (**HoB 409**) that lay close to the enclosure wall by H.

²⁵ Waldbaum, *Sardis M8*, cat. no. 7, pl. 1 (seventh century B.C.). The sheath shows clearly in the photograph of the bowl *in situ* (Fig. 6.15), and the stain it left is visible on the surface of the bowl, on PL. 110.

²⁶ Second quarter of the seventh century, or about 650, not later, based on parallels with Akpınar necropolis, Klazomenai, according to N. Aytacılar and M. Kerschner (personal communication, Sardis 2016).



FIGURE 6.16. Building K, looking southeast: mudbrick storage bin (?) along its east wall. At bottom of the photo is a street (?) to the northwest of K, and a small alley separates K from Building O to its northeast. Building J is toward the top right of the photo; wall of Building L is at lower left.

Building K

Building K (Fig. 6.16) is about four meters to the north of G. Its northwest corner marks an entrance to the complex of buildings on the western edge of the Lydian Trench, since the enclosure wall does not continue but turns abruptly to the east to form the northwest wall of K.

To the southwest of K, a thick wall (0.50–0.65 m wide and about 6.5 m long), roughly parallel to the enclosure wall, may have defined a street and controlled the entrance to the enclosed space (see Fig. 6.2). A hole ca. 0.20 m wide at the foot of this wall²⁷ is presumably for drainage, for the enclosure wall stops here. Its general alignment is continued by the west wall of Building L, which has been only partially excavated (again, Fig. 6.2). The adjacent walls of K and L are roughly parallel and form an alley or street about 1.5 m wide that leads into the enclosed area.

The southwest and northwest walls of Building K are part of the enclosure system, and K may first have been brought into existence by building a return in the enclosure wall.²⁸ An alley was formed by the short piece of wall base parallel to the northeast wall of K (see Fig. 6.16); this wall is part of Building O, which is described below (p. 83).

The most interesting feature of both Buildings K and L is the large amount of mudbrick (about three courses) preserved *in situ*. On the northeast and southeast walls of K it rests on a low socle (Fig. 6.17); no mudbrick was preserved on the other two walls. The bricks are a common size (0.40 × 0.25 × 0.08 m)²⁹ and laid as headers. In the bench area at the southwest, some of the bricks were larger, measuring 0.40 × 0.40 m. The matrix—that is, the



FIGURE 6.17. Mudbrick walls of Building K, looking northeast, rest on a low stone socle. A storage bin (?) made of mudbrick is at right.

fill—is repeatedly described as sand that surrounds large chunks of mudbrick.

Building K had a low bench (0.30 m high) faced with clay at its southwestern end, like that at the southern end of H. It was about 0.70 m wide and extended from the southeast wall (missing here; perhaps a doorway) across the width of the room almost to the corner between the northwest and southwest walls. On the inside of the southeast wall of K was a built structure of mudbrick rising about 0.45 m from the floor and measuring ca. 1.2 m wide × 0.60 m deep. This may well be a variant form of the rectangular stone foundations for a storage bin that have already been noted elsewhere. It is unlikely that it is the complete form, since there is no front wall; the excavator himself preferred the idea of a table. It is, however, more suitable for holding boxes or basins than for storage. It was not thought to be a hearth or oven because of the absence of reddening or sooty deposits.

Elaborate precautions were taken to protect the exposed corners of G, K, and L against the strength of the flood-waters that must have struck the buildings and run down the street between them. These safeguards took the form of a large boulder set against the external west face of the enclosure wall where it meets the corner

²⁷ 1.20 m from the west end of the wall.

²⁸ At W39/S100.

²⁹ See p. 74, note 10 for variation in brick sizes.

FIGURE 6.18.

Building K, looking northeast, with a narrow alley to its left, and Building L farther to the northwest (at left edge of image). The large stones (in foreground) near the corner of K and at the corner of L probably protected those parts of the buildings from rushing stormwaters.



FIGURE 6.19. Pile of rubble outside east corner of Building K.



of G (see Fig. 6.3); another placed at the northwest corner of K; and yet another opposite at the southern corner of L (Fig. 6.18). The analogy of modern village precautions against damage from turning carts could not apply here because the alley was too narrow for a wheeled vehicle of any kind. Beyond, past Building O, some other boulders were found, but whether they were protecting J, further to the east, or had been moved there by the floodwaters is unclear. Another sign of the catastrophic nature of the flooding is the abrupt difference in the preserved height of the enclosure wall at the corner of G. It must have been washed away to form part of the great pile of rubble just to the east of K (Fig. 6.19); and the same fate probably affected the upper courses of the socle of G. Presumably torrential runoff would have streamed down the hill and indeed, in the end, must have destroyed the building despite these efforts to protect it.

Despite the survival of three courses of mudbrick on the northeast wall, most of the walls of Building K were not so well preserved as those of G and H, and much of

the southeast wall had disappeared due to the rains, as described. There were no whole pots in the room, but a few large fragments remained in the eastern corner and by the bench on the southeast wall.³⁰ Perhaps most of the contents of K were removed before the final abandonment, given that the difference in quantity compared to G and H is so striking. Among the finds, the most obvious imports were fragments of bowls, a small piece of a Protocorinthian linear kotyle, and two pieces of East Greek pottery (**HoB 449** and **HoB 450**). The most common Lydian painted wares were dishes of red Bichrome (**HoB 439**, **HoB 442**). Gray Ware kraters and bowls were noted, and there were several pieces of a large lebes in cooking ware comparable to **HoB 460** from Building L. On or near the floor were fragments of three large Gray Ware skyphos kraters, each with different profiles.³¹ And the fact that two fragments of **HoB 446** found in 1968 join another piece found in 1964³² some 25 meters away suggests action of floodwaters rather than casual transport after breakage.

A large amount of pottery, including a complete cooking pot (**HoB 436**) and fragments of a large white Bichrome amphora (**HoB 445**), was found in the space directly between G and K and rather to the east of them. There was a considerable layer of stones in this area, which might have been debris from K deposited by the flood, or the remains of a wall in its own right (see Fig. 6.19). In the character of its finds, this space is closely linked with G and K and should be thought of as an associated activity area, if not an

³⁰ The floor level was about *97.90.

³¹ **HoB 446**, **HoB 447**, and **HoB 448**. **HoB 447** has a flat rim and sloping shoulder, quite unlike those of the usual gray or Waveline containers.

³² 1968: at W35–37/S99–100; 1964: at W20–25/S119–115.



FIGURE 6.20. Building L with partially washed out plastered wall; beyond it, the alley between L and K.

additional establishment. It also corresponds in the general floor level, identified over several seasons at roughly *98.5. It had much evidence of heavy use, as witnessed by the finds from patches of occupation debris and frequent mention of areas like hearths, despite the fact that it was not heavily built over.

At first sight one might propose that the distinct differences in level among H, G, and K reflected a temporal subdivision or sequence. But the evidence for the physical linking of three buildings and the close association of at least five, including L and O, whose floors range in level from *98.9 to *97.3 over a distance of 30–35 meters, suggests that these buildings should indeed be linked in terms of chronology and common use. Smaller areas just beyond them had no defining walls and were isolated in the gravel, so it is not clear how they were associated. The pattern of finds beyond the buildings is much the same as that within, and there are no implements that are clearly specialized,³³ nor many caches of items to suggest stocks of goods ready for customers. There is a good chance that all objects found here were meant for domestic purposes.

Building L

Although Building L was only partially excavated and only one corner is fixed, its external dimensions have been determined to have been more than 7.5×4.5 m, making it therefore comparable or even equivalent in size to K (see Fig. 6.2). However, its floor is 0.50 m lower than that of K.³⁴ The level



FIGURE 6.21. Building L, southeast external mudbrick wall. The street had been built up against the wall; here, part of it was left in place and, where the marker lies, the rest was cut away.

of the alley running along its southeast side corresponds to the higher level of the floor in K. The alley was worn in such a way that the center of it was lower than the edges, reflecting the fact that people walked down the middle of it, and the edges remained remarkably sloped upwards toward the walls at the sides (Fig. 6.21).

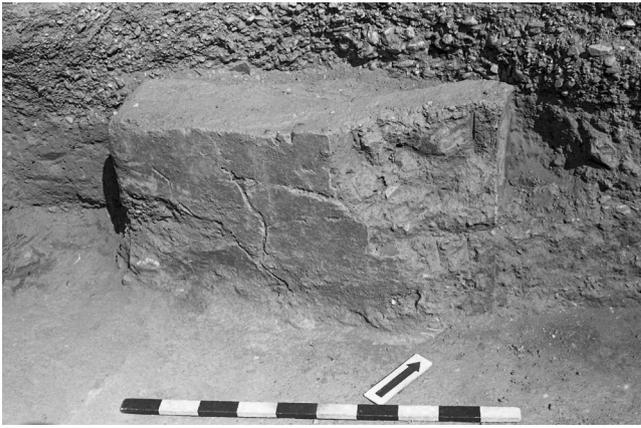
Building L's east and south walls are 0.70 m wide, with bricks the same size as those of K but without good bonding across the wall. Of the five courses that were exposed, the upper two of the outer face are set in a few centimeters from the line of those below, as visible in Figure 6.21. The inner face of the south wall was covered, right down to the floor, with smooth mud plaster (seen in the center of Fig. 6.20), which itself bore a thin white coating. This coating was sufficiently thick to have been a limey plaster rather than salt encrustation leached out from the wall, but there is no record of its having been tested.³⁵ In the northwest corner a similar finish was found on what may be part of a mudbrick work station or platform, 0.60 m in height,

³³ However, a double axe (**HoB 452**) was found on the floor near the east corner of Building K at W29/S99. See also Waldbaum, *Sardis M8*, cat. no. 129; Hanfmann and Thomas, "SARDIS 1970," p. 9.

³⁴ At *97.3.

³⁵ It seems quite probable that the substances would be chemically similar and one would be no wiser.

FIGURE 6.22. Building L, along the west wall, with a mudbrick work station or stand covered in plaster.



similar to the one described in K (Fig. 6.22).³⁶ It was higher than the benches in H.

In some ways L showed the effects of flooding more than the other buildings, although its structure was not so much damaged. This is best seen on the inner face of the southeast wall, where there are three large gaps in the surface and a considerable amount of the interior packing had been lost (see Fig. 6.20). These gaps are at regular intervals of about one meter, an observation that indicated to the excavator that something in the design of the building was responsible for the pattern. He suggested that a series of window openings might have offered an easy path to the rush of floodwaters, which removed parts of the inner face of the wall as they fell to floor level. The level of the alley was higher than the level of the floor in L, so one can easily imagine the waters rushing in through the windows, swirling around inside, and removing some of the surface of the interior walls. Certainly the lowest level of fill within the building was composed of disintegrated wall material, indicated by the finer-textured layer under the thick gravel, which is much coarser. It is also noteworthy that the wall of L and the corresponding wall of K were sheared off evenly at the same level.

There is not much independent record for the placement of windows in Lydian buildings. One can, however, see structures in Mediterranean towns and villages today where the street level has almost reached the sills of the ground-floor windows, and one must descend into the house, as was evidently necessary at the west end of L. A situation like that would offer an easy path to the water running down the alley.

Besides producing damage to the walls, the abrupt flooding resulted in even fewer fragments of pots and other artifacts that could be directly associated with the floor in L than in G or H. One piece that miraculously escaped destruction is a large, double-handled cooking pot (**HoB 460**). It was intact except for the lost upper part of one handle and the detached narrow flat base. Its overall shape, with two handles, is somewhat unusual, and the potter took the trouble to decorate it with incised horizontal lines

³⁶ It does not look like the return of the wall, and it had a smoothed upper surface, but, in making the estimate of the overall width for the building, we have assumed that it was attached to a northwest wall.

on the shoulder and belly. It was found within the room,³⁷ but unfortunately rather close to the edge of the trench, and there were no associated finds. Elsewhere in Building L, Gray Ware and painted ware fragments, including two pieces of white-slipped Ephesianizing dishes found on the floor (**HoB 453** and **HoB 454**), were found in approximately equal numbers. A fragment from a small closed shape (**HoB 457**), decorated with brown paint over a smooth, thick white slip, belongs to the same tradition.³⁸ It is close to the Geometric tradition and to Anatolian patterns.

A date for the floor is suggested by a piece of a bird bowl (**HoB 461**) with a nicked rim, steep profile, and delicate bird. These features, and in particular the arc and circle painted at the right of the bird, put it in Coldstream's Group II, which is dated around the second quarter of the seventh century.³⁹ More weight is attached to the bird bowl than to the white-slip pieces because they are local, and easily confused with borders of pieces from Greek Orientalizing wares that are normally dated later. Similar additional objects, such as Lydian painted pieces and the two-handled cooking pot, recovered while the foundations of the southwest wall of the room were cleared, come from within L and from quite near the floor.⁴⁰ Additional material consisted of numerous fragments,⁴¹ including six Gray Ware pieces that joined to form half the neck of an amphora (**HoB 459**),⁴² and one fragment of a large white Bichrome stand (**HoB 458**).

A probe in 1983 below the east–west passageway between K and L revealed no occupation level there that corresponded to the Lydian III level⁴³ further east and south. But bands of sand and gravel continued in this trench and in another nearby⁴⁴ to levels corresponding to the earlier (Lydian IV) levels of the deep soundings. This association was also confirmed by finds from the Lydian IV floors,⁴⁵ which included an Iron Age cooking pot (**HoB 295**).

It is quite clear that this area belongs to the complex of related buildings of the Lydian II period. One is tempted to speculate, in fact, that additional buildings in HoB were similarly organized to the north and west. Note that many of the Lydian buildings and walls at both lower and higher levels have a similar orientation.

³⁷ At W37/S93.

³⁸ E. Dussinberre reports (Dussinberre, Lynch, and Voigt 2019) that Brown on Buff ware turns up at Gordion in post–Destruction Level contexts, but seems to die out by the late seventh or early sixth century. Cf. Sams 1994, pp. 166–67.

³⁹ Coldstream, *GCP*, pp. 299–300.

⁴⁰ At the time of excavation there was some uncertainty about the level to which this wall belonged, because of its depth, but the plan and the water damage elsewhere leave no doubt.

⁴¹ Including 18 Gray Ware, 8 painted, and 4 buff fragments.

⁴² Gray Ware amphora dimensions: pres. H. 0.158 m, exterior diameter 0.24; int. 0.20.

⁴³ At ca. *97.

⁴⁴ W34–36/S92–94.

⁴⁵ Greenewalt, Rautman, and Meriç, “SARDIS 1983,” pp. 18–19.

Building O

About a meter beyond the east wall of K and aligned with its north wall stands the corner of Building O (see Fig. 6.2), with a pithos (**HoB 463**) placed within the angle of the northwest corner (Fig. 6.23). The neck of the pithos and the base of the walls were at approximately the same level,⁴⁶ and, in spite of the absence of a hard surface in this area, we can imagine that it projected a little above the floor. A hearth with a cooking pot (**HoB 462**) lay near a roughly cobbled “pavement” at a comparable level five meters to the east (Fig. 6.24).⁴⁷ It is situated close to a rather flimsy socle that may indicate an apsidal end to the building; conceivably it was a repair or temporary solution. A structure of roughly 4×6 m is proposed, and one that would have been much less solid than the other buildings described. This would allow some space between O and J (still further to the east), and brings both J and the early floors under D into the general organization of the buildings of Lydian II.

The pithos within the building was 1.20 m high, with a maximum diameter of 0.95 m. Inside it were 24 pieces of Lydian painted pottery, as well as 12 gray, 10 plain buff, and 2 cooking pot fragments, and one piece of breadtray. Among the painted wares were the rims of a red Bichrome krater and of a white Bichrome plate, both solid indicators of the Lydian II period, as is the general quantitative distribution, if such a small sample has much validity. In a trench beside the pithos—in other words, below the floor level—were about 60 waterworn sherds, many of them Gray Ware. This suggests that the material in the fill below the floor belongs to Lydian III, although no floor was reached.⁴⁸

Building J

Building J is a slightly irregular rectangular building 5×8 m on the exterior (Fig. 6.25) that stands further east than the associated Buildings H, G, K, L, and O.⁴⁹ Several quite large stones, ca. 0.35 m long, were used in its walls, but they are not uniform, nor is their use regular. Along the west wall is a long narrow bench of four meters,⁵⁰ and against the south wall, at the southeast corner, a three-sided rectangular feature built of small stones.⁵¹ These features exactly parallel those in Building H. Most of the north side was missing a wall, but a semicircular depression of about 0.10 m



FIGURE 6.23. Building O, northwest corner with a pithos (**HoB 463**) dug into a hole in the floor.



FIGURE 6.24. Building O, looking southeast, with a cooking pot (**HoB 462**) in situ. The “cobbled area” is near the meter stick.

in depth seems to have filled the space where a wall might have been.

Both the southeast and the southwest corners of J were carelessly built. It is conceivable that the stones were purposely laid in a fanlike fashion, but there is no precedent for this. A finished opening a meter wide in the west side appears to be a door with a threshold of small stones. A gap of about 0.50 m in the east wall seems to have been unintentional, since the ends are not finished. There exists no sign of a wall to the northeast that would join J to other buildings.

Building J is an example of a simple freestanding building within the complex, such as became common in the next period of occupation. Its main floor⁵² is comparable to the elevations of the floors and surfaces to the west, if we exclude Building L as being a special case. The abundant pottery from inside the building suggests a date in the middle of the seventh century. The proportion of Gray Ware is considerable (30 percent over about ten boxes), mixed with both red and white Bichrome, including a substantial portion of a large Lydian red Bichrome skyphos (**HoB 466**). In addition, nine fragments of a Late Protocorinthian linear kotyle (**HoB 467**)⁵³ suggest a date in the second quarter of the seventh century,

⁴⁶ *97.5.

⁴⁷ The recorded findspot of **HoB 462** places it outside the area of the cobbled floor and Building O. We have not been able to reconcile the fieldbook notes of G. F. Swift and the architectural plan made at the time.

⁴⁸ By *96.5.

⁴⁹ At W14–22/S89–98. The east wall is between 0.50 and 0.45 m thick, the north wall at the northeast corner is 0.40, and the average is ca. 0.45 m.

⁵⁰ 0.20 m high, 0.50 wide.

⁵¹ Ca. 0.96 × 0.72 m.

⁵² At ca. *97.85.

⁵³ This piece is dated late in Transitional or early in Early Corinthian by Schaeffer (*Sardis* M10, cat. Cor 75), who followed a rather late dating of kotylai by C. Brokaw (1964). In *Sardis* M10, this piece is identified as coming from G, but it actually came from J. There was some confusion in the labeling of the buildings early on.

FIGURE 6.25. Building J, looking east. The gap for a doorway on the west side shows here, as well as the fan-like corners on the south side of the building.



FIGURE 6.26. A round circular area at the northeast of Building J, looking northeast, used perhaps for drying clay.



or probably more toward the middle of the century.⁵⁴ Many shoulder fragments of an imported jug (**HoB 468**), most of which were found in the fill, have been dated not earlier than 630 B.C. by Neziĥ Aytaçlar and Michael Kerschner, but these should be from the next phase of the building.⁵⁵ A Carian graffito with four letters on a Lydian Buff Ware fragment,⁵⁶ also found in the fill above the floor, is an early example of writing from Sardis. Considerable remains of drinking vessels and plates turned up, but not many pithos or breadtray fragments. Directly to the north of J,⁵⁷ and lying on the floor, was a complete iron spit about 0.71 m long (**HoB 469**).

At a level about 60 centimeters higher than the floor of Building J was another floor (at *98.4) that falls between Lydian I and Lydian II (see below, p. 101 for discussion).

⁵⁴ As per discussion with Michael Kerschner and Neziĥ Aytaçlar (personal communication, July 1–2, 2016).

⁵⁵ One fragment was recorded as found on the floor, but we regard this as an error, since all the rest were in the fill above; and the rest of the finds were in the fill above as well.

⁵⁶ P66.52 (=IN66.32): “SARDIS 1966,” fig. 7. See also P61.179: Hanfmann and Masson 1967; Gusmani, *Sardis* M3, C II 2 (b); and Gusmani 1982, pp. 128–29.

⁵⁷ At W16/S89 *98.3.

From around this floor came a deposit of sherds and a loom weight (**HoB 470–HoB 476**). One of the sherds, a Protocorinthian linear kotyle (**HoB 473**), dated in the early to middle seventh century, is earlier than the rest of this group, and may belong in the context of Building J. The deposit also includes a late seventh-century Late Transitional or Early Corinthian base (**HoB 472**); a rim sherd of a small bowl with a nicked rim and chevron patterns (**HoB 475**), which belongs to the East Greek or Island tradition;⁵⁸ and another rim sherd of a bird bowl (**HoB 474**).

In general, among the simple Lydian painted wares, there is more streaky and Waveline ware than there had been in Lydian III, and more simple painted bands in dark but not lustrous red and black paint. The polychrome ware is equal parts black and red, and black and white types. Of the twenty-three skyphos sherds from Building J, seventeen have no paint on their outside (except for a fine band at the rim in three cases) and rather weak-looking streaky paint inside; the others are painted solid on both sides. The general proportions of pottery from the Lydian II level in Building J show the change that has been noted elsewhere: Gray Ware has decreased and skyphoi have increased. For this area of Building J, the actual figures from two boxes at the Lydian II level are 25 percent simple Lydian painted, 25 percent Gray Ware, 15 percent Bichrome, 15 percent Lydian Buff Ware, 10 percent cooking pots, and 5 percent each of skyphoi, pithoi, and breadtray.

Other objects from Building J included a small piece of an incised pithos sherd (**HoB 471**) and a lumpy four-sided loom weight (**HoB 476**); and from the corner of a hearth or oven: baked mudbrick 0.10 × 0.125 × 0.027–0.034 m with

⁵⁸ Cf. Boardman 1967, no. 159 for decoration, referencing Friis-Johansen 1958, p. 121 for skyphoi in general. Also Popham and Sackett 1968, pl. 50: 200–204. See now Kerschner and Schlotzhauer 2005.



FIGURE 6.27. Northern part of Central Area with bothroi, looking northeast from W5/S105, in 1965. The bothros at back left was excavated by removing the gravel around it. Deep Sounding A (backfilled) is visible at top right.

brown clay on the underside and a top that was smooth and gray. There were also five pieces of iron. This mixture of proportions fits well with the buildings of Lydian II at the west side of the trench, and with objects specifically associated with Building J.

To the northeast of Building J, at W10/S89, level *98.13, a round circle was filled with clay, as if the inhabitants were trying to dry the clay for some further use (Figs. 6.1 and 6.26). Perhaps it was the base of a later pit that had been dug in from above.

The assemblage of eating and drinking vessels, together with the freestanding nature of the building, makes one wonder if Building J might have been a wine shop or eating establishment.

SOUTH SIDE AND CENTRAL AREA: BOTHROI

A great many roughly circular pits were encountered in the course of excavating between levels *98 and *97 (see Fig. 6.1). Their sizes vary from as little as one meter to as much as three meters in diameter. We have referred to them as bothroi, or storage pits, although it is not clear whether all had the same use or even whether storage was their main function.

Most were dug through the thick gravel layer separating the occupation level of Lydian II from the clayey level covering the burned floor of Lydian III. The bottoms of many bothroi coincide with that clayey layer or were just cut into it, as if the makers were looking for a solid base after digging through as much as a meter of gravel. Thus, some of the bottoms of the bothroi went through to Lydian III, but they have mostly been shown on our plan of Lydian II, because that is when they were dug and used.



FIGURE 6.28. The inside of a bothros with smooth white plaster-like lining on the interior wall.

The gravel was so loose that some of the contents of the bothroi had to be excavated in reverse, that is, after the surrounding, previously undisturbed gravel had been pulled away (Fig. 6.27). In most cases, the contents were much the same kinds of pottery as the finds in the surrounding gravel, although in several cases the fill had taken on a distinctive greenish cast, which often indicates the presence of organic matter.

We were not able to determine what these bothroi were used for. Some of the pits were lined with a whitish plaster-like material (Fig. 6.28), but this did not survive well enough in any particular instance to help with the question of purpose and use. There was nothing that would mark them specifically as storage bins rather than vats for industrial purposes such as clay settling or dye making.

Intersecting bothroi are more common in the northern part of the Central Area, which had in the previous period at least one specialized activity centered around a small oven or furnace. In the South Side corner of the trench, however, bothroi were usually single, even though a few were intersecting here too. At least one here has a high elevation (*99.02) and might be as late as Lydian I.

One of the bothroi, and possibly more, appears to have been used as a rubbish pit. This one was located just to the east of Building G,⁵⁹ an area that showed many signs of occupation, as alluded to already. The whole collection of pits in both the South Side and the Central Area could have been part of a pattern of refuse tipping by the occupants of the floors of Lydian II. Curiously enough, however, many of the pottery finds in this bothros east of G were not obviously rubbish at all. Several were unbroken pots in good condition, perhaps victims of changing taste or overzealous spring cleaning. Without internal stratification, it is hard to reconstruct what accident or circumstances resulted in the deposit of this group of twenty-one pieces; however, it is of some value as a well-preserved group of pots contemporary with the housing complex associated with the enclosure wall.

- HoB 477** Ephesianizing stemmed dish
- HoB 478** Black on Red stemmed dish
- HoB 479** Black on Red stemmed dish
- HoB 480** round-mouthed jug
- HoB 481** small trefoil-mouth oinochoe
- HoB 482** squat trefoil-mouth oinochoe
- HoB 483** trefoil-mouth banded oinochoe
- HoB 484** neck of red Bichrome amphora
- HoB 485** neck of Waveline amphora
- HoB 486** small squat Black on Red jar
- HoB 487** small squat jar
- HoB 488** round-profile trefoil-mouth oinochoe
- HoB 489** squat Gray Ware round-mouthed jug
- HoB 490** neck of Gray Ware amphora
- HoB 491** large coarse cooking pot
- HoB 492** breadtray
- HoB 493** rim of a small serving bowl, Aeolic (?)
- HoB 494** imitation Protocorinthian ovoid aryballos
- HoB 495** rim and neck of a Protocorinthian aryballos
- HoB 496** imitation Protocorinthian aryballos
- HoB 497** loom weights

Beside this group of catalogued items, the proportion of pottery in one box from the pit was: 30 percent cooking ware; 30 percent plain and pithos; 20 percent gray; 20 percent painted. Painted wares included Waveline, streaky, and early Lydian Geometric.

This hoard has been treated as coming from the pit and as belonging to Lydian II proper because, although it was described as a “heap,” it was also “embedded in brown earth, and rested on gravel about 20 cm above the heavy clay surface. Gravel beds at sides and above.” The location of the pit is so close to G that there is every reason to suppose that the people who used G were presumably engaged in the activities that brought them to dump pots in the bothros nearby.

The connection with the Lydian II level is reinforced by the fact that the Ephesianizing stemmed dish (**HoB 477**)

from this hoard is composed of several pieces, many of which come from a considerably higher level, at *98.65–98.55, corresponding well to the floor level of G. When one characterizes the whole assemblage, the overwhelming impression is that this is mostly local material, just as was the case for the pottery found in H (see Fig. 6.11) and associated buildings. Nonetheless, several pieces⁶⁰ are either actual Greek imports or are close enough to indicate a preference for the style. One piece, the rim of a small serving bowl, is thought to be Aeolic (**HoB 493**). The fragment from a large Greek bowl with a nicked rim, from slightly above the group but below the *98.6 floor level (**HoB 503**), is probably from Euboea,⁶¹ and is similar to, but much finer than its Lydian imitator from the contemporary floor (**HoB 500**). Some of the other pieces, like Waveline and banded fragments, are of a local fabric but have a generic relationship to Greek wares in their decoration. A third category also has a local flavor but shows a relationship to southwest Anatolian wares, in particular the “delicate” style.⁶² These connections fit well not only with the pottery found in G, with which the group belongs, but also with the pottery from the other buildings of the Lydian II complex.

A sherd with unusual elongated S designs (**HoB 427**) from a round-mouthed jug is intriguing for its decoration.⁶³ In the area yet further to the east⁶⁴ there were a few pottery finds (**HoB 501**)⁶⁵ as well as a decorated bone roundel or chape carved in the Animal Style (**HoB 507**).⁶⁶ The bone disk, and another one that was found nearby,⁶⁷ could have been made by a Lydian or a foreigner. Yet another bone disk was found at the same level, but in the northern part of the trench, in the area of Building J (**HoB 506**). Perhaps these were taken off opposing dead soldiers.⁶⁸ It is interesting that in close proximity we have evidence of the Animal Style as well as a Carian graffito and Lydian pottery *en masse*. It must have been a cosmopolitan place.

In the absence of additional structures or an obvious pattern to the artifacts, no specific activities may be recognized. Maybe it was an informally shared space, such as that frequently seen in modern villages near the well or on a common path outside the buildings.

⁶⁰ **HoB 494**, **HoB 495**, and **HoB 496**.

⁶¹ Popham, Sackett, and Themelis 1979, vol. I, p. 63 and pl. 46.

⁶² **HoB 478**, **HoB 479**, and especially **HoB 486**.

⁶³ It is less closely fixed for findspot but was probably from a bothros.

⁶⁴ Beyond a line at W25.

⁶⁵ Including P12.140.

⁶⁶ This is one of four bone roundels found in the Lydian Trench. For other Animal Style roundels, see the discussion of Building F, p. 100.

⁶⁷ Greenewalt, Cahill et al., “SARDIS 1986,” p. 166 and fig. 35.

⁶⁸ Two other bone pieces were found in the Lydian I level; they were being reworked and may be trophies from this event. The bronze horse trapping with the head of a hawk (**HoB 735**), found six years earlier in about the same area, also comes from a later Lydian level.

⁵⁹ At W29–30/S114 *98.2–97.6.

EAST END

No preserved remains of structures at the east of the Lydian Trench balance that remarkable planned group at the west side; on the east side, only traces of buildings and nearby occupation debris were found. In particular, a floor, and a “nest” of pots associated with it,⁶⁹ is from the mid-seventh century. It included Lydian Geometric, Bichrome, and monochrome, as well as a piece of an imitation East Greek stemmed dish (**HoB 510**); the neck of a white Bichrome jar decorated with concentric pendent hooks between horizontal bands (**HoB 508**); and just to the west, several nonjoining pieces of a large closed red Bichrome jar (**HoB 509**). Over the whole level, where floors were preserved, potsherds were consistently associated with Lydian II characteristics.

The pattern of walls in this area is difficult to reconstruct because the structures may have been dismantled to provide room or materials for those that followed. In these cases the floor areas and finds must be presented as postscripts to the descriptions of whole buildings of the Lydian II period. This gives them rather more reality in terms of location, insofar as they are not merely anonymous collections of grid coordinates, but adjuncts to actual structures or living spaces.

Although the concentration of coherent buildings from Lydian II is located in HoB south of S87, finds from this level were identified too in the small excavations dug in the northernmost part of the trench under the Roman House of Bronzes. In the “Lydian Room” (pp. 91–92), a floor that showed much evidence of burning was identified at *96.7.⁷⁰ It was found 1.5 m below the level of Lydian I, from which it was separated by waterlaid sand and gravel. Only small sections of wall survived in this area, but many fragments of pottery were found among the remains of ash and charcoal (see p. 92). Below the “Lydian Shop” there was unmistakable evidence of Lydian II as well (pp. 90–91).

CONCLUSIONS

During Lydian II, the people of Sardis flourished sufficiently to set up and maintain a complex of small buildings in a denser configuration and with more substantial walls than the architectural remains from the previous levels had shown. The simple structures of this period have been taken as some form of housing in which household industry or home manufacture would have taken place. Much of the importance of the housing complex, besides its architectural interest, derives from the fact that at least three of the rooms (H, G, and K), having been relatively undisturbed,

produced a considerable number of objects that were either stored on shelves or already on the floor when the structures were abandoned.

The circumstances point to something sudden bringing occupancy to an end, but human violence seems less likely than flooding, which, as mentioned in the introduction (pp. 29–30), was frequent but not always on a grand scale. An explanation such as this might help to account for the lack of small objects (other than pots), which could have been swept into a knapsack at short notice. We might also speculate that the inhabitants or workers in this area did not have much in the way of personal possessions.

The evidence for the decoration and shapes of pottery in Lydian II helps us to form an assessment of the Lydians’ interest in both Greek and Anatolian pottery, especially that from Gordion. The borrowings from the east can be seen perhaps in a revival of taste for round-mouthed jugs, especially those with flaring necks (Lydian III prototype: **HoB 376**; Lydian II imitation: **HoB 427**), following the Phrygian model.⁷¹ It is of considerable significance that the Lydian II level shows such a sparse number of imports,⁷² while the earlier level below (Lydian III) and the later level above (Lydian I) had a much higher proportion.

Although the historical record in the literary sources claims that the Kimmerian attack on Sardis occurred ca. 652 B.C., which falls within the period when the houses of Lydian II were standing, the evidence from this level does not reveal the kind of disastrous burning and destruction seen in Lydian III, and we cannot point to clear marks of their attack.⁷³ There has been a great deal of discussion of the Kimmerians in the Sardis literature,⁷⁴ but the evidence does not show a catastrophic fire in Lydian II. Nor do we find evidence in HoB of the Persian attack in the following century.

It is now time to turn to the higher levels, where the remains of Lydian I lie above and sometimes directly upon the constructions of earlier periods.

⁶⁹ At E5.5/S97.5 *99.0–98.8.

⁷⁰ At the time, it was called Lydian level II B. Hanfmann, “SARDIS 1959,” p. 30.

⁷¹ Young 1981, pp. 114–21 (bronzes) and 224–27 (pottery); Sams 1994, pp. 176, 178, 188.

⁷² *Sardis* M10, pp. 3–4.

⁷³ Another instance of an attack in which the large fires described in the historical record do not appear in the stratigraphic record, without undermining our confidence that it actually took place, is the attack of the Ionians in 499 B.C. See Herodotus V.101 (*Sardis* M2, no. 282).

⁷⁴ Hanfmann and Mierse, *SPRT*, pp. 29, 68.

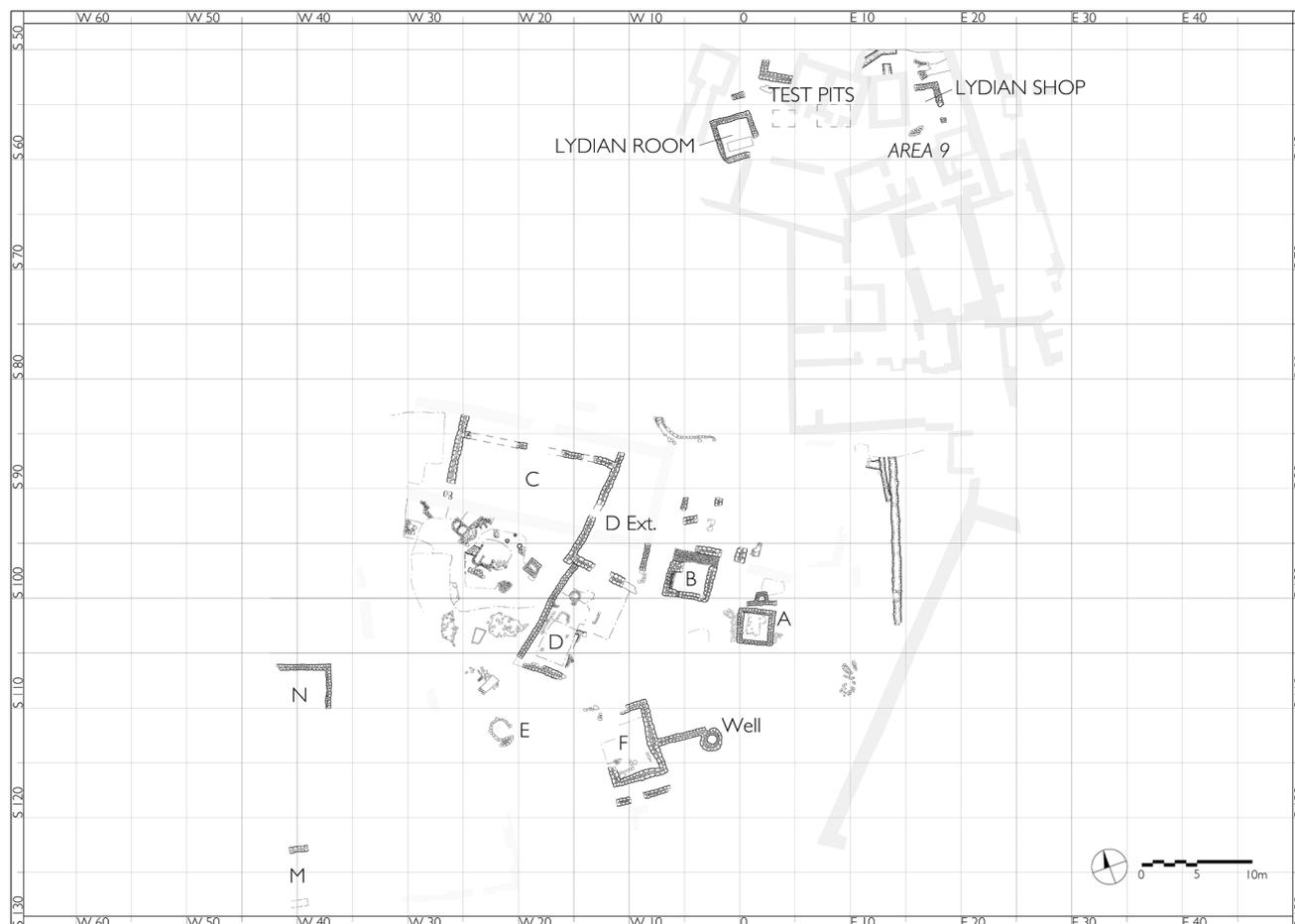


FIGURE 7.1 (= PLAN 6). Lydian I features in the Lydian Trench of sector HoB.
 Most of the walls in red are those of the Late Roman "House of Bronzes."

Chapter 7

LYDIAN I

LATE SEVENTH AND EARLY SIXTH CENTURIES B.C.

Lydian I stretches from the last quarter of the seventh century to the destruction of Sardis by the Persians in the mid-sixth century B.C. It was during this period that the great city wall was built just to the east of sector HoB, and it is conceivable, indeed likely, that the construction activity and the huge operations needed to build both the stone socle and the mudbrick wall were responsible for limiting activity in this area at the beginning of the sixth century. In Lydian II there had been no formal wall or limit to the city, but with the building of an official boundary in ca. 600 B.C., the community in HoB would have found itself on the outside of the defensible circuit, and thus in a less desirable place to live. When all the structures and building debris over the area of HoB itself are taken into account, it seems clear that there was a large area of sparse occupation in this part of the site from the late seventh to the middle of the sixth century.

Interestingly, we found no evidence of the great conflagration caused by the Persian attack that destroyed the reign of Croesus and brought an end to the Lydian kingdom. This event has been reported in the sources¹ and documented in the archaeological investigations of the city wall and in the domestic remains explored just to the east of it (see Fig. 2.2/Plan 1).² The wall itself is severely burned in places,³ and smaller structures on top of the wall undoubtedly were destroyed in the fire, but most of the brick fall

from the upper wall was not burned and charcoal was found only in the rocky layers below the brick fall on the east side. No sign of the burning shows on the west side next to the Lydian Trench of HoB. Presumably there was nothing much flammable on the outside of the wall (the west side, where HoB is located), and the ground must have been rather bare once the wall had been erected.

Naturally enough, the picture of Lydian I is formed from fragments, but much more elegant fragments than those of the previous levels. The period is characterized by the frequent importation of East Greek ceramics from various centers, and by the Lydians' adaptation of the Wild Goat style into a most colorful style of their own, as described in the pottery summary (see above, pp. 16–17).⁴ The “Sardis Style,” which is a local imitation of Wild Goat, may be the most splendid example of this spirit, but it shows in the more humdrum painted wares too. White stripes, dots, and rosettes become commonplace, and a sheen becomes popular in the increasing use of intentional streaky glaze. In fact, the kinds of pottery favored undergo a change; a much higher proportion of the tableware is painted than previously, sometimes as much as 70 percent. Whether the absolute quantity of pottery used by Lydian households went up is open to discussion, but it is certain that the proportion of Gray Ware is distinctly reduced.

As before, we shall describe the structures, their setting, and the associated artifacts that provide evidence for life in this part of Sardis (Fig. 7.1). Masses of pottery

¹ *Sardis M2*, nos. 113–123.

² At E120–155/S50–150. For destruction debris at MMS, see Cahill 2010c.

³ See Cahill 2010b.

⁴ A more detailed account with colored pictures can be found in Greenewalt 1970.

were found at this level, much of it (including ten Lydian lamps, **HoB 579**) more or less whole, but without associated architecture. Perhaps this is evidence for impermanent structures made of wattle and daub, with lots of finds but little in the way of building remains.

LYDIAN AREAS BENEATH THE ROMAN HOUSE OF BRONZES

The area at the far north of the Lydian Trench gave fragmentary evidence of Lydian buildings because they had to be pursued below the floors of the House of Bronzes itself. The nature of the walls and the finds is exactly like those in the more open area to the south that were not encumbered by Roman remains, but they are not close enough to the other buildings to be fit neatly into the pattern. The rooms that could be reconstructed, and the tantalizing fragments from this area, have therefore been presented separately. It must have been extraordinarily surprising and exciting in the first year of excavation (1958) to find Lydian remains immediately below the Roman walls of the Late Roman House of Bronzes; and it was these that led us to the rest.

The Lydian Shop

About 30 meters to the north of the open areas of HoB,⁵ in the area directly below the foundations of the Late Roman House of Bronzes (especially in “Area 9”; see Fig. 7.1), a small probe was dug within a Roman space.⁶ Several Lydian I wall fragments appeared here, and in fact they were the original inspiration for further exploration in what became the main Lydian Trench of HoB. This area was defined by two sections of wall, each about two meters long, that formed a corner;⁷ and by another small section about 1.5 m to the south.⁸ The first identifiable, although fragmentary, space was dubbed the “Lydian Shop” because of the nature of the finds associated with a floor deposit at *96.70–96.50. This level for Lydian I is about 2.5 meters lower than the Lydian I level in the main trench of HoB. The reason is that the land slopes here toward the north, so that the same period is found at a lower level.

“Shop” is to be taken in this case to refer more to a workshop or repair shop than to a retail establishment. It is highly likely that broken vases were being restored or given a secondary function in the Lydian Shop during Lydian I. The most telling piece of evidence was the presence of a great many sherds with a series of small holes drilled on either side of joining pieces. In one case (**HoB 522**), parts of the

lead strips commonly used as cramps in repairs remained in the base of the pot. These holes occurred in enough instances to suggest that repair work was actually being carried on in the area. In addition, a group of ten hydria and amphora necks (**HoB 524–HoB 533**) was discovered in one place. The excavator noticed that “the upper parts of the vases remained relatively intact and close to each other, as if they had been standing together, while the lower parts were smashed and sometimes scattered about.”⁹ However, very few fragments of the lower parts of the pots were found. This would not be surprising if the pots were already broken when they were brought in, and the potter was trimming off what lower parts remained in order to turn the necks into pot stands.¹⁰ The same kind of trimmed vessel necks was found in the area south of Building C, from the floor by Hoard A (see pp. 102–104).¹¹ The discovery of ring pot stands, made for this purpose from the beginning (**HoB 535, HoB 549**), strongly suggests it. These were valuable finds in that they established a special shape that the trimmed hydria necks were trying to imitate (see Fig. 1.2).

Several other items can be included in this refashioning of broken articles, including the stems of four stemmed dishes suitable for funnels or stoppers.¹² A stopper is also the most obvious secondary use for the tall, cone-shaped foot of a skyphos (**HoB 517**) that had been trimmed like the jar necks; it fits extremely well into the mouth of a small lydion (**HoB 541**) found nearby.¹³

In addition to the pottery under repair, the ceramic finds from the floor level of the Lydian Shop, or just above it, were mostly local wares, including much of a large Bichrome Myrina amphora with a streaky-glaze band on the belly and ornate neck (**HoB 521**), and an ovoid lekythos of typical Lydian shape (**HoB 520**). But important for the dating was an East Greek Wild Goat fragment (**HoB 543**) that places the establishment’s main period of activity in the late seventh century. On the other hand, it may not have ended so abruptly as the buildings in the main Lydian Trench of HoB, because there is a considerable amount of pottery from the sixth century in the earth disturbed by Hellenistic and Roman construction.

The beginning of industrial activity in this area is likely to have been contemporary with the regularization of the whole complex of HoB in the seventh century, because pots with the characteristics of that earlier period were found below the floor, in association with a fragmentary oven or kiln that had been blackened by fire (Fig. 7.2).¹⁴ The oven,

⁹ Hanfmann, “SARDIS 1958,” p. 28.

¹⁰ Ramage 2008, pp. 79–85.

¹¹ Logic dictates that the wider portion of the stand would be the base, but no independent evidence has proved it.

¹² **HoB 511, HoB 512, HoB 513, and HoB 514.**

¹³ For other examples of reuse, see pp. 8–9.

¹⁴ The records here are scanty; oven previously described as possibly a kiln. See Hanfmann, “SARDIS 1958,” pp. 28–30.

⁵ E15–20/S54–58.

⁶ Hanfmann, “SARDIS 1958,” pp. 27–30. Formerly called Unit or Area 9.

⁷ At about E17.50/S53.

⁸ On the north–south line.

at *96.00, was separated from the upper floor by 0.50 m of charcoal and ash, and therefore belongs to an earlier period than the shop itself, undoubtedly to Lydian II. The pottery in the fill between the upper floor and that associated with the oven consisted of many fragments, including Black on Red ware,¹⁵ a coarse kitchen pot (**HoB 551**), a Gray Ware fragment with a silvery wash (**HoB 550**), and a fragment of a Bichrome bowl decorated with a dark wavy line (**HoB 546**).

A pit in the northeast corner of the Lydian Shop was dug to *94.8,¹⁶ where ashes, bones, and a few fragments of mudbrick were found, as well as pottery consisting mostly of painted fragments in Brown on Buff, Black on Red, and brown, gray, and other monochrome fragments, chiefly flat-bottomed bowls.¹⁷ These could well be from Lydian IV or earlier.

It is interesting for the history of urban development at Sardis to see that dense Lydian occupation continued to the north in this period; but any Lydian building beyond the old modern highway has been obscured by the building of the Marble Avenue and the massive foundations of the Bath-Gymnasium structure erected in Roman times.¹⁸

The Lydian Room

The Lydian Room, discovered beneath the Roman House of Bronzes in 1959, retained its original descriptive title outside the alphabetical system that was begun in 1960 for the same reason as the Lydian Shop. It too is at some distance from the main concentration of structures in the Lydian Trench and helps to confirm the continued breadth of occupation in the area.

The square room (Fig. 7.3) was missing its south-east corner, but there were otherwise no openings in the walls.¹⁹ The socle, up to 0.60 m wide, was preserved for only one or two stones in height (up to 0.20 m at the northeast corner). The overall dimensions were 4.2 × 3.75 m (3.0 × 2.8 m on the interior). Two floor levels were identified within the room: one at *98.60, with traces of burning, representing the final phase of occupation before its destruction, and a second one at a level 0.30 m below that, at *98.30.²⁰ These two floor levels both correspond to our



FIGURE 7.2 An earlier kiln found half a meter below the Lydian I floor of the Lydian Shop.

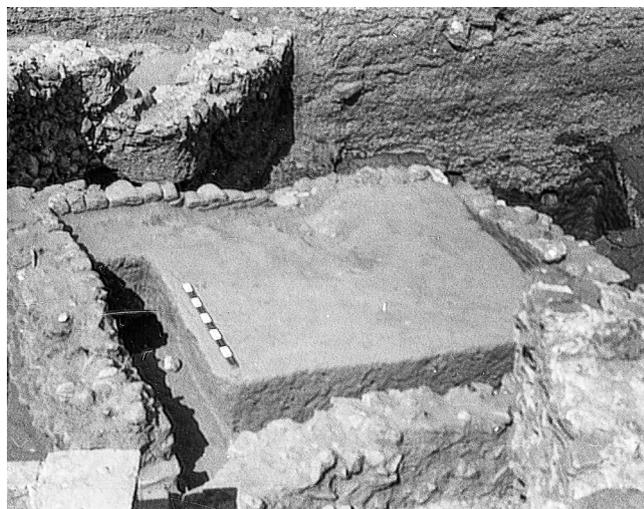


FIGURE 7.3 The Lydian Room, looking north.

Lydian I on the basis of the pottery.²¹ Among the finds were a Lydian Orientalizing column krater (**HoB 556**) and a streaky banded jug with petals on its shoulder (**HoB 554**), both from outside the room to its west. There was also a Lydian lamp (**HoB 558**) from south of the room, as well as large quantities of sherds of standard Lydian I shapes and decoration. A Lydian painted sherd with pendent hook decoration, from Lydian II (**HoB 560**), was found outside the room.

¹⁵ **HoB 544, HoB 545, HoB 547.**

¹⁶ Hanfmann, "SARDIS 1959," fig. 8.

¹⁷ Called Unit 9 in Hanfmann, "SARDIS 1959," p. 23 (fig. 8, plan) and pp. 28–29.

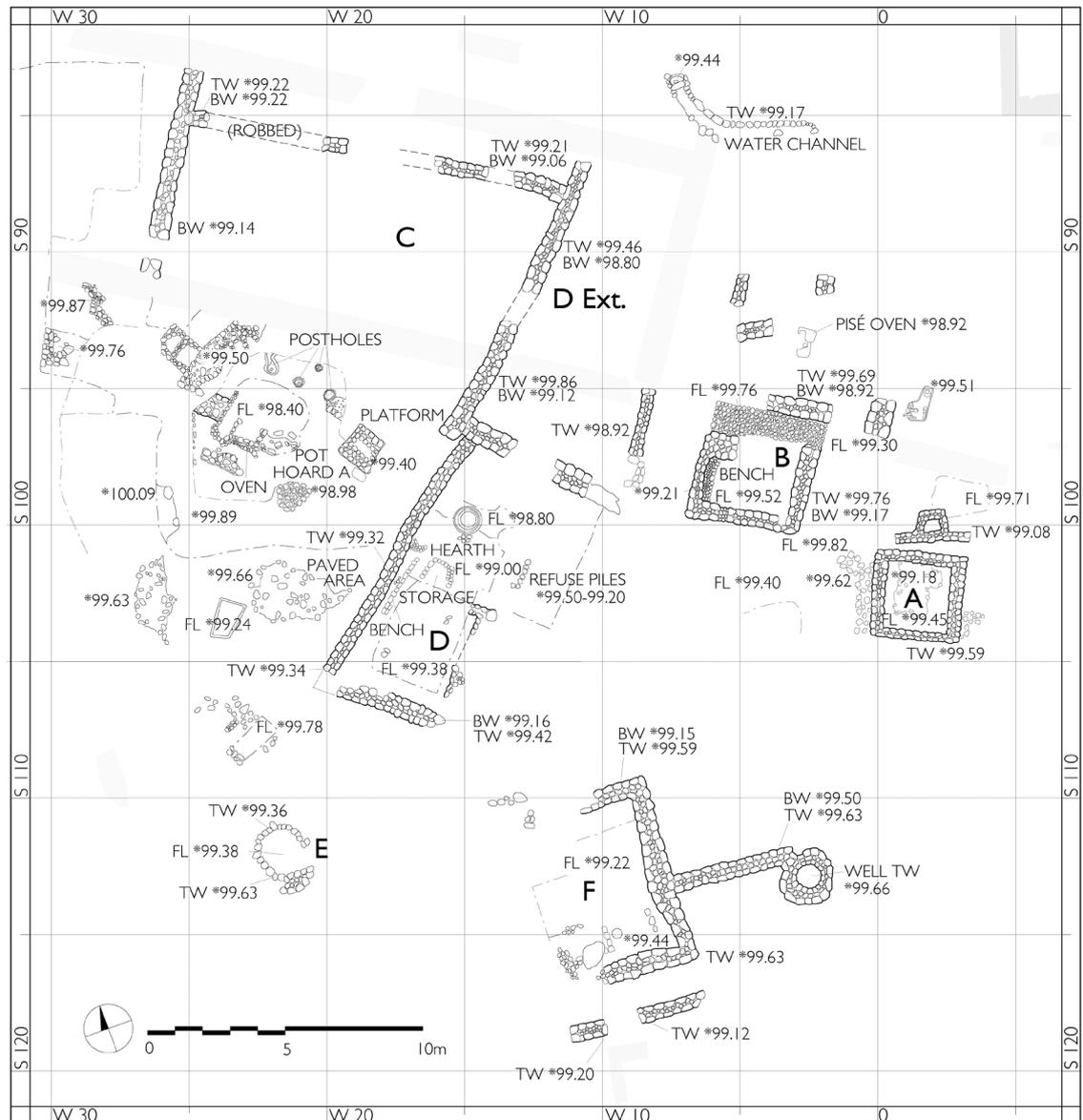
¹⁸ Nevertheless, investigations that continued more than nine meters below the Roman palaestra floor came upon Lydian remains. There is also a continuing flow of archaic sherds, local and imported, from West B (the Roman bath) and Road Trench. See *SPRT*, p. 152.

¹⁹ The structure was situated at E2–W5/S55.50–60. Hanfmann, "SARDIS 1959," pp. 30–32.

²⁰ The difference in levels between the Lydian Shop and the Lydian Room is surprising, given their proximity; we have been unable to explain the discrepancy.

²¹ They were called "II A" in earlier reports. Hanfmann, "SARDIS 1959," p. 30.

FIGURE 7.4.
Lydian I floors and
structures south of
Building C, labeled
A through F.



A probe below the Lydian I levels reached a lower occupation level at *96.7²² that showed “extensive and violent burning.” It was found under 1.5 m of gravel, suggesting that the excavators had encountered a Lydian III level equivalent to the burned level found all over the Lydian Trench, which was, as here, buried under a thick layer of gravel. The most common pottery from this lower stratum was geometric and monochrome wares, which again suggests Lydian III pottery. On the other hand, the neck and rim of an early North Ionian jug neck of the mid- or third quarter of the seventh century (**HoB 557**, Lydian II) also turned up here, suggesting that a certain amount of mixing of levels had occurred in the course of excavation. There were no coherent walls at this lower level.

Another test pit²³ dug northeast of the Lydian Room, at E3–5, went well below the Lydian III level, with

extensive burning, just described. From the pit came a Gray Ware fragment with silvery wash (**HoB 561**) and a rim of a large painted bowl (**HoB 559**). Below these were four meters of gravelly fill, and below that was 0.70 m of mud and ash (actually more likely charcoal), which contained red and gray monochrome pottery. These finds expand the area for which we can document occupation down to Lydian IV.

From another test trench at roughly E7–10/S55–57,²⁴ farther to the north and east of the test pit just mentioned, came a fragment of a Late Protocorinthian kotyle (**HoB 572**) and a Gray Ware jar (**HoB 571**), as well as a heavily burned Black on Red sherd (**HoB 566**).

²² This level was called “II B” in the preliminary reports.

²³ Pottery from this test pit was labeled as coming from E10/S60, but the precise coordinates were actually E3–5/S55.5–57. The pit was taken down to *91.8.

²⁴ The pottery was marked at the time as coming from E20/S60, but that was calculated by large (10 m) squares, and the precise coordinates of the trench were actually E7–10/S55–57. It was also identified as Area 23 on the plan in Hanfmann, “SARDIS 1959,” p. 23, fig. 9. The area is closer to the Lydian Shop, but was dug together with the Lydian Room in 1959.

EAST END

Building A

Building A is a nearly square structure,²⁵ 3.5 × 3.0 m (interior 2.50 × 2.40 m), with walls about 0.40 m thick, preserved to a height of about 0.20 m above floor level (Figs. 7.4, 7.5). The dimensions are rather small for an isolated structure, and one wonders whether it could have been part of a group of rooms composed of the scraps of walls found nearby (see Fig. 7.1), or whether it was, perhaps, a semi-basement structure as was found at Pactolus North or Northeast Wadi.²⁶ Additional stones were found along both the east and west walls, but their purpose is unclear. In the wall on the north side there had likely been a door. The size of the building might have sufficed for a small shop.

Inside the structure were found many fragments of breadtray and numerous potsherds.²⁷ Most of these were streaked, with other fragments of Bichrome, Black on Red, Waveline, and plain buff pottery. A Lydian cooking pot, burned black, was found here (**HoB 580**), as well as several imported pieces of East Greek pottery: one with a lion among rosettes (**HoB 584**); and the rotelle and lip of a jug (**HoB 576**). Fragments of a Wild Goat-style two-handled plate (**HoB 581**), found in the upper filling of the wall, are probably local, and may be dated 620–600 B.C.²⁸

From this same floor (*99.40–99.30) came a pebble polisher, a pot handle that had also been used as a polisher, and two cut-down pieces of pottery that may have been used as pottery scrapers,²⁹ as well as lumps of slag.

Under that floor level was a layer of ash and then a second floor with characteristically earlier fragments of pottery and some tiles lying against the inside wall. Most of the sherds from this level were plain or streaked, and there were many pithos fragments, a few cooking pots, and pieces of Gray Ware. From one area inside the building, presumably at the lowest level, the pottery finds were 80 percent Gray Ware and the rest plain buff. It is not improbable that these fragments were all from two pots and should not



FIGURE 7.5. Building A, looking northeast. The walls are shown as preserved, with pots on the floor.

carry the implication of a much earlier date because of the high proportion of Gray Ware.

Under the lower floor, four vessels resting on a clay surface probably indicate a floor at *98.90. Among the vessels are parts of two Waveline hydriai (**HoB 577**, **HoB 578**) as well as fragments of a Bichrome Lydian skyphos (**HoB 574**) and a nearly complete streaked jug (**HoB 575**). Not far away, at *99.0, was found a Middle or Late Corinthian warrior aryballos fragment (**HoB 586**) and 0.20 m below that, the neck and rim of an Early Corinthian alabastron (**HoB 585**) and the rim of an Ionian cup (**HoB 582**). This group of pottery from under the lower floor is explained as habitation debris from an early phase of Lydian I.

Several domestic items came from the area just outside Building A, including a bronze ornament (**HoB 588**). Also from outside the building, and not clearly associated with it, was a group of ten Lydian lamps (**HoB 579**). Between Buildings A and B,³⁰ a bronze fibula (**HoB 589**) came from the gravel in a context also containing ten pieces of worked bone, which is an unusually high number. There was also an unfinished bone seal (**HoB 591**) found in the vicinity, while several other bone items at different stages of manufacture came from Building A (**HoB 590**, **HoB 593**), including part of a thin sheet of bone that served as a blank from which small disks (diameter 0.015 m) had been cut (**HoB 592**). Additional significance should be attached to it in terms of craft activity, because of the several other pieces of worked bone that came from outside Building A, and because both finished and unfinished bone pins and an antler were found nearby in Building B (**HoB 606–HoB 610**). These pieces, collectively, make a compelling case for a bone-working establishment.

Sector HoB produced a certain number of sherds post-dating the mid-sixth century B.C. and the sack of Sardis by Cyrus. The lack of a distinctive destruction level tied to that event, such as is found at the lower—Lydian III—level, has been noted. The possibility that some of the buildings continued in use into the Persian period is supported by the presence of a fragment of an Attic black-figure cup (**HoB 583**) attributed to the Leafless Group, found within

²⁵ At ca. W1–E3/S101–104, with its highest floor level at *99.45.

²⁶ For PN basements, Hanfmann, "SARDIS 1962," p. 23, and Hanfmann, "SARDIS 1962," p. 25; for Northeast Wadi (NEW) basement, Hanfmann, Waldbaum et al., "SARDIS 1968, 1969," p. 35 and Hanfmann and Waldbaum, *Sardis R1*, pp. 118–25.

²⁷ At *99.40.

²⁸ According to Nezi̇h Aytaçlar (personal communication, July 2016). Hanfmann thought this pot was Aeolic, but this assignation is now considered erroneous. Aeolic is much better known now, thanks to Kaan Iren (2003), and neutron activation analysis studies by Kerschner and others. See his group G, in Mommsen and Kerschner 2006. Kerschner admits that it can be difficult to distinguish between Lydian of the lower Hermus and Aeolic (again, personal communication, July 2016).

²⁹ Pebble polisher: S14.109; pot handle: P14.147; pottery scrapers: P14.146.

³⁰ At W3/S100 *99.30.

FIGURE 7.6. Building B, as depicted in G. F. Swift Jr.'s fieldbook entry for June 29, 1965. FIELDBOOK HoB 1965.1:103

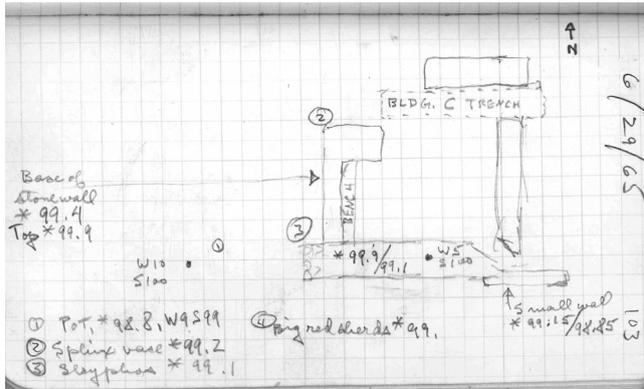


FIGURE 7.7. Partially worked bone blanks for pins, from near Building B.



the west wall of Building A and dated to about 500.³¹ This was thought by the excavator to be intrusive, but it may instead be a hint that this and perhaps other buildings remained in use when much of the core of the city had been abandoned.³²

Building B

Just to the northwest of Building A³³ was the square and slightly larger Building B (Fig. 7.6).³⁴ It had a door opening in the north wall that went to the very corner—a characteristic found also in the “Lydian Room” and in Building G. Cobblestones were set outside the north wall. Inside the building, set against the west wall, was a low stone bench or platform.

Several pot fragments lay on the floor,³⁵ especially many pieces of Lydian plain red ware, including part of the rim of a vessel with a spool handle (**HoB 599**) and another decorated with indentations (**HoB 598**). Other pieces found on the floor were a few fragments of cooking pots, Gray Ware, Black on Red, Bichrome, and streaked pottery, as well as much mudbrick, roof tiles (or more likely breadtray?), and animal bones. Part of a bowl with pendent hook decoration was found nearby (**HoB 595**).

Elsewhere on the floor of this room were two complete bone pins that had been sharpened to a point at one end and given an irregularly widened head (**HoB 608**, **HoB 609**). Two others like them were found in close proximity at the same level, but those were outside the building on the east side (**HoB 606**, **HoB 607**). As already noted, other bone items had been found also in and around Building A. The numbers are small but this is an unusually close grouping of similar articles.

A few pieces of worked bone from the same area show that there was a workshop that produced the pins, because several of the pieces were sufficiently worked for the intended final shape to be apparent. Three pieces found together show several stages of the work, from raw material to roughed out blank (Fig. 7.7). They show obvious saw marks and some knife cuts, as well as unworked areas of the bone. Overall we found that a considerable collection of faceted shank pins had been preserved in this part of the trench, which makes a compelling argument for manufacture on the spot.

Any or all of the buildings and spaces here might have served for manufacture. In general the varieties of pins closely follow the types familiar from Ephesus,³⁶ as do many of the small finds from Sardis, giving material dimension, as it were, to the close political, religious, and economic ties attested in the documentary sources.

At the southeast corner of Building B, below the Lydian I wall, a narrow wall made of small stones was preserved to a height of 0.30 m and extended two meters toward the east. This wall was earlier than Building B since it originates from under its corner, and should be dated to the Lydian II period. At the southwest corner of B, the Lydian I south wall continues westward for a short distance and then peters out.

Perhaps the best means of dating Building B is a group of fragments of painted pottery found at the corner of the west wall and at a level just below its base.³⁷ These fragments, from an open vessel (**HoB 597**), were dated by Greenewalt to the first quarter of the sixth century or shortly after (600–570 B.C.).³⁸ Details of the painting, in what Greenewalt called the “Sardis Style,” include charming renditions of a spotted sphinx, a bird, and a grazing goat amid rosettes and other filling ornament. The findspot of this pot, next to the wall on the exterior of Building B, is shown in Swift’s fieldbook sketch (Fig. 7.6) as number 2.

Among those finds below the foundation of the south wall of Building B were several fragments from streaked skyphoi with reserved bands, breadtray, and Waveline jars, as well as three pieces of East Greek pottery, including a

³¹ *Sardis M10*, cat. Att 73.

³² Cahill 2019a.

³³ B was located at W2.5–6/S97–100 *99.3.

³⁴ The dimensions were 4.0 × 4.75 m (int. 3.23 × 3.6 m). The preserved height of the walls was 0.50 on the west side and 0.60 on the south side.

³⁵ At *99.2 to *99.3.

³⁶ Hogarth et al. 1908, pp. 187–98, pl. xxxiv, especially the simpler examples.

³⁷ Fieldbook HoB 1965.1:105.

³⁸ Greenewalt 1970, no. 15, pp. 60ff., pp. 83ff., and especially p. 67.

skyphos. This last item seems to reflect an earlier phase than the previous pieces but probably not a great deal earlier. A bird bowl rim fragment (**HoB 601**) found south of Building B at *99.45–98.80 has been dated to the second half of the seventh century, and shows that earlier material can be found in clearly higher and later levels.³⁹ A substantial iron adze, ca. 0.15 m long, was reported from a lower floor explored after the walls of B had been removed.

Other pots and objects of interest were also found outside Building B, but on the same level as the room. To those already listed should be added a large Lydian round-mouthed jug with band handle and streaked paint on the lower body and a polished surface above (**HoB 596**) and a small fragment of a local Anatolian plate with diamond-shaped crosshatching (**HoB 600**).

Of particular note is a fragment of a stone jewelry mold, 0.071 × 0.045 m, with cuttings on one side for boat-shaped earrings and on the other for making a ring-shaped object (**HoB 602**).⁴⁰ It is quite similar to another found nearby in a context with some Hellenistic pottery,⁴¹ but plausibly regarded as archaic Lydian (**HoB 603**). Two other molds were subsequently found a few meters away at a higher level in the upper fill (**HoB 604** and **HoB 605**). The stone of **HoB 602** is unsuitable for direct casting of molten metal, and the molds are more likely to be for making multiple templates for lost wax casting.⁴² In spite of the difference in level, this group is even more surprising than that of the bone pins, since the use of jewelry molds is so much more specialized. There is little doubt that they are Lydian because of the design of the objects to be produced.

These pieces must be connected with the early industrial activities whose debris was collected beneath the Hellenistic Stone Circle, an area that was also used for manufacturing purposes. In particular they relate to the heavy bronze intaglio die (**HoB 734**)⁴³ found south of Building C that was used for making ornaments of gold foil, like those discovered in the Basis Hoard of the Foundation

Deposit of the Ephesian Artemision.⁴⁴ Another casting mold for multiple pieces of jewelry is known from sector Pactolus North⁴⁵ as well as an example from the area of the House of Bronzes itself (**HoB 552**). That one is unusual in that it was converted from an old pot base that was cut down to a flat, square shape.⁴⁶

More than half the material from the sandy ground surface outside Building B⁴⁷ consisted of plain or cooking pots, and the rest included painted pottery, 20 pieces of iron, 20 pieces of mudbrick, and one small section of antler, partly trimmed for processing, perhaps as a tool (**HoB 610**).

To the northeast of Building B, large numbers of sherds of Buff Ware and cooking pots were found, but relatively fewer pieces of painted ware. One tiny painted fragment was part of a plate painted on the upper side with dark brown over white (**HoB 594**). Heaps of mudbrick were frequent here, and fragments of a pithos were found nearby just at the edge of Deep Sounding B, which was dug just to the northeast of Building B (see Fig. 2.4). One imagines that a good deal of broken pottery must have been lying around in Lydian streets and open areas in ordinary circumstances, and the plainness of this assemblage adds to the impression of a predominantly working area.

West of Building B was found part of a painted and molded terracotta tile with a broken meander border and part of a scroll pattern (**HoB 587**).⁴⁸ Because it is on a larger scale than is usual for sima tiles from Sardis, it may have had a decorative function other than that of a roof tile; its size suggests that it does not belong with any of the nearby buildings.

FRAGMENTARY WALLS AND FEATURES

The remains of a mudbrick oven at W2.5/S93, just north of B, would be an item of interest, but it is hard to relate it to the buildings nearby. In the area of Buildings A and B many fragmentary sections of walls defy organization. Because these spots are isolated, even though close together, they cannot readily be ordered temporally, or set into subphases of a building or complex.

³⁹ Found at W2–3/S99–103. Dated 650–600 B.C., according to Nezih Aytacılar (personal communication, Sardis, July 2016).

⁴⁰ A bronze mold was found in the MMS houses (M06.46), with a long extension cast in. Examples also come from Toptepe, in Özgen, Öztürk et al. 1996, p. 230, no. 114, and bronze punches or formers from this treasure, nos. 214–17. There are two methods of making such earrings: by casting (for bronze) or by shaping foil around a form (probably for gold). For Lydian jewelry, see C. Densmore Curtis, *Sardis XIII.1*.

⁴¹ At W5/S105 *100.00.

⁴² Personal observation of Paul Craddock, Head of the Metals Section in the Department of Scientific Research, The British Museum, in the field 1987.

⁴³ Found further to the west at W19/S95 at *99.60. This general area was taken to be industrial when it was first excavated and produced the iron sledghehammer M61.82 (Waldbaum, *Sardis M8*, cat. no. 143).

⁴⁴ Waldbaum, *Sardis M8*, cat. no. 948, and Hogarth et al. 1908, pl. x: 4. This has two rows of “egg and dart”; Hogarth et al. 1908, no. 18 is closer but much less refined.

⁴⁵ Waldbaum, *Sardis M8*, cat. no. 949. A. Ramage in Hanfmann, Waldbaum et al., “SARDIS 1968, 1969,” p. 25, fig. 15.

⁴⁶ Hanfmann, Waldbaum et al., “SARDIS 1968, 1969,” p. 25; and Tölle 1966. Waldbaum, *Sardis M8*, cat. nos. 949–53, pls. 54, 55. Near the intaglio die, and at about the same level, were found two bronze bridle ornaments (**HoB 735** and **HoB 736**). They were found with fourth-century and later pottery (including *Sardis M10*, cat. Att 124, a red-figured lekane lid), although one of the ornaments is dated by Waldbaum to the first half of the sixth century B.C.

⁴⁷ W5/S100 to *99.3 floor.

⁴⁸ Ramage, *Sardis M5*, no. 45, p. 27, fig. 88.

FIGURE 7.8
Southern end of Building D, looking north. The upper floor (of the four floors in Building D) is in the center, at *99.38, but does not extend to the walls, which belong with the second floor, visible here below the first floor.



CENTRAL AREA

Building D and Building D Extension

Building D and its associated walls, located about three meters to the west of B (see Fig. 7.4),⁴⁹ was a much larger and more complicated structure than either A or B. It had more internal features preserved, including two hearths, a storage or refuse pit, and a rectangle of small stones familiar from the buildings of the Lydian II housing complex. Essentially Building D was a simple rectangle of about 10 × 4 m,⁵⁰ but additional walls attached to it at the north were extensively disturbed and robbed out in the Hellenistic period. This occurred in the course of constructing Building C, as can be seen from actual robbers' trenches.

Building D's long axis runs roughly northeast to southwest. Four floors were distinguished: the upper two at *99.38 and *99.00, with fine sand between them; the third at *98.80; and the fourth at *98.60. According to Swift's report, an eastern wall was found only in fragments, but it must have made a right angle with a south wall, which is about four meters long. The southwest corner is missing; after a gap of about 0.50 m, a western wall picks up and runs for about ten meters, but at a slightly acute angle to the south wall. This western wall (which stood to a height of 0.20 m) is carefully made of small stones with two true faces and a rubble filling, but it has a curious slight bend about halfway along that suggests the possibility that it was not laid all at one time.⁵¹

No wall at the north side was ever found, but the west wall at the north end disappears under the much heavier

south wall of the Building D Extension and therefore places that western wall in Lydian II. The walls are as early as the contents of the second floor will permit—perhaps late seventh century; certainly the close alignment with Building J suggests that this structure was originally part of the Lydian II area.

The latest, and uppermost, floor covered a rectangular area in the southern half of D, at a level above the surrounding walls, at *99.38 (Fig. 7.8). Mostly painted Lydian sherds, including a red Bichrome oinochoe or amphora fragment with concentric pendent hooks (**HoB 622**), were found here together with a few pieces of breadtray and a pithos fragment with an incised design (**HoB 640**). In the earth immediately over the clay floor lay a number of imported pieces, including an East Greek sherd from a white-slipped jug (**HoB 638**) dating to 620–600 B.C.,⁵² an Early Corinthian gourd aryballos fragment;⁵³ a Bichrome lebes (**HoB 618**); five uninventoried Early Corinthian fragments from about 600 B.C.; a “Fikellura” (?) rim,⁵⁴ a column krater,⁵⁵ three other kraters,⁵⁶ and several fragments with Carian graffiti.⁵⁷

This upper floor is within the area of the walls of D, but does not survive to their inner edges (see Fig. 7.8). Perhaps the floor and the walls were connected, but robbing of the walls destroyed the evidence of that association. In fact the walls are contemporary with the second floor⁵⁸ but have not been preserved to the level of the upper floor. It may

⁴⁹ Within the area W10–20/S86–105.

⁵⁰ The building proper is situated at W15–20/S97–106.

⁵¹ G. F. Swift, Jr., “The 1963 Campaign at the Lydian Trench of the House of Bronzes Area” (Sardis Expedition field report, 1963), p. 4.

⁵² Dated by Michael Kerschner (July 2, 2016).

⁵³ P96.35 (not in catalogue).

⁵⁴ P63.335.

⁵⁵ P63.479.

⁵⁶ P63.481, P63.482, and P63.483A, B.

⁵⁷ P61.179. See Hanfmann and Masson 1967; Gusmani, *Sardis* M3, C II 2 (b); and Gusmani 1982, pp. 128–29.

⁵⁸ At *99.05.

be that the walls still existed at the time the upper floor came into use, probably in the early sixth century. The second floor level was about 0.35 m below the first and was clearly identifiable in both the northern and southern halves of Building D. Fine sand separated the two floors, and some pottery was found here too: good-quality painted Lydian wares, breadtray, pithos fragments, and two pieces of Corinthian pottery (uninventoried); a piece of an East Greek bird bowl; and the lower portion of a fine, locally painted Ephesianizing stemmed dish (**HoB 611**).⁵⁹

In Building D and D Extension, many small assemblages of pots, mostly complete or in good condition, have been identified as remnants of “canine ritual dinners,” where some kind of ceremonial meal is thought to have taken place (see also pp. 104–105, floor with puppy burials). The pot assemblage usually consisted of a round-mouthed jug, a small trefoil jug,⁶⁰ a skyphos, and a shallow dish, with or without a stemmed foot (Fig. 7.9). Together with the pots usually lay an iron knife, and also in the jug were usually found the bones of a juvenile dog (Fig. 7.10). Many of these groups, known as “puppy burials,” were found in what were originally small pits dug into the floor (Fig. 7.11).⁶¹

Most of these groupings were found in HoB, a few at PN, and one at PC.⁶² They attest to the widespread practice of dog sacrifice and the rituals associated with it. There were a total of twenty-eight so-called puppy burial assemblages, of which twelve were found beside the wall of Building D and in the D Extension to its north (see Fig. 7.11), and belong in the later seventh century.⁶³ All puppy burials date between the late seventh and the early or mid-fifth centuries B.C. Five additional similar assemblages were found that lacked a knife or puppy bones. These were categorized as “caches” by Greenewalt, in order to distinguish them from the canine dinners.⁶⁴

A group of four pots of shapes perhaps related to those of the later puppy burials was found from an earlier context, the Destruction Level of Lydian III (at *97.6–97.4), in the Central Area of HoB. It consisted of a Black on Red stemmed plate (**HoB 374**), a coarse Gray Ware jug (**HoB 377**), half of a closed vessel (**HoB 375**), and a fine Gray Ware round-mouthed jug (**HoB 376**) (see Figs. 5.15, 5.16). These pots had no knife or bones associated with them, and were rejected by Greenewalt as having an association with the canine ritual dinners or caches; but they

⁵⁹ Similar to no. 14, pl. 6 in Greenewalt 1973. This piece was analyzed by M. Kerschner (sample Sard 18).

⁶⁰ The pots in these groups tend to be much smaller than usual. Will Bruce has proposed that they were purpose-made for such ritual dinners (personal communication at a seminar on HoB, June 2019).

⁶¹ See Greenewalt and Payne, *Ritual Dinners*, pp. 1–6.

⁶² Greenewalt and Payne, *Ritual Dinners*, pp. 4ff.; for PC, see Greenewalt, Cahill et al., “SARDIS 1986,” p. 167; and p. 127 in this volume.

⁶³ See plan in Greenewalt and Payne, *Ritual Dinners*, pl. 11.

⁶⁴ Greenewalt and Payne, *Ritual Dinners*, pp. 76–78.

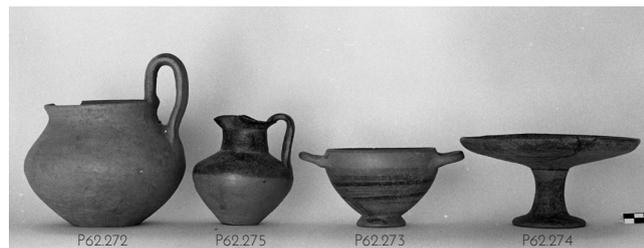


FIGURE 7.9. Lydian I pot assemblage typical of a “puppy burial”: round-mouthed jug; trefoil jug; skyphos; and stemmed dish. GREENEWALT AND PAYNE, *RITUAL DINNERS*, CANINE DINNER 15, PL. XXI



FIGURE 7.10. Canine ritual dinner, showing knife, bones of a young dog, and four typical associated pots: round-mouthed jug, trefoil jug, skyphos, and dish. GREENEWALT AND PAYNE, *RITUAL DINNERS*, FRONTISPIECE



FIGURE 7.11. A Lydian I canine ritual dinner (“puppy burial”) *in situ*. GREENEWALT AND PAYNE, *RITUAL DINNERS*, CANINE DINNER 8

make a surprisingly similar group and cause one to wonder if the puppy burials were using a longer tradition of “place settings” than has been acknowledged.⁶⁵

In the center of Building D (see Figs. 7.4, 7.8) a three-sided rectangular enclosure made of stones faced to the south.⁶⁶ Like other features of this nature in buildings already seen, this may have served as a kind of closet or storage area. The finds here included many pieces of breadtray and, on the same floor level, among other Lydian pottery, a fragment of a large Bichrome storage jar with geometric decoration (**HoB 625**). Nearby,⁶⁷ a hearth made of stones backed onto the east face of the west wall. Again, numerous fragments of breadtray and cooking pots, as well

⁶⁵ See Greenewalt and Payne, *Ritual Dinners*, pp. 27–28, fig. XLIII, n. 1. There is an error in the caption for his figure XLIII: the material belongs to Lydian III.

⁶⁶ At W15/S102.

⁶⁷ At W16/S101.

as painted pottery, were found in the area. Just south of the hearth, projecting from the west wall, was a low row of stones that may have served as the basis for a kind of bench or working surface like those noted in Buildings H and K (see pp. 74, 79).

In the southwest corner, a second hearth came to light, together with a nearly complete shallow bowl in coarse cooking ware fabric (**HoB 631**) and fragments of other cooking pots and breadtray. Among the finer pottery was the base of a Corinthian alabastron (**HoB 641**), which J. Schaeffer has described as “early in Early Corinthian;”⁶⁸ and, from nearby, a fragment of a large white-slipped jug or amphora (**HoB 623**).

In the northern part of D, a circular pit, 0.90 m in diameter and 0.45 m deep, was filled with sand. It produced only three pieces of pottery. Perhaps it was the imprint of a pithos that was transferred elsewhere.

The third floor in D, at *98.9 to *98.7, sloped downward from east to west. Included among the many fragments lying on the floor were the neck and rim of an amphora (**HoB 630**), unusual both because it was made of Gray Ware, and because it was found upside down on the floor. This argues for it to have been intended for use in that position, probably as a pot stand, and like the others (see pp. 90, 104 and Fig. 1.2), the neck had been purposely trimmed at its base. Also on the floor was a Gray Ware stemmed dish (**HoB 629**), again upside down; the shoulder of a large Bichrome jug painted with concentric pendent hooks (**HoB 620**); a red banded stemmed dish fragment (**HoB 614**); and two rectangular pieces of mudbrick arranged like steps. There were many large pieces of pottery and a considerable number of joins, which suggest that the sherds belong with the floor. Overall, the pottery was about 40 percent Lydian painted (including Bichrome and Waveline fragments), 25 percent Buff Ware, 25 percent Gray Ware, and 10 percent cooking pots and breadtray. Of special interest were nine knucklebones found together (a set?),⁶⁹ and the body and tail of a painted terracotta bird (?) (**HoB 642**). There were also fragments of Ionian cups, as well as imitations of them, and East Greek sherds. On the floor in the southwest corner were large numbers of breadtray fragments and typical late seventh-century Lydian wares including Black on Red stemmed dishes and red stemmed dishes with white bands. Surprisingly, 50 percent of the material here was Gray Ware. Also found were two pointed lumps of iron and a piece of a bone pin.⁷⁰

From the north-central part of the floor, under the rectangular storage area on the floor above, came much Lydian pottery, including two pieces of a “Sardis Style” plate that shows a bit of a scale pattern and an indeterminate floral

motif or possibly a wing tip from what must have been a large plate (**HoB 616**).⁷¹ Another Orientalizing pot in the local Lydian style is a thymiaterion with charming birds and floral designs (**HoB 626**). Also found here was a granite saddle quern, a lump of iron, and a bronze pinhead.⁷²

From the northern part of D, where no wall was found, came a fine Black on Red stemmed dish (**HoB 633**), a Chian amphora (**HoB 639**), and the shoulder of an East Greek jug (**HoB 637**), which can be associated with Coldstream’s Bird-Kotyle group. The wide chronological range of some of the finds demonstrates again the continual disturbing of earlier levels, which was noted in connection with the bothroi of Lydian II.⁷³

At the northeastern side of D, where again no wall was found, the fourth floor (at ca. *98.6) was quite clear and was marked by burned patches. Many pieces of pithos and breadtray were found here, and one piece of a plate of Phrygian shape with omega loop handles (**HoB 613**),⁷⁴ as well as a black incised sherd (**HoB 636**); in addition, the top of an Early Corinthian aryballos,⁷⁵ one piece of the rim of an East Greek skyphos, four pieces of thin-rimmed Ionic cups, and one lump of iron.⁷⁶

On the southeastern side of D, from just below the lowest of the four floors, a construction that looked like a hearth made with stones on edge was discovered.⁷⁷ Nearby was a large white Bichrome Waveline amphora with a flat S design on the shoulder (**HoB 624**), three pieces of East Greek, and the following additional pottery: 70 percent Gray Ware, as well as breadtray and a number of different kinds of Lydian pottery, including a Lydian jar rim with concentric semi-circles; a red Bichrome oinochoe or amphora with pendent hooks (**HoB 622**); and one piece of an Ionian cup. A piece of a stemmed dish in the Ephesianizing style that was like fragments from a bothros east of G (**HoB 477**) was also found just below the lowest floor level, at *98.50; this, and the other finds from just above, must be from Lydian II.

About three meters to the south of Building D, a damaged but complete ovoid pithos, three-quarters of a meter high, was discovered (**HoB 632**). It has a small flat base and could not have stood without support. Also of note in association with D was a collection of unfired pyramidal loom weights found over the course of excavating this building (**HoB 645**).

⁷¹ It was probably similar to another stunning piece in the “Sardis Style,” Greenewalt 1970, p. 84, no. 16, pl. 12.

⁷² Also, the following pieces of pottery were mentioned by the excavator but uninventoried: three pieces of Corinthian skyphos (presumably linear), one piece of Lydian Geometric (Black on Red), and one piece of a Bichrome cup.

⁷³ Found with **HoB 633** and **HoB 637** was P17.5, a Corinthian skyphos (?) base.

⁷⁴ Knudsen 1964.

⁷⁵ P17.8.

⁷⁶ Also found with this material was an uninventoried cook pot.

⁷⁷ At W14/S105 at *98.5.

⁶⁸ *Sardis* M10, cat. Cor 80, pl. 13.

⁶⁹ Another group of knucklebones came from Building H (see pp. 74–75).

⁷⁰ B165.1.



FIGURE 7.12. Southwest corner of Building F, looking west: possible stone supports for clay or wood furnishings, and an enormous stone that may have destroyed the wall nearby.

SOUTH SIDE

Building E

Building E was situated about five meters south of the southwest corner of D (see Fig. 7.4).⁷⁸ It was composed of a ring of stones that formed an irregular round structure about 2.50 m in diameter on the exterior, with an opening about 1.0 m wide at the east side. Much of the wall was only one stone thick and one stone high, and no indications of a superstructure survived. Across the middle of the floor⁷⁹ was a large patch of charcoal ca. 0.50 m across. No obvious explanation of the purpose of E could be determined. A furnace or kiln was suggested, but signs of severe or sustained burning were absent, and the charcoal was too localized and scanty to have been an industrial store.

Within the circle of stones were three complete Lydian lamps⁸⁰ and part of another, as well as a number of pieces of East Greek pots of the late seventh or early sixth century. The most notable is a rim sherd from a skyphos with part of a bull's head depicted, painted in a local Wild Goat style⁸¹ (**HoB 647**); it has something in common with Greenewalt's "Early Fikellura" group, but the drawing is coarser and the paint rather more matte.⁸² Several pieces in the local tradition were inventoried: the foot and bowl of a small Bichrome stemmed dish (**HoB 646**), the shoulder and

neck of a miniature streaky glazed lekythos with tongues on the shoulder (**HoB 648**), and a painted handle in the shape of a horn, or perhaps the wingtip for a terracotta sphinx or griffin (**HoB 649**).

A considerable amount of rubble suitable for wall building was found close by, to the southeast, at about *99.6, but it is unclear if it had belonged to E or to some of the other fragmentary walls not far away. Lydian painted and Buff Wares were undistinguished, and gray and cooking ware were scarce. There were a good many skyphos fragments, and three small lumps of iron.

Building F

About seven meters to the east of Building E between W6–12/S109–117 lay a rectangular structure of about 6.5 × 5.0 m, known as Building F (Fig. 7.12; see Fig. 7.4).⁸³ The northwest corner and much of the north and west walls were missing, but the other corners were intact. Inside was a platform with an elongated stone support, perhaps for clay furnishings. The floor is said to have sloped down from *99.49 at the southeast corner to *99.1 at the northwest. It is otherwise unheard of to find so great a gradient within such a small building without other indications of sagging or slump. A. Ramage suspects that some of the top surface of fallen mudbrick or the clay from a working platform may have been mistaken for floor.

Within the room were some stones indicating foundations for built-in clay furnishings and another three-sided configuration of small stones. An unusually large stone (Fig. 7.12), of the sort that was found in several instances

⁷⁸ Within the area W21–23/S110–113.

⁷⁹ At *99.4.

⁸⁰ **HoB 650**, **HoB 651**, and **HoB 652**.

⁸¹ Opinion of C. H. Greenewalt, jr.

⁸² Greenewalt 1971b, especially pieces EF 5 and EF 7 for filling ornament and EF 12 for profile.

⁸³ At W6–12/S109–117.

outside a wall to protect it from raging floodwaters (see the discussion of Buildings G, K, and L, pp. 79, 80, and Figs. 6.3 and 6.18), lay at an angle inside the room. This one too might originally have been outside the building, and may have been shifted inside by a rising flood. The fact that the wall beside it had been destroyed supports this hypothesis.

The main floor of this room could be dated by the finds to the last years of the seventh century or the beginning of the sixth. These included a piece of a late seventh-century North Ionian Wild Goat oinochoe with rather worn paint (**HoB 666**) and a South Ionian fragment (**HoB 676**), as well as contemporary Lydian Orientalizing pottery. Among them were fragments of a plain buff skyphos with bright orange interior (**HoB 672**), two (?) Bichrome jugs (**HoB 673**, **HoB 674**), a Black on Red oinochoe (**HoB 675**), and a small Black on Red oinochoe with irregular meander pattern (**HoB 677**). There were also six unbaked pyramidal loom weights, three spindle whorls, and many pieces of several breadtrays. A partially reworked bone chape (**HoB 670**), which originally had a relief design in the nomadic Animal Style, was found either just over the floor or just outside the west wall; and a small bone disc or button (**HoB 671**) with one convex worked face and a hole in the center was found outside.⁸⁴ These two are stylistically related in that their main decorative motifs, which are incised, are curvilinear and irregular, and quite unlike Greek or Lydian design. The small disc comes from the east side of the north corner, along with a considerable amount of local and imported pottery, some of which belongs in the seventh century. While the bone pieces have artistic and historical interest in their own right, they are additionally significant for confirming the presence of a bone-working establishment in the area and the reuse of what are, perhaps, relics of the Kimmerian destruction of Sardis.⁸⁵ Another unfinished nomadic-style artifact was found with later pottery, including a fourth-century red-figured lekanis fragment, but at a higher level (*99.8).⁸⁶

Two pieces of wall precisely aligned with the south wall of F suggest the existence of several Lydian I buildings to the south, and finds from the area indicate that the buildings may have lasted into the Persian era. These walls are close to the south edge of the Lydian Trench, and beyond them the area was occupied by buildings adjoining the Late Roman colonnaded street that runs east–west (see Fig. 7.1); the Lydian levels here were not explored.

⁸⁴ Greenewalt, Cahill et al., “SARDIS 1986,” pp. 166–67 and figs. 34–35; both this and an appliqué were found in 1963: the partially reworked bone chape, found at W11–14/S113–116 at *99.75–99.25; the bone appliqué, found at W7–9/S106–111 *99.5–99.1. See also Dusinberre 2010, pp. 193–95, and fig. 2, lefthand object; also for one of the chapes, *LATW*, p. 451 and, for the appliqué, p. 450 [descriptions reversed].

⁸⁵ The partial reworking is important for the idea that this belongs with the bone-working atelier producing pins. As is clear from the illustrations, the decoration had only been partly removed, so that we can recognize the style but not the particular motif.

⁸⁶ *Sardis M10*, cat. Att 124.

WELL

A well with a diameter of 0.9 m, at W2.5/S113, is linked to Building F by a substantial but low wall about four meters long (see Fig. 7.4). The top stones were at *99.66, but there was no sign of a curb or formal wellhead. It is not clear when it was first used, because excavation had to be suspended for safety reasons and due to the fact that there was more than a meter of water in the bottom, at about 19 meters below the top. The curtain wall shows that some of its use was contemporary with the occupation of F, but its depth and the fact that it was the only well ever found nearby suggests that its origins are much earlier. Building F seems not to have been in use when the well was filled, but indications of later occupation floors remain in the area to the south, where seventeen catalogued pieces of Attic black-figure and black-glaze were found,⁸⁷ with a chronological range roughly equivalent to that of the Persian domination.⁸⁸

Andrea Berlin restudied the material from the well in 2015 and observed that the evidence points to the fact that it was not filled all at once, but over a long period when the Lydian Trench was unoccupied and the well used more or less as a casual dumping ground. She believes this period could have lasted from the mid- to late-fourth century perhaps until the first century B.C.⁸⁹

THE WESTERN EDGE OF THE LYDIAN TRENCH

Buildings M and N

At the westernmost edge of the Lydian Trench, about three meters to the west of the enclosure wall running behind Buildings H and G, between W40/S110–125 at *99.00, were the eastern parts of two additional buildings, Building M being the more southerly, and N just to the north (Fig. 7.13). They make a pair insofar as they are aligned in the same direction and are, apparently, of comparable scale, even if only the ends were visible at the edge of the trench. M is 4.5 m north–south, but only 1.5 m of the east–west walls are preserved. The west wall of N is not preserved, but the position of the east–west walls fixes its length at 3.7 m. The thickness of the walls is comparable, at ca. 0.45, although the north wall of N is somewhat thinner.

⁸⁷ The Attic sherds were included in *Sardis M10*: black-figure: cat. Att 18 (P63.134), Att 34 (P63.185), Att 35 (P63.57), Att 74 (P63.188), Att 82 (P63.615A), Att 104 (P63.615B), Att 105 (P63.615D), Att 106 (P63.615C); black glaze: Att 144 (P63.82), Att 223 (P63.50), Att 397 (P63.103), Att 398 (P63.39), Att 410 (P63.99), Att 512 (P63.81), Att 513 (P63.133), Att 551 (P63.61), Att 581 (P63.98).

⁸⁸ Hanfmann, “SARDIS 1963,” p. 12.

⁸⁹ Berlin 2019, p. 55.



FIGURE 7.13. West side of the Lydian Trench, looking south, showing (from top) Buildings H, G, and K. The passageway beyond K can be seen to the right of the enclosure wall. Building N is just beyond this passage.

Finds from the area were scanty, which is not surprising given the small exposure, but there were enough to connect them with the buildings of Lydian I just to their east. The level of the floors, which lie over about a meter of gravel and sand, confirms this relationship.

FLOORS SOUTH OF BUILDING C

A number of distinct floors lie near each other, just to the south of the later Building C (which falls beyond the scope of this book). Each of these floors has a notable feature that helps to identify it. They are:

- Floor near postholes
- Floor by Pot Hoard A and Platform
- Floor with puppy burials

FLOOR NEAR POSTHOLES

Just to the north of a well-preserved patch of floor at W20–25/S95–100 *98.4 were three postholes in a row (Figs. 7.4, 7.14), about 0.30–0.35 m deep, starting from *98.28, *98.22, and *98.13 respectively. A fourth posthole was a bit out of line, and was much higher up (*99.25); although shown on the plan, it may belong to a later stratum. The floor here was about a meter below the Lydian I remains in this area, and was therefore significantly earlier than Lydian I. It falls between Lydian II and Lydian I. One might assume a building made of reeds or other perishable materials with a light porch supported by flimsy poles. Building J (Lydian II; see Figs. 6.1, 6.25) must have been demolished to make room for a new building of which we now have only this square piece of floor, the postholes, and the pots and other detritus lying about.

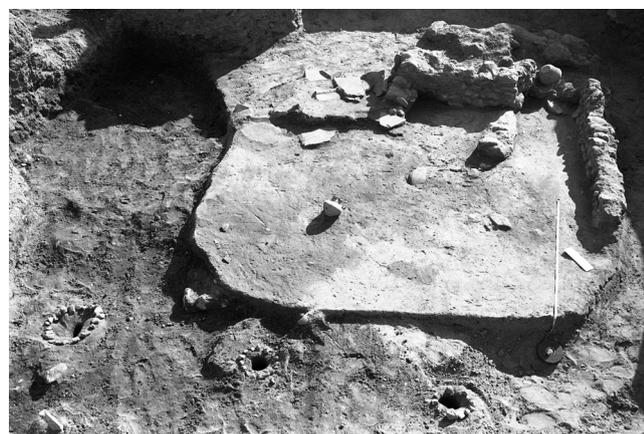


FIGURE 7.14. Floor near postholes (W20–25/S95–100 *98.4), looking south. Fragments of breadtray lie at left on the flat square floor, and several pots are in the middle of the floor. An oven sits at the back (the southern edge) of the floor. Pebbles encircling the postholes were added by the photographer to enhance the image.

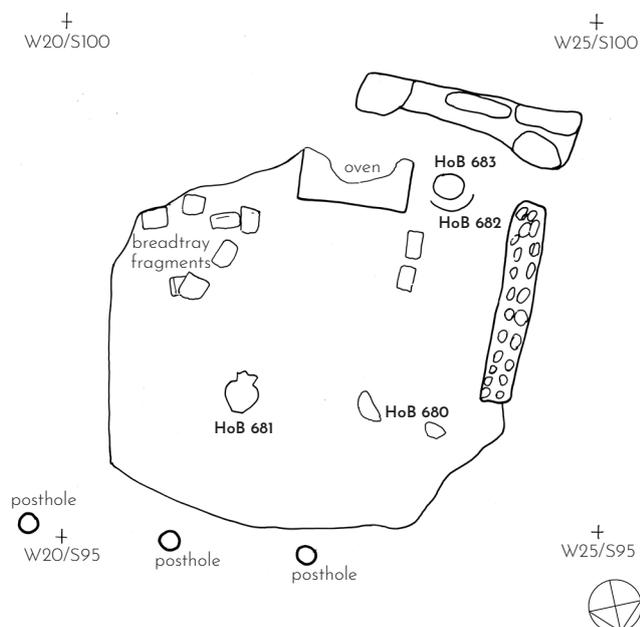


FIGURE 7.15. Floor near postholes, looking south, with pottery and pieces of breadtray scattered on the surface. Compare Fig. 7.14. DRAWN BY C. S. ALEXANDER AFTER A SKETCH BY G.F. SWIFT, JR. IN FIELDBOOK HoB 1962.VIII:77

FIGURE 7.16. Lydian I floors, looking northwest. Floor by Hoard A (left), platform (right), and floor with puppy burials (upper right).



The patch of floor had a light socle running roughly north–south for about two meters on its western edge. On the south side was a three-sided boxlike structure opening northward⁹⁰ that must have been an oven or furnace of the kind familiar as a frequent installation (Fig. 7.15). In its southwestern recess were two pots, a plain Buff Ware bowl with a flat base (**HoB 683**) and the lower part of a coarse bichrome jug (**HoB 682**). Directly to the east of the oven was a large pile of breadtray pieces, one on top of the other and set out flat, extending for about two meters (seen at left side of square floor in Figs. 7.14, 7.15). Parts of additional vessels were found on the floor to the north, in particular two sherds from a large plain plate, possibly stemmed (diam. ca. 0.28 m; **HoB 680**) and an almost complete, simple banded jug with streaky glaze (**HoB 681**). There was also a large amount of less well preserved pottery from the floor, including Gray and Buff Ware, unusually thin cooking ware, streaked skyphoi, and Black on Red fragments.

Other objects were found above this floor, including a bronze pin, 0.07 m long, with a plain knob for a head, and a bronze cross-shaped object with a hole in the middle (**HoB 694**), as well as a heavy lump of bronze, ca. 0.02 m in diameter, found at the northern edge, at the level of the wall top (ca. *98.6). A nearly complete imitation Protocorinthian skyphos (**HoB 692**) came from the east edge at *98.8, 0.2 m above the breadtray and other debris. The skyphos is of a later seventh-century type, with the open rays and dotted metopal arrangement much favored by the Lydians in this period.

Imported pottery from the floor, such as the aryballos with elongated animals (**HoB 689**), the later form of the bird bowl (**HoB 684**), and the Ionian cups (**HoB 686**, **HoB 688**), suggest a date for the floor in the later seventh century. The date is important because the floor lies directly over the southwest corner of Building J, which has been associated with the Lydian II complex of buildings (see p. 84) that flourished about the middle of the seventh century.



Just to the east of the floor near the postholes, at W18–22/S95–100, several patches of floor (but no evidence of walls) were discovered at different levels within the meter between *99.40 and *98.50 (Fig. 7.16). A considerable number of well-preserved pots was associated with these floors, reminding us of Herodotus' statement that "They [the Ionians] were prevented from plundering the city by the fact that most of the houses in Sardis were made of reeds, and those made of brick had roofs of reeds."⁹¹ A reed house would leave few remains other than pots on the floor, such as were found here.

FLOOR BY POT HOARD A and THE PLATFORM

A group of whole or partial vessels (**HoB 696–HoB 715**) found at about W21/S99, *99.05, was described by the excavator as "Hoard A." A floor nearby and slightly higher (floor level *99.45) is probably associated with this assemblage. On this floor, among a few stones and more pieces

⁹⁰ At W22.75–23.75 *97–97.50.

⁹¹ Herodotus V.101.

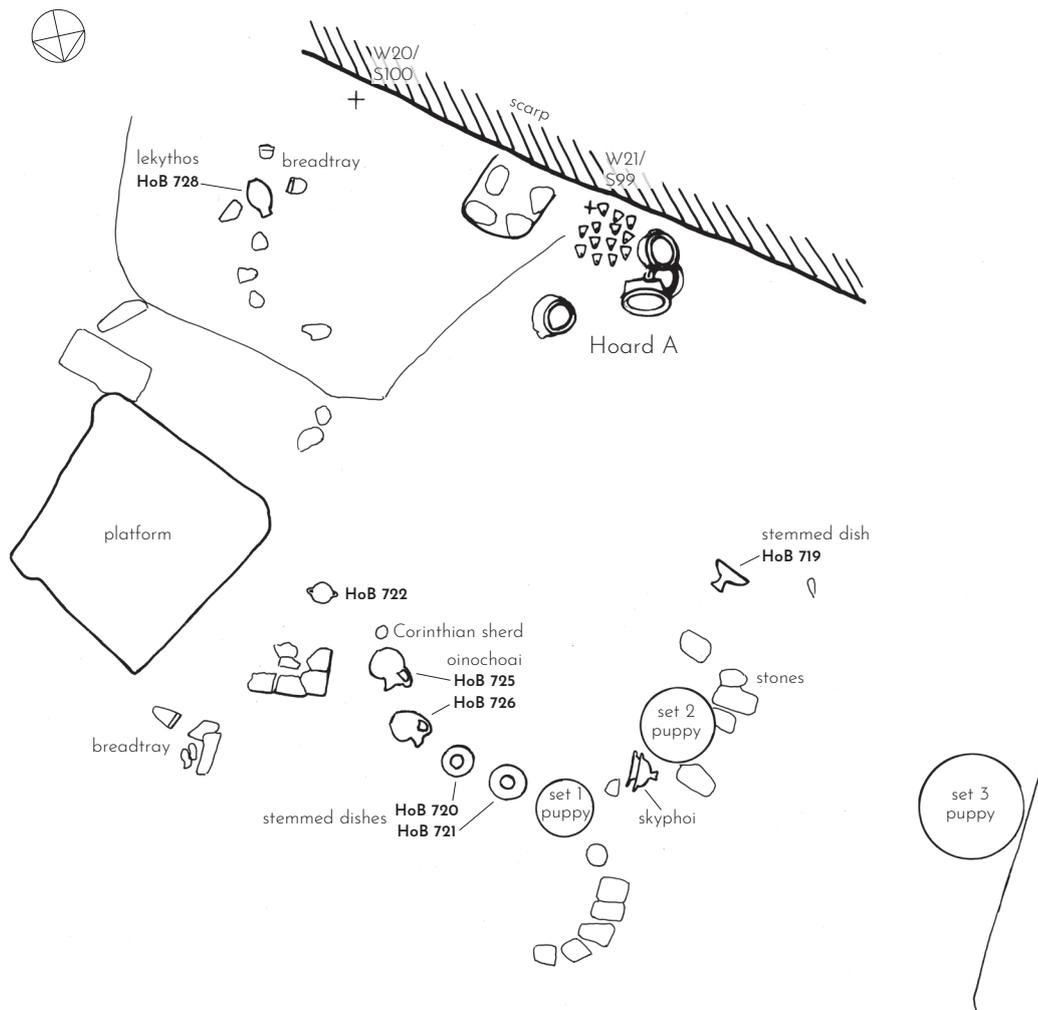


FIGURE 7.17. Lydian I floors south of Building C, south at top, with pots and bread tray strewn about. Next to the slightly raised floor in front of the scarp, and just below it, is Hoard A, with hydria necks and pyramidal loom weights. In front of this floor is the platform with stony surface. And closer to the viewer at right is the lower floor with puppy burials (marked by circles). DRAWN BY C. S. ALEXANDER AFTER A SKETCH BY G.F. SWIFT JR., IN *FIELDBOOK HoB 1962.VI:97*



FIGURE 7.18. Lydian I floors, looking southwest. In center back is the floor by Hoard A; next to it, at right, a nest of hydria necks (Hoard A). Closer to the viewer lies the stony platform. Other pots lie on the floor with puppy burials at the right. This is essentially the same area seen in Fig. 7.16, but at a slightly different angle.

of breadtray, lay a small ovoid Lydian lekythos (**HoB 728**; Figs. 7.17, 7.18), complete except for its handle and a few chips out of the lip. Hoard A itself contained many pots (Fig. 7.20).⁹² Most distinctive in this lot were quite a few jar necks (**HoB 702–HoB 706** and **HoB 711**) and 34 loom weights (**HoB 716**). Loom weights would have been in every house, and could have served the family or might have

been a household industry.⁹³ A single loom required about 50 loom weights, and nearly every other excavated Lydian house had many loom weights too.⁹⁴

⁹³ Such as one associates with the production of Spanish lace or Harris Tweed.

⁹⁴ On the loom weights, see Barber 1994, p. 166. Greenewalt, Rautman, and Cahill, “SARDIS 1985,” p. 69; Greenewalt, Rautman, and Ratté, “SARDIS 1992 AND 1993,” p. 18; Greenewalt, “SARDIS 2000,” p. 229.

⁹² At W21/S99.

FIGURE 7.19. One Gray Ware neck and five Lydian I Waveline hydria/amphora necks (part of Hoard A), all purposely trimmed.

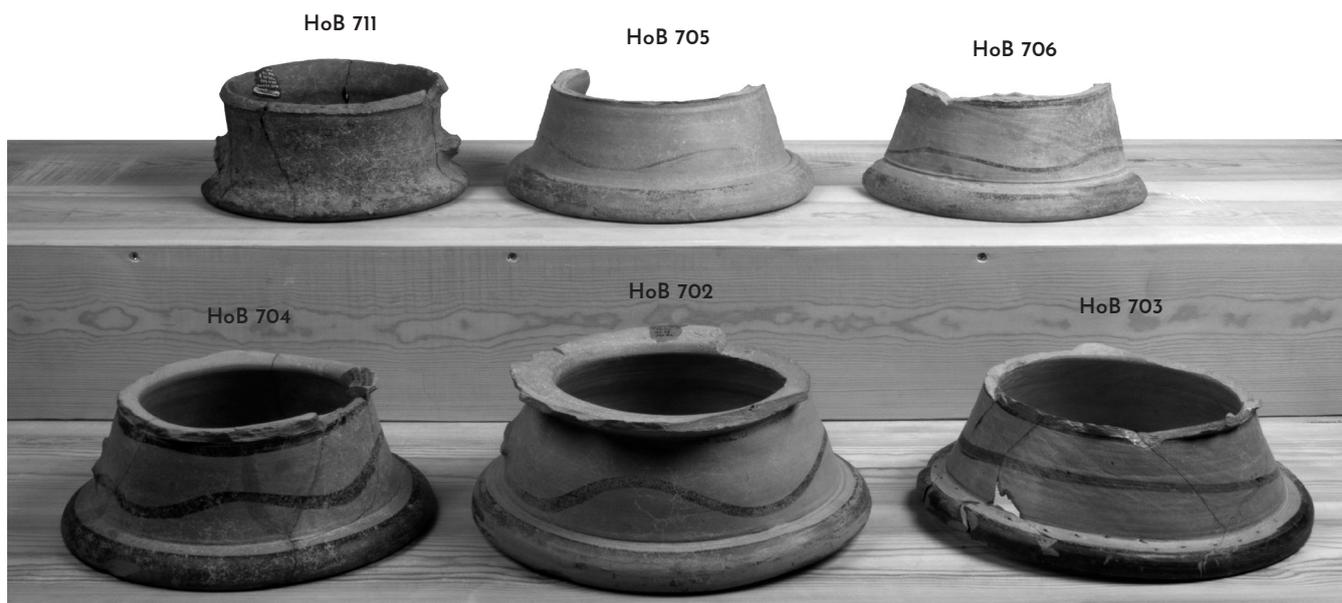


FIGURE 7.20. Four of the six necks of Waveline amphorae or hydriae *in situ*, looking southeast. Pyramidal loom weights lie behind the necks (Hoard A).



Some of the loom weights found here were unfired and made of the same greenish clay that was found in a few lumps at W19.5/S98, at a level a little lower than the *99.45 floor. The finding of the raw material—that is, the greenish clay—close to the finished product, the loom weights, suggests that they were made right here.⁹⁵ Indications from loom weights found all over the trench confirm that in Lydian times the pyramidal type was frequently made of dried but unfired clay. This contrasts with the practice in the earlier levels, where the hammerhead or spool-like varieties were fired, even if only to a low temperature (see pp. 50–51).⁹⁶

A number of Waveline hydria or amphora necks, part of Hoard A, were found right by the loom weights and next to the floor (Figs. 7.19, 7.20). The large vessels had been cut

down or trimmed from pots that must already have cracked or been broken in the body. One has the suspicion, here as elsewhere, that they were being used for a secondary purpose such as pot stands (see Fig. 1.2) or as holders for separating miscellaneous loose objects on the ground (see on reuse of pots, Chapter 1, p. 4).⁹⁷

Just to the east of the floor that lay by Pot Hoard A were the remains of an undefined but palpable rectangular platform, identifiable by its many sizeable stones within and on top of the surface (Figs. 7.16–7.18).

FLOOR WITH PUPPY BURIALS

A great many whole pots were found on the floor near the curious sets of so-called puppy burials, or more formally, “canine ritual dinners,”⁹⁸ which are marked on the plan with circles (Fig. 7.17; for full discussion, see under Building D, p. 97). Five other well-preserved pots lay on the *99.4 floor in addition to the puppy burials (Figs. 7.17 and 7.18): two miniature Black on Red stemmed dishes upside down (**HoB 720**, **HoB 721**), two oinochoai (**HoB 725**, **HoB 726**), and one upright skyphos (**HoB 722**). They lay in a more or less straight line running east from about W20.75/S96 toward a group of stones set in a rough semicircle and containing a substantial part of a hearth stand (**HoB 727** [not shown in sketch]) and some of the cooking pot it was supporting. This is an excellent candidate for a campfire-style hearth in which the stand was set. There were considerable patches of charcoal in this area.

A little northeast of the stones was a substantial pile of breadtray, some pieces lying flat and some on edge.

⁹⁵ Other unbaked loom weights were found in a room to the east of MMS: Greenewalt, Rautman, and Cahill, “SARDIS 1985,” p. 69.

⁹⁶ See, from Deep Sounding B: **HoB 98**, **HoB 99**, **HoB 100**; and Deep Sounding C: **HoB 34**, **HoB 220–HoB 229**. Ancient sources mention both heavy and fine fabrics for the time of Alyattes in the form of purple coverlets and gauzy headscarves. *Sardis* M2, nos. 128 (Athenaeus, *Deipnosophistae* 2.48b) and 139 (Sappho F219 [98]), for blankets and mitrai (headscarves) as examples of differing weights of fabric.

⁹⁷ Compare the jar necks found in the Lydian Shop, p. 90.

⁹⁸ Greenewalt and Payne, *Ritual Dinners*, pp. 65–67 (in this case, CD 15, 16). The numerous canine dinners from HoB have not been included in the catalogue here, but see p. 97 as well as p. 127, on finds at Pactolus Cliff.

Elsewhere in this area, too, many pieces of breadtray were found on the floor. One might note that breadtray does not lose all its usefulness when broken: its pieces provided convenient, clean, flat areas for work or storage; they could serve as a cutting board or a temporary plate; and they could be put around or over the hearth so long as they were not too small.

An unusual pot was a stemmed dish with a flange and traces of black paint on the foot and in the interior (**HoB 719**).⁹⁹ Nearby, about 0.50 m to the west, was a substantial piece of a fine black-glazed Ionian kantharos with offset rim and band handle swinging up from shoulder to lip (**HoB 731**); and also a highly polished stem of a stemmed dish (**HoB 710**). Additional imported sherds and associated local material fall within the first half of the sixth century.

On a gravel surface (but not a floor) at W22–24/S89–92 *99.60–99.40 were many fragments of a fine black-polished round-mouthed oinochoe (**HoB 732**).¹⁰⁰

The overall character of the items on these floors south of Building C, including heaps of domestic materials like breadtray, was consistent. Although the many finds from this whole area are a rather heterogeneous lot, they are, in fact, useful as a domestic assemblage, and the chief drawback is a lack of confining walls or a substantial sealing layer of gravel or sand above it. The sample is, nevertheless, large enough for us to be confident that the general flavor of an early sixth-century level has been retained.

REFUSE PILES

East of Building D were several heaps of debris, often containing considerable amounts of elegant painted pottery and terracotta (see Fig. 7.4). These objects were not organically connected with the floors, and the quantity and quality of the material was unlike what we found within Building D. Associated or joining pieces were often found within a rather confined area, and there were more of these than one might expect of things left unattended in the open or haphazardly thrown out. The presence of many joining pieces of several fine pots suggests that the material was brought in and dumped on the pile, where it would have broken upon impact. As yet there is no proof, but we have always thought that the finds in this area did not represent a typical part of the town. Little by little the signs of grander buildings and richer furnishings were appearing, and the elegant pieces mentioned here may have had a prior setting worthy of a great capital city.

Among the finds in these presumed “refuse piles” were more than thirty complete or nearly complete Lydian pots, including a fine Orientalizing lebes in the “Sardis Style”

(**HoB 750** and frontispiece of volume II), with lions and deer strutting across the bands, and an almost complete streaky-glazed jug with pendent hooks (**HoB 753**; see Fig. 1.11). About two or three meters from most of the refuse, and at a comparable level, were found numerous whole skyphoi (**HoB 742–HoB 747**) and many other pots. A good number of these were small oinochoai (**HoB 754–HoB 764**).

Of particular importance was the discovery of fragments of an ithyphallic terracotta man (**HoB 785**), painted in a lively manner to show long hair, beard, and an elaborate outfit on his upper body and surviving leg (see Pl. 226). He may have served as a trick vase on which the penis served as the spout. Greenewalt dated the “Exhibitionist” to after 540 B.C. and suggested that he represented a Persian, based on his costume; but the context does not seem to be that late, and he may well date to before the Persian destruction. Hanfmann dated him to about 560.¹⁰¹ Also found here was a terracotta figure thought to be a camel, of which only two legs survive (**HoB 784**).¹⁰²

CONCLUSIONS

One gets a different impression from the structures and pottery of Lydian I than from those of Lydian II. The sense of a planned space is less obvious, and the buildings are somewhat smaller and in general less well built. The pottery and miscellaneous artifacts, by contrast, are richer and show a greater variety. More imports and more articles of daily life appeared and widen our understanding of the Lydians. Many pieces of pottery were found in heaps that must have been rubbish in their own time, contrasting with the habit of filling pits with trash, favored by the earlier generation living in the Lydian II level.

External written sources report that this period, the turn to the sixth century, was one of great intellectual and economic ferment throughout the Mediterranean world as well as at Sardis. The increased variety of material goods from this period is evident here, and a slightly different use for the area from the one suggested for the earlier period may be proposed; not a radical change, but one that fits with the surge in economic growth experienced in the late seventh century, and with the renown the Lydians gained as commercial entrepreneurs. The buildings and activities of Lydian II should be seen as essentially local, and created to some degree in isolation while the Kimmerians remained a threat, while those of Lydian I were significantly more international, responding to the growth in wealth and power at Sardis.

⁹⁹ Ca. W21/S97 *99.55.

¹⁰⁰ Analyzed by M. Kerschner (sample Sard 50). This piece is published by Kerschner (2005b, pp. 144–45, figs. 18–19).

¹⁰¹ Hanfmann, “SARDIS 1963,” pp. 8, 11, and figs. 3–4; Greenewalt 1971a.

¹⁰² Hanfmann, “SARDIS 1963,” p. 12 and fig. 5. See Gallart Marqués 2015.

Chapter 8

CONCLUSION

The excavation of the Lydian Trench in sector HoB revealed a part of the city of Sardis that was filled with crude structures and outdoor spaces over a period of about a thousand years, from the Late Bronze Age to the Hellenistic period; on the other hand, the focus of this book is somewhat narrower, covering the approximately six hundred years from the Late Bronze Age through the conquest by the Persians. Our interpretation of walls, pottery, and other finds of a domestic or industrial nature creates a picture of ordinary life over that long time span. Evidence for daily living in the way of hearths, cooking ware, knives, crockery, and storage spaces sits cheek by jowl with places where objects were apparently made for commercial or industrial purposes.

The Lydian Trench produced scanty but important testimony for life in the Late Bronze Age at Sardis. The three deep soundings that went back at least to the tenth or eleventh century each revealed not only pottery, metal implements, and a donkey skeleton, but also walls, thatch, the floor of a hut, and a burial pithos. Of special importance were the few Mycenaean potsherds that confirm contact with Greece at that time. Slowly, the early periods at Sardis start to take form in the record.

The finds have been compared with those from other sites in western Anatolia, such as Troy, Beycesultan, and Gordion; at the same time, mainland Greece and the Aegean islands have been recognized for the inspiration that came from the west at different periods in the long history of Sardis. Following the development of the town through four distinct phases after the Late Bronze Age, phases that

we call Lydian IV through Lydian I, has allowed a clearer picture to emerge about life among the ordinary people.

Lydian IV is a period of about two hundred years, between the Late Bronze Age and the late eighth century, when there was little communication with the rest of the Mediterranean world. Lydian potters produced mainly gray and buff monochrome wares and cooking pots, but also cups and other shapes with geometric designs derived from the occasional imports from Greece and Anatolia.

Historical markers and connections with literary sources have been sought in the archaeological record. Perhaps the most important is the date and explanation for the widespread burning that took place in the late eighth century, Lydian III. While the destruction had previously been attributed to the Kimmerian invasion, historically placed about 650 B.C., the pottery studies now confirm an earlier date, in the late eighth century, for the enormous conflagration. It may be that the cause of the destruction was an unrecorded invasion of the Kimmerians or another external group or, less likely, internal rivalries between Lydian factions, resulting in struggles for power among the nobility.

The construction of the substantial city wall 100 meters to the east of the Lydian Trench, a century after that conflagration, would have seriously affected the area. The people who lived in the zone of sector HoB would have now found themselves outside the defended quarter, and presumably in a less desirable part of the city.

The evidence for growth in the local town, with more solid buildings and an orderly arrangement of houses and

shops, becomes clear through the substantial remains of Lydian II. It is in this period, the seventh century, that the best picture of life in the town emerges. Small buildings with walls of stone and mudbrick are placed in an orderly way within an enclosure wall. Internal furnishings and household goods were found still lying about as if the inhabitants had only recently departed, perhaps because of the rush of floodwaters. Of special note in this period were the bothroi, or pits, some of which served to hold garbage, while others will have been used for other household or industrial purposes. These round pits were dug down, through thick layers of gravel, into the levels of the previous period.

In the second half of the seventh century, international influences thrive, especially with the proliferation of Orientalizing pottery, both imported and imitated in the local style. The period of Lydian I provides an exciting picture of small industries in the carving of bone objects and casting of jewelry with stone molds, and undoubtedly the weaving of fine fabrics for which Sardis was famed.

After the destruction caused by the Persians in the mid-sixth century, the area of sector HoB seems to have continued mainly as an industrial area. Perhaps its location

outside the great city wall meant that it became a less attractive place to build houses or workshops; but they may have used impermanent structures for both habitation and industry. The east–west thoroughfare that had been there since early times, which passed right by HoB and still existed as the main Izmir–Ankara highway until a bypass was opened in 2001, probably never lost its importance. Industry in the Lydian Trench of HoB after the Persian destruction is attested more by ceramic and other finds than by stone buildings.

What the Harvard-Cornell Expedition uncovered here may be considered a representative microcosm of an Anatolian town, famed in antiquity for its wealth and lifestyle, and regarded as an important city under the Lydian kings and beyond. But what was found in the Lydian Trench is the record not of the high and mighty, but of the ordinary worker, humble and poor, the bread makers and artisans living in reed huts and within walled enclosures. These excavations have helped to bring into focus a fascinating collage, not of the favored few of Herodotus and the early chroniclers, but of the unsung lives of ordinary Lydians at home.

Part II

Lydian Levels at Pactolus Cliff

by Nancy H. Ramage

Chapter 9

INTRODUCTION

The sector Pactolus Cliff (PC) represents a small area of occupation along the eastern cliff of the Pactolus River. Excavation began here in the summer of 1959 after a partial collapse of the high bank during the previous winter (Fig. 9.1). As a result of the collapse, villagers found large blocks of marble from a tomb (Fig. 9.2) and pieces of sculpture that they brought to the excavation house in February of that year. Fragments of an Asiatic sarcophagus, including the head of a young woman and the head of a horse, had been found in the riverbed, and excavations were initiated that summer near where the sculpture had been found.¹

The site, investigated over two seasons, was located on top of the remaining cliff, about 700 meters north of the Temple of Artemis (Fig. 2.1/Plan 1: no. 13). At the upper levels, the excavator, Mario Del Chiaro, found the Hellenistic “Tomb of the Lintel,” and a Roman mausoleum with two rooms preserved (the Large Vaulted Chamber [LVC] and the Small Vaulted Chamber [SVC]), as well as several simple Roman stone-lined pit graves (Fig. 9.3).² The later tombs were built directly over Archaic and earlier Lydian remains: in one instance the Hellenistic builders had rested a wall directly on a Lydian wall beneath;³ and a long



FIGURE 9.1. Pactolus Cliff before excavation began, looking east, after part of the bank collapsed. The top of the Acropolis rises up in the distance.

Lintel uses a Lydian wall [of the Lydian I level] as part of its foundation” (Ramage 1969, p. 12).

¹ These fragments had decorated the fulcrum of a funerary couch. Hanfmann, “SARDIS 1959,” p. 12 and fig. 2; and Hanfmann and Ramage, *Sardis R2*, pp. 134–36 and cat. nos. 180–81.

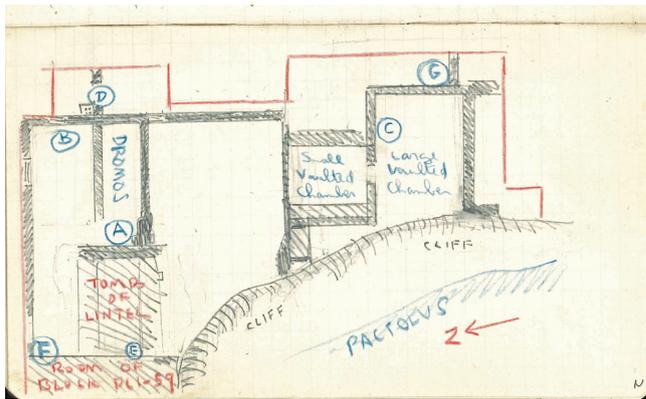
² Fieldbook PC 1959.11:2. See Hanfmann, “SARDIS 1959,” pp. 12–18; Hanfmann and Mierse, *SPRT*, p. 65. For an overview of PC, see *SPRT*, pp. 41–42.

³ “The south wall of the dromos of the Hellenistic Tomb of the

FIGURE 9.2. Pactolus Cliff, looking north, as the excavations were starting in 1959. Marble blocks, seen here, had fallen into the riverbed from tombs above the Lydian levels. The relationship of the site of PC, on the cliff at right, to the Pactolus River is evident here.



FIGURE 9.3. Fieldbook sketch by the excavator, Mario Del Chiaro, of the Hellenistic and Roman tombs at Pactolus Cliff, before the excavation reached the Lydian levels. FIELDBOOK PC 1959.II:2



east–west Lydian wall (Wall 9; see below) was found immediately below the southern end of the northernmost Roman burial. However, once Del Chiaro reached the Lydian levels, about four meters below the present ground level, he found relatively little disturbance from Hellenistic or Roman foundations.

Excavating at PC faced certain inherent difficulties imposed by the nature and location of the site. Lying between the village houses and the cliff edge, which had been worn away by the action of the river, the area was constricted by those boundaries. George M. A. Hanfmann often remarked that he was sorry that we had not done more with the site,⁴ but after the 1960 season, heavy winter rains and the river

⁴ Hanfmann later wrote, “I have always felt sorry that the high overburden with village houses on top prevented us from advancing farther at PC. The Lydian structures were really large, but one would have to go farther away from the Pactolus water level to do any stratigraphic sounding. It’s a pity, for widening the dig might have indicated something about the settlement pattern between PN and the Temple” (written on the back of a Christmas card to the Ramages, 1984).

had caused damage to the cliff edge; and furthermore, the pressing excitement of sector HoB and the new excavations at Pactolus North (PN), which lay between Pactolus Cliff and the old highway bridge, took away the attention of the excavators. By 1980 the winter rains and the flooding of the Pactolus River had entirely claimed the remains in the area of Pactolus Cliff (Fig. 9.4).

Occupation at Pactolus Cliff lasted from the Iron Age to the Archaic period, and the pottery can be dated from the middle ninth to the middle of the sixth century B.C. Thus, the site complements the information and observations gained from the Lydian levels in sector HoB.⁵ In contrast to what was found at HoB, there was almost no evidence from the period of Persian dominance: only one piece of Attic pottery, a late fifth- or fourth-century fragment of a squat lekythos, found in a place that was not well stratified.⁶ One of the latest Archaic finds is a terracotta star-and-scroll terracotta sima tile (PC 55) datable to 580–540 B.C.;⁷ thus, at PC, sometime around the middle of the sixth century, there begins a hiatus in the record⁸ that lasts until the Hellenistic period—which falls beyond the confines of this study.

⁵ Apparently habitation did not start as early here, although it is possible that more pottery could have been found, had the water table not interfered with the excavations in 1960.

⁶ Ramage, *Sardis* M10, cat. Att 112 (P59.371), pl. 41; see also p. 69.

⁷ See Ramage, *Sardis* M5, pp. 26–27, cat. no. 43, frontispiece and fig. 87; Hanfmann and Mierse, *SPRT*, p. 41. For the dating of pottery, the author is much indebted to the expertise of A. Ramage. Assistance from C. Simon (particularly regarding Gray Ware) and from N. D. Cahill, C. H. Greenewalt, jr., Ü. Gungör, and R. G. Gürtekin-Demir is also here gratefully acknowledged.

⁸ The pottery record does not support the claim in *SPRT*, p. 101, that the area was occupied under the Persians.



FIGURE 9.4. The riverbed with the bluff where Pactolus Cliff had been, here worn away by the river and the winter rains. This is how it looked in 1986 (as recorded by the author). Again, the Acropolis peak is seen in the distance, looking southeast.

The time periods that have been spelled out in Chapter 2 for the finds in sector HoB (p. 31) will be used here as well. In other words, based on comparison with the stratigraphy in HoB, and also by comparing the general mix of pottery shapes and decoration in the comparable levels, it can be stated that the earliest period at PC belongs in Lydian IV, ninth to eighth centuries, when Gray Ware and pithos fragments are predominant but pottery with geometric decoration makes an entrance. Indeed, PC produced a good deal of ninth-century Black on Red pottery in particular.

Lydian III, covering the last quarter of the eighth century, is still characterized by a large proportion of monochrome and pithos fragments, and the painted pottery is consistently of the earlier geometric type. Lydian II, from the early to mid-seventh century, has much geometric decoration on the pottery, but the many imports and their local imitations reflect Orientalizing influence. Lydian I, from the later seventh to the mid-sixth century, shows a predominance of Orientalizing motifs. This area to the west of the city, then, seems to have been abandoned for two hundred years or more before it became a Hellenistic (and later, a Roman) cemetery.

The overall coordinates of the trench, including the Hellenistic and Roman remains, were W225–242/S600–615 (Fig. 9.5/Plan 7), about 200 square meters; the Lydian layers, between *91.00 and *87.00, were about 7.5 × 10 m, or an area of about 75 square meters.⁹

The stratigraphy of the Lydian levels and the relationship of finds to architectural features is something of a problem at PC, as the excavator used no coordinates;

⁹ No grid lines have been included on the PC plans because none were used by the excavator. The coordinates are mentioned here only to place the site on the overall plan of the city (Fig. 2.1).

instead, the area was dug in “zones” that were defined by walls or, in some cases, simply by arbitrary limits that are now impossible to reconstruct; references to markers such as “Walls XY” or “Diagonal Cut at X” can no longer be identified. Nevertheless, certain developments can be discerned. In some instances, a wall created an artificial dividing line between zones: Wall 9, which is of the latest period, Lydian I, separates Zone 1 from Zones 2A and 3 (Fig. 9.5), all of which produced much material from Lydian III and II. And Wall 3 separated Zones 2A and 3 from Zone 4. Indeed, some pottery fragments from the same vessels were found in different zones.¹⁰ A diagonal cut was made through the heart of the trench, passing through Zones 3 and 2A, in order to get a clearer sense of the layers, both natural and artificial. Levels were recorded,¹¹ but there was never any mention of pits within levels, or of other disturbances to the stratigraphy. The nomenclature has been retained since it is the only way of determining the rough findspots.

¹⁰ Such as PC 13 and PC 18.

¹¹ Stratigraphical information and interpretation is derived from the excavation notebooks and reports written by Mario Del Chiaro, and from further analysis by G. M. A. Hanfmann; but these findings have been reevaluated in the light of the present author’s studies of both the pottery and the stratigraphy. See previous publications: Hanfmann, “SARDIS 1959,” pp. 12–19; Hanfmann, “SARDIS 1960,” pp. 17–24; A. Ramage 1969; Hanfmann and Mierse, *SPRT*; N. Ramage 1994.

Levels at PC are not comparable to those in sector HoB, because the point of reference used was different, due to the distance from the starting point as well as the topography. Whereas in sector HoB the datum point was based on the Roman Gymnasium (see Chapter 2, p. 23), at PC and PN the levels were taken in reference to a point on the stylobate of the Temple of Artemis. The differential between levels at PC and at HoB is 23.26 m. See also *Sardis R1*, p. 11.

FIGURE 9.5
(= PLAN 7).
Zones and walls of Lydian levels in sector PC. Overlying Hellenistic and Roman tombs are shown lightly shaded.



Walls in PC are here given numbers, 1 through 9, to allow for convenient reference to associated floors and spaces.¹² A rough equivalence between the walls and periods is:

Walls 1 and 2	Lydian IV
Walls 3, 4, and 5	Lydian III
Walls 6, 7, 8, and 8a	Lydian II
Walls 6 and 9	Lydian I

Walls going in an east–west direction were destroyed on the west side where the action of the Pactolus had worn away the cliff; on the east and north, they continued under the scarp. Notably, Wall 9 was so long (10.5 m long, 0.80 thick) that it may have been an enclosure wall of some kind. No complete buildings were preserved at Pactolus Cliff.

¹² The concordance of wall numbers used here to the original numbering (fieldbook PC 60.1:2) is as follows:

OUR NOS.	ORIG. LABEL
Wall 1	none
Wall 2	none
Wall 3	A
Wall 4	B
Wall 5	none
Wall 6	none
Wall 7	none
Wall 8	C
Wall 8a	none
Wall 9	none

The areas between these walls were labeled as “zones” in the fieldbooks and preliminary reports (Fig. 9.5). Zones 1 to 4 encompass all but the southeastern part of the trench, where, instead of zones, divisions were established beneath the two chambers of the Roman mausoleum that had been removed so as to expose the Lydian levels. These southeastern areas are referred to as being beneath the “Large Vaulted Chamber” to its north and south (LVC/N and LVC/S); and as the area beneath the “Small Vaulted Chamber” (SVC).¹³ Zone 1 was an area that ran east–west in the northern part of the trench; it was bordered on the north by Wall 7 (and the scarp) and on the south by Wall 9. Zone 2 was divided, part way through the excavation, into Zone 2 at the east of Walls 4 and 5, and Zone 2A at the west (Fig. 9.6). Zone 3 lay at the northwestern edge of the trench, and can be visually picked out by the tamped floor that was its most outstanding feature (Fig. 9.7). Zone 4 lay south of Zone 3, and again on the western and the southwestern side of the trench. The southeastern parts of the excavations were designated as “below LVC” and “below SVC.”

Mostly in the lower levels and test pits was there clear evidence of Lydian IV (Iron Age, ninth and eighth century), but these early levels also appear on and under a floor in Zone 1 (see below, p. 122). In a number of test pits, the

¹³ For the chambers LVC and SVC, see plan in Hanfmann, “SARDIS 1959,” fig. 3. The dividing line between LVC/N and LVC/S was Wall 6.



FIGURE 9.6. Zone 2 at left and Zone 2A at right (divided by narrower Wall 4 and wider Wall 5), looking south. The workmen are standing on the stepped incline. Wall 9 is at the lower right.

lower strata belonged to the Early Iron Age, but there was no sign of Late Bronze Age pottery. Those areas that are particularly interesting for the early levels are characterized by Gray Ware and pithos sherds. Comparisons with the Gray Ware from HoB suggest that we have shapes that can be paralleled with pots from the Early Iron Age found in Deep Sounding C. Those areas at PC that have the earliest material have modern pits to the following levels:

Test pit, Zone 2	To *86.51 (see Fig 10.2)
Test pit, Zone 2A	To *87
Test pit, Zone 3	To *84.57
Test pit, Zone 4	To *86.57 (see Fig 10.4)
Below LVC/S	To *87.40

The overwhelming number of pottery fragments from PC could be identified as Lydian III (last quarter of the eighth century). Smaller amounts of pottery came from Lydian levels II or I, beneath the somewhat disturbed Hellenistic and Roman levels.

The ground sloped down from east to west in antiquity, so that lower levels toward the cliff edge tended to yield slightly later material than that at the same levels in other sections of the trench.

Among the many walls of PC, only the following Lydian floors were found:

- At *88.40, pebble floor at the east end of Zone 1 (Lydian III)
- At *88.80, mud floor at the east end of Zone 1 (Lydian II)
- At *89.55, in Zone 3 (Lydian II)
- At *90.15, in Zone 2 (Lydian I)

See Table 2.1 on page 31 for the chronology.



FIGURE 9.7. The square tamped floor (Lydian II) of Zone 3 (at center, looking southwest). The long, narrow Zone 1 (at the right with a single man standing in it) is bordered by the long Wall 9 and also by Wall 7 at the right edge of the photograph. The short Wall 8, running roughly at right angles to Wall 9 (center of the photo), borders the tamped floor on the east side. The two walls at the lower left are Walls 4 and 5. The Pactolus riverbed lies beyond the photo frame, at the top left.

The stratigraphy and finds at Pactolus Cliff, as laid out in the following chapter, will show that despite somewhat limited details in the records, a lot can be understood from this small settlement that in many ways mirrors the much larger exposure of the sector HoB.

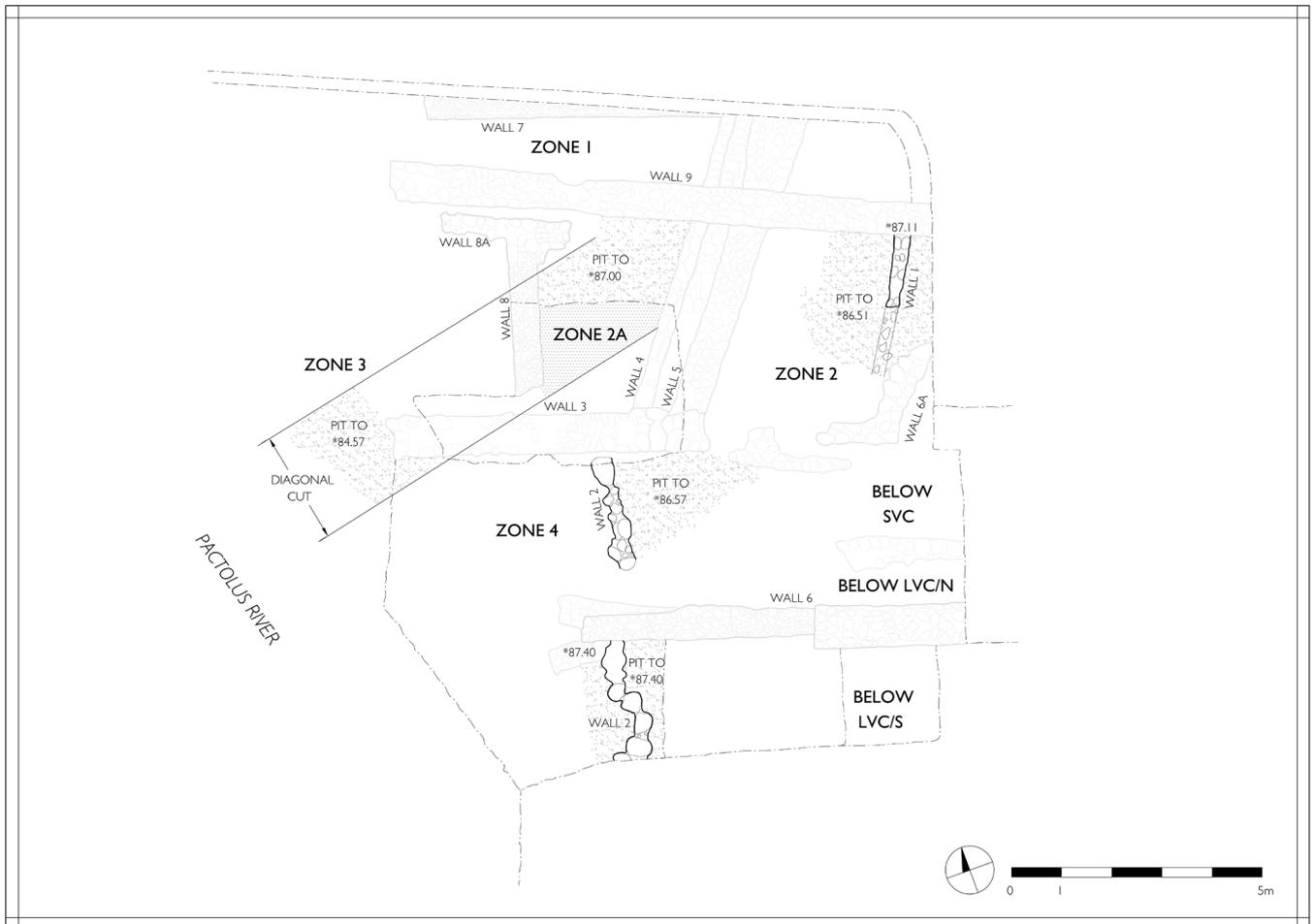


FIGURE 10.1 (= PLAN 8). Lydian IV features in sector PC.

Chapter 10

STRATIGRAPHY AND FINDS

Following the organization of sector HoB, Part I, the discussion of the PC material will begin with the earliest phases.

LYDIAN IV

NINTH TO MID-EIGHTH CENTURY B.C.

Test pits were dug in a number of places in order to see how far back the habitation levels extended at Pactolus Cliff. The test pits were located in the following Zones: 2, 2A, 3, 4, and LVC/S (see plan, Fig. 10.1/Plan 8 and Fig. 9.5).

From the earliest period found at PC, Lydian IV, there were two small architectural features. The earliest, Wall 1, was found in Zone 2 at *87.11. Only two stones wide, it was 0.40 m high and preserved for a length of 0.50 m (Figs. 10.1 and 10.2). It may have been the foundation for a wattle and daub wall, and may be compared to another one of the Early Iron Age in Deep Sounding C in HoB (p. 41 and Fig. 3.8).¹ The pottery found in the fill around Wall 1 was 60 percent pithos fragments and 40 percent gray or black monochrome.

In the test pit not far away in Zone 2, at the slightly higher level of *88.50–87.50, again mostly pithos fragments and coarse monochrome pieces were found. At *87.70, an impressed boss from a cooking pot (**PC 62**), much like two from HoB, was discovered (Fig. 10.3). These knob-like projections could have been attached to the lid or the body of the pot. In each case they have had the same decoration applied to the knob, perhaps made by an object like a small



FIGURE 10.2. Test pit, Zone 2, looking west. The stones at left make up the stepped incline. Wall 1 (Lydian IV) can be seen at the bottom of the pit at lower right.

bone impressed in two directions to make an X pattern. All of them had been purposely chipped for reuse, possibly for game pieces, as best seen on **HoB 263** (the one at the left). **HoB 209** comes from a secure ninth-century context and the one from PC might be of that date, although it is difficult to date cooking ware. Close by, at *87.50, an early Lydian round-mouthed jug of a Phrygian type was found. It was made of a buff fabric and was painted in black, with two bands of concentric three-quarter circles and orange-red slip added across the horizontal bands (**PC 1**).² This jug may also have been made as early as the ninth century.

In Zone 3, far down in the diagonal cut at *88.00–87.50, the material was 75 percent monochrome gray or black ware, 15 percent geometric, 5 percent heavy coarse

¹ Hanfmann, "SARDIS 1966," fig. 4 and p. 35; and Hanfmann and Mierse, *SPRT*, fig. 22.

² Sampled by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 929).

FIGURE 10.3.
Cooking pot
handles with
incised bosses.

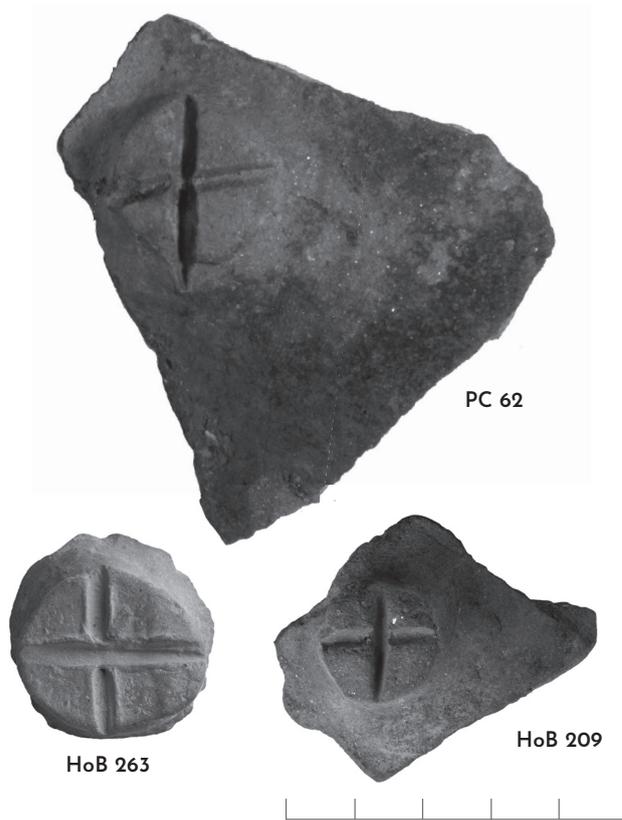


FIGURE 10.4.
Zone 4, Wall 2
(Lydian IV),
looking northeast:
closeup of the
boulder-like
stones. See also
Fig. 10.7.



ware, and 5 percent brown-surfaced pottery.³ In addition, two fragments of Black on Red jars with upside-down V shapes filled with diagonal hatching were found (PC 23 and PC 24). These fragments are at least as early as the

³ Fieldbook PC 60.1:110.

ninth century, on the evidence of well-stratified fragments in HoB. Other contemporary pieces from close by were a fragment of a krater with crosshatched diamonds (PC 22), a crosshatched meander fragment (PC 25), and a monochrome double handle with a boss at its base (PC 21).

In Zone 4, a row of large stones, here called Wall 2 (although it may not have been a wall), was probably also from this early period. It was found in the test pit near the southern end of the trench and close to the cliff's edge (Fig. 10.4).⁴ It was made of seven large stones, the dimensions of each being about 0.40 × 0.40 × 0.25 m. Their appearance was rather like a row of boulders, and they may have served as a barrier meant to hold back the river. In another test pit in Zone 4 at the same level, the large stones of Wall 2 seemed to continue (see Figs. 10.1 and 10.7). Once again, the ceramic material associated with this wall consisted of 50 percent pithos fragments and 50 percent gray or black monochrome.

Pottery found in the test pit at the lowest levels of LVC/S, at the southeastern corner of the PC trench, included geometric pottery—some local, some imported. A fragmentary but elaborate geometric piece came from a large Lydian vessel (PC 131; see Fig. 1.14). In one group (at *87.40–87.00), a krater fragment with an elegant painted checkerboard pattern (PC 133) was found together with two handles, one of which has a delicate and unusual incised design.⁵ Of note among the other Gray Ware fragments were a baby feeder (PC 136) for which there are parallels in HoB from a ninth- or eighth-century level in Deep Sounding C (HoB 215); a small fragment of a hearth stand (PC 132); and a jug fragment (PC 134), again with parallels in HoB from Lydian IV.⁶

Although Lydian IV at PC is somewhat difficult to interpret, it is clear that these early Lydians made their foundations out of stones much larger than the typical walls of the subsequent period, and that they used almost exclusively pithoi for storage and monochrome pottery for household needs, but with the occasional pieces of pottery with geometric decoration. Their Gray Ware in particular has an appealing surface, often burnished, and sometimes decorated with a silvery wash.⁷

At about *87.00, throughout the trench, there was a stratum of stream-washed sand and pebbles, and below this, a dearth of sherds of any kind. The lowest level of the excavation in PC was in the test pit in the diagonal cut of Zone 3, where, at *84.57 the water table was reached.

⁴ Although Hanfmann did not regard the material from LVC/S as a safe locus because of possible disturbance by action of the Pactolus (Hanfmann, "SARDIS 1960," pp. 20–21), the consistent material, associated with a wall, is worth recording.

⁵ PC 130, and a twisted Gray Ware handle with silvery wash in the grooves, PC 135. Compare HoB 207.

⁶ At *95.5–94.8, Lydian Protogeometric level. See also Blegen, Boulter et al. 1958, fig. 313.6.

⁷ PC 12, PC 21, PC 86, PC 90, PC 134.

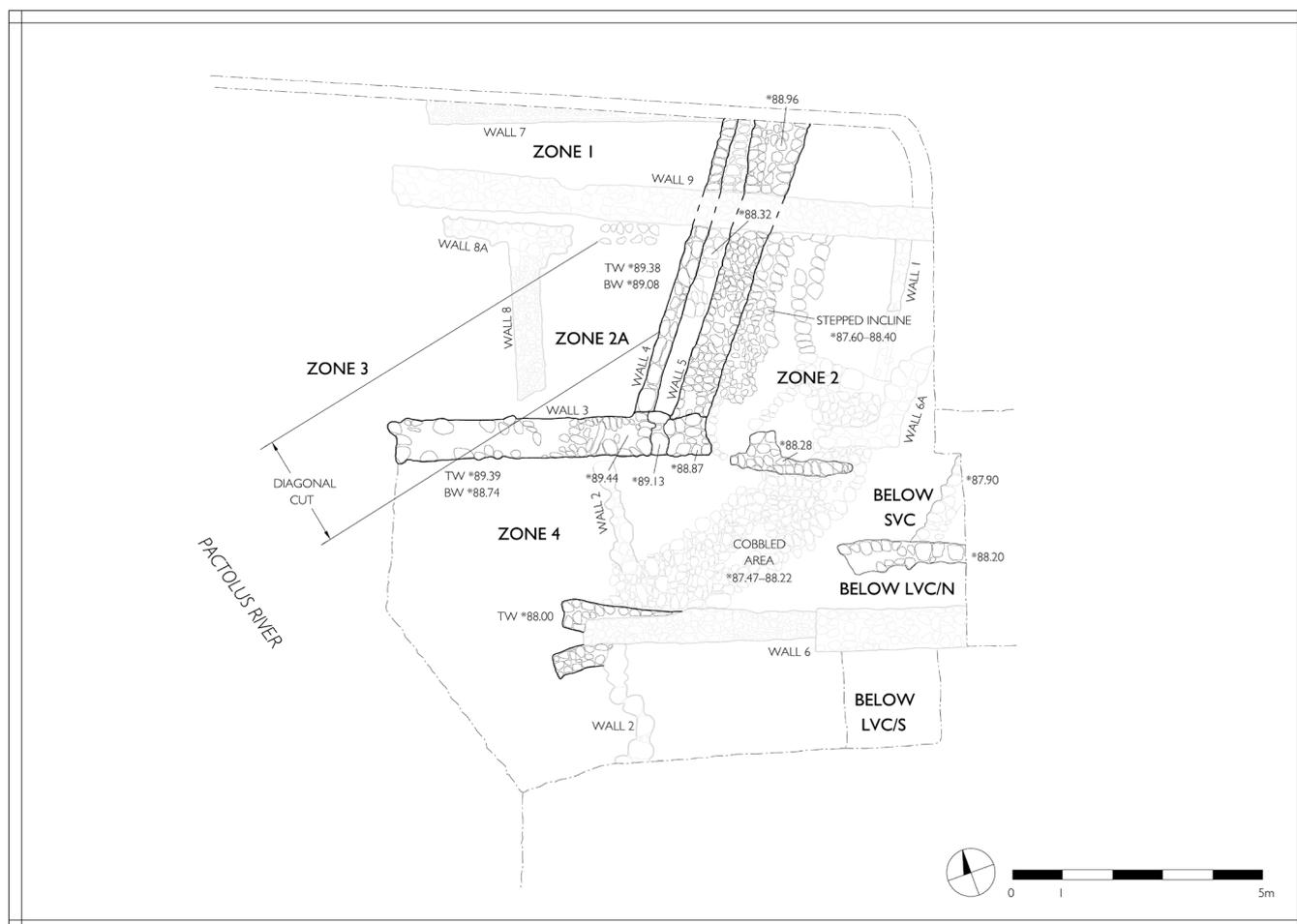


FIGURE 10.5
(= PLAN 9).
Lydian III features
in sector PC.

LYDIAN III

MID- TO LATE EIGHTH CENTURY B.C.

In contrast to the scarcity of walls from Lydian IV, architectural remains from Lydian III, in the form of walls and a “cobbled street,” are well represented in PC (Fig. 10.5/Plan 9). The levels where the pottery of this period were found ranged from *88.80 to *87.00; in other words, partly at the same level as the material from Lydian IV. This must be accounted for, and can best be explained by a combination of downward sloping ground (from east to west and from north to south) and by the possible existence of pits or gullies—natural or artificial.

Walls 3, 4, and 5 belong to the period of Lydian III. Their lowest courses are at level *88.00, or approximately 0.50 m above the walls of Lydian IV. Unlike the boulder-like construction of the walls of the previous period, the stones of most of these walls were set in somewhat regular courses (Fig. 10.6). They were usually river or field stones composed of gneiss or schist, the exception being Wall 4, which was built of “large carefully set oblong pieces of limestone.” Wall 5 “was extremely well constructed of much smaller river stones.”⁸ Those two walls, 4 and 5, although constructed quite differently from each other (Fig. 10.7) and with footings at different levels, seem to have been used



FIGURE 10.6.
Wall 3, looking
straight on, with
Wall 4 at left
(both Lydian III).
The river or field
stones are laid
in rough courses.
The rubble-filled
interior of Wall 3
is at top right.

at some point as the two sides of a water channel. What appeared to be a capping stone was preserved at the southern end of Wall 5. A tiny fragment with the pattern of a wing of a terracotta bird or of an animal skin (PC 43), possibly nonlocal, was found between Walls 4 and 5.

The stones of Wall 3,⁹ running east to west, would have served as the base for a mudbrick or pisé superstructure set into them in the typical Lydian manner (Fig. 10.8), and indeed a narrow channel at the top with some traces of pisé still *in situ* was observed.¹⁰ The wall had larger stones on the

⁹ Built of mixed large and small river stones. L. 6.50; W. 0.85; H. 1.60 m. Top of wall: *89.39.

¹⁰ When first reported, this wall was identified as Wall B. See Hanfmann, “SARDIS 1959,” pp. 18–19 and fig. 7.

⁸ Hanfmann, “SARDIS 1959,” p. 18.

FIGURE 10.7.

Walls 3, 4, 5 (Lydian III), looking west. The excavator, Mario Del Chiaro, stands below Wall 3, which is at his back. Walls 4 and 5 (with an apparent channel between them) go off to the right from the corner of 3. In front of Del Chiaro is the cobbled area. The boulder-like stones of Wall 2 (Lydian IV) can be seen at the upper left and may continue to the right of Wall 6.

**FIGURE 10.8.**

Zone 2A, looking south: Wall 3 (Lydian III) is at the top of photograph, the interior of the wall filled with rubble to receive the pisé upperworks; Wall 4 (Lydian III) is at the left; and the later Wall 8 (at a higher level, Lydian II) is at right.



lower courses than the upper ones, and rubble was used to fill the interior. This wall ran into the parallel Walls 4 and 5, and made an obtuse corner, but was not bonded to them.

In Zone 2, large stones lying more or less in rows on the east side of Wall 5 (extending from *88.40 to *87.60) looked like a series of steps (Fig. 10.9). There seemed to be four of them descending toward the east, to a level about one meter below the footing of Wall 5, but whether these really were steps, or rather some kind of wall base, is not clear. At the bottom, they met what looked like a cobbled area that was three to four meters wide (Fig. 10.10). This was thought to be a street, and gave the impression of winding its way down a slope; but within this area, A. Ramage detected a row of stones that more or less continued the east–west

line of Wall 3 on its southern side. He believes that at this point there may have been some kind of retaining wall, and that this was perhaps later turned into a street.

The pottery from the levels of these “steps” (Zone 2 at *88.40–87.60) appeared to be consistently late eighth-century material, based on comparison with finds from HoB. The excavators found mostly Gray Ware (70 percent), and much of the rest was pithos fragments and cooking ware (25 percent). Only seven painted sherds turned up, including a Black on Red shoulder and neck of a jug (PC 32). A Gray Ware lid with a squared hole for a ladle (PC 33) is of a type found frequently in both PC and HoB.¹¹

¹¹ Cf. also from PC: PC 118 from LVC/N at *89.50–88; two from



FIGURE 10.9. Zone 2, looking northwest: Lydian III Walls 5 (nearer) and 4 (farther). The stepped incline is on the near side of Wall 5, close to the workers. The later Wall 9 (Lydian I) is higher up, visible in the top right corner.



FIGURE 10.10. Cobbled area of Zones 2 and 4 (with M. Del Chiaro), looking north. Stepped incline and pit in Zone 2 are toward upper edge of photo. Wall 6 goes across the foreground, and Walls 4 and 5 go off at an angle at the top left.

Nearby were small flat strips of bronze with slightly flaring tips that may be the remains of a pair of tweezers.

Later eighth-century material was also found in other areas at comparable levels. For instance, to the west of Wall 4, in Zone 2A, the levels yielded part of a fine geometric jug of mainland Greek manufacture (**PC 64**). Also found here were fragments of Black on Red with concentric circles or semicircles (**PC 66** and **PC 67**), and a Black on Red fragment with tightly spaced wavy lines

Zone 2 at *89.00 (including **PC 44**); and the following examples from HoB: in Gold Dust ware, **HoB 321** and **HoB 730**; in cooking pot ware, **HoB 320**; and in Gray Ware, P66.67 and **HoB 340**, a complete example.

where the painter's multiple brush was moved up and down to make a decorative pattern (**PC 63**). A particularly fine example of this type of decoration is seen on a fragment from the first Sardis expedition (1910–14), held in the collection of the Metropolitan Museum of Art in New York (see Fig. 1.13). At lower levels (*88.00–87.00) in a test pit in Zone 4, at the southwest corner of the steps, chiefly monochrome sherds were found, but also a bird kotyle of the type with four panels, ca. 720–700 B.C. (**PC 11**);¹² and a Black on Red dish fragment with an unusual wheel-like design (**PC 2**). From the area just east of the stepped area, between *88.40 and *88.00, came

¹² Dated by Ümit Gungör (personal communication, Sardis 2019).

two pithos fragments with incisions: one with elaborate pendent triangles with diagonal crosshatching (**PC 35**), and another that Hanfmann thought might have signs representing an early form of writing (**PC 36**).¹³ Also in this group was a bird bowl¹⁴ (**PC 34**) and a yellow on black glass bead found slightly higher, at *88.50 (**PC 38**).¹⁵

In one area of Zone 2, to the northeast of the stepped area, and approximately at the level of the base of Wall 5, the excavator noted “marked mudbrick stains and signs of conflagration at *88.70.” The material found immediately on this burned layer should be placed in the late eighth century (Lydian III). A Lydian Orientalizing krater decorated with a charming row of swimming fish below the rim (**PC 39**; see Fig. 1.16) found here requires a later date, in the early seventh century at the earliest. How the krater fragments got there is unclear.

Several Early Protocorinthian cups came from below the burned area, including a kotyle dated by Schaeffer as Late Geometric or Early Protocorinthian (**PC 46**); the rim and upper body of a linear kotyle with a “wire bird” (about 700 B.C., **PC 41**);¹⁶ fragments of a particularly fine Early Protocorinthian kotyle (**PC 40**), and of another that was found nearby at a slightly higher level but still under the burned level (**PC 47**). Hanfmann thought that this whole area was part of the Kimmerian destruction of 652 B.C.,¹⁷ but we now believe that this level, with a catastrophic fire of the late eighth century, was the Destruction Level, widely recorded in sector HoB. The evidence of burning in PC is found also on the floor at *89.55 just to the west.

Below a pebble floor in Zone 1, at *88.00–87.50 (see below in Lydian II), the finds were 70 percent gray or black monochrome, 10 percent coarse red, and 20 percent white Bichrome and Black on Red fragments. Among them was an omphalos with Black on Red decoration, cut down from a bowl for reuse (**PC 72**; see Fig. 1.3).¹⁸ Many such pieces found in PC, and also in HoB (P63.545), would have been used as stoppers or game pieces. Other finds from the lowest levels of Zone 1 (*88.00–87.50) included fragments of an East Greek Geometric vessel (**PC 73**); a Lydian Geometric plate (**PC 69**); a white Bichrome stemmed dish (**PC 68**); and a Lydian imitation of an East Greek lebes (**PC 71**). These finds could all go back to Lydian IV.

¹³ Hanfmann, “SARDIS 1960,” p. 23 and figs. 10 and 11.

¹⁴ To be dated after 650 B.C. according to Ümit Gungör (personal communication, Sardis 2019), but A. Ramage points out that the steep side of the profile would put it earlier than that.

¹⁵ Von Saldern, *Sardis M6*, cat. no. 827, p. 107; cf. from sector HoB, cat. no. 828 (G66.6), from the same era, and cat. no. 829 (G62.10), from below the eighth-century Destruction Level. See Van Ham-Meert, Dillis, Blomme, Cahill et al. 2019.

¹⁶ *Sardis M10*, pp. 20 and 24, and Coldstream, *GGP*, p. 105 and pl. 21c.

¹⁷ Hanfmann, “SARDIS 1960,” p. 22, and Hanfmann and Mierse, *SPRT*, pp. 41 and 68. See also *Sardis M10*, pp. 5 and 7.

¹⁸ Another larger one, also Black on Red, was found at a low level of Zone 4 (**PC 8**).

A test pit dug in the northern part of Zone 2A, between Walls 3 and 4 (see Fig. 10.5), reinforces our impression of the proportions of different types of Lydian pottery found at comparable levels in other parts of PC. The lower levels here had material from Lydian III, with many pieces of Gray Ware, including a highly polished base that had been smoothed and carefully cut down for reuse, perhaps as a stopper (**PC 65**). Also here were coarse red and pithos fragments, and a small amount of painted geometric pottery. Thus, at *88.00–87.75, only 10 percent were geometric painted, whereas slightly higher, at *88.74–88.40, 40 percent were geometric. A similar change in relative proportions is also observed in HoB, strengthening the connection between the two sectors. At the lower level (at *87.70) were two fragments of painted ware from two different vessels with a remarkable gold sheen from the mica wash that was incorporated in the surface finish (**PC 60** and **PC 61**).¹⁹ Another piece from a somewhat later and higher level, *88.40–88 is an early seventh-century East Greek fragment (**PC 67**).

In the diagonal cut through Zone 3, many pieces of early Lydian Geometric were found. Although precise information about the findspots was not recorded, we can again observe close parallels to material from HoB. Crosshatched zigzags and diamonds, butterfly patterns, and crosshatched meanders make good comparisons to mid-eighth-century fragments from that sector.²⁰

From south of the tamped floor of the subsequent period, at *87.80, a Gray Ware baby feeder (**PC 12**) may be compared to the Lydian IV example from LVC/S (**PC 136**). The first of these may be as early as the second, but was found in a later eighth-century context. Others were found in sector HoB.²¹

A meter and a half below the hard-packed tamped floor, the material is consistently from the period of Lydian III or earlier. Some of the pots (e.g., two large Black on Red dishes, each with stemmed foot: **PC 26** and **PC 27**) are remarkably similar to Lydian IV material from sectors HoB and ByzFort. At *88.00, those two dishes were found together with other eighth or even ninth century material. Other eighth century finds were a pithos with a graffito (**PC 28**) and a large Bichrome jar fragment (**PC 29**). A similar piece, with almost the identical scheme, comes from HoB (**HoB 334**) and must have been decorated by the same pot painter (see Fig. 1.15).²²

¹⁹ Because both of these fragments have painted decoration consisting of brown bands and circles, they do not fit the category called Gold Dust ware.

²⁰ Black on Red curved neck and shoulder of jug, **PC 20**; wall of closed vessel with crosshatched meander, **PC 25**.

²¹ **HoB 215**. Cf. *Athenian Agora* 12, p. 161 and Snijder 1933. Numerous feeder fragments and spouts, including **HoB 344**, were preserved in later levels.

²² **HoB 334** comes from a secure eighth-century level, helping to confirm the date in PC.

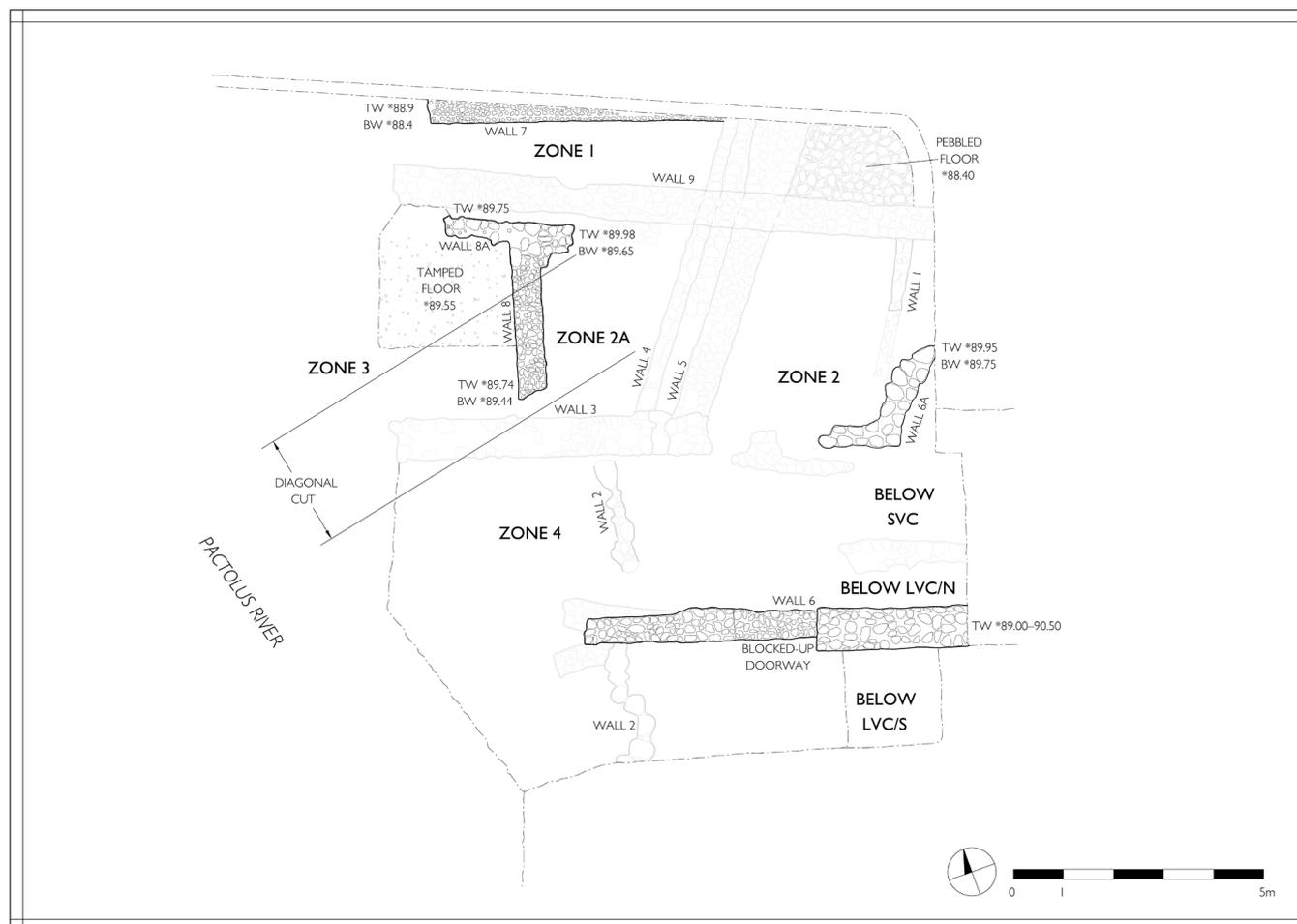


FIGURE 10.11
(= PLAN 10).
Lydian II features
in sector PC.

At LVC/S, near the Lydian IV finds noted above (see p. 118) but at a slightly higher level (*88.00), was found a Protocorinthian early linear kotyle dating to 720–690 B.C. (PC 124);²³ fragments of two East Greek jugs with a similar vocabulary (PC 126 and PC 127); and a flat pierced lug handle with Bichrome decoration (PC 125). In the comparable levels of LVC/N (*87.50–87.00), 85 percent of the pottery was monochrome, 10 percent pithos fragments, and 5 percent “other.” A few noteworthy pieces include: Gray Ware (PC 106); a pithos with graffito (PC 105); and painted ware: geometric PC 107 and a fragment of a jug with diagonal crosshatching (PC 104).

In sum, the pottery assemblages of Lydian III are characterized by a heavy proportion of Gray and Buff Wares, but also by pottery with geometric patterns in either imported East Greek or local wares. None of the Lydian III material shows the refined, delicate, and shiny Black on Red that is typical of Lydian II and Lydian I (see above, p. 11 in Chapter 1). Instead, the typical patterns are meanders, semicircles, concentric circles, or wavy-line patterns. Bichrome is represented in only a few pieces, and what was found is of the earlier variety, without added red paint.

LYDIAN II

EARLY TO MID-SEVENTH CENTURY B.C.

There is relatively little pottery from Lydian II (Fig. 10.11/Plan 10) and Lydian I at PC, compared to what was found at HoB. PC of course covers a much smaller area, but this is also due, perhaps, to the fact that Hellenistic and Roman tombs cut away later levels and were set directly on Lydian III walls.

At the eastern end of Zone 1, to the east of Wall 5, two floors were identified: a mud floor of 0.08 m thickness at *88.80, and a pebble floor at *88.40. On the upper mud floor was a coarse gray neck and shoulder of a large pot with a silver wash (PC 90) that was associated with charcoal and a piece of bone. Many small bits of charcoal also littered the floor. Most of the pottery was monochrome sherds, including a Gray Ware cook stand fragment, but 5 percent was painted, including two fragments of Bichrome, three fragments of an East Greek (?) black glaze jug, and two Lydian Black on Red fragments with concentric circles. This group is early seventh-century material, and thus the mud floor falls in the Lydian II period.

Between the two floors, the ceramic material consisted of 70 percent black or gray monochrome and cooking pot, 20 percent plain brown, 5 percent brown and red slip or burnished, and 5 percent painted, as well as several monochrome carinated bowls and fragments of poor slip ware.

²³ Not in *Sardis* M10.

FIGURE 10.12. Zone 3, looking west: Walls 8 and 8a (both Lydian II) border the tamped floor (same area as Figs. 9.5 and 9.7). In the foreground, Wall 4 and at left Wall 3 (both Lydian III). Wall 9 (Lydian I) on right. The pit to *87.00 is between Wall 8 and Wall 4 in the foreground.



On the pebble floor itself lay a Greek Geometric sherd of about 700 B.C. (PC 78), but a three-panel bird bowl of ca. 670–650 B.C. (PC 77), also found on the floor, requires that the floor be put in Lydian II.²⁴ At 0.20 m below the pebble floor were fragments of a Lydian Geometric plate (PC 74) that may go back to the ninth century, based on comparisons of the profile with similar plates from ByzFort and Field 49 (see Chapter 1, pp. 11, 13). If so, this plate should probably be explained as an intrusion from an earlier level.

Material from a rather wide range of levels in Zone 1 (at *88.75–88.00) has a high proportion of gray and black monochrome (70 percent), but also a rich selection of Lydian painted pieces.²⁵ These pots are apparently not from the pebble floor but from farther west in Zone 1, although the precise findspots were not recorded. Some of this group is datable to Lydian II, the third quarter of the seventh century, by an East Greek bird bowl (PC 87).

The lowest phase of another wall from Lydian II (Wall 7), constructed of “flat carefully laid stones,”²⁶ was found at the northern edge of the trench, running east–west.²⁷ It was built on top of another wall that was a bit wider. A layer of mud, ca. 0.20 m thick, lay between the two stages of construction. Below the lower wall, the material included a good deal of material of Lydian III.

Five walls and a related floor (Zone 3 at *89.55) were associated with Lydian II material. A roughly square area, recognizable by a tamped floor of burned clay, clearly stood out, after excavation, at the edge of the cliff (Figs. 10.12 and 10.13; see Fig. 9.7). In Figure 10.13, the relationship of PC to the Pactolus River can be seen clearly, and the village of Sart, which never lost its ancient name, is visible in the background. Also in this photograph can be seen an interesting connection between modern and ancient Sardis: the villagers were here drying mudbricks for their houses or sheds, using the same technique of sun-dried clay as was used in antiquity.

The tamped floor was bordered by Walls 8 and 8a on the east and north respectively. Wall 8 was “made of markedly small carefully laid stones”²⁸ and abutted Wall 8a, which was an addition or repair of quite inferior quality. The builders who added Wall 8a built right on the floor itself—instead of following the usual Lydian practice of cutting a foundation trench and putting the stone base about 0.20 m below the floor level. It was probably constructed during a remodeling of the room, and then may in turn have provided stones for the later, but parallel, Wall 9.²⁹

The fill above the hard-packed mud floor was full of marble fragments and rubble from Hellenistic or Roman construction, but the floor could be dated by its most

²⁴ According to Ümit Gungör, probably closer to 650 but not later than that (personal communication, Sardis 2019).

²⁵ PC 74 and PC 79–PC 85.

²⁶ Fieldbook PC 60.1:64.

²⁷ Preserved length 2.75 m, H. 0.25 m; top *88.95.

²⁸ Hanfmann, “SARDIS 1959,” p. 18. Wall 8: L. 3.24 m, W. ca. 0.50; top, *89.74.

²⁹ A. Ramage 1969, p. 14.



FIGURE 10.13. View of the tamped floor of Zone 3, looking north. Modern mudbricks, made in the same manner as would have been used in antiquity, are being dried in the Pactolus riverbed. The village of Sart is in the background.

northerly area closest to the long east–west Wall 9, where the soil had not been disturbed. The house or building that was associated with the tamped floor was destroyed by a disaster, as is indicated by a layer of charcoal and fallen mudbrick and burned debris found lying upon it. What caused its demise, whether earthquake or fire, or less likely, human violence, is uncertain. The active period of the building associated with this floor was short-lived, and the floor itself had been built on an earlier destruction layer within Lydian III.³⁰ The material found on the tamped floor was mostly gray and black monochrome (80 percent). Painted ware included a Protocorinthian kotyle (**PC 17**) and a Lydian imitation of the same (**PC 14**) as well as a Black on Red fragment of a jar (?) with concentric semicircles and crosshatched squares (**PC 15**). Beside the pottery, the only other indication of domestic activity related to the floor was a biconical spindle whorl, **PC 16**.

Below the tamped floor of Zone 3, some pots similar to those described above in Lydian III were found, but also some pottery that must fall toward the middle of the seventh century. Thus we must assign this material below the floor, as well as the floor itself, to Lydian II. From 0.30 m below the floor, at *89.25, came an East Greek jug

³⁰ See Hanfmann and Mierse, *SPRT*, p. 68 and p. 238, n. 7. Hanfmann had suggested that this destruction, following close on the heels of the second Kimmerian attack, was caused by their third invasion under the rule of Ardy (in 645 or 635 B.C.). We now think there is no reason to assume this association with the Kimmerians.

(**PC 13**), and an Orientalizing shallow bowl of uncertain fabric (**PC 18**) that could be dated to the late seventh century at the earliest.³¹

Wall 6,³² running east to west near the south end of the trench, was built upon an earlier wall, as is evident from the slightly different alignment of the foundation from the stones above.³³ Based on its level, the earlier phase of Wall 6 belongs in Lydian II, while the later construction built on top of it is Lydian I. A doorway ca. 0.90 m wide near the western end of the wall was blocked up at some later date. This wall divides the area between “LVC/N” and “LVC/S.”

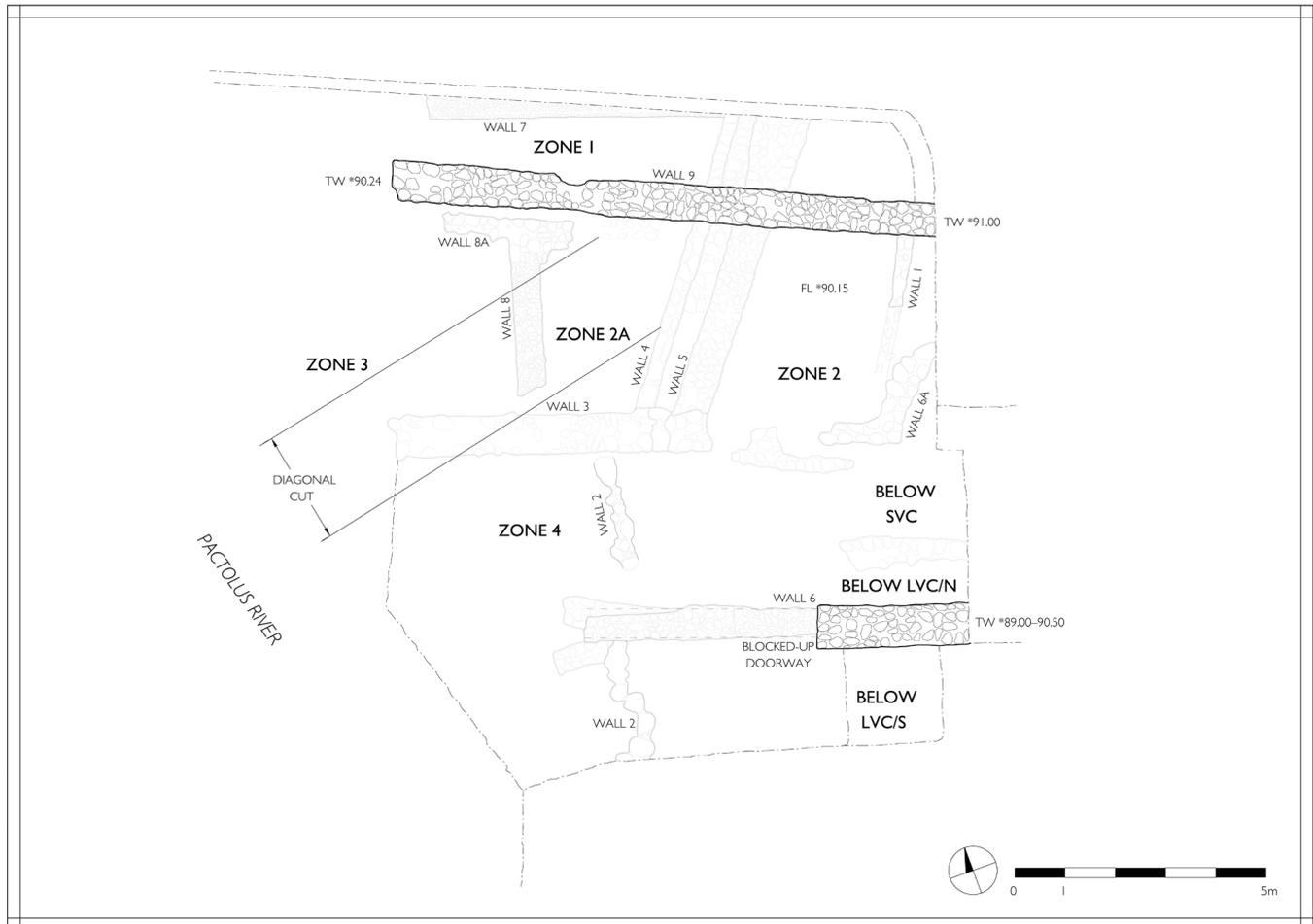
A short L-shaped wall on the eastern side of the trench in Zone 2 is built over part of the cobbled area of Lydian III. Its relation to the other Lydian II walls is not clear.

³¹ Note that Ümit Gungör and R. Gül Gürtekin would date it in the late seventh century at the earliest, although Hanfmann dated it earlier. Hanfmann and Detweiler 1961, p. 7 and fig. 8. See also Hanfmann, “SARDIS 1960,” p. 22 and Hanfmann and Mierse, *SPRT*, p. 238, n. 7. For a similar but somewhat simpler pattern, cf. Walter 1968, fig. 49 and pl. 125, no. 614; Also Walter-Karydi 1973, pl. 16, no. 144. Cf. also references to Schiering in Hanfmann, “SARDIS 1960,” p. 22.

³² L. ca. 9.50, W. 0.60, H. 1.5 m. This information and many observations here are derived from A. Ramage 1969.

³³ Compare the remodeling of walls, where newer ones are built on top of older ones, in the Altar to Cybele in Pactolus North: Hanfmann and Mierse, *SPRT*, fig. 42; Hanfmann, Mitten, and Ramage, “SARDIS 1967,” fig. 9.

FIGURE 10.14
(= PLAN 11).
Lydian I features
in sector PC.



LYDIAN I

LATER SEVENTH TO MID-SIXTH CENTURY B.C.

The only structures to have been built in the excavated areas of PC during Lydian I (Fig. 10.14/Plan 11) were Wall 9, near the north end of the trench, at *90.10–90.00; and the later phase of Wall 6. Wall 9 was built on the destruction debris of Lydian II, and in turn served as a foundation for the dromos of the Hellenistic Tomb of the Lintel.³⁴ This is the longest of the preserved walls, measuring 10.50 m, with a width of 0.80 m. Since it had no crosswalls at either side, it may be thought of as an enclosure wall, probably for an area toward the north side.

Wall 6 must still have been in existence when Wall 9 was built;³⁵ this was evident because the level of Wall 6, *90.50–89.00 at the eastern end, was comparable to that of Wall 9, whereas the other walls did not come up to this height. Since a street probably lay between Walls 6 and 9, we may assume that both walls served as enclosures for areas on either side of it.

A floor marked by charcoal and mudbrick stains, at *90.15 in Zone 2, to the south of Wall 9, belonged to the period of Lydian I. Some of the objects found under

it had sixth-century characteristics, and the proportions are typical of what one associates with Lydian I: 40 percent Black on Red, 20 percent other geometric, 10 percent streaky, 10 percent monochrome, 15 percent plain red, and 5 percent “other.” A particularly attractive fragment is the shoulder of a jug with pendent concentric hooks. The painter stopped here in the middle of his design to reload his brush, and made an unusual break in the curvature of the concentric hooks (PC 51; see Fig. 1.12). From just above the floor came pithos (PC 54) and Gray Ware sherds (PC 52), both with incised graffiti, and an imported painted lid fragment (PC 53).³⁶ Even higher above the level of the floor, at *90.50, was found a well preserved terracotta sima tile with scroll pattern, painted with unusually thick slip (PC 55),³⁷ and 0.20 m above that, at the eastern end of the trench, a terracotta cover tile with a painted black diamond (PC 56). These tiles, ca. 580–540 B.C., are among the latest finds from PC. They were found together with pithos fragments with a herringbone pattern incised on the shoulder (PC 58) and also a large jar with its body painted with a brownish-red crisscross pattern on a white slip background (PC 57). From comparable levels in Zone 1, just to the north of the floor in Zone 2, a good deal of Lydian painted pottery was found, of which 30 percent was Black on

³⁴ This practice, where Hellenistic builders reused Lydian walls as foundations, was also found elsewhere at Sardis, cf., for instance, the back wall of Unit 10 at PN, Ramage, *Sardis* M5, fig. 3.

³⁵ A. Ramage 1969, p. 13.

³⁶ Cf. a similar piece from Zones 1 and 3, PC 13 (found below the tamped floor in Zone 3).

³⁷ Ramage, *Sardis* M5, pp. 26–27, cat. no. 43, frontispiece and fig. 86.



FIGURE 10.15.
Pots from a canine
ritual dinner:
jug **PC 95**;
olpe **PC 94**;
skyphos **PC 93**;
Black on Red
stemmed dish
PC 92.

Red and 5 percent Bichrome, including a tiny but unusual Bichrome lid fragment (**PC 102**).

Lydian material abounded in the upper levels of Zone 1, despite the foundation trenches dug in Hellenistic times. At levels comparable to the floor in Zone 2 (*90.30–90.00), fully 40 percent was plain undecorated red, while 30 percent was Black on Red, and the rest Bichrome or streaky. This group was mostly typical of later seventh- or early sixth-century material.³⁸ From levels just below this (*90.00–89.50), painted ware still predominated: Geometric 40 percent, Black on Red 20 percent, Bichrome 15 percent, and gray/black monochrome 10 percent. Pottery included a late East Greek bird bowl, ca. 625 B.C. (**PC 96**) and a Bichrome skyphos krater with pendent hooks made by a highly skilled pot painter (**PC 97**; see Fig. 1.12). The Lydian fragments are typical of Lydian I: they included several Black on Red plates (see Chapter 1, p. 13), a Gray Ware bowl with graffito (**PC 86**) and a Bichrome handle with a cross-hatched diamond pattern (**PC 76**).³⁹

Remains of a canine ritual dinner of a type usually including puppy bones and a knife were found in the northern section of the trench. Four pots of the standard type for this kind of hoard were found at *89.80 near Wall 9, where the objects had probably been put in a pit (Fig. 10.15); it was a common practice for so-called puppy burials to be placed close to a wall.⁴⁰ No knife or bones were recorded as being associated with the group, although it is possible that these items were not kept, as it was early in the excavation history of the dig, and not yet understood in 1960 that the knife and bones were an integral feature of this kind of ritual assemblage. The group included the usual types of pottery, and it therefore belongs to the “caches” as defined by Greenewalt and mentioned in Part I of this volume (p. 97):

- PC 95** jug, one handled,
- PC 94** olpe, complete (dipped or painted on upper body)
- PC 93** plain skyphos fragment
- PC 92** Black on Red stemmed dish

³⁸ In this group: Corinthian alabastron, **PC 101**; Black on Red rim of cup with checkerboard pattern, **PC 99**; pithos with crisscross pattern, **PC 100**.

³⁹ Cf. from HoB, **HoB 564**, from the Lydian Shop (g) at *96.40–95.00.

⁴⁰ Greenewalt and Payne, *Ritual Dinners*, p. 7. For this group, see Greenewalt, Cahill et al., “SARDIS 1986,” p. 167. For a puppy burial *in situ*, see Fig. 7.11.

All the puppy burials at HoB and Pactolus North (PN) fall within Lydian I, and not particularly early in that period; that is, apparently after ca. 600 or 575, and certainly before 525 B.C.⁴¹ The pots in puppy burials were notable for being in a good state of preservation,⁴² and this is true for the PC group as well. Greenewalt pointed out that the PC assemblage extended the area where canine ritual dinners were found, as this one was uncovered over 500 meters from the HoB assemblages.

In the more southerly end of the trench, in LVC/N at *89.50–88.00, the pottery appears to be mostly Lydian III, but because some is Lydian I, the level has been categorized as late. The material included a small fragment of raw amber, 0.008 × 0.006 m (**PC 108**) and a large elaborately decorated Bichrome pyxis (**PC 115**), as well as other local and imported pottery, including a bird bowl fragment (**PC 119**).⁴³

Lydian I levels can be identified by the presence of such later characteristics as streaky ware or Orientalizing features. Earlier pieces at PC are frequently found at these later levels, but were apparently either still lying around or somehow got churned up into the later levels.

✕

As shown in these pages, the walls, floors, and pottery at sector PC are both complicated and interesting, and the pottery in particular adds many fine examples to our inventory of Lydian ceramic production over the course of the eighth century (or earlier) to the mid-sixth. This small site, hovering above the Pactolus River, has many parallels to its much larger cousin found below and near the Roman House of Bronzes. PC provides a rich addition to the study of Lydian pottery, and also gives more insight into the kinds of walls and floors that the Lydians built, even without producing any whole buildings.

⁴¹ Greenewalt and Payne, *Ritual Dinners*, pp. 27–30. See also Greenewalt, Cahill et al., “SARDIS 1986,” p. 167.

⁴² Greenewalt and Payne, *Ritual Dinners*, p. 10.

⁴³ Gray Ware: lid with handle and central hole **PC 118**; phiale **PC 117**.

Streaky: lydion **PC 116**, sixth century; marbled and streaky skyphos **PC 112**, sixth century.

Local: skyphos with knobs and dot decoration, **PC 121** (knobs are perforated at the top, but holes do not go through), mid-sixth century.

Three East Greek sherds, ca. 700 B.C.: East Greek (?) shoulder of jar, Brown on Buff (looks earlier than the rest), **PC 122**; cup fragment, **PC 120**.

Chapter 11

CONCLUSION

The stratigraphical record in sector PC, located by the Pactolus River in the western region of Sardis, provides a limited picture of walls and floors, but delivered great quantities of associated pottery from roughly 850 to 550 B.C. Although little actual architecture remained, the pottery, mostly fragmentary, is of great interest and adds materially to our understanding of Lydian ceramics.

Not much in the way of actual structures remains from the earliest period, Lydian IV, since only short stretches of two walls were found; but in addition to the monochrome pottery and pithos fragments lying at the same level near these walls, a number of early ninth- and eighth-century painted fragments were found in various parts of the excavation. Parallels with material from HoB, including a Gray Ware baby feeder, suggest that PC was a domestic area in the Iron Age. Datable Greek imports include **PC 64**, **PC 126**, and **PC 127**. However, no traces of sub-Mycenaean pottery were found here.

From Lydian III, we have some large spaces with long walls and what may have been a cobbled street—made perhaps from walls that had fallen into disrepair. There was also a definable enclosed area, at least 5 × 6 m in width, bordered by Walls 3, 4, and 7. We cannot say what happened on the north or west, nor what the space was used for; but the eastern wall of this space was at some time apparently used as a water channel. A pebbled area in the northeast corner of the trench was the most obvious floor associated with the period of Lydian III.

A stepped incline that probably served as some kind of retaining wall linked Wall 5 to the cobbled “street” that lay

a meter below. Signs of extensive burning in some areas of this level, especially in Zone 2, suggest that the Destruction Level, seen so clearly at sector HoB, left traces in this western part of the city as well.

In the first half of the seventh century, or Lydian II, a hard-packed mud floor was built in the westernmost area of the trench over two burned layers showing evidence of fires. These could have been the result of domestic fires or a conflagration caused by an earthquake, and as there were no skeletons or weaponry found, it seems unlikely that they were caused by violent attacks. The pottery under the second floor could be dated no later than about 640 B.C., and the pottery that lay on top of the floor is still Lydian II. Thus we may be speaking about quite a short time span for the existence of the building associated with this floor. Further evidence of fires was found in the eastern side of the trench in a layer of burned mudbrick and charcoal. A mud floor in this eastern area, 0.40 m over the pebble floor already mentioned, did not produce much material, but a fair bit of charcoal was found there.

From the latest Lydian period, Lydian I, covering the later seventh and first half of the sixth century, only one independent wall and one “renovation” survives in PC. The long Wall 9, preserved to a length of 10.50 m, and with no evidence of cross walls, seems to have served as an enclosure wall. Since the earlier Wall 6 in the south was still in existence when Wall 9 was built, these two walls may have defined a street or space between them; an addition to the earlier part of Wall 6 was built right on top of the older part.

The only clear floor associated with Lydian I, in the eastern side of the trench, was identified by mudbrick and charcoal lying upon it, but again it showed no evidence of violent activity. Two terracotta roof tiles (see **PC 55** and **PC 56**) dated around the middle of the sixth century were found at this level.

What was this area on the banks of the river in ancient times? In the ninth century B.C., its inhabitants must have led a simple agrarian life dominated at home (or in barns) by large pithoi for storage and Gray Ware for other needs. Yet already in that century, the Lydians were making pottery with sophisticated geometric designs on their own reddish clay. The fact that Howard Crosby Butler, in the early part of the twentieth century, was finding similar material north of the Temple of Artemis¹ (i.e., south of Pactolus Cliff) suggests that PC might have been one of a number of small settlements along the Pactolus River, spreading to the north of the temple area and perhaps south and west of it too. A sudden influx of new shapes as well as decoration must have stunned the people who lived there, and it is exciting to think of the lift that decorated pottery and specialized shapes suited to specific needs must have given to the local populace.

Pactolus Cliff appears to have been beyond the edge of the town center, which we now know was in the area to the east of the Lydian Trench of the House of Bronzes. The buildings of Pactolus Cliff must have looked out on the river, which may have followed a somewhat different course but could not have been far from its current one, given the configuration of the land. How interesting that in this place, some 500 meters southwest of sector HoB, its inhabitants—like the people living in the area of sector HoB—had remarkably fine pottery mixed with the utilitarian material that had dominated its earliest years.

The excavations at Pactolus Cliff provide a rich array of Lydian pottery that helps to fill out the picture of shapes and decoration provided by the finds in sector HoB and elsewhere in the region. And they provide evidence of Lydian occupation on the east bank of the Pactolus River,² at a place that was not far from an early shrine that may have existed near the later temple to Artemis.³ In the record of modern excavation at Sardis it is a small piece of the puzzle, but one that adds to our knowledge of Lydian wall construction, stratigraphy, and pottery, and gives glimpses of the dwellers in a western area of the city.

¹ *Sardis* I.1, p. 151 and ills. 168, 170. For more of these finds from the Princeton excavations under H. C. Butler, see <https://www.metmuseum.org/art/collection/search#!?q=Sardis>.

² There was also a cache of pottery found at Northeast Wadi (NEW), south of Pactolus Cliff; cf. Hanfmann and Mierse, *SPRT*, pp. 75, 78–79. On the east side of the Pactolus River, T. Leslie Shear thought he found evidence of housing in the Lydian Terraces; see Ramage, *Sardis* M5, p. 40.

³ See Hanfmann and Waldbaum, *Sardis* R1, pp. 75 and 86.

Part III

Catalogues of Finds

ABBREVIATIONS USED

Diam.	diameter
est.	estimated
H.	height
L.	length
max.	maximum
pres.	preserved
Th.	thickness
W.	width
Wt.	weight

CATALOGUE AND TABULATIONS OF CERAMICS AND OTHER FINDS FROM THE LYDIAN TRENCH OF SECTOR HOB

The catalogue in this chapter includes the material from the Lydian Trench at sector HoB, ranging from the Late Bronze Age through the middle of the sixth century B.C. The three deep soundings, C, B, and A, are recorded first, and separately. The findings from the other periods move from Lydian IV to Lydian I, from earliest to latest.

Overall tabulations of the finds from each level are presented separately.

The catalogue entries for **HoB 1–HoB 402** were written by Nancy H. Ramage and Andrew Ramage, with assistance from Lauren DiSalvo.

The catalogue entries for **HoB 403–HoB 783** were written by R. Gül Gürtekin-Demir.

The finds from Pactolus Cliff, described by Nancy H. Ramage, are presented in a separate catalogue, which follows this one (see p. 225).

LATE BRONZE AGE AND EARLIEST IRON AGE

BY NANCY H. RAMAGE AND ANDREW RAMAGE

Deep Sounding C

(SEE FIG. 3.9)

Floor at *94.75 and Below~

Finds Associated with the Donkey at *94.2

POTTERY

HoB 1 (P66.107)

PL. 1

Early Lydian cup

H. without handle 0.12, H. with handle 0.135,

Diam. of rim 0.14, Diam. of base 0.067,

W. of handle 0.023.

E2/S106 *94.7

Joining fragments of large cup with complete profile. Orangish-buff micaceous clay. Slightly everted rim; globular body; vertical strap handle; flaring ring foot. Dark brown, thick band at rim with pendent concentric semicircles.¹ Two incised lines at the level of the attachment of the bottom of the handle; dark brown band below; thick band around the foot. Brown horizontal bands on handle and one vertical line along left edge. Interior, dark brown band at rim level.

Thought by M. Kerschner to be of local manufacture; he would describe these as "sub-Protogeometric" and estimates a date in the ninth century or early eighth century B.C. However, local developments in shapes could be different from the coast. A. Ramage thinks this piece is ninth century or earlier. See discussion on pp. 41–42.

Analyzed by M. Kerschner (sample Sard 40).

Hanfmann, "SARDIS 1966," p. 35, n. 6, fig. 13; Hanfmann and Mierse, *SPRT*, fig. 28.

HoB 2 (P66.177)

PL. 1

Early Lydian cup

H. 0.125, Diam. of rim 0.16, Diam. of base 0.06,

Th. 0.003–0.005.

W0–4/S100–101 *94.8–94.2;

E1–W1/S100–101 *95–94

Four joining fragments of cup with complete profile except for the handle. Reddish-buff micaceous clay. Everted rim with groove below; low flaring ring foot. Exterior, dark band at rim with pendent concentric semicircles. Several worn bands on lower body. Interior, plain. Exterior smoothed.

HoB 3 (P13.173)

PL. 1

Protogeometric cup

H. 0.060, Diam. 0.11, Th. 0.005.

E0–2/S105.5 To *94.8

Rim fragment of cup. Buff micaceous clay. Exterior, dark brown band on upper part of cup with pendent concentric semicircles below band. Interior, dark brown band on rim.

M. Kerschner confirms that it is imported, probably ninth century (personal communication, Sardis, July 1–2, 2016).

This type of cup starts in the tenth century and goes into the ninth.

HoB 4 (P13.174)

PL. 1

Cup

H. 0.055, W. 0.0355, Th. 0.0035.

E0–2/S102–105 *94.8–94.2

Rim fragment of cup with steep walls. Buff micaceous clay. Exterior, brown band on rim with pendent concentric semicircles. Exterior surface smoothed.

HoB 5 (P13.175)

PL. 2

Cup

H. 0.039, W. 0.0415, Diam. 0.017, Th. 0.004.

E1–W2/S106–108 *94.5–94.2

Rim fragment. Buff micaceous clay with gray core. Exterior, band of dark brown on rim with pendent concentric semicircles below. Interior, streaky brown band on rim.

HoB 6 (P13.172)

PL. 2

Bowl

H. 0.0545, W. 0.047, Th. 0.0065.

E1–W2/S104–106 *94.7–94.3

Rim fragment. Buff, micaceous clay. Both the interior and exterior are slipped with a darker brown near the rim that lightens to a light brownish below.

HoB 7 (P13.183)

PL. 2

Large jug

H. 0.112, W. 0.073, Th. 0.008.

E1–5/S99–103 *94.8–94.3

Trefoil mouth of jug. Reddish-buff micaceous clay with buff surface. Rim has thick band of dark brown paint that expands beyond rim itself; reddish-brown band at join of trefoil mouth to shoulder.

HoB 8 (P13.163)

PL. 2

Jug

H. 0.057, W. 0.111, Th. 0.007–0.0095.

E0–6/S105.5 To *94.8

Shoulder fragment of jug with just a hint of the neck preserved. Reddish-buff, micaceous clay. At neck join, trace of the ends of parallel lines. On shoulder, a red band with trace of wavy line below.

¹ All concentric circles, semicircles, and "hooks" are understood to be compass-drawn unless otherwise indicated.

- HoB 9** (P13.191) PL. 2
Large jug
H. 0.0435, W. 0.052, Th. 0.006.
E1–W2/S104–106 *94.7–94.3
Neck fragment of jug. Reddish-buff clay with some mica. Purplish uneven wavy line between two horizontal bands.
- HoB 10** (P13.160) PL. 2
Jar or amphora
H. 0.077, W. 0.073, Th. 0.010.
E0–2/S105.5 To *94.8
Body fragment of jar. Orangish-buff micaceous clay. Reddish-orange remains of rays (?) above broad red-streaked band.
- HoB 11** (P13.162) PL. 2
Small jar
H. 0.060, W. 0.037, Th. 0.005.
E0–2/S102–105 *94.8–94.2
Shoulder and a portion of a neck fragment. Buff, micaceous clay. Dark band on neck. On the shoulder, a streaky brown wavy line with a darker band below. Exterior smoothed.
- HoB 12** (P13.158) PL. 3
Red on buff rim
H. 0.0405, W. 0.132, est. Diam. 0.29, Th. 0.0055.
E0–6/S105.5 To *94.8
Ledge rim fragment. Buff, micaceous clay; red on buff decoration. Rim has radial lines on the top. Exterior, thick red band below rim. Interior, red band below rim.
- HoB 13** (P13.197) PL. 3
Painted closed vessel
H. 0.052, W. 0.076, Th. 0.0075.
W0–2/S95–98 *94.6–94.3
Body fragment. Reddish-buff micaceous clay with gray core; large inclusions. Two red pendent concentric semicircles below a wide red band. Exterior smoothed.
- HoB 14** (P13.161) PL. 3
Body fragment with streaky brown decoration
H. 0.055, W. 0.041, Th. 0.005–0.0075.
E1–W2/S106–108 *94.5–94.2
Buff, micaceous clay. Exterior, streaky brown band and wavy line on buff.
- HoB 15** (P66.139) PL. 3
Bowl
H. 0.088, est. Diam. 0.27, Th. 0.006–0.011.
E1–3/S100–103 *94.6–94.2
Many joining pieces of unpainted shallow bowl with everted rim. Reddish-orange clay. Tan slip, micaceous golden wash on interior; polished. Rim has two subtle fillets followed below by another that projects from the surface. Small vertical handle, round but slightly squarish in section, smoothed into the body; at top of handle and flush with the rim is a lug notched at its sides. Exterior plain and smoothed. Traces of burning on interior and exterior. Analyzed by M. Kerschner (sample Sard 39).
- HoB 16** (P66.154) PL. 3
Gray Ware bowl
H. 0.05, Diam. of rim 0.135, Diam. of foot 0.06, Th. 0.005.
E1–W2/S106–108 *94.5–93.9 ~ associated with the area of the donkey; found at a slightly lower level
Eight joining pieces amounting to about half a Gray Ware bowl with full profile except for handle. Light burnishing. Narrow ledge rim. Low ring foot. Scar of handle preserved on rim and body. Smooth gray finish, heavy walls.
- HoB 17** (P12.34) PL. 4
Gray Ware handled bowl
H. 0.109, est. Diam. 0.20, Th. 0.0085.
E4–W5/S103–106 *94.3–94.0
Globular Gray Ware bowl with small ledge rim. Gray micaceous clay. Horizontal lug notched on both sides, beneath which is a spool handle added with a pinch of two fingers, and a vertical loop handle below. Bowl is slightly carinated with a large rounded, raised ridge just below the upper attachment of the handle. Exterior, a silvery wash. Interior plain. Cf. **HoB 15**.
- HoB 18** (P66.157) PL. 4
Deep Gray Ware bowl
H. 0.105, est. Diam. of rim 0.23–0.24, Diam. of foot 0.08, Th. 0.003–0.006.
E1–W2/S106–108 *94.5–93.9 ~ associated with the area of the donkey; found at a slightly lower level
Deep bowl with everted rim and ring foot. Light, silvery, self-slipped, and polished surface with a body reduced to a uniform gray throughout. Below the rim are two grooves, which result in a raised band between them.
- HoB 19** (P12.60) PL. 4
Scoop bowl handle
H. with handle 0.1495, Th. of handle 0.019, Th. of wall 0.0075.
E1–W2/S106–108 *94.5–93.9 ~ associated with the area of the donkey; found at a slightly lower level
Mended from six fragments and preserving one complete handle and part of upper body. Buff slip on pinkish body, micaceous. Rim is missing. Deep bowl, possibly a scoop bowl with a vertical loop handle, round in section, beginning at shoulder of vessel. Handle seems to be emerging from surface of bowl, rather than being part of it. Hard-fired with smooth exterior. Bronze Age or Early Iron Age.
Early levels match Gray profiles from Troy: Blegen, Caskey, and Rawson 1953, pp. 161–62, fig. 365: 2, 4, 4. Also similar to surface finds from Kilcanlar (1981).

- HoB 20** (P12.109) Pl. 5
 Small, thin-walled bowl
 H. 0.0583, Th. 0.0075.
 W0-4/S100-101 *94.8-94.2
 Thin-walled bowl with everted rim. Dark gray micaceous clay with large inclusions. Both interior and exterior heavily polished.
- HoB 21** (P12.17) Pl. 5
 Gray Ware cup with handle
 H. 0.065, Diam. of rim 0.095, Th. 0.005.
 E1-3/S100-103 *94.6-94.2
 Slightly outward curving wall of cup. Dark reddish clay that has inclusions; gray on outside; silvery wash on exterior and interior, though much less on interior. Base of handle at carination at the bottom of cup's side.
- HoB 22** (P12.64) Pl. 5
 Cup or bowl with vertical handle
 H. 0.0732, Th. 0.0085.
 E1-3/S100-103 *94.6-94.2
 Coarse, buff fabric that is worn on exterior. Somewhat off-set vertical rim with slightly outward thickened, rounded lip. Stump of a vertical band handle remains at rim and body of vessel. Interior smoothed.
- HoB 23** (P12.16) Pl. 5
 Gray Ware cup
 H. 0.048, Diam. of bottom 0.0367, Th. 0.004.
 E3/S105 *94.75 floor level
 Elegant and delicate cup with slightly flaring walls. Lower portion only. Scar from lower join of handle. Silvery wash. Light in color.
- HoB 24** (P66.158) Pl. 5
 Buff cup
 H. 0.064, est. Diam. 0.14, Th. 0.005.
 E1-W1/S97.5-100 *94.2-94.0
 Two joining fragments of buff cup. Groove under rim on exterior. Scar of handle.
- HoB 25** (P12.87) Pl. 5
 Handle of a jug
 H. 0.083, W. of handle 0.042, Th. of neck 0.0065.
 E1-W2/S105-106 *94.8-94.5
 Vertical band handle extends down from outwardly thickened rim. Grayish-brown micaceous clay.
- HoB 26** (P12.95) Pl. 5
 Large trefoil jug
 H. 0.1045, Diam. of neck 0.093, Th. 0.0085.
 E1-3/S100-103 *94.6-94.2
 Spout of large trefoil jug. Light reddish micaceous clay.
- HoB 27** (P66.159) Pl. 6
 Trefoil jug
 H. 0.135, rim 0.16 × 0.15, W. of handle 0.06, Th. 0.007.
 E1-W1/S97.5-100 *94.2-94.0
 Trefoil jug rim, neck, and shoulder. Orangish-buff micaceous fabric. Part of the vertical band handle remains attached at the rim. Traces of a micaceous slip on exterior.
- HoB 28** (P12.86) Pl. 6
 Open vessel with lug handle
 H. 0.0645, Th. 0.008.
 E1-3/S100-103 *94.6-94.2
 Vertical rim. Reddish-buff micaceous fabric with large pebble inclusions. Horizontal lug handle with vertical, perforated hole. Exterior is polished and interior is smoothed.
- HoB 29** (P12.62) Pl. 7
 Scoop handle of bowl
 H. with handle 0.1045, Th. of handle 0.019, Th. of rim 0.011.
 W3-5/S104-107 *94.4-94.0
 Partial body, rim, and handle of shallow bowl. Orangish-buff with some mica. Round, vertical loop handle; two grooves at base, only one of which continues along the handle.
- HoB 30** (P66.140) Pl. 7
 Cooking pot
 H. 0.14, Diam. of rim 0.12, Diam. of base 0.09, W. of handle 0.032.
 E1-3/S100-103 *94.6-94.2
 Many joining pieces of cooking pot with complete profile. Thinner walls and finer fabric than is usual for a cooking pot. Band handle from rim to belly, with finger depression at join with belly. Row of short diagonal slashes around lower neck. Light groove on inside of rim. Wide, flat bottom. Found near **HoB 31**.
- HoB 31** (P04.5) Pl. 7
 Wide-necked cooking pot
 H. 0.182, Diam. ca. 0.16.
 W0-4/S100-101 *94.8-94.2
 Handmade pot. Coarse reddish fabric with evidence of burning on the exterior. Handle scar at shoulder and at rim. Possibly for industrial use; white incrustation inside.
- HoB 32** (P12.63) Pl. 8
 Band handle of cooking pot
 H. 0.1525, W. of handle 0.043, Th. 0.0065.
 E4-5/S103-106 *94.6-94.1
 Band handle and partial body of a globular cooking pot. Reddish-buff micaceous coarse clay with gray core. A fine double ridge runs along the neck of the jar. Signs of burning on exterior.

HoB 33 (P12.121) PL. 8

One leg from a three-legged cooking bowl
H. 0.031, Th. 0.0083.

E3-5/S100-102 *94.4-94.24

Coarse three-legged cooking bowl. Reddish-gray clay with large quartz inclusions and some mica. Preserved leg is crescent-shaped. Foot and bottom of bowl show extensive burning, and some burning also on interior of bowl.

TERRACOTTA

HoB 34 (T12.5.12) PL. 8

Hammer-shaped loom weight
L. 0.065, Diam. 0.051 m; Wt. 140.75 g.
E1-W2/S106-108.5 *94.8-94.5

Loom weight lightly fired. Fabric is slightly micaceous. Temper: chaff. A hole pierced through, top to bottom. Bottom is slightly concave (missing a piece/eroded?). Uniform texture, more like mudbrick than pottery. Surface is powdery. Loom weight is similar to **HoB 220-HoB 229**.

METAL

HoB 35 (M11.2) PL. 9

Bronze bead
H. 0.006, Diam. 0.001.

E1-3/S100-103 *94.6-94.2

Small perforated bronze bead with a zigzag design on exterior. Flattened, top and bottom.

HoB 36 (M14.8) PL. 9

Bronze fibula
W. 0.0205, L. 0.017, Th. 0.005.
E3/S104 *94.2

Fragment of a bronze bow fibula; part of clasp and bow preserved.

HoB 37 (M16.3) PL. 9

Iron knife blade
L. 0.07, W. 0.02, Th. 0.006.

E3-5/S100-102 *94.4-94.24 ~ found near donkey

Heavily corroded blade of iron knife.

BONE

HoB 38 (BI66.4) PL. 9

Bone toggle
L. 0.055, W. at ends 0.017, W. at middle 0.014.
E1-5/S99-103 *94.8-94.2

Bone worked into a cylindrical shape that is narrower in the center than at the edges; a round hole through the middle. The ends are deeply indented. Entire surface smoothed. A crack on one side.

Lower Levels of Deep Sounding C

POTTERY

HoB 39 (P12.94) PL. 9

Thin-walled bowl
H. 0.0211, est. Diam. 0.1012, Th. 0.0025.
E1-W5/S101.5-108 *93.75-93.35

Fragment of bowl with slightly inturned rim. Reddish clay. Exterior is gently ridged. Both exterior and interior have a micaceous wash.

HoB 40 (P12.112) PL. 9

Delicate bowl or cup with flat base
H. 0.016, Diam. of base 0.035, Th. 0.0035.
E1.5-3/S100-106 To ca. *92.50

Fragment of small, thin-walled bowl with a flat base. Micaceous wash on both exterior and interior. Concentric grooves on base suggest it was string or wire cut.

HoB 41 (P14.28) PL. 9

Small cup
H. 0.0355, Th. 0.004.
E4-W4/S101.5-103 *94.0-93.7

Base fragment of a cup with a low carination on wall and a flat base. Reddish-gray micaceous clay. On walls and base of the cup there is light combing/rouletting that runs at a diagonal. Exterior and interior smoothed.

HoB 42 (P12.111) PL. 9

Vessel rim with handle
H. 0.0364, Th. 0.006.
E1.5-W5/S102-107.5 *92.5-92.14
("whole trench" at this level)

Everted, thickened rim, flat on top. Reddish-orange micaceous clay with small inclusions. Stump of a handle that was attached to the rim separately.

HoB 43 (P12.114) PL. 9

Large vessel, everted rim
H. 0.0245, Th. 0.0135.
W5-E5/S99-108 *93.6-92.9

Rim and upper body fragment of large open vessel. Orangish micaceous fabric. Rim everted and slightly slanting down. Paint not preserved.

HoB 44 (P12.107) PL. 10

Closed vessel with handle
L. 0.0445, W. 0.0383, Th. 0.0075.
E1.5-W5/S102-107.5 *92.5-92.14
("whole trench")

Vertical handle, oval in section and smoothed into the body. Orangish-buff micaceous clay. Parallel incisions, as if fingernail marks, on the top surface of the handle near the body.

HoB 45 (P12.106) PL. 10
 Body sherd of a closed vessel
 L. 0.062, W. 0.0432, Th. 0.0085.
 E1–W4.5/S103.6–107.6 *92.0–91.20
 Orangish-red clay with very little mica and small quartz inclusions. Reddish-brown slip on exterior. Exterior smoothed. Fingerprints on interior.

HoB 46 (P12.98) PL. 10
 Body sherd
 L. 0.0425, W. 0.0255, Th. 0.0073.
 E1.5–3/S103–106 *90.8–89.9 (“test pit”)
 Possibly an open vessel, body fragment. Reddish-orange micaceous clay; exterior and interior smoothed; stick polished.

HoB 47 (P12.115) PL. 10
 Handle and wall fragment of bowl
 H. 0.1205, Th. 0.0125.
 E5–W5/S99–108 *93.6–92.9
 Fragment of coarse bowl. Red micaceous clay. Large loop handle, oval in section, with an indented groove at base of handle.

HoB 48 (P12.61) PL. 10
 Handle of a large pithos
 H. 0.01455, W. of handle 0.051, Th. 0.025.
 E4–W4/S101.5–103 *94.0–93.7
 Fragment of a vertical band handle with a small spine from a large pithos. Red coarse clay with large quartz inclusions. Creamy slip on exterior. Coarse fabric of an extremely thick-walled pithos. Has a horizontally punctured hole that resembles a lug handle. Hole appears to have been pierced at either side, meeting in the middle. Vessel shows signs of burning on the interior.

HoB 49 (P12.88) PL. 11
 Cooking pot
 H. 0.1138, W. of handle 0.0342, Th. 0.0068.
 E1–W5/S101.5–108 *93.75–93.35
 Band handle of a cooking pot. Coarse red fabric of a globular vessel; more open than usual. Band handle attaches at rim and shoulder. Carination at the level of the base of the handle. Traces of burning are mainly on exterior.

HoB 50 (P12.103) PL. 11
 Coarseware vessel
 H. 0.0805, Th. 0.01.
 E1.5–W5/S102–107.5 *92.5–92.14
 Rim of vessel. Red, coarse micaceous clay with gray core and with large schist inclusions. Everted rim and straight walls. Exterior, signs of burning.

HoB 51 (P12.100) PL. 11
 Coarseware vessel
 H. 0.1062, Th. 0.0115–0.023.
 E1.5–W5/S102–107.5 *92.5–92.14
 (“whole trench”)
 Rim of an open, straight-walled vessel with large inclusions. Pinkish-red, coarse clay. Faint ridge on exterior of rim. Exterior smoothed.

HoB 52 (P12.110) PL. 11
 Shoulder of coarseware vessel
 H. 0.0925, Th. 0.0264–0.013.
 E1.5–W5/S102–108 *93.5–92.5
 Thick, squared rim with groove, possibly for a lid. Grayish-buff, coarse clay with large inclusions. Wall of vessel thins considerably away from the rim. Hand made.

Deep Sounding B

(SEE FIG. 3.14)

*94.75 Hearth Level and Below

The *94.75 level in Deep Sounding B, with gray ash and reddened earth, corresponds to the *94.75 level in Deep Sounding C.

	Level	
	*94.75 hearth [†]	Below the hearth to *94.00
Gray monochrome	45%	5%
Coarse red	45%	45%
Cooking	5%	10%
Painted	5%	10%
Buff		30%

[†] Information taken from Fieldbook HoB 1962.VII:81.

POTTERY

HoB 53 (P62.455) PL. 12
 Black on Red plate
 H. 0.04, W. of ledge 0.024, est. Diam. 0.27, Th. 0.01.
 E5–10/S95 To *94.80
 Rim fragment. Wide ledge rim decorated with two parallel lines painted a blackish-brown with groups of radial lines in between. On the exterior, an irregular wavy line enclosed by a parallel band on either side. Painted concentric circles preserved below this. A hole is drilled through the body.

HoB 54 (P62.465) PL. 12
 Gray Ware bowl
 H. 0.063, W. of handle 0.04, L. of handle 0.015,
 Diam. 0.25, Th. 0.007.
 E5–10/S95 *94.80
 Eleven fragments of a carinated Gray Ware bowl. Shallow bowl, possibly stemmed or on a high foot.

Slightly everted rim with rounded lip. Two horizontal lug handles are perforated with large vertical holes. Obvious polishing on exterior.

HoB 55 (P12.45) Pl. 13

Amphora

H. 0.1095, Th. 0.009.

E5–10/S95 *94.8–94.5

Neck of a large amphora (?) with shoulder marked by a raised band. Reddish-buff micaceous clay.

Exterior and interior polished but exterior more heavily. Burning on interior.

Late Bronze Age?

HoB 56 (P62.404) Pl. 13

Painted lid of large pithos (?)

H. 0.068, est. Diam. 0.42–0.45, Th. 0.014.

E5/S90 *94.80–94.50

Domical lid, perhaps of a pithos. Coarse and dense; red fabric, gray core. Exterior has a recessed groove that follows the circumference of the lid, and a second groove, thus making a shallow ridge between them. Orangey red is painted on the raised ridge. Two registers of painted red concentric circles are separated by a thick red band. Traces of a third red band. The concentric circles carry over into the red bands and the groove around the lid. Exterior and interior are slipped a lighter orange slip.

HoB 57 (P12.30) Fig. 1.6, Pl. 14

Pithos with incised marks and decoration made with a finger

Frag. W. 0.35, L. 0.18, Th. 0.0255;

Frag. W. 0.27, L. 0.19, Th. 0.023.

E5/S95–100 To *94.5;

E5/S100 To *94.75

Large body sherds of a coarse pithos with incised decoration. Reddish-buff fabric with some mica. On the shoulder, large oval shapes made by pressing a finger in the wet clay, and below these, several rows of a herringbone pattern made with a tool held at one angle for one row and then with the tool at a different angle for the next row; below this, the beginning of a field of crosshatching. On the wider part of the body, again traces of the herringbone pattern, then more of the large shapes made with a finger, and below that, diamond-shaped cross-hatching. Traces of burning.

Fragments may be related to **HoB 58** and

HoB 275.

HoB 58 (P62.403) Pl. 14

Pithos with incisions and finger marks

H. 0.195, W. 0.205, Th. 0.02.

E5/S100 *95.40–95.00

Two joining shoulder fragments of a large pithos. Incised decoration consists of a band of criss-crossed lines making a diamond pattern, and below that,

three rows of diagonal hatching making a herringbone pattern. Above and below these patterns, a design made by drawing a finger through the wet clay.

Found close to **HoB 57** and **HoB 275**.

Below *94.75 Hearth Level

HoB 59 (P62.409) Pl. 15

Painted bowl or jug

H. 0.038, Diam. of foot 0.07, Th. 0.007.

E5/S95–100 To *94.50

Ring base and body of a bowl or jug. Buff fabric.

Exterior decorated with reddish bands, some streaked, alternating with brownish-black bands.

Surface much worn.

HoB 60 (P62.413) Pl. 15

Carinated bowl

H. 0.05, Diam. 0.24, Th. 0.008.

E10/S95 To *94.50

Shallow, carinated bowl with everted rim. Buff clay.

Interior and exterior are painted with thin reddish-orange bands. Exterior polished.

HoB 61 (P62.408) Pl. 15

Painted pithos or krater

H. 0.07, W. 0.088, Th. 0.012.

E5/S95–100 To *94.50

Large checkerboard pattern in red consisting of a large square with four smaller red squares within. Additional horizontal and vertical bands as well.

HoB 62 (P62.412) Pl. 16

Pithos with incised mark

H. 0.14, W. 0.19, Th. 0.006.

E10/S95 To *94.50

Shoulder of pithos with incised lines drawn on a shallow horizontal band on the neck of the pithos. Graffito consists of three lines that converge to a point.

HoB 63 (P12.42) Pl. 16

Imported jug (?)

H. 0.004, W. 0.0367, L. 0.0737, Th. 0.007.

E5/S96–100 *94.5–94.25, edge, central pit

Body sherd of jug. Orangish-buff micaceous clay.

Exterior has dark brown streaky bands. Exterior polished.

Late Bronze Age.

HoB 64 (P62.480) Pl. 16

Painted cup

H. 0.022, Diam. 0.12, Th. 0.004.

E5–10/S95 To *94.30

Tiny fragment of slightly everted cup rim. Narrow, dark bands on interior. Exterior is light brown.

Polished on interior and exterior.

HoB 65 (P62.459) PL. 16

Closed vessel with concentric semicircles
H. 0.06, W. 0.085, Th. 0.006, Th. of handle 0.013.
E0-3/S95-97 *94.25-94.0

Body fragment of a closed vessel; vessel thickens considerably where the handle would have been attached. Buff, micaceous fabric. Brown painted decoration on exterior includes two horizontal bands on which are standing concentric semicircles; also a diagonal band that cuts across the two horizontal bands.

HoB 66 (P62.439) PL. 17

Buff Ware bowl with loop handle
H. 0.095, L. of handle with spool 0.085,
Diam. 0.26, Th. 0.005.
E0-2/S99-100 *94.25-94.0

Rim and vertical loop handle of a Buff Ware bowl. Pinkish-brown fabric. Slightly everted rim. Handle is attached to rim with a rough spool shape.

HoB 67 (P62.460) PL. 17

Krater with painted three-quarter concentric circles
H. 0.05, W. 0.067, Th. 0.007.
E3-0/S95-97 *94.25-94.00

Shoulder fragment of a krater. Buff micaceous clay. Brownish-black band with three-quarter concentric circles. Interior plain; polished on exterior.

See Ersoy 2004, p. 45 and fig. 3.

HoB 68 (P62.458) PL. 17

Gray Ware closed vessel
H. 0.17, Diam. 0.22, Th. 0.005-0.009.
E0-3/S95-97 *94.25-94

Joining fragments of shoulder and rim of a high-necked Gray Ware closed vessel with silvery wash. A raised band runs along the rim of the vessel and two raised bands mark where the shoulder meets the neck. Interior shows wheel marks. Polished surface with a body reduced to a uniform gray throughout.

HoB 69 (P62.472) PL. 17

Carinated bowl
H. 0.065, Diam. 0.20, Th. 0.006.
E10/S95-100 *94.20-93.70

Everted rim and body of a carinated bowl. Surface color is uniformly buff. Slight ridge beneath exterior rim. Polished on interior and exterior.

HoB 70 (P62.473) PL. 18

Gray Ware bowl
H. 0.082, Diam. 0.34, L. of lug 0.035,
W. of lug 0.015, Th. 0.008.
E10/S95-100 *94.20-93.70

Two joining fragments of rim, slightly everted, with horizontal lug handle. Handle is notched on both sides and perforated with an off-center vertical hole. Traces of silvery wash.

HoB 71 (P62.440) PL. 18

Pithos with incised mark and hole
H. 0.85, W. 0.177, Th. 0.025,
Diam. of hole 0.022-0.224.
E5-6/S90-93 *94.10-93.90

Shoulder fragment of a pithos. Red clay. Slight depression where the thickness of wall thins toward the neck. Two vertical incised lines and a trace of a third one on neck. A round hole was drilled through the wall.

HoB 72 (P62.452) PL. 18

Gray Ware bowl with lug handle
H. 0.037, W. of lug 0.023, Th. 0.008.
E5-8.5/S90-92 *93.90-93.73

Rim fragment of a shallow Gray Ware bowl, slightly carinated. Silvery wash. Horizontal lug handle perforated with vertical hole.

HoB 73 (P62.451) PL. 18

Brown on Buff krater with concentric semicircles
H. 0.06, W. 0.08, Th. 0.012.
E5-8.5/S90-92 *93.90-93.73

Body fragment of krater. Reddish-buff fabric with some mica. Brownish-black band with pendent concentric semicircles. Exterior polished, interior plain.

See Ersoy 2004, p. 45 and fig. 3.

Level *93.7-93.4	
Gray monochrome	5%
Coarse red	75%
Cooking	10%
Buff	10%

HoB 74 (P12.43) PL. 19

Bowl
H. 0.0205, W. of rim 0.013, est. Diam. 0.30.
E10/S95-100 *93.9-93.0

Shallow bowl fragment with flaring rim. Pinkish-buff micaceous clay. Polished surface on exterior and interior.

Late Bronze Age.

HoB 75 (P62.469) PL. 19

Brown on Buff cup
H. 0.04, W. 0.02, Th. 0.004.
E10/S95-100 *93.90-93.00

Small rim fragment of Brown on Buff cup. Exterior of rim has thin brown painted line. Interior, wider band along rim. Paint is slightly streaky.

Mycenaean import?

- HoB 76** (P62.467) Pl. 19
 Trefoil jug
 H. 0.145, W. of trefoil 0.09, L. of trefoil 0.105.
 E10/S95–100 *93.90–93.00
 Rim, handle, and shoulder of plain jug. Reddish fabric. Raised ridge at base of neck. Handle from rim to shoulder has round section and a knob at top and bottom. Neck made separately from body.
- HoB 77** (P62.468) Pl. 19
 Carinated storage jar
 H. 0.08, W. 0.073, Th. 0.01, Th. of flange 0.026.
 E10/S95–100 *93.90–93.00
 Fragment of the belly of a carinated storage jar. Dense purplish body with white slip on exterior; many small light-colored inclusions. Hard fired. Added coil at carination.
 Perhaps an import.
- HoB 78** (P12.35) Pl. 20
 Pithos with incised chevron pattern
 H. 0.15, Th. 0.0105.
 E10/S95–100 *93.9–93.0;
 E10/S95–100 *94.2–93.7
 Rim of large storage vessel. Reddish-orange micaceous clay with gray core. Ledge rim; below, on neck, two raised bands flanking an incised chevron pattern.
- HoB 79** (P12.51) Pl. 20
 Gray Ware jar with ridges
 H. 0.0412, Diam. of rim 0.22, Th. 0.0065.
 E10/S90 To *93.8 ~ below the hearth, and about two meters to the northwest
 Vertical neck of Gray Ware jar with ledge rim. Shallow, recessed groove on exterior below rim; four narrow raised ridges on neck. Light gray fabric with silvery wash is smoothed on exterior and interior, although much thinner on interior.
- HoB 80** (P12.47) Pl. 20
 Carinated bowl
 H. 0.0467, est. Diam. 0.15, Th. 0.005.
 E10/S90 To *93.8
 Small shallow carinated bowl with everted rim. Fine buff micaceous clay. Rim is much thinner-walled than the rest of the vessel. Cf. **HoB 82**.
 Late Bronze Age.
- HoB 81** (P62.478) Pl. 20
 Streaked and banded bowl
 H. 0.065, W. 0.042, Th. 0.007.
 E5/S90 To *93.40
 Base and part of wall of a streaked and banded bowl. Buff fabric. Streaked brownish-black with darker bands on exterior. Signs of secondary burning on the interior and exterior.
 Perhaps an import based on the color of the paint (iron, not manganese).
- HoB 82** (P62.474) Pl. 20
 Buff Ware bowl
 H. 0.04, est. Diam. of rim 0.16–0.18, Th. 0.005.
 E5/S90 To *93.40
 Rim of a plain Buff Ware carinated bowl with everted rim. Fine textured fabric. Above the carination, the rim is much thinner than the wall of the bowl. Cf. **HoB 80**.
 Late Bronze Age.
- HoB 83** (P62.476) Pl. 20
 Buff Ware bowl
 H. 0.035, est. Diam. of rim 0.25–0.26, Th. 0.006.
 E5/S90 To *93.40
 Rim of plain Buff Ware bowl. Outwardly thickened, flaring rim with lip narrowing to the top. Slipped on interior for a very smooth finish.
 Late Bronze Age.
- HoB 84** (P62.477) Pl. 20
 Buff Ware cup or bowl
 H. 0.033, W. 0.022, Th. 0.006.
 E5/S90 To *93.40
 Rim of Buff Ware cup or bowl. Slightly offset, everted rim, painted on interior and exterior with a brownish-black band.
- HoB 85** (P62.475) Pl. 20
 Buff Ware jar
 H. 0.03, est. Diam. of rim 0.26–0.30,
 W. of rim 0.015, Th. 0.009.
 E5/S90 To *93.40
 Everted, flat ledge rim. Micaceous buff fabric.
 Late Bronze Age.
- HoB 86** (P62.406) Pl. 21
 Early Lydian cup (?)
 H. 0.07, est. Diam. 0.18, W. of handle 0.025,
 Th. 0.005.
 E10/S90 To *93.20
 Vertical band handle and part of the rim of a Protogeometric cup (?). Buff clay with noticeable inclusions. Everted rim. Remains of worn, brownish-black paint on interior and exterior. Traces of narrow pendent concentric semicircles at left of handle.
- HoB 87** (P62.407) Pl. 21
 Imported Protogeometric cup
 H. 0.44, Diam. 0.23, Th. 0.008.
 E10/S90 To *93.20
 Slightly everted flat rim of cup. Creamy slip on exterior with pendent semicircles in dark red below a broad band of the same color on and below the rim. Interior wet-smoothed and wheel marked.
 Cf. Ersoy 2004, p. 45 and figs. 3 and 4.

HoB 88 (P12.53) Pl. 21
 Clay basin of breadtray fabric
 H. 0.0775, W. 0.060, L. 0.138.
 E10/S90 To *93.20
 A fragment, part of the base and wall, of a straight-edged clay basin with a thick vertical wall and thick, flat base. Medium-hard breadtray fabric with large pebble inclusions. Interior somewhat smoothed but exterior is very uneven. Cf. **HoB 217**.

HoB 89 (P12.50) Pl. 21
 Brown on Buff jug
 W. 0.0574, L. 0.037, Th. 0.008.
 E10/S90 To *93.20
 Shoulder fragment of a jug. Reddish-brown micaceous clay. Horizontal wavy line above a smaller horizontal wavy line bordered below by another horizontal line. Exterior polished.

HoB 90 (P62.405) Pl. 22
 Buff Ware jug with incised decoration
 H. 0.095, W. 0.155, W. of handle 0.045,
 Th. of handle 0.013.
 E10/S90 To *93.20
 Shoulder and stub vertical band handle of large Buff Ware jug. Shallow groove at neck. Variegated hatching incised in opposite directions in registers to create zigzags on handle. Also a row of incisions on each side of the handle. Interior buff. Exterior is smoothed.

HoB 91 (P12.41) Pl. 22
 Buff Ware bowl
 H. 0.0515, est. Diam. 0.17, Th. 0.005.
 E10/S90 To *93.20
 Fragment of small bowl with delicate everted rim. Buff, fine micaceous clay. Micaceous wash on polished exterior.

HoB 92 (P12.40) Pl. 22
 Bowl or cup
 H. 0.055, est. Diam. 0.18, Th. 0.0065.
 E10/S90 *92.90–92.60
 Small bowl or cup with everted rim. Buff fabric. Small ridge runs along the top of the shoulder of the vessel. Thick purple-black band on exterior of rim; the band does not run evenly. On body, two parallel wavy lines with evidence of a third straight line below. On the interior there is a thick band below rim, at neck. Smoothed on exterior and interior.
 M. Kerschner suggests a late ninth-century date at the earliest (personal communication, Sardis, July 1–2, 2016).

Low Levels of Deep Sounding B

HoB 93 (P14.45) Pl. 22
 Bowl
 H. 0.058, W. 0.059, Diam. ca. 0.20, Th. 0.007.
 E10/S90 *92.90–92.60
 Body fragment of carinated bowl with everted rim. Orangish-buff micaceous clay. Exterior, streaky brown bands. Interior, streaky dark brown. Interior and exterior smoothed. Found with **HoB 94** and **HoB 92**.

HoB 94 (P12.49) Pl. 23
 Large jug, possibly imported
 L. 0.0959, W. 0.0942, Th. 0.0117.
 E10/S90 *92.90–92.60
 Fragment of a shoulder of a jug. Thick-walled reddish-buff fabric with a heavy concentration of grainy, dark inclusions. On exterior, horizontal black band with red band below. Smoothed on exterior, but not polished.

HoB 95 (P62.448) Pl. 23
 Closed painted vessel, Late Mycenaean?
 H. 0.10, W. 0.10, Th. 0.005.
 E10/S90–95 To *92.80;
 E5–8.5/S90–92 *93.90–93.73
 Two joining body fragments from a closed vessel of piriform shape. Reddish clay polished on the exterior. Most of the profile preserved. The three horizontal bands with crosshatched triangles above are all painted reddish-brown.
 Penelope Mountjoy (2016) suggested it is probably LH IIIC.

HoB 96 (P62.449) Pl. 23
 Buff Ware bowl
 H. 0.032, Diam. 0.18, Th. 0.004.
 E10/S90–95 *92.80
 Rim of plain, Buff Ware bowl with slightly everted rim. Exterior is polished and slipped, and interior is smoothed. White inclusions in fabric.

HoB 97 (P12.44) Pl. 23
 Lug handle with pierced hole
 H. 0.0271, W. 0.0398.
 E10/S90–95 To *92.15
 Small horizontal lug handle pierced vertically; hole is in center of handle near body. Buff, micaceous clay.

TERRACOTTA

HoB 98 (T62.41) Pl. 24
 Loom weight pierced by two holes
 W. 0.060, L. 0.10 m; Wt. 440 g.
 E10/S95 To *94.50
 Hammer-shaped loom weight. Reddish-brown clay with chaff and stone inclusions. Two holes pierced through the middle section of the weight. A break occurred at one of the holes. Lightly fired.

HoB 99 (T62.48) Pl. 24
 Loom weight
 W. 0.057, L. 0.072 m; Wt. 169 g.
 E2-0/S99-100 *94.25-94
 Hammer-shaped loom weight. Reddish-buff clay with stone inclusions. Hole pierced through the middle section of weight. Lightly fired. Traces of burning.

HoB 100 (T62.52) Pl. 24
 Loom weight
 W. 0.047, L. 0.079 m; Wt. 164 g.
 E10/S95-100 *94.20-93.70
 Hammer-shaped loom weight. Reddish-orange clay with chaff. Hole pierced through the middle section of the weight. More heavily fired. Traces of burning.

METAL

HoB 101 (M12.3) Pl. 25
 Iron knife blade
 W. 0.0128, L. 0.0572, W. of tang 0.0065.
 E5-8.5/S90-92 *93.90-93.73
 Small, oblong iron knife blade. Bottom of blade curves up to meet top of blade, which is straight and level. Rectangular tang.
 Hanfmann, "SARDIS 1962," p. 7.

STONE

HoB 102 (S12.1) Pl. 25
 Whetstone
 H. 0.008, L. 0.0415, Diam. 0.016.
 E5-6/S90-93 *94.10-93.90
 Fragment of a whetstone of hard gray stone, broken at one end. It probably had a hole at the other end, based on others.

HoB 103 (S12.2) Pl. 25
 Granite quern
 H. 0.0355, L. 0.17, Diam. 0.0855.
 E5-6/S90-93 *94.10-93.90
 Fragment from the middle of a lightly crescent-shaped quern. Smoothed on convex and flat faces while broken edges remain rough. Traces of burning.

ROUND HUT AND CREMATION BURIAL

For fragments of wattle and daub from the round hut, see Figs. 3.17 and 3.18.

POTTERY

HoB 104 (P12.39) Pl. 26
 Buff Ware bowl
 H. 0.0385, Th. 0.0052.
 E10/S90-95 *91.40-89.90
 Small Buff Ware bowl. Reddish-buff micaceous clay. Outwardly thickened rim. Polished on both exterior and interior.

HoB 105 (P62.463) Fig. 3.19, Pl. 26
 Pithos with two small lug handles (Manisa 4339)
 H. 0.52, Diam. of outer rim 0.43,
 Diam. of body 0.44, H. and W. of lug 0.03.
 E6/S88 *91.70-91.30
 Complete pithos. Red fabric, coarse and gritty. Rounded everted rim with two small lug handles below rim. Body tapers to rounded base.
 Hanfmann, "SARDIS 1962," p. 7; Hanfmann and Mierse, *SPRT*, pp. 20-21, figs. 24, 25.

TERRACOTTA

HoB 106 (T02.8) Pl. 26
 Rod or spit holder
 W. 0.052, L. 0.104, Th. 0.057.
 E5-10/S90-95 *91.40
 Fragment of an oval terracotta object used as a rod or spit holder. Two projections at the top may have been part of a row used to steady rods or a spit. Compare **HoB 230**, from Deep Sounding C.

Lowest Level of Deep Sounding B: *91.40-89.90

Pot fragments from the lowest level of Deep Sounding B (less than half a box):

- 3 fragments of yellow ware pithos, not the dark red as on higher pithoi.
- 1 rim, yellow, well smoothed surface
- 8 pieces of cooking pot.
- 8 pieces of red buff plainware, somewhat coarse.
- Ca. 25 pieces of finer pink to yellow buff wares; finer fabric, smooth surface; some open hand-polished (5 pieces)
- 2 pieces of nearly black polished ware, possibly handmade

Deep Sounding A

(SEE FIG. 3.20)

Below *94.80

The tabulation of finds here gives an idea of the proportions in the lowest levels of the sounding.

Below level *94.80	
Gray monochrome	
Coarse red	30%
Cooking	20%
Painted	
Buff	50%
Misc.	Large lump of iron (HoB 119) [†]

[†] Extensively discussed in *Sardis* M8, p. 178 (Fieldbook HoB 1960.IV:8). A large lump of iron (axe or adze), one of the earliest iron objects ever found at Sardis, is thought to have been made by the layering technique, which involves hammering together iron blocks with different carbon contents.

POTTERY

- HoB 107** (P16.28) PL. 27
 Handle of amphora or jug with paint
 H. 0.045, W. 0.0355.
 E10–15/S100–105 Below *94.80
 Vertical handle, oval in section. Painted wavy line runs along its length. Similar to **HoB 169**, from same elevation in Deep Sounding C. A deep gouge on the exterior.
 Mycenaean, or imitation?
- HoB 108** (P60.569) PL. 27
 Brown on Buff jar
 H. 0.03, W. 0.056, Th. 0.008.
 E10/S100 Below *94.80
 Neck fragment of a thick-walled high-fired jar (?) with Brown on Buff painted band and broad triangles below; a second horizontal band across base of triangles. Horizontal band on interior. Body partly reduced at exterior.
- HoB 109** (P60.570) PL. 27
 Closed vessel
 H. 0.055, W. 0.03, Th. 0.01.
 E10/S100 Below *94.80
 Small body fragment of thick-walled closed vessel. Fabric reddish on inner and outer surface; body thoroughly reduced. Purplish band or else thinner black glaze above black band or area.
- HoB 110** (P60.567) PL. 27
 Closed vessel
 H. 0.045, W. 0.02, Th. 0.008.
 E10/S100 Below *94.80
 Body fragment of a closed vessel. Reddish fabric. Two narrow bands of brown paint with larger dark area below.
 Sub-Mycenaean or Protogeometric?
- HoB 111** (P60.575) PL. 27
 Gray Ware bowl
 H. 0.04, W. of ring 0.025, Diam. of foot ca. 0.09, Th. 0.01.
 E10/S100 Below *94.80
 Fragment of low foot of thick-walled Gray Ware bowl. Light, silvery, self-slipped, and polished surface with a body reduced to a uniform gray throughout. Some post-breakage burning.
- HoB 112** (P60.574) PL. 27
 Gray Ware bowl with loop handle
 H. 0.055, Diam. of rim 0.16, Th. of handle 0.005.
 E10/S100 Below *94.80
 Fragment of small shallow Gray Ware bowl with ledge rim and stump of a delicate flat loop handle. Sharp carination below rim.
- HoB 113** (P60.512) PL. 27
 Gray Ware one-handed cup
 H. 0.073, Diam. of rim 0.08,
 Diam. of base ca. 0.05, Th. 0.007.
 E10–15/S100–105 Ca. *94.80 ~ East End
 Five fragments, four joining, of a Gray Ware cup. Micaceous fabric. Steep straight wall, slightly flaring; vertical handle, oval in section, attached at point of carination to the rim; circular base. Two horizontal incised lines about mid-height. Handle has slight groove on one side. Fine silvery wash on exterior.
- HoB 114** (P60.573) PL. 28
 Gray Ware dish
 H. 0.028, Diam. of foot 0.08, interior Diam. 0.04.
 E10/S100 Below *94.80
 Gray Ware detached high foot or stand of a cup or dish. Top surface has radiating ridges to secure the join between foot and separately made body [lost].
- HoB 115** (P60.519) PL. 28
 Jar with herringbone pattern
 H. 0.12, W. 0.11, Th. 0.009.
 E10–15/S100–105 Below *94.80
 Two joining fragments of the shoulder of a large buff jar. At least two horizontal rows of incised herringbone pattern. Probably local.
 Early Iron Age.
- HoB 116** (P60.520) PL. 28
 Jar with combed wave pattern
 H. 0.055, W. 0.043, Th. 0.006.
 E10–15/S100–105 Below *94.80
 Fragment of shoulder of thin-walled closed jar with finely incised, combed wave pattern and a slightly indented horizontal ridge above it. Fine smooth buff surface; distinctly micaceous. Probably local.
 Early Iron Age.
- HoB 117** (P60.572) PL. 28
 Gray Ware jug handle
 H. 0.072, W. 0.037, L. of handle 0.055, W. at lower break 0.02, Th. 0.005.
 E10/S100 Below *94.80
 Fragment of a Gray Ware jug handle. Stump of vertical handle, round in section. A projection below base of handle.
- HoB 118** (P60.588) PL. 28
 Handmade jar with rope pattern
 H. 0.083, W. 0.117, Th. 0.008.
 E10–15/S100–105 *94.70–94.16
 Two joining pieces of the wall of a handmade storage jar. Red fabric with chalk inclusions. Two raised bands with diagonal slashes making a rope pattern.

Small box from the bottom of Deep Sounding A: “a lot more Buff Ware than a day or two ago. Still some Gray but many fewer heavy, coarse red storage jars.”²

	Level		
	*94.70–94.16	*94.16–94.00	*94.00–93.80 [†]
Gray monochrome	15%	15%	
Buff tableware monochrome			30%
Coarse red	50%	35%	30%
Cooking	10%	20%	30%
Painted and buff	5%	10%	10%
Fine red	20%	15%	
Misc.		Loom weight in the finer red ware; worked knucklebone with holes	

[†] Fieldbook HoB 1960.IV:17.

METAL

HoB 119 (M18.8) Pl. 28

Iron adze

Max. L. 21.90, max. W. 6.30 cm.

E10–15/S100–105 *94.80

Heavily corroded on surface, but metal preserved in the core. Broad flat blade, roughly rectangular.

Early Iron Age. Compare to **HoB 237**.

Sardis M8, cat. no. 127.

Below *94.16 (Late Bronze Age)

POTTERY

HoB 120 (P60.555) Pl. 29

Mycenaean or sub-Mycenaean jug handle

W. of handle 0.028, Th. 0.004.

E10/S100 *94.00–93.80

Rim and vertical band handle of an imported Mycenaean jug. Buff colored surface. Handle has a red curved line painted between the vertical lines that run along the edge; solid red at top of handle. Penelope Mountjoy, from photos (2016), thought it might be sub-Mycenaean.

Blegen, Caskey, and Rawson 1953, fig. 419:18, from “earthquake stratum,” i.e., 1325–1275 B.C. and Blegen, Boulter et al. 1958, p. 103, fig. 247:3; Hanfmann, “SARDIS 1960,” p. 16, fig. 5.

1275–1240 B.C.

HoB 121 (P60.553) Pl. 29

Handmade jar with painted decoration

L. 0.005, Th. 0.01.

E10/S100 *94.16–94.00

Fragment of shoulder of large closed handmade jar. Brownish body, polished. Fragments of two

concentric circles; within the inner one, two blobs.

A row of chevrons with a dot next to the first one in purplish paint.

HoB 122 (P60.522) Pl. 29

Closed vessel with Black on Red decoration

W. 0.05, H. 0.05, Th. 0.013.

E10–15/S100–105 *94.16–94.00

Fragment of a thick-walled Black on Red closed vase. Crosshatched meander pattern that shows an apparent pre-firing erasure of errant paint. Red surface polished, and paint added over it. Interior plain. Interior of body fully reduced to dark gray. The sherd with its Black on Red meander decoration is anomalous at this low, early level. The fieldbook specifically notes its discovery here; it may nevertheless be intrusive.

HoB 123 (P60.554) Pl. 29

Dark Brown on Buff, imported (?) jar

H. 0.062, W. 0.082, Th. 0.01.

E10/S100 *94.00–93.80

Body fragment of large closed jar. Pinkish, mica-ceous clay for body and interior. Brown band on buff ground; smooth surface. Stance unknowable.

HoB 124 (P60.556) Pl. 29

Buff Ware carinated bowl

H. 0.085, Diam. 0.37, Th. 0.007.

E10/S100 *94.00–93.80

Two joining rim fragments of a large carinated bowl. Rolled rim, slightly everted. Buff ware with a reddish tinge, burned on one edge.

HoB 125 (P60.557) Pl. 29

Buff Ware carinated bowl

E10/S100 *94.00–93.80

H. 0.075, Diam. 0.36, Th. 0.008.

Two joining rim fragments of carinated bowl. Light reddish fabric. Ledge rim. Highly polished Buff Ware.

HoB 126 (P60.559) Pl. 29

Handle of large cup

H. 0.10, W. of handle 0.015.

E10/S100 *94.00–93.80

Steep-walled cup with high vertical handle, set crooked on the body; round section to handle. Red fabric. Surface smoothed by stick marks on exterior. Interior, wheel marks.

HoB 127 (P60.552) Pl. 30

Gray Ware jug with handle

H. 0.085, W. 0.075, W. of handle 0.017,

est. Diam. of neck 0.07–0.075.

E10/S100 *94.16–94.00

Several joining fragments of body and neck of a Gray Ware jug with vertical band handle. Slight groove at join of thin-walled neck and body.

Hanfmann and Mierse, *SPRT*, fig. 27.

² Fieldbook HoB 1960.IV:14.

HoB 128 (P60.558)

Pl. 30

Heavily burned large cooking pot
 H. 0.128, est. Diam. 0.22–0.24, Diam. of rim 0.26,
 Diam. of base 0.10, Th. 0.006.
 E10/S100 *94.00–93.80
 Rim, body, and base of a rounded cooking pot in
 three nonjoining sections. Rim accentuated with
 incised line. Two flat plate handles, almost certainly
 placed opposite each other. Heavily burned on
 exterior.

TERRACOTTA

HoB 129 (T60.44)

Pl. 30

Terracotta knucklebone
 L. 0.035, H. 0.02.
 E10/S100 *94.16–94.00
 Terracotta knucklebone fragment; pierced with
 several holes. May have been used as a handle for
 something.

Additional Test Pit**HoB 130** (P83.31)

Pl. 30

Buff Ware bowl
 H. 0.045, W. 0.043, Th. with knob 0.015,
 without knob 0.01.
 W24–25/S96.7–94.3 *94.32–94.1
 Rim of Buff Ware bowl. Rim is slightly thicker
 than the body. Highly polished on exterior and inte-
 rior. Knob at 0.04 m below rim on exterior. This
 piece comes from a small test pit in the west side of
 HoB (between the later Buildings O and J).

LYDIAN IV: IRON AGE

BY NANCY H. RAMAGE AND ANDREW RAMAGE

Deep Sounding C

POTTERY

- HoB 131** (P13.178) Pl. 31
 Black on Buff plate
 H. 0.029, W. 0.046, Th. of rim 0.010,
 Th. of walls 0.008.
 W0-3/S100-101 *95.5-94.8
 Rim fragment of Black on Buff. Buff-red clay with some mica. Reserved rim has three radial lines in black. Interior and exterior covered with purplish-black slip.
- HoB 132** (P12.67) Pl. 31
 Bowl
 H. 0.051, Diam. 0.17, Th. 0.0045.
 W5-E1/S106-109 To *96.2
 Five joining fragments of a thin-walled shallow bowl with slightly inturned rim and rounded lip. Red micaceous clay. Interior rim is decorated with groups of radiating lines. Interior and exterior polished.
- HoB 133** (P13.181) Pl. 31
 Shallow bowl
 H. 0.085, W. 0.088, est. Diam. 0.280, Th. 0.004.
 W2-5/S106-108 To *95.5
 Rim and body of shallow painted bowl. Red micaceous clay with gray core. Exterior, reddish-brown band at rim below which are sets of vertical lines that rest on a thick streaky band. Interior, dark brown streaky. Interior and exterior smoothed. Similar to **HoB 134**.
- HoB 134** (P13.180) Pl. 31
 Shallow bowl
 H. 0.069, W. 0.081, Th. 0.006.
 W2-5/S106-108 To *95.5
 Body fragment of shallow bowl. Red micaceous clay; buff exterior with reddish brown paint. Exterior dark band along the rim of bowl and sets of vertical lines above a thick band below. Interior slipped black. Exterior smoothed. Similar to **HoB 133**.
- HoB 135** (P14.41) Pl. 32
 Bowl with lug handle
 H. 0.062, est. Diam. 0.017, Th. 0.006.
 W5-7/S107-109 *96.0-95.5
 Horizontal lug handle, attached at rim.
 Orangish-red clay with some mica. Exterior, dark red band painted along rim, including the lug handle. Thick band of red further below. Interior is entirely black; polished. Lug handle pierced with a hole through center.
- HoB 136** (P12.104) Pl. 32
 Bowl with cream-colored slip
 H. 0.0632, Th. 0.007.
 W2-5/S99 *95.2-94.5
 Deep bowl with squared rim. Orangish-red micaceous clay. Whitish, creamy slip on both exterior and interior, although it is much lighter and less well preserved on the interior. Wide, recessed band below the lip of the bowl. A half-spool, triangular in section, is vertically placed within the recessed band.
- HoB 137** (P13.176) Pl. 32
 Brown on Buff bowl
 H. 0.031, W. 0.045, Th. 0.006.
 W0-3/S100-106 *95.5-94.8
 Everted rim fragment. Buff micaceous clay. Dark brown wide band on rim, on both interior and exterior. Beginnings of painted decoration of four lines, probably pendent concentric semicircles, below band on exterior.
- HoB 138** (P14.35) Pl. 32
 Black on Red bowl
 H. 0.038, W. 0.068, est. Diam. 0.021, Th. 0.0045.
 W3-7/S100-102 *96.4-95.8
 Everted rim fragment of bowl with strong carination. Red micaceous clay. Exterior decorated at rim with dull black line below which is a tall narrow zigzag pattern bordered on either side by a horizontal line. Another black line just above point of carination. Interior plain. Smoothed but worn on exterior and interior.
- HoB 139** (P66.68) Pl. 32
 Imported Greek bowl
 H. 0.03, Diam. 0.12, Th. 0.003.
 E1-W1/S104-106 *96.6-96.2
 Rim fragment of imported Greek bowl. Fine buff clay, painted brown inside. Exterior: two bands at rim; below these, a row of diamond shapes with a dot in the middle of each, placed side to side vertically. Below these, another band. Paint brownish.
 Probably Late Geometric Euboean, according to M. Kerschner (personal communication, Sardis, July 1-2, 2016). Popham, Sackett, and Themelis 1980, pl. 48, nos. 159-63.
- HoB 140** (P14.40) Pl. 32
 Streaked jug
 H. 0.099, Diam. 0.011, Th. 0.005.
 W0-5/S105-107 *96.0-95.5
 Fragment of vertical rim with globular body. Pinkish-red micaceous clay with grayish core. Two raised bands on neck; and a pierced hole for mending on neck. Interior and exterior both smoothed and painted streaky in brownish-black.

- HoB 141** (P66.137) Pl. 33
 Mycenaean (?) cup rim and loop handle
 H. 0.055, Diam. 0.15, Th. 0.004.
 W2-4/S107-109 *95.0-94.8
 Complete loop handle tilts upward toward rim.
 Black/brown band at rim, on handle, and two horizontal bands below handle. Interior, band at rim; bands in a lighter wash below.
 Mycenaean or imported Protogeometric.
 M. Kerschner: "Sub-Protogeometric"; analyzed by him (sample Sard 41).
- HoB 142** (P13.170) Pl. 33
 Imported painted cup
 H. 0.072, W. 0.081, Th. 0.005.
 E0-2/S103-105.5 *95.5-95.05;
 E0-2/S100-103 *95.5-95.05
 Fragment of a carinated cup with a slight nick below the [missing] rim. Reddish-buff micaceous clay. Red painted decoration on exterior: horizontal band with vertical downward strokes; thick band below.
 Imported, perhaps Mycenaean. Penelope Mountjoy (2016) felt it could be contemporary with Troy VIIa or VIIb; but also thought the nick below the rim suggested Protogeometric.
- HoB 143** (P66.178) Pl. 33
 Lydian cup
 H. 0.04, est. Diam. 0.18, Th. 0.004.
 W1.5-3.5/S88-92 To *95.6
 Fragment of nicked rim and upper body. Buff micaceous clay. Exterior, dark band on rim; below, a metopal frieze with alternating groups of vertical lines and a single, thick vertical wavy band. Interior, band at rim; streaky reddish brown below. Smoothed interior and exterior.
- HoB 144** (P14.42) Pl. 33
 Geometric cup
 H. 0.0305, W. 0.053, est. Diam. 0.017, Th. 0.004.
 E1-W5/S106-109 To *96.2
 Fragment of rim of nicked cup. Buff micaceous clay. Black and brown decoration on buff. Exterior rim is painted with a black band; below is a metopal arrangement with alternating vertical wavy lines and vertical straight lines in brown. Interior painted solid. Polished on exterior.
 Probably an import. It is a proper kotyle with straight upper body, so dated post-750 B.C.
 The same context as Black on Red stand
- HoB 179.**
 Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013): their macrogroup A, subgroup 1.3.³
- HoB 145** (P13.185) Pl. 33
 Small cup
 H. 0.038, W. 0.056, est. Diam. of base 0.065.
 E1-W6/S106-109 *96.3-95.7
 Fragment of small cup with bottom broken out and the remains of the base of the handle. Reddish-buff micaceous clay; purplish Black on Red decoration. Exterior, band along base just below base of handle.
- HoB 146** (P13.201) Pl. 33
 Black on Red bowl
 H. 0.052, W. 0.080, est. Diam. 0.120,
 Th. 0.003-0.0065.
 E1-W7/S107-109 *96.0-95.7
 Fragment of small bowl with straight side and sharp carination. Fine red micaceous clay. Black on Red decoration. Exterior, opposed triangles making a butterfly pattern runs the height of the wall of the cup with a black line above and below. Interior plain and smoothed.
- HoB 147** (P12.89) Pl. 33
 Small jug
 H. 0.0475, Th. 0.003.
 E1-W6/S105-107 To *96.0
 Everted rim of cup with slightly tapered lip. Red, micaceous clay. A duller Black on Red. Decoration on exterior consists of a series of opposed triangles, as in a butterfly pattern, bordered top and bottom by a black line at the rim and base of neck. Polished on both exterior and interior.
- HoB 148** (P12.99) Pl. 33
 Black on Red cup or bowl
 H. 0.023, Th. 0.0035.
 E0-2/S98-106 *96.0-95.8
 Everted rim and rounded lip. Reddish-buff micaceous clay. Exterior is painted with a line below the rim, and opposed triangles directly below it. Black paint is of the duller kind.
- HoB 149** (P13.166) Pl. 33
 Cup
 H. 0.035, W. 0.045, est. Diam. 0.070, Th. 0.004.
 E0-2/S100-103 *95.50
 Simple cup rim. Reddish-buff micaceous clay.
 Interior and exterior have dark brown band at rim.
- HoB 150** (P13.177) Pl. 33
 Buff cup
 H. 0.035, W. 0.037, Th. 0.005.
 E1-W5/S104-109 *95.5-95.2
 Rim fragment of cup. Buff micaceous clay that has been burned. Exterior, two dark bands on rim; below on body, two standing concentric circles. Interior, dark band on rim.

³ Kerschner and Aytaçlar compare pieces from Smyrna.

- HoB 151** (P13.195) Pl. 34
 Cup
 H. 0.030, W. 0.046, Th. 0.006.
 E1–W5/S104–S109 *95.5–95.2
 Body fragment of cup. Red micaceous clay.
 Exterior, small but thick pendent concentric semi-circles below a streaky band. Interior, dark brown.
 For comparison to Cycadic pottery, see Coldstream, *GGP*, pl. 52.
- HoB 152** (P13.167) Pl. 34
 Buff cup
 H. 0.039, W. 0.0215, Th. 0.0045.
 E0–2/S103–105.5 *95.5–95.05
 Cup fragment. Buff micaceous clay. Exterior and interior: black band at rim.
- HoB 153** (P13.165) Pl. 34
 Buff cup
 H. 0.0255, W. 0.050, est. Diam. 0.035.
 W0–3/S100–106 *95.5–94.8
 Cup fragment. Buff clay with some mica. Exterior, band of brown on base of foot. Interior of bowl, streaky brown.
- HoB 154** (P13.179) Pl. 34
 Trefoil rim
 H. 0.028, W. 0.061, Th. 0.003.
 W0–3/S100–106 *95.5–94.8
 Trefoil rim fragment. Buff micaceous clay.
 Exterior, dark brown band along rim.
- HoB 155** (P66.119) Pl. 34
 Mycenaean krater
 H. 0.095, Diam. of rim 0.31–0.32, Th. 0.007.
 E2–W5/S99–105 *95.2–94.2;
 E3–4/S103–104 *94.9–94.2
 Rim and upper body of krater. Reddish-buff micaceous clay with a red core. A ledge rim with a few short radial lines. Exterior, a band of orange at rim and a tight fat wavy line below. Interior, orange band at rim. A handle scar on wall.
 Penelope Mountjoy (2016) considers it LH IIIC.
- HoB 156** (P16.35) Pl. 34
 Mycenaean krater fragment
 H. 0.25, W. 0.097, est. Diam. 0.28, Th. 0.0093.
 E3–5/S99–105 *95.2–94.2
 Fragments of a large krater. Reddish-buff micaceous clay with a red core. Ledge rim has a reddish band along the length of it. Exterior, a red band below the rim, and a tight fat wavy line at handle height. A handle scar. Interior, a red band continues on inside of ledge rim—part of the same band that goes along the top of the rim.
 Penelope Mountjoy (2016) considered it LH IIIC.
- HoB 157** (P66.76) Pl. 35
 Geometric krater or bowl
 H. 0.09, W. 0.068, Th. 0.0055.
 W5–7/S107–109 *96.0–95.5
 Rim fragment. Buff micaceous clay. Exterior, dark brown band along rim and one further below, between which are groups of vertical wavy lines. Use of multiple brush, painted top to bottom. Exterior and interior are smoothed. Similar decoration to **HoB 158**, but the profiles are slightly different.
 Late Geometric.
 Cf. Özgünel 1979, pl. 23c.
- HoB 158** (P66.82) Pl. 35
 Geometric krater or bowl
 H. 0.0725, W. 0.07, Th. 0.005.
 W0–6/S103–106 *95.8–95.5
 Rim fragment. Buff micaceous clay. Exterior, dark brown band along rim and one further below, between which are groups of vertical wavy lines originating alternately from the rim or band below. Multiple brush used here. Interior, dark brown band at rim. Exterior smoothed. Similar decoration to **HoB 157**, but the profiles are slightly different.
 Cf. Özgünel 1979, pl. 23c.
- HoB 159** (P12.59) Pl. 35
 Black on Red krater
 H. with handle stump 0.053, Th. of rim 0.021.
 E0–5/S97.5–100 *96.4–96.0
 Rim and partial handle of a Black on Red krater. Reddish-buff micaceous clay with gray core. Vertical rim with squared lip. Exterior, duller black band below ledge rim; below this, a crosshatched angular meander pattern. Interior plain. Remains of a vertical loop handle on rim. Exterior and rim smoothed.
- HoB 160** (P12.58) Pl. 35
 Brown on Buff (purplish) jug
 H. 0.0515, Diam. of neck 0.0525, Th. 0.0055.
 W6–E1/S105–107 To *96.0;
 W6–E1/S106–109 *96.3–95.7
 Three joining fragments of neck and shoulder of jug. Pinkish-buff micaceous clay. Neck probably thrown separately. Break in design suggests a handle. Checkerboard on neck. Three lines encircle the join of neck and shoulder; below, large triangles, obliquely crosshatched, with the center left empty. Exterior is smoothed. Similar to **HoB 161**, which has triangles completely filled instead of left empty.
- HoB 161** (P13.204) Pl. 35
 Brown on Buff jug
 H. 0.0435, W. 0.075, Th. 0.005–0.0085.
 E0–5/S97.5–100 *96.4–96.0
 Neck and shoulder fragment of medium-sized jug; orangish-buff micaceous clay with gray core. Brown on Buff decoration. Exterior, on neck checkerboard pattern of alternating reserved and filled squares; on

shoulder, two lines, below which are crosshatched triangles. Exterior smoothed. Cf. **HoB 160**.

HoB 162 (P13.190) Pl. 35

Small jug

H. 0.0535, W. 0.050, Th. 0.0055.

E2-W2/S97-102 *95.7-95.2

Shoulder to start of neck of small jug. Reddish-buff micaceous clay. Exterior, purplish-black pendent semi-circles from a narrow band, and a wavy line between two bands below.

HoB 163 (P13.200) Pl. 36

Jug

H. 0.0575, W. 0.065, Th. 0.007-0.005.

E1-W6/S105-107 To *96.0

Shoulder and neck fragment of jug. Reddish-buff micaceous fabric. Black on Red decoration. Exterior has standing semicircles, where the artist used a multiple brush but not a compass. Two black lines above and below, and a vertical line at the side. The start of pendent semicircles below.

HoB 164 (P13.187) Pl. 36

Jug

H. 0.064, W. 0.055, Th. 0.006.

E1-4/S98-100 *95.6-95.1

Body and band handle fragment. Reddish-buff micaceous clay. Thick, streaky dark brown band on body of vessel and thinner horizontal lines on lower part of the vertical band handle.

HoB 165 (P13.186) Pl. 36

Small buff jug

H. 0.0475, W. 0.0585, Th. 0.006.

E0-2/S103-105.5 *95.5-95.05

Fragment of body and base of a vertical band handle. Buff clay with gray core. Exterior, streaked dark brown on body and handle. Exterior smoothed.

HoB 166 (P13.192) Pl. 36

Red on Buff large jug

H. 0.049, W. 0.068, Th. 0.008.

E1-W1/S100-101 *95.0-94.0

Shoulder fragment. Red micaceous clay, tan slip. Exterior, red pendent concentric semicircles below thick band.

HoB 167 (P16.26) Pl. 36

Mycenaean (?) Red on Buff amphora or jug

H. 0.124, W. 0.20, Th. 0.008.

E1-W2/S106-108.5 *95.0-94.8

Five joining and two additional fragments of shoulder and a trace of the neck of an amphora or jug. Reddish/orange on buff. Three horizontal bands preserved on body, and another just below the join to neck.

Mycenaean or sub-Mycenaean, or local imitation. Penelope Mountjoy (2016) thought it could be Mycenaean.

HoB 168 (P13.164) Pl. 37

Red on Buff banded amphora

H. 0.0705, W. 0.200, Th. 0.0105.

W0-3/S100-106 *95.5-94.8

Lower belly fragment of amphora. Orangish-buff, micaceous clay. Exterior, metopal decoration with sets of vertical lines between bands of Red on Buff. Exterior smoothed.

HoB 169 (P16.27) Pl. 37

Mycenaean (?) closed vessel

Base: H. 0.027, est. Diam. 0.125, Th. 0.007;

Handle: L. 0.0588, W. 0.035.

E0-2/S105.5 To *94.8

Handle and base (of an amphora?). Reddish clay with darker red slip. Handle has a wavy line on the exterior and a trace on the upper inner side. Base has a red band above the disk foot. Unslipped on the interior of the base.

Mycenaean or imitation-Mycenaean vessel? Similar to another fragment (P16.23), found at the same elevation but in Deep Sounding B.

HoB 170 (P13.184) Pl. 37

Large Brown on Buff jug

H. 0.116, W. 0.106, Th. 0.00920.

W3-6/S97-100 *95.5-95.0

Shoulder of large jug. Buff micaceous clay. Exterior has a purplish-brown band at neck of jar. On shoulder, concentric circles with a dot in center of each; a wavy line between two bands below. Traces of burning.

HoB 171 (P13.169) Pl. 37

Small jar

H. 0.026, W. 0.040, Th. 0.006.

E1-W5/S104-109 *95.5-95.2

Fragment of wall of small jar. Red micaceous clay. Exterior, tan slip with red band and red pendent concentric semicircles drawn without a compass.

HoB 172 (P13.159) Pl. 38

Red on Buff closed vessel

H. 0.083, W. 0.109, Th. 0.008.

E0-2/S103-105.5 *95.5-95.05

Shoulder fragment. Red micaceous clay; tan slip. Exterior, Red on Buff with two bands below the remains of a curved design that looks like an early form of a Waveline hydria.

HoB 173 (P13.188) Pl. 38

Band handle

H. 0.066, W. 0.029, Th. 0.010.

E0-2/S99-101 *94.9-94.6

Fragment of vertical band handle with dark brown horizontal lines. Reddish-buff micaceous clay.

- HoB 174** (P13.193) PL. 38
 Brown on Buff closed vessel
 H. 0.075, W. 0.071, Th. 0.007.
 W0-4/S100-101 *94.8-94.2
 Fragment of neck of closed vessel, decorated with nine concentric pendent semicircles. One of the brushes was much thicker than the others. Two horizontal bands, the lower one painted over by the multiple brush making the semicircles.
- HoB 175** (P13.198) PL. 38
 Brown on Buff closed vessel
 H. 0.051, W. 0.0845, Th. 0.0095.
 E4-5/S100-101.5 *95.2-94.8
 Body fragment with streaky Brown on Buff decoration. Orangish-buff micaceous clay. Exterior brown pendent concentric semicircles from a wide band.
- HoB 176** (P13.194) PL. 38
 Brown on Buff closed vessel
 H. 0.071, W. 0.037, Th. 0.005-0.0065.
 E1-3/S104-106 *95.4-94.8
 Brown on Buff body fragment. Buff clay with some mica. Exterior, pendent concentric semicircles below a thick band. Exterior smoothed.
- HoB 177** (P13.196) PL. 38
 Body of closed vessel
 H. 0.041, W. 0.038, Th. 0.010.
 E1-3/S104-106 *95.4-94.8
 Body fragment. Buff micaceous clay; red on buff decoration. Exterior, pendent concentric semicircles (more of the circle completed than usual) below a wide band.
- HoB 178** (P13.168) PL. 38
 Body of closed vessel
 H. 0.030, W. 0.044, Th. 0.0045.
 E0-2/S100-103 *95.5-94.8
 Body fragment. Buff micaceous clay. Exterior, brown pendent concentric semicircles.
- HoB 179** (P66.66) PL. 39
 Large Black on Red Lydian Geometric biconical pot stand, or foot of a large krater
 H. 0.18, Diam. of foot 0.30, Th. 0.01.
 E3-5/S104-106 *96.05-95.68;
 E1-W5/S106-109 To *96.2
 Four joining fragments plus an additional small fragment of a Lydian biconical pot stand or foot of large krater. Micaceous body with considerable mineral inclusions in body. Core is gray.
 Intense black geometric ornament on strong red body, decorated in registers: from base, two lines and then large square meanders alternating with nested diamond-shaped designs. Above that, separated by two horizontal lines, a series of concentric circles, one of which has a wider painted circle than the others. Then, two more horizontal lines separate two tiers of opposed triangles. Exterior finely smoothed. Interior plain.
 Hanfmann and Mierse, *SPRT*, fig. 36; Hanfmann, "SARDIS 1966," fig. 8 (upside down).
- HoB 180** (P12.32) PL. 39
 Gray Ware cup or bowl
 H. 0.0445, H. with handle 0.0755,
 Diam. of rim 0.105, Th. 0.0025.
 W3-5/S104-105 *95.2-94.7
 Handle and body fragment of a shallow Gray Ware cup or bowl. Light, silvery, self-slipped, and polished surface with a body reduced to a uniform gray throughout. Rim has a slightly squared lip. Rim is thinner than the rest of the vessel. Large, round vertical loop handle.
- HoB 181** (P12.6) PL. 39
 Gray Ware handled bowl
 H. 0.057, H. with handle 0.0675, Th. of rim 0.0065.
 W0-5/S100-106 *95.5-94.8
 Bowl with high handle that joins wall. A wide recessed band below rim on exterior. Silvery wash on exterior and interior.
- HoB 182** (P12.13) PL. 40
 Gray Ware bowl
 H. 0.025, Th. of bottom 0.0115.
 W2-E2/S97-102 *95.7-95.2
 Gray Ware shallow bowl. Rim and wall preserved. Nicked rim. Polished interior and exterior.
 Ninth century or earlier.
- HoB 183** (P12.66) PL. 40
 Bowl rim and strap handle
 H. 0.047, Th. 0.010.
 W5-E1/S104-109 *95.5-95.2
 Flat semicircular ledge rim with vertical strap handle connected to the body of the bowl with a pinch. Reddish-buff micaceous clay. Sharp carination in vessel below the attachment of the handle.
- HoB 184** (P12.5) PL. 40
 Gray Ware bowl
 H. 0.031, W. 0.0321, Th. of rim 0.008.
 W0-6/S103-106 *95.8-95.5
 Rim and pierced lug handle of small shallow Gray Ware bowl. Two horizontal grooves below rim on exterior. Handle has a vertical suspension hole that shows wear from string. Some polishing on interior.
- HoB 185** (P14.30) PL. 40
 Small Gray Ware cup
 H. 0.0495, est. Diam. 0.08, Th. 0.008.
 W2-5/S99-100 *95.2-94.5
 Cup with slightly everted lip and flaring walls. Gray micaceous clay. Stump of handle near point of carination; handle would be a vertical band handle; flat base. Interior and exterior both have traces of silvery wash and are smoothed.

- HoB 186** (P14.32) Pl. 40
 Thick-walled Gray Ware cup
 H. 0.043, Th. 0.007.
 E1-W1/S107-109 *95.2-94.9
 Base and wall fragment of a cup with low point of carination and a flat, circular base. Dark gray micaceous clay. Thick walls. Exterior polished.
- HoB 187** (P14.36) Pl. 40
 Small buff cup
 H. 0.0565, Th. 0.008.
 E2-0/S98-106 *96.0-95.8
 Base and wall of small cup. Orangish-buff micaceous fabric. Carination above flat disk foot. Smoothed on exterior and interior.
- HoB 188** (P14.31) Pl. 40
 Gray Ware cup fragment
 H. 0.0685, Th. 0.005.
 E1-4/S98-100 *95.6-95.1
 Small cup with simple, vertical rim, flaring walls, low carination at which there remains a stump from the base of a handle; flat base. Light gray micaceous clay. Smoothed interior and exterior.
- HoB 189** (P14.27) Pl. 40
 Gray Ware cup
 H. 0.065, est. Diam. 0.008-0.085, Th. 0.009.
 W5-7/S107-109 *96-95.5
 Small cup. Light gray micaceous clay. Low point of carination with base of vertical band handle; flat base; slightly flaring walls; simple, vertical rim. Walls thicken considerably near base.
- HoB 190** (P14.16) Pl. 40
 Large Gray Ware cup
 H. 0.0455, est. Diam. 0.013, Th. 0.004.
 E0-2/S100-103 *95.5-94.8
 Rather large cup with everted rim and three grooves lower down on body. Fine gray micaceous clay. Silvery wash on interior and exterior. Exterior is polished.
- HoB 191** (P14.20) Pl. 40
 Gray Ware cup
 H. 0.053, W. 0.665, Diam. 0.024, Th. 0.007.
 W0-6/S103-106 *95.8-95.5
 Flaring slightly offset rim fragment of cup. Gray micaceous fabric. In the band created by the offset rim there are irregularly shaped roughly circular stamped impressions. Silvery wash in the interior. Exterior worn. Smoothed on exterior and interior.
- HoB 192** (P14.22) Pl. 40
 Gray Ware cup with ribbing
 H. 0.038, W. 0.037, est. Diam. 0.010, Th. 0.003.
 W5-6/S100-102.5 *95.35-95.0
 Fragment of slightly everted rim of cup with thin walls. Gray micaceous fabric. Exterior has ribbing. Some traces of silvery wash on interior and fewer on exterior. Smoothed exterior and interior.
- HoB 193** (P14.43) Pl. 41
 Small buff cup
 H. 0.017, Th. 0.06.
 W0-6/S103-106 *95.8-95.5
 Base of small cup. Buff fabric with red slip on exterior and interior. Wall and flat base remain.
- HoB 194** (P12.92) Pl. 41
 Buff beaker
 H. 0.1044, Diam. of rim 0.14, Th. 0.004.
 E3-4/S103-105 *94.9-94.2
 Rim and rounded bottom of a cylindrical vessel. Buff micaceous fabric. Slightly everted rim. Thin walls at top of vessel give way to thicker walls. Low carination near the bottom of the preserved fragment.
- HoB 195** (P12.15) Pl. 41
 Gray Ware krater
 H. 0.143, est. Diam. 0.34, Th. 0.0065.
 W3-6/S97-100 *95.5-95.0;
 E1-4/S98-100 *95.6-95.1
 Rim, handle, and part of body of a large Gray Ware krater. Two strap handles (one joining); each has a central ridge, and a semicircular thumb rest at the top. Neck is vertical. Rim has a recessed ledge to accommodate a lid. Rim flares outward. Exterior smoothed.
- HoB 196** (P66.115) Pl. 42
 Buff Ware lid with knob handle
 H. 0.035, H. of knob 0.008, Diam. of rim 0.095,
 Diam. of knob 0.03, Th. 0.007.
 E1-W5/S104-109 *95.5-95.2
 Domical lid with ledge rim and rounded, concave knob on top. Brownish-buff coarse clay with some mica. Two holes pierced on either side of knob, and areas worn on exterior of knob from a string. Wear shows also on interior of lid. Traces of reddish-brown slip on exterior. Traces of burning on interior and exterior.
- HoB 197** (P12.101) Pl. 42
 Lid of a vessel
 H. 0.04, Diam. of handle 0.0495, Th. 0.009.
 E1-4/S98-100 *95.6-95.1
 Handle and top of conical lid. Orangish-buff micaceous fabric with quartz inclusions. Handle is round, concave in the middle, and has a flat upper surface resembling a flaring ring foot.
- HoB 198** (P12.8) Pl. 42
 Coarse Gray Ware jug
 H. 0.09, W. of handle 0.0365,
 est. Diam. of rim 0.009.
 W2-E2/S97-102 *95.7-95.2
 Band handle and everted rim of jug; slight ridge at join of neck to shoulder. Large white quartz (?) inclusions.
 Ninth century or earlier.

- HoB 199** (P14.21) PL. 42
 Gray Ware jug
 W. of handle 0.041, Th. of handle 0.0185.
 W3-6/S104-106 To *96.0
 Vertical handle fragment with part of rim of Gray Ware jug. Gray micaceous clay. Handle made of two round rolls of clay joined together. Two bosses are at the outermost edge of each side of the handle where it meets the jug rim.
- HoB 200** (P14.23) PL. 43
 Gray Ware jug
 W. of handle 0.053, Th. of handle 0.013.
 W4-6/S100-108 *95.5-94.85
 Vertical strap handle with pronounced central rib of Gray Ware jug. Gray micaceous clay. Very small part of the rim where the handle attaches is preserved. Handle smoothed.
- HoB 201** (P12.38) PL. 43
 Gray Ware storage jar with ridges
 H. 0.061, int. Diam. of rim 0.23, Th. 0.0085.
 E3.5-5/S104-106 *95.5-95.3
 Vertical neck with ledge rim of Gray Ware storage jar. Dark gray micaceous clay. On the underside of the ledge rim is a narrow, raised band. Four raised ridges encircle the neck. Small repair hole above raised bands. Exterior and interior are smoothed.
- HoB 202** (P12.108) PL. 43
 Jar with sign or decoration
 H. 0.073, est. Diam. 0.24, Th. 0.014.
 W2-5/S92-96 *96.3-96.0
 Ledge rim of a large storage jar. Buff orange micaceous clay. Incised into the wet clay was an irregular-shaped sign or decoration made with a pointed tool. Traces of burning on interior and exterior.
- HoB 203** (P12.21) PL. 43
 Gray Ware storage jar with wavy lines
 H. 0.145, est. Diam. 0.31, Th. 0.0118.
 E3.5-5/S104-106 *95.5-95.3
 Fragment of Gray Ware storage jar. Incised decoration of two wavy lines between double horizontal bands. Silvery wash over exterior surface.
- HoB 204** (P12.23) PL. 43
 Gray Ware storage jar
 W. 0.0875, L. 0.1035, Th. 0.0082.
 E4-5/S102-104 *95.4-95.3
 Shoulder fragment of Gray Ware storage jar. Two pairs of incised wavy lines between horizontal bands.
- HoB 205** (P12.26) PL. 44
 Gray Ware base and ring foot
 H. 0.043, Diam. of foot 0.087, Th. of bottom 0.013.
 W0-3/S100-106 *95.5-94.8
 Heavy ware, thick-walled. Base flares out. Polished inside. Silvery wash on exterior and interior.
- HoB 206** (P12.97) PL. 44
 Globular buff closed vessel
 H. 0.0515, Th. 0.0055.
 E2-6/S100-103 *95.5-94.8
 Neck and shoulder of globular vessel. Brownish-buff micaceous clay with gray core. Neck made separately from the rest of the vessel. Three grooved channels mark transition from neck to shoulder.
- HoB 207** (P12.18) PL. 44
 Gray Ware twisted handle with grooves
 L. 0.082, W. 0.026, Th. 0.025.
 W4-6/S100-108 *95.5-94.8
 Attachment scar at one end. Silvery wash.
- HoB 208** (P12.33) PL. 44
 Gray Ware vessel with lug handle
 H. 0.040, Th. of handle 0.0115, Th. of wall 0.008.
 E3-5/S98-107 *96.0-95.4
 Small Gray Ware vessel with slightly everted rim and rounded lip. Small lug handle with vertical perforated hole. Polished on exterior.
- HoB 209** (P12.105) Fig. 10.3, PL. 44
 Closed vessel (lid?) with projecting lug or boss
 H. of lug 0.0185, Th. 0.007.
 W3-5/S97-99 *95.2-95.0
 Flat-ended projecting lug, cylindrical in section and impressed with two diagonal lines forming an X. Made by a round shaped implement such as a small bone that was pressed in the clay. Was apparently cut down for reuse, perhaps as a game piece. Dark reddish-gray micaceous clay. Compare **HoB 263** and **PC 62** from Pactolus Cliff.
- HoB 210** (P14.33) PL. 44
 Gray Ware handle
 H. 0.0505, W. 0.0255, Th. 0.018.
 E3-5/S98-107 *96.0-95.4
 Oval, vertical handle fragment with the base splayed into three parts with the central one pronounced. Dark gray micaceous fabric. Polished.
- HoB 211** (P12.91) PL. 44
 Handmade buff lug foot
 H. 0.0538, Th. 0.0095.
 E0-2/S100-103 *95.5-94.8
 Lug foot was scraped and tooled while wet; almost pointed. Orangish-buff micaceous clay. Exterior and interior appear smoothed.
- HoB 212** (P13.199) PL. 44
 Fragment of painted vessel, turned into a loom weight?
 H. 0.034, W. 0.054, Th. 0.009.
 E1-W5/S104-109 *95.5-95.2
 Fragment from an unknown part of a painted vessel; buff micaceous clay. Red compass-drawn pendent semicircles below a band. The remains of a sizable hole indicates that this was reused as a disk with a hole, possibly a loom weight. Compare **PC 50**.

- HoB 213** (P12.68) Pl. 44
Strainer
L. 0.067, W. 0.036, Th. 0.0125.
W2-E2/S97-102 *95.7-95.2
Buff Ware strainer. Red fabric with some mica. Many holes, all pierced from the same side, are not pierced in any discernable pattern and in one case, two holes overlap. Interior smoothed.
- HoB 214** (P12.113) Pl. 45
Cylindrical pot stand (?)
H. 0.065, est. Diam. 0.255, Th. 0.0135.
E3-5/S101-102.5 *96-95.8
Part of body of cylindrical ceramic object, possibly a pot stand. Hard-fired micaceous monochrome clay. Fragment has a shallow groove running the circumference of its interior surface; looks almost as if done with a finger, except that it has many narrow lines within, as if combed. Exterior preserves a much narrower groove at the same level. On the wall, the remains of a delicate tooled design in the form of a crosshatched triangle. Exterior surface was smoothed and burnished. Right side edge is a finished surface. Signs of burning on exterior.
- HoB 215** (P12.29) Pl. 45
Gray Ware baby feeder
H. 0.0416, L. 0.0621, est. Diam. 0.075,
Th. of bottom 0.0055.
W0-5/S105-107 *96-95.5
Squat, globular body of a feeder. Part of body and all of nipple with hole preserved. Cf. baby feeders from Pactolus Cliff: **PC 12**, **PC 136**.
- HoB 216** (P66.138) Pl. 45
Pithos
H. 0.76, Diam. of rim 0.44, Diam. of foot 0.20,
Diam. of body 0.95.
E1-W1/S107-109 *95.2-94.9
Many fragments of a complete plain red gritty pithos. Flat thickened rim. Disk foot. Smoothed surface inside and outside. The mending holes indicate that it could not have held liquid in its final state. Found with its own neck inside the body, along with a great deal of other pottery.
- HoB 217** (P12.52) Pl. 46
Clay basin
H. 0.113, L. 0.236, Th. of walls 0.022,
Th. of base 0.0365.
W2-5/S99-100 *95.2-94.2
One fragment preserving rim, wall, and part of base of clay basin. Thick vertical walls, and a flat base. Probably would have been oval. Surface has crumbled away in many areas. Unidentified black traces on the interior surface and evidence of burning on the base.

- HoB 218** (P12.24) Pl. 47
Globular cooking pot
H. 0.082, est. Diam. 0.20, Th. 0.006.
W0-3/S100-106 *95.5-94.8
Rim and upper body of a globular cooking pot with everted rim. Coarse, gray micaceous fabric. Two rows of short diagonal dashes stamped along neck. Exterior and interior burned.
- HoB 219** (P12.37) Pl. 47
Large Gray Ware storage vessel
H. 0.145, est. Diam. 0.31, Th. 0.0118.
E1-W1/S107-109 *95.2-94.0
Fragment of a thick-walled and sharply carinated vessel with a T-shaped rim. Reddish-gray micaceous clay. Polished on outside and smoothed on interior. Silvery exterior.
Analyzed by M. Kerschner (sample Sard 44).

TERRACOTTA

The following group of twelve entries are hammer-shaped, or hammerhead loom weights (**HoB 220–HoB 229**). All of them have a uniform texture, more like mudbrick than like pottery.

- HoB 220** (T12.5.1) Pl. 48
Hammer-shaped loom weight
L. 0.087, Diam. 0.056 m; Wt. 247.2 g.
E0-2/S105-107 *95.8-95.65
Temper: none.
- HoB 221** (T12.5.2) Pl. 48
Hammer-shaped loom weight
L. 0.091, Diam. 0.054 m; Wt. 200.3 g.
W4-E3.5/S105-108 *95.5
Temper: chaff.
- HoB 222** (T12.5.3) Pl. 48
Hammer-shaped loom weight
L. 0.097, Diam. 0.060 m; Wt. 302.3 g.
W2-3/S107-109 *95.5-95.3
Temper: chaff.
- HoB 223** (T12.5.4 and T12.5.10) Pl. 49
Hammer-shaped loom weight
#4: L. 0.082, Diam. 0.057 m; Wt. 283.5 g;
#10: L. 0.076, Diam. 0.049 m; Wt. 150 g.
W5-E1/S104-109 *95.5-95.2;
E0/S107 *95.25 down
Temper: gritty with chaff.
- HoB 224** (T12.5.7) Pl. 49
Hammer-shaped loom weight
L. 0.085, Diam. 0.065 m; Wt. 324.1 g.
E0/S107 *95.25
Temper: none.

- HoB 225** (T12.5.8) PL. 49
 Hammer-shaped loom weight
 L. 0.095, Diam. 0.061 m; Wt. 307.2 g.
 E0/S107 *95.25 down
 Temper: chaff.
- HoB 226** (T12.5.9) PL. 50
 Hammer-shaped loom weight
 L. 0.096, Diam. 0.068 m; Wt. 344.4 g.
 E0/S107 *95.25 down
 Temper: none.
- HoB 227** (T12.5.5) PL. 50
 Hammer-shaped loom weight
 L. 0.077, Diam. 0.058 m; Wt. 284.6 g.
 W1-E1/S107-109 *95.2-94.9
 Temper: stony.
- HoB 228** (T12.5.6) PL. 50
 Hammer-shaped loom weight
 L. 0.087, Diam. 0.056 m; Wt. 277.2 g.
 W1-E1/S107-109 *95.2-94.9
 Temper: none.
- HoB 229** (T12.5.11) PL. 51
 Hammer-shaped loom weight
 L. 0.069, Diam. 0.070 m; Wt. 276.4 g.
 W2-5/S100-104 *95.2-94.9
 Temper: gritty with chaff.
- HoB 230** (T98.2) PL. 51
 Terracotta spit holder
 H. 0.084, L. 0.124, W. 0.010-0.036.
 E1-W5/S104-109 *95.50-95.20
 A terracotta fragment of a spit holder. Gray fabric core, pink on smooth surfaces. Perhaps rectangular in its original form, but now broken on both sides. Triangular in section (wider at base, tapering toward top), with uneven ridges and depressions along top, as if hastily made with fingers. A narrow incised line 0.044 long appears on one side. A ninth-century spit holder designed to hold a meat-roasting stick over a fire, or while cooling after being removed from a fire. Compare to **HoB 106**.
- HoB 231** (T14.14) PL. 51
 Doughnut-shaped loom weight
 Diam. 0.79, Th. 0.045 m; Wt. 263.4 g.
 E0/S107 *95.25 down
 Circular loom weight, flat on one side and more rounded on the other. Orangish-buff micaceous clay; no temper except for a few stones. Hole perforated through middle, slightly off center, with wear from string line on one side.
- HoB 232** (T12.3) PL. 51
 Spindle whorl
 H. 0.0238, Diam. 0.030, Diam. of hole 0.008.
 W2-5/S100-104 *95.0-94.4
 Biconical spindle whorl. Buff micaceous clay. Low carination with larger, steep sloping upper section and much shorter lower section; slightly concave base; round hole runs through the middle.
- METAL
- HoB 233** (M66.13) PL. 52
 High-arched fibula
 H. 0.035, W. 0.046, H. of "beads" 0.01-0.015, Th. 0.003-0.01.
 W2.5/S103 Ca. *95
 Bronze high-arched fibula with coil springs and part of catch plate preserved. Arch decorated with three biconical beads.
 Hanfmann, "SARDIS 1966," p. 36 and fig. 14.
 Sardis M8, cat. no. 670, p. 113 for description, discussion, and bibliography. Hanfmann and Mierse, SPRT, p. 24, fig. 29. See also Caner, *Fibeln*, p. 39, no. 69; and Sapouna-Sakellarakis, *Die Fibeln*.
- HoB 234** (M11.1) PL. 52
 Bronze needle
 L. 0.12, Th. at head 0.002.
 W4-6/S100-108 *95.5-94.85
 Long bronze needle, complete. Tapered shaft with a sharp point at one end and a pointed head with pierced oval eye at other. Bent about 2.5 cm below head.
 Early Iron Age.
- HoB 235** (M66.11) PL. 52
 Bronze pin
 L. 0.10, Th. 0.001-0.005.
 W5-6/S100-102.5 *95.35-95.0
 Bronze shaft of a pin that is rectangular in section and tapers to a point at the end. The other end is slightly curved as if to form a roll.
 Sardis M8, cat. no. 659.
- HoB 236** (M15.1) PL. 53
 Iron knife blade
 H. 0.027, L. 0.10 (probably longer originally).
 W0-3/S100-106 *95.5-94.8
 Corroded end of iron knife. Back curves outward; inner edge has a different curve.
 Early Iron Age.
 Sardis M8, cat. no. 172, p. 55.
- HoB 237** (M11.4) PL. 53
 Iron sickle blade
 L. 0.2, W. 0.026.
 W4-6/S89-92 *95.3-94.8
 Sickle blade, encrusted. Concave blade curves to a pointed tip.
 Early Iron Age.

Hanfmann and Mierse, *SPRT*, fig. 30; *Sardis M8*, cat. no. 118; Hanfmann, "SARDIS 1966," p. 36.

HoB 238 (M11.10) PL. 53

Iron hook
H. 0.134, Diam. 0.0138.
W0-6/S103-106 *95.8-95.5
U-shaped iron hook, round in section, tapering to a point. On one side it is broken off at the curve.

STONE

HoB 239 (S12.3) PL. 54

Small stone pounder
H. 0.042, Roughly oval base ca. 0.036 × 0.029 m;
Wt. 73.7 g
W4-7/S103-107 *96.0-95.6

A dense igneous stone with iron stains and inclusions. Rounded stone; triangular in shape with rounded top. Ovoid bottom is relatively flat and bears traces of cutting marks. Wear on rounded top suggests that this was the end that was used for pounding.

HoB 240 (S12.4) PL. 54

Whetstone, cut down and reused
W. 0.023, L. 0.043, Th. 0.006.
E4-5/S102-104 *95.6-95.3

Oblong, rectangular stone rounded on most preserved edges. Smoothed on both faces and worn from use. In the center of the rounded end there is a perforated hole for suspension. The other end of the stone is bulbous, broken and jagged, but worn as if use continued after breakage.

HoB 241 (S66.11) PL. 54

Stone celt
L. 0.045, W. at broad side 0.032,
Th. around middle 0.01.
E4/S100 *95.5
Triangular-shaped celt; the cutting edge is narrowed. Worn on one side of the cutting edge. Highly polished.

SEAL

HoB 242 (Seal66.1) PL. 54

Green schist seal with goat design
Diam. 0.027, Th. 0.003-0.005, L. of animal 0.019,
H. of animal with horns 0.019.
E1-W1/S107-108 *95.4-95.2
Small, rounded green schist with an engraved goat. Goat is linear in style with downward turned head and two long vertical horns.
Hanfmann, "SARDIS 1966," p. 36 and fig. 16.

Deep Sounding B

(SEE FIG. 3.14)

POTTERY

HoB 243 (P62.290) PL. 55

Imported Geometric cup
H. 0.046, Diam. 0.20, Th. 0.004.
E5/S95 *96.20

Cup fragment with geometric design. Fine pinkish-buff micaceous clay. Vertical rim, slightly offset. Brown painted decoration. Exterior rim has band of diamonds with a dot at the center, bordered on either side by two horizontal bands. Below rim is a metopal pattern with sets of vertical lines alternating with two hand-drawn concentric circles, the smaller one crosshatched in the center. Interior of fragment is painted brown. Polished on interior and exterior.

HoB 244 (P62.201) PL. 55

Black on Red pot stand or foot of large krater
H. 0.074, Diam. of base 0.18, Th. 0.025.
E8/S88 To *95.45

Fragment of a Black on Red pot stand or krater foot. Coarse, red micaceous clay with a gray core. Strong black color and red slipped. Exterior decoration consists of a crosshatched meander pattern that alternates with a large crosshatched vertical rectangle bordered below by a horizontal line. Below this is a field of checkerboard with black and reserved squares. Interior smoothed. Unclear which way is up, but thicker at one end than the other.

HoB 245 (P62.385) PL. 55

White Bichrome foot of krater
H. 0.07, W. 0.07, Th. 0.013.
E5-10/S90-95 *95.30-94.90

Fragment of foot of a geometric krater. Bichrome with white slip on exterior. Painted decoration consists of black diagonal crosshatching within a square enclosed by a white band. Additional diagonal crosshatching to the side of the white band, and a black and white checkerboard pattern below; the whole may have made up an elaborate meander design. A motif of lozenges begins after a reserved vertical band. A horizontal band painted red below. Wheel marks on interior.

HoB 246 (P62.384) PL. 55

Black on Red small jug
H. 0.063, Diam. of neck 0.06, Th. 0.007.
E5-10/S90-95 *95.30-94.90

Neck of dull Black on Red trefoil-mouthed jug, preserved from the shoulder to near the rim. Entire neck painted with four rows of an evenly spaced checkerboard pattern consisting of alternately filled and reserved squares and rectangles.

HoB 247 (P62.383) PL. 55 TERRACOTTA
 Painted spool handle
 W. 0.035, Th. 0.011.
 E5–10/S90–95 *95.30–94.90
 Spool handle of a bowl or jar. Buff Ware, considerable white inclusions in the body clay. Brownish-black X painted within a rectangle on the vertical band handle. Polished on exterior.

HoB 248 (P12.48) PL. 55
 Protogeometric (?) jug fragment
 W. 0.0365, L. 0.0348, Th. 0.005.
 E10/S95–100 *95.4–95.0 or lower
 Body sherd of a closed vessel. Buff micaceous clay. Brown band below which is a standing concentric circle or semicircle. Could be the other way up. Polished on exterior.
 Imported?

HoB 249 (P12.46) PL. 55
 Black on Red jug
 H. 0.042, W. 0.0422, L. 0.0425, Th. 0.004.
 E5–10/S95 *95.40–95.0
 Fragment of shoulder and neck of a painted round-mouthed jug. Black and dark brown on red thin-walled jug. Broad dark brown line bordered by two thinner black lines at the juncture of the shoulder and neck of the jug. From the lower black band is a series of pendent semicircles with a dot at the center. Below semicircles is a darker line (made darker by red over black), bordered by two lighter ones of the same width.

HoB 250 (P62.380) PL. 55
 Globular Gray Ware jug
 H. 0.05, W. 0.07, est. Diam. 0.11, Th. 0.005.
 E5–10/S90–95 *95.30–94.90
 Fragment from the body of a remarkably thin and elegant globular Gray Ware jug. Oblique, polished ridges beginning just above the curve of the belly go down the body at two angles, converging toward a central vertical band. Above these ridges, a line of extremely finely stamped decoration consisting of a horizontal wavy line flanked above and below by even finer oblique hatching. The two sets of oblique ridges are separated by a vertical stamped pattern of parallel zigzags. All the stampings have been enhanced with delicate incision and filled with white (perhaps tin oxide). Remains of a similar stamped pattern at the bottom of the sherd. Clearly handmade and carefully polished.⁴ Perhaps Thracian handmade, as at Troy or Bithynia; or Neolithic.⁵

HoB 251 (T02.9) PL. 56
 Fragments of oven or furnace grate
 Frag. A: W. 0.129, Diam. 0.109, Th. 0.068;
 Frag. B: W. 0.108, H. 0.108, Th. 0.055,
 Diam. of grate hole ca. 0.003.
 E0–10/S95–100 *96.50–95.70
 Two fragments of an oven or furnace grate. Coarse fabric and inclusions of gravel. Raised edge, and grate holes.

Deep Sounding A

(SEE FIG. 3.20)

POTTERY

HoB 252 (P60.525) PL. 57
 Shallow bowl, imported?
 H. 0.03, est. Diam. 0.18–0.19.
 E10–15/S100–105 *94.96 floor, sherd cluster
 Ledge rim fragment decorated with short radiating red bands in groups of four. Raised band below rim, with tiny groove below. Exterior surface carefully smoothed. Broad reddish band below rim on interior.
 Protogeometric, imported?

HoB 253 (P60.511) PL. 57
 Shallow bowl
 H. 0.027 (not including handle stub), est. Diam. 0.12.
 E10–15/S100–105 Under *96.0 floor
 Two joining fragments of small shallow bowl with stub of handle. Stub of boss also at base of handle. Exterior, reserved panel below rim, decorated with wavy black line between two horizontal black lines. Reddish paint lower on body and around handle stump. Interior painted red.

HoB 254 (P60.506) PL. 57
 Black on Red bowl
 H. 0.055, est. Diam. 0.26, Th. 0.009.
 E10–15/S100–105 In *95.41 floor
 Rim fragment of Black on Red geometric bowl. Exterior below ledge rim, two horizontal black lines flanking a row of dots; below, pendent concentric semicircles alternating with crosshatched triangles. Exterior smooth but not polished. Interior plain.

HoB 255 (P60.524) PL. 57
 Local imitation of a Mycenaean or sub-Mycenaean krater
 H. 0.06, Diam. 0.24–0.26, W. of ledge of rim 0.015, Th. 0.005.
 E10–15/S100–105 *94.96 floor, sherd cluster
 Ledge rim fragment, painted in black glaze. Reserved band below top edge and under rim with band in same glaze below on exterior. Stump of

⁴ Compare handmade pottery from Gordion. Sams 1994, pls. 4 and 7.

⁵ Bithynia or Etruria suggested as possibilities by N. Aytacılar (personal communication, Sardis, July 1–2, 2016).

	Deep Sounding A					
	To *96.2 floor [†]	In *96.00 floor	In *96.00 floor	Under *96.00 floor	To *95.4	*95.41–95.2
Gray monochrome	45%	30% [‡]	50%	10%	15%	15%
Coarse red	50%	70% [#]	50%	85%	80%	75%
Cooking	5%			5%	5%	5%
Painted	1 sherd				1 sherd	5%
Misc.					1 scraper, bones	

[†] Floor covers only part of Deep Sounding A. Fieldbook HoB 1960.III:178.

[‡] Also includes cooking pots.

[#] Includes large storage jars.

handle with black line painted around its left side. Interior below rim, a thin band painted red. Overall ground color is yellowish.

Hanfmann, "SARDIS 1960," p. 16, fig. 5.

HoB 256 (P60.505) Pl. 57

Black on Red jug

H. 0.09, W. 0.083, Th. 0.003.

E10–15/S100–105 In *95.41 floor

Fragment of shoulder and neck of a Black on Red round-mouthed jug with stump of handle. Neck has concentric circles or semicircles. At handle base height, two horizontal black lines, a wavy line, and another horizontal line. Polished inside.

HoB 257 (P60.561) Pl. 58

Black on Red jug

H. 0.043, W. 0.097, Th. 0.005.

E10–15/S100–105 One fragment in *95.41–95.20 floor; the other above *95.41

Two joining fragments of shoulder of Black on Red jug. Concentric standing semicircles (painted without a compass) imitating sub-Mycenaean. Two horizontal lines with traces of pendent semicircles below.

Hanfmann, "SARDIS 1960," p. 14, fig. 5.

HoB 258 (P60.527) Pl. 58

Black on Red jug

W. 0.03, L. 0.029, Th. 0.003.

E10–15/S100–105 *94.96 floor, sherd cluster

Tiny fragment of neck of a small jug. Black on Red, with hatched triangles.

HoB 259 (P60.562) Pl. 58

Brown on Buff closed vessel

H. 0.02, W. 0.034, Th. 0.005.

E10–15/S100–105 *95.41–95.20 floor

Fragment of small closed vessel. Local fabric, Brown on Buff. Thick zigzag painted below horizontal line.

HoB 260 (P60.564) Pl. 58

Three Gray Ware fragments: bowl, loop handle, cup base

a: H. 0.006, est. Diam. 0.055, Th. 0.01;

b: W. 0.01, L. 0.07;

c: Diam. of base 0.05, Th. 0.004.

E10–15/S100–105 In *95.41–95.20 floor

a: Rim of Gray Ware shallow bowl with stump of handle. b: Gray Ware horizontal loop handle with knob preserved. Both sides would have been attached to the pot. c: Foot of a Gray Ware cup with outward sloping walls.

HoB 261 (P60.526) Pl. 58

Small buff jug

H. 0.053, W. 0.05, est. Diam. at neck 0.10, Th. 0.007.

E10–15/S100–105 *94.96 floor

Neck and shoulder of small jug, probably trefoil. Buff fabric, white gritty inclusions, extremely micaceous. Undecorated.

HoB 262 (P60.563) Pl. 58

Pithos with incised pattern

H. 0.053, W. 0.066, Th. 0.13.

E10–15/S100–105 In *95.41–95.20 floor

Fragment of the wall of a pithos with a band of oblique crosshatching; heavily incised pattern (to a depth of ca. 0.0015 m) made with a round-ended implement. Lower edge of pattern defined by a raised band. Pattern is similar to that found on other pithos fragments from the same level.

HoB 263 (P60.518) Fig. 10.3, Pl. 58

Gray Ware knob or boss with an impressed X

H. 0.015, W. 0.032.

E10–15/S100–105 Below *95.00

Small Gray Ware knob or boss with impressed X made by a round shaped implement such as a small bone that was pressed in the clay. Had been attached to a pot. Was apparently cut down for reuse as a stopper or game piece. Compare **HoB 209** and **PC 62** from Pactolus Cliff.

HoB 264 (P60.548) Pl. 59

Pithos, thumbprints on rim
 A: H. 0.235, est. Diam. of rim 0.50, Th 0.025;
 B: H. 0.09, Diam. of base 0.20.
 E10-15/S100-S105 *95.20-94.96;
 E10-15/S100-105 *95.46-94.83
 Twenty-one fragments of rim, shoulder, and base of a large pithos. Thickened rim marked on the exterior by pressed thumb prints that were probably used to stick on more clay for a yet thicker rim. Oblique slashes added at the base of the neck. Neck flaring to shoulder has a raised rope pattern. Base is flat.

TERRACOTTA

HoB 265 (T60.42) Pl. 59

Spindle whorl
 H. 0.037, W. 0.032, Diam. of perforation 0.007.
 E10-15/S100-105 Below *95.00
 Rounded shape, slightly biconical, tapering toward the top. Grayish-brown micaceous clay. Sizeable hole in middle. Shows a great deal of wear.

STONE

HoB 266 (S14.7) Pl. 59

Stone bead
 W. 0.017, L. 0.047, Th. 0.0145.
 E10-15/S100-105 *95.10
 Oblong stone bead; brecciated stone. Perforated through the length of the bead with holes on both ends; perforation is closer to the surface along one side. Surface is smooth. There were no signs of abrasion or percussion under a binocular microscope.

GLASS

HoB 267 (G60.50) Pl. 59

Glass bead, yellow [*photo is black and white*]
 W. 0.006, L. 0.012, Diam. of perforation 0.004.
 E10-15/S105 Over or in floor *95.41
 Small bead with perforated hole through the center. Golden yellow color with crackly surface. According to von Saldern (*Sardis* M6, p. 108, cat. no. 846), probably the earliest piece of glass from Sardis.
Sardis M6, cat. no. 846.

South of Deep Sounding B

POTTERY

HoB 268 (P13.182) Pl. 60

Krater (?) handle fragment, painted
 H. 0.090, W. 0.073, Th. 0.0085.
 W0-2/S95-98 *95.0-94.6
 Fragment of vertical loop handle; yellowish-buff micaceous clay. Exterior black concentric circle

within part of the vertical loop handle with black band on handle. Interior and exterior polished but not smoothed.

HoB 269 (P13.189) Pl. 60

Ring foot, painted
 H. 0.0165, W. 0.0555, est. Diam. 0.070,
 Th. of bowl 0.0045.
 W0-2/S95-98 *95.0-94.6
 Turned ring foot fragment. Orangish-buff clay. Interior and exterior streaky dark slip with a narrow reserved band at the base of exterior.

HoB 270 (P13.202) Pl. 60

Black on Red closed vessel
 H. 0.038, W. 0.045, Th. 0.006.
 W0-2/S88-90 *95.8-95.4
 Thin body fragment in fine red micaceous clay. Tan slip; Black on Red decoration. Exterior, crosshatched meander pattern.

HoB 271 (P12.14) Pl. 60

Gray Ware mesomphalic bowl
 W2-6/S89-94 *96.3-96.0;
 W0-6/S90-93 *96.7-96.3
 H. 0.0445, Diam. 0.16, Diam. of omphalos 0.0435, Th. of bottom 0.009, Th. of rim 0.003.
 Two joining pieces provide complete profile of Gray Ware mesomphalic bowl. Shallow nicked rim. Low omphalos comes to a point. Slight circular ring indentation to set off omphalos on interior. Interior, silvery wash.

HoB 272 (P12.20) Pl. 60

Gray Ware cup
 H. 0.0805, Diam. of mouth 0.097, Th. of rim 0.0035, Th. of neck 0.0055.
 W0-2/S96-98 To *95.0
 Thin-walled cup with flaring walls; rim slightly everted. Gray micaceous fabric; silvery wash. Throw lines clearly evident on interior.

HoB 273 (P14.25) Pl. 60

Gray Ware cup
 H. 0.044, Th. 0.006.
 E0-2/S87-90 *96.0-95.7
 Fragment of a cup with flaring walls that lead to a flat bottom. Gray micaceous clay. Light silvery wash on interior and exterior. Interior and exterior both smoothed.

HoB 274 (P14.29) Pl. 60

Small Gray Ware cup
 H. 0.048, Th. 0.008.
 E0-2/S87-90 *96.0-95.7
 Cup with rounded lip; nearly vertical wall until carination. Dark gray micaceous clay. Interior and exterior have traces of silvery wash and are both polished.

	South of Deep Sounding B				
	*95.2–94.96 floor	In *95.2, NW corner	In *95.2	Below *95	Below *94.8
Gray monochrome	10%	40%	15%	15%	20%
Coarse red	75%†	50%	80%	75%	60%
Cooking	10%	10%	4%	5%	10%
Painted	5%		1 sherd	1 sherd	4 or 5 sherds
Buff			2 sherds	5%	10%
Misc.	Bones and mudbrick			Mudbrick, slag, bones, glass (probably an intrusion)	

† Including jars, pithoi, and a bowl.

HoB 275 (P12.102)

PL. 61

Pithos with incised groove decoration

W. 0.16, L. 0.108, Th. 0.0225.

W0–2/S88–95 *95.0–94.6

Large body fragment of coarse pithos. Reddish-buff clay with some mica. Finger-made groove.

Below, three rows of incised diagonal marks alternate in direction, making a herringbone pattern. Below this is a field of crosshatching with large diamonds.

TERRACOTTA

HoB 276 (T12.11)

PL. 61

Wattle and daub wall or ceiling chunks with reed impressions

W. 0.062, L. 0.0565, Th. 0.041.

W4–6/S89–92 *95.3–94.8

Some reed impressions are parallel, and others run perpendicular to one another. Reddish-buff, coarse, micaceous lightly baked clay.

BONE

HoB 277 (B112.1)

PL. 61

Bone toggle

L. 0.0473, Th. 0.0062–0.0041.

W0–4/S98–99 Ca. *95.8–95.3

Cylindrical-shaped bone toggle that is slightly flattened. Tapers to a somewhat rounded point on either end. Polished.

*96.4 floor at W20/S115–120

(SEE FIG. 4.2)

In addition to local pieces listed below, there was a significant number of imported Geometric period sherds of the kind that are often categorized as East Greek Geometric, Cycladic, or Euboean, as well as one or two Protogeometric and earlier Geometric pieces, out of context. These include the following, at *96.4 and below, around *96.1.

POTTERY

HoB 278 (P64.354)

PL. 62

Black on Red plate

L. 0.127, Diam. of rim 0.28, Th. 0.008–0.012.

W20–23/S117.5–119 To *96.40

Large fragment of a plate with a band of pendent semicircles at the rim. Standing and pendent concentric semicircles, with a black line between them, form what looks like a wave decoration.

A crosshatched rectangle off the center was one arm of a central cross. The fragment had been burned enough to alter the color in some areas. The exterior is plain red. Similar to **HoB 279**.

HoB 279 (P64.355)

PL. 62

Black on Red plate

H. 0.065, W. 0.086, Th. 0.005–0.007.

W20–23/S117.50–119 To *96.40

Fragment from a plate that was covered with standing and pendent concentric semicircles, with a broad black line between them, forming an apparent wave decoration. Traces of another row of semicircles or circles closer to the center of the plate. Similar to **HoB 278**.

HoB 280 (P64.356)

PL. 63

Large Bichrome krater

H. 0.106, W. 0.11, Th. 0.009.

W20–23/S117.5–119 To *96.40

A lower body fragment of a krater with black patterns over red slip and bands of white paint on top of the slip. Crosshatched squares between horizontal lines on alternating red and white bands. Interior red slipped.

HoB 281 (P64.351)

PL. 63

Cup, perhaps Cycladic or Euboean Middle Geometric H. 0.05, Diam. 0.18, Th. 0.005.

W20–23/S117.5–119 To *96.40

Five fragments (three joining) of the rim and body of a cup. Dark brown paint on a pinkish-buff body. Below rim, a band of concentric circles with one line above and three lines below. Then solid dark paint with a trace of a reserved rectangle. Interior, solid paint, slightly streaky.

Middle Geometric proto-kotyle, first half of the eighth century B.C., according to M. Kerschner and N. Aytacılar (personal communication, Sardis, July 1–2, 2016).

STONE

HoB 282 (S64.48) Pl. 63

Large whetstone or polishing stone
H. 0.04, W. 0.05, L. 0.133 m; Wt. ca. 350 g
W20–23/S117.5–119 *97.0–96.40

Rectangular stone with rounded ends. The top dips down in the middle and is smoothed by wear.

To *96.10

HoB 283 (P64.434) Pl. 64

Large shallow bowl
H. 0.05, Diam. 0.29, Th. 0.006.
W21–25/S112.5–119 To *96.10

Large shallow bowl with reddish pendent semi-circles with a dot at center below rim. Clay is buff colored. A pinkish slip over most of it, but reserved on the exterior below the rim. On body, two broad bands in reddish paint. Top of rim and broad band below rim on interior in strong reddish paint. A third band below with standing concentric semi-circles on it.

HoB 284 (P64.437) Pl. 64

Large Black on Red bowl
H. 0.085, est. Diam. 0.41, Th. 0.01.
W21–25/S117.5–119 To *96.10

Wide overhanging ledge rim. Black lines radiating on rim. A checkerboard pattern of crosshatched squares, separated by black lines. Exterior and interior red slipped.

HoB 285 (P12.90) Pl. 64

Black on Red cup rim
H. 0.0343, Th. 0.0045.
W25–27/S110–115 *96.4–96.15

Black on Red cup with nicked rim. Brownish-red micaceous clay. Exterior rim has duller black band followed by a narrow line just below rim; body has two wavy bands with three lines below.

HoB 286 (P64.435) Pl. 64

East Greek bird skyphos
H. 0.035, W. 0.058, Th. 0.004.
W21–25/S117.5–119 To *96.10

Two joining fragments of the wall of a buff-colored cup. Panel with lozenges near top. Then two horizontal lines, with a zigzag below and at least three more horizontal lines. Vertical lines painted at left. Interior: traces of black paint. Bird skyphos, “rotbraun gemalt.”⁶

M. Kerschner (personal communication, Sardis, July 1–2, 2016) calls it an early bird kotyle, although of a different fabric and slip. The use of zigzags rather than butterflies suggests that it is not one of the earlier types. He dates it in the first third of the seventh century or a bit earlier. But this could be intrusive, as the excavator said it was “apparently disturbed by pit.”

HoB 287 (P64.439) Pl. 64

Round-mouthed Black on Red jug
H. 0.055, est. Diam. 0.11–0.12, Th. 0.004.
W21–25/S117.50–119 To *96.10

Rim and neck of jug fragment with concentric circles crossing a band just below rim. Dark band at junction of neck and shoulder. Gray slip inside neck.

HoB 288 (P64.436) Pl. 64

Large East Greek closed vessel
H. 0.067, W. 0.076, Th. 0.008.
W21–25/S117.5–119 To *96.10

The lower body of a jug (?). Dark brown paint on buff clay. Solid black below and a series of bands, thicker and thinner, above. Interior unglazed. Fragment has been burned and discolored.

HoB 289 (P64.442) Pl. 65

White Bichrome jar
Largest fragment: H. 0.15, W. 0.124,
Th. 0.006–0.007.
W21–25/S117.5–119 To *96.10;
W5–15/S115–118 *97.0 floor

Several pieces of the shoulder and body of a white Bichrome jar decorated with patterns set radially around the neck: At top, a white band with checkerboard squares. Then, diagonally cross-hatched checkerboard and diamond patterns, as well as a trace of what appear to be triangular patterns. Below these, separated by a band of white bordered by black lines, is a row of opposed triangles in black over white paint. And below that (with red slipped bands at each level) is another white band bordered by black lines. This piece is more complicated in its organization than most since the shoulder arrangement is not simple alternation but has a third motif in the pattern. Thick white paint over red slipped background, and black lines and patterns over the white paint.

HoB 290 (P64.433) Pl. 65

Gray Ware cup
H. 0.075, Diam. of base 0.05, Th. 0.004.
W21–25/S117.50–119 To *96.10

Flat base and outwardly flaring walls. Bottom heavily worn. Base of the handle preserved. Polished on exterior. Clay has gone pinkish on exterior.

⁶ Cf. Walter 1968, no. 268 and p. 40 for zigzag decoration.

To *95.60

HoB 291 (P64.444) PL. 66

Fragment of Black on Red shallow bowl
Diam. 0.24, H. 0.047, Th. 0.006.
W23.5–25/S117.5–119 To *95.60

Rim of shallow bowl. Purple-black band at rim, with rectangles filled with diagonal crosshatching below. Three bands below that. Polished before painting. Interior polished.

See Hanfmann, "SARDIS 1964," figs. 11 and 12.

HoB 292 (P64.445) PL. 66

Imported Geometric cup
H. 0.022, Diam. 0.2, Th. 0.005.
W23.5–25/S117.5–119 To *95.60

Small fragment of a cup in buff clay with nicked rim. Rim painted on top and exterior with orange-brown paint. On upper body, below rim, concentric circles. Interior painted the same orange-brown (cf. **HoB 281**, although this one is finer).

HoB 293 (P64.443) PL. 66

Shoulder of a Black on Red jug
H. 0.057, W. 0.062, Th. 0.003–0.007.
W21–22.5/S117.5–119 To *95.80

Fragment of shoulder preserves a trace of the turn to the neck. Metopal decoration in Black on Red, made up of four vertical lines alternating with wavy lines. Then two horizontal lines with four horizontal wavy lines made with a multiple brush between them. Polished before painting. Interior unglazed.

HoB 294 (P14.15) PL. 66

Gray Ware lid with impressed triangles
Largest fragment: W. 0.059, L. 0.0455, Th. 0.0085.
E1–W4/S100–15 *96.7–96
W0–3/S98–100 *97.3–96.3
E1–W6/S105–107 To *96.0
W4–6/S87–89 *96.4–96.2

Four body fragments (two joining) of a lightly arched lid, found over a large area. Reddish-gray micaceous fabric. Raised band with impressed triangles alternating between upside-down and right-side-up triangles, evidently made with a rolling stamp. A second row of the same pattern of impressed triangles from farther out on the lid. Exterior polished. Cf. **HoB 296**.

HoB 295 (P83.63) PL. 67

Iron Age cooking pot (Manisa 6676)
H. 0.18, W. 0.16, Diam. at rim 0.13.
W33.30/S94.90 *95.00 ~ found under the
corridor between K and L

An almost complete cooking pot with evidence of burning on the exterior. Vertical handle. Wavy lines incised on the exterior.

The level below the *95.5 floor of Deep Sounding B consisted of the typical mixture of brown earth and larger sand lenses. At the south end, below the stones and pithos sherds mentioned in Deep Sounding A, the dark earth with charcoal continued but became sandier about *95.2 and produced much less pottery. Aside from the pithoi, a typical sample of sherds from the stratum in question might run as follows:

Level *95.2	
Gray monochrome	10–30%
Coarse red	50–60%
Cooking	10–20%
Painted	2–5%
Buff	5–10%

The plain reddish-buff ware, of coarser and finer textures, gave little evidence of attention to surface finish. The plain yellow-buff ware was generally of fine texture. See p. 44.

Gray Ware and Other Monochrome from ca. *97.0 to *94.75**HoB 296** (P14.17) PL. 67

Large Gray Ware bowl with impressed triangles
H. 0.0655, est. Diam. 0.46, Th. 0.01.
W0–5/S95–99 *96.8–96.6

Large bowl fragment with thick, everted rim. Dark gray micaceous clay. Below rim, a thick, raised band with impressed triangles in two rows; the top row had downward-pointing triangles and the bottom has upward-pointing ones. Traces of silvery wash on interior. Both interior and exterior polished. Cf. **HoB 294**.

HoB 297 (P12.9) PL. 67

Heavy Gray Ware bowl with double spool handle
H. 0.063, Diam. ca. 0.38, Th. of wall 0.0166,
Th. of rim 0.019.
W0–6/S93–96 *96.7–96.3

Gray Ware bowl. Ledge rim on exterior appears as a raised band. Spool handle has three raised ridges and deep indentations between them. A further raised portion above ridges has been broken off. Thus, the spools are part of an even more elaborate handle. Polished inside and out, and given a silvery wash on exterior. Shape also found in Black on Red.

HoB 298 (P14.18) PL. 68

Small Gray Ware cup
H. 0.051, Diam. 0.010, Th. 0.005.
W2–5/S102–105 *96.7–96.2 ~ Deep Sounding C

Small steep sided cup with vertical wall that slightly flares; simple tapered rim; curved lower wall bends sharply where it transitioned to a flat bottom. Fine dark gray with some mica. Interior and exterior have silvery wash and are both stick polished.

- HoB 299** (P12.10) PL. 68
 Gray Ware mesomphalic bowl
 H. 0.03, Diam. 0.14, H. of omphalos 0.028.
 W1-E1/S98-101 *97.0-96.6
 Gray Ware mesomphalic bowl with high omphalos. Abrupt carination on exterior at transition from wall to floor. Polished and silvery wash on exterior and interior.
- HoB 300** (P12.11) PL. 68
 Gray Ware mesomphalic bowl
 H. 0.045, Diam. 0.17, Th. of rim 0.003,
 Th. of bottom 0.005.
 W7/S108 *96.6
 Gray Ware mesomphalic bowl with nearly complete profile preserved. Slightly everted rim. Omphalos comes nearly to a point. Polished on exterior and interior. Interior has a silvery wash.
- HoB 301** (P12.19) PL. 68
 Gray Ware mesomphalic bowl
 H. 0.58, H. of omphalos 0.032, Diam. of rim 0.11,
 Diam. of bottom 0.103, Th. of rim 0.0017.
 E4-6/S103-108 *96.75-96.6
 Small Gray Ware mesomphalic bowl with complete profile preserved. High pronounced omphalos. Fine silvery finish over polished surface. A high-quality piece.
- HoB 302** (P12.12) PL. 68
 Gray Ware round-mouthed jug
 H. with handle 0.0995, Diam. of neck 0.09,
 Th. 0.0045.
 W2-5/S102-105 *96.7-96.2 ~ Deep Sounding C
 About half of a Gray Ware round-mouthed jug. Gray fabric with a silvery wash on the exterior; high fired. Thin, nearly pointed rim. A slight indentation at join of neck to body. Oval, high-swung handle. Carinated just below the lower attachment of the handle. Smoothed on exterior.
- HoB 303** (P14.14) PL. 69
 Gray Ware jug handle
 H. 0.0645, W. 0.079, W. of handle 0.056,
 Th. 0.0205.
 E3-5/S104-106 *96.5-95.68 ~ Deep Sounding C
 Wide band handle with accentuated central rib with grooves to either side. Dark grayish clay with some mica.
- HoB 304** (P14.24) PL. 69
 Large Gray Ware jug handle
 W. 0.041, L. 0.097, Th. 0.015.
 W3-5/S98-100 To *96.8
 Gray Ware jug handle made of three coils of clay. Part way up the handle there is a band of clay that is wrapped around the three coils horizontally. Gray clay with some mica.
- HoB 305** (P12.4) PL. 69
 Large Gray Ware krater (?)
 H. 0.145, est. Diam. 0.34, Th. 0.0095.
 W7/S108 *96.6
 Rim, body, and handle of large open shape, unfamiliar at Sardis. Belly, shoulder, and rim form a re-entrant curve. Slight thickening at rim. Round-sectioned horizontal loop handle joins body at curve of shoulder.
 Eighth century B.C.
- HoB 306** (P14.19) PL. 69
 Gray Ware lug handle of large bowl
 W. 0.055, Th. 0.014.
 W22-24/S112-115 *97.0
 Large, horizontal lug handle with vertical perforated hole in center closest to rounded rim; notched at sides. Handle smoothed. Light gray micaceous clay. Small traces of silvery wash. Cf. **HoB 70**.

LYDIAN III: DESTRUCTION LEVEL

BY NANCY H. RAMAGE AND ANDREW RAMAGE

East End

POTTERY

	Level		
	Floors to *97.50	Floors to *97.10	Floors to *97.00
Gray monochrome	30%	50%	40%
Coarse red	30%	30%	40%
Cooking	30%	12%	10%
Painted	10% [†]	3% [‡]	5% [#]
Buff		4 hand-polished sherds	5% [§]
Misc.	Balls of gritty brown clay, rusted iron object		

[†] Black glaze, Lydian banded, and red slip.

[‡] White slip with dark brown bands, Cypriot?

[#] Two Protogeometric; carinated brown with compass half-circles.

[§] Lydian, poor glaze.

HoB 307 (P62.293) Pl. 70

Large Black on Red bowl
H. 0.067, Diam. of rim 0.38, Th. 0.008.
E5/S100 *97.50–97.00

Black on Red bowl with ledge rim. Exterior has a band at the rim that borders a crosshatched square with two bands below. Both interior and exterior are smoothed.

HoB 308 (P61.577) Pl. 70

Black on Red shallow bowl fragment
H. 0.031, est. Diam. 0.36, Th. 0.008.
E5/S90 *96.60–96.30

Sharp carination from rim to body. Just below the bend, two horizontal lines with an irregular wavy line between them. Overlapping pendent semicircles below that. Light brown slipped and polished, interior and exterior.

HoB 309 (P62.299) Pl. 70

Buff cup
H. 0.045, Diam. of base 0.10, Th. 0.003.
E5/S100 *97.50–97.00;
E0/S98 *99.10

Rim, base, and body fragments of a thin-walled cup with flat base and walls flaring slightly toward the simple, tapering rim. Fine, buff fabric painted streaky black on the exterior and interior. Smoothed on exterior and interior.

HoB 310 (P60.565) Pl. 70

Small cup
H. 0.03, W. 0.03, est. Diam. 0.10–0.11, Th. 0.005.
E10–15/S100–105 To *96.80

Small rim fragment of deep cup with delicate slightly everted rim. Light brown, micaceous fabric. Exterior smooth but plain; interior mottled or streaked black.

HoB 311 (P60.534) Pl. 70

Geometric cup
H. 0.03, est. Diam. 0.18, Th. 0.004.
E10/S100–105 Above *96.70

Local imitation of Geometric cup with nicked rim. Exterior and interior, wide purplish band at rim. Vertical bands in reddish paint, unevenly spaced. Hanfmann, "SARDIS 1960," p. 14, fig. 5.

HoB 312 (P60.598) Pl. 70

Greek Geometric krater
H. 0.08, W. 0.065, Th. 0.009.
E10–15/S100–105 To *97.00

Body fragment of an imported Greek Geometric krater. Light brown fabric. Bands of decoration divided by horizontal lines: diagonally hatched meanders, double zigzag, hatched meanders. Interior, horizontal streaking.

M. Kerschner identified this as being Late Geometric, from North Ionia, not South Ionia (personal communication, Sardis, July 1–2, 2016). Similar examples at Samos and a piece at Bayraklı of the same color.

Hanfmann, "SARDIS 1960," pp. 14, 16, fig. 5.

HoB 313 (P60.546) Pl. 70

Black on Red jug or amphora
H. 0.045, W. 0.05, Th. 0.007.
E10–15/S100–105 Above *96.70 floor

Wall fragment of local imitation of Geometric Black on Red jug or amphora. Carination at bend to shoulder. Diagonal crosshatched meander pattern on exterior. Interior unglazed.

Hanfmann, "SARDIS 1960," p. 14, fig. 5.

HoB 314 (P61.576) Pl. 71

Brown on Buff closed shape
H. 0.035, W. 0.05, Th. 0.005.
E5/S90 *96.60–96.30

Shoulder fragment of Brown on Buff. Concentric semicircles with trace of a line above. "Floating" smaller circles with a large round blob in each. Traces of a black band lower on sherd. Fine ware.

HoB 315 (P62.200) Pl. 71

White Bichrome closed vessel
W. 0.0037, L. 0.0041, Th. 0.005–0.006.
E5/S90 *97.20 ~ East End

Tiny white Bichrome (early type) body sherd. Decoration is matt dark and red over white slip.

Exterior, a crosshatched square above a horizontal line, and four crosshatched shapes (squares and a triangle) set at angles to each other below that line.

HoB 316 (P60.571) PL. 71

Black on Red closed vessel
H. 0.063, W. 0.07, Th. 0.005.
E10–15/S100–105 To *96.80

Shoulder fragment of Black on Red jug or amphora with worn paint. Hand-drawn concentric standing semicircles with black band below.

HoB 317 (P60.532) PL. 71

Gray Ware bowl
H. 0.05, W. 0.06, Th. of rim 0.007,
Th. of bowl 0.008.
E10/S100–105 Above *96.70 floor

Everted, rolled rim of carinated Gray Ware bowl. Fine, micaceous clay. Exterior, and especially the interior, highly polished.

HoB 318 (P62.242) PL. 71

Large cooking pot
Diam. of base 0.12, Th. 0.008.
E5/S100 *97.60 floor

Lower body and base of a large thin-walled cooking pot. Bottom is flat. Not as gritty as usual. Burned interior and exterior.

HoB 319 (P62.221) PL. 71

Cooking bowl
H. 0.115, W. 0.153, Th. 0.009.
E5/S100 *97.60 floor

Fragment of a shallow local krater of coarse, reddish-brown cooking fabric with many quartz inclusions. Open bowl with ledge rim; steep walls until curve toward bottom. Exterior had a smoothed wet finish. Interior polished.

HoB 320 (P62.267) PL. 72

Lid of cooking pot with semicircular spoon cutout
Diam. 0.14, W. of scoop cutout 0.055, Th. 0.009.
E5/S100 *97.60–97.20

Two joining fragments of a cooking pot lid with a curved spoon cutout. Red clay body. Two scars of a vertical loop handle. Complete except for the handle. Sides of lid slanted. Heavily burned on interior and exterior.

HoB 321 (P62.298) PL. 72

Gold Dust ware lid
H. with handle 0.07, Diam. of lid 0.14, Th. 0.007,
Diam. of loop 0.055.
E5/S100 *97.50–97.00

Large, vertical ring handle in center of the flat lid. Coarse fabric with gray core. Nine small raised ridges encircle the handle. Fine mica wash on exterior. Traces of burning on the underside and the handle.

HoB 322 (P61.574)

PL. 72

Ephesianizing rim
W. 0.06, L. 0.03, Th. 0.008.
E5/S95 *97.50–96.50

Rim fragment painted on both sides. Black and red on white slip ground. Exterior: A red band with black bands at top and bottom and vertical strokes between.⁷ Then two more black bands, spaced farther apart, with squares and rectangles within a metopal pattern; a further black band below that. Interior has radiating lines, alternating black and red in groups of four strokes. Some of these strokes continue over the edge onto the exterior. Then a pattern as on the exterior, and below that a black line, from which hang squares with alternating black and red chevrons, and a red hatched area with black squares around it. This Ephesianizing fragment probably dates to the seventh century, and must be intrusive, or found at the highest of these levels.

	Level				
	To *97.50	To *97.10	To *97.00	To *96.80	To *96.70 floor
Gray monochrome	30%	50%	40%	50%	50%
Coarse red	30%	30%	40%	45%	40%
Cooking	30%	12%	10%		5%
Painted, Slipped, Buff, Misc.	10%		10%	5%	5%

HoB 323 *vacat.*

BONE

HoB 324 (BI61.31)

PL. 72

Bone toggle (Manisa 6702)
L. 0.036, W. in center 0.009.
E4/S88 *96.89

Elongated oval bone toggle, perforated through the middle. Incised decoration of diagonal crosshatching and triangles, separated into five bands across the object. Shows wear around the central hole.

Central Area

POTTERY

HoB 325 (P66.25)FRONTISPIECE OF VOL. I,
PLS. 74, 75

Red on White high-stemmed dish (Manisa 5346)
H. 0.135, Diam. of rim 0.22, Diam. of foot 0.11.
W3/S102 *97.6

Nearly whole Red on White stemmed dish with complete profile. Interior decoration from rim: band at rim with pendent concentric semicircles; band

⁷ Cf. Greenewalt 1973, p. 98, no. 13.

with standing concentric semicircles; three more bands; band with pendent concentric semicircles; at middle, circle with crosshatched triangles inside and standing concentric semicircles on the outside perimeter. Exterior: band at rim with concentric pendent semicircles; two closely spaced bands with standing concentric semicircles on topmost band; two sets of closely spaced bands; stem painted with bands. Interior and exterior heavily burned. The true colors preserved on part of the stem.

HoB 326 (P65.272) Pl. 73

Black on Red low-stemmed bowl
H. 0.10, Diam. of rim 0.22, Diam. of foot 0.08,
Th. 0.005.
W1/S101 *97.40

Nearly whole Black on Red shallow bowl with nearly complete profile. Made of buff fabric. One small horizontal loop handle is close to the rim. Interior is decorated with a series of evenly spaced crosshatched squares. Band with concentric pendent semicircles below. Center is worn. Exterior has concentric pendent semicircles below the rim. Exterior and interior are smoothed and are heavily burned, particularly around the edges. Since the center is not burned, the pot must have broken and the pieces scattered before burning.

Analyzed by M. Kerschner (sample Sard 46).

HoB 327 (P61.494) Pl. 76

Black on Red bowl or dish
H. 0.041, Th. 0.007.
E5/S95–100 *97.60

Fragment of bowl or dish with rounded rim. A band with pendent semicircles runs along the rim on the exterior. One of these has a thick line where the brush got out of control. Below the slight carination, a band with concentric semicircles resting upon it. Semicircles are done with a four-tipped multiple brush, drawn without a compass, and with a short line in the center (rather than the usual dot) of each. Both exterior and interior are polished.

HoB 328 (P65.276) Pl. 76

Carinated Bichrome bowl
H. 0.08, W. 0.07, Th. 0.006–0.018.
W0–5/S101–103 *97.4 floor

Bichrome bowl has a horizontal line below the carination with a series of pendent concentric semicircles, drawn without a compass. Above the carination, a band of fugitive white slip with four short vertical lines and a trace of two more above another line. Interior is plain buff. Both sides polished.

HoB 329 (P62.239) Pl. 76

Rounded skyphos
H. 0.08, Diam. of rim 0.125, Diam. of foot 0.05.
E1/S96 *97.60–97.20

Complete profile of a wide rounded skyphos. Slightly inturned rim and flaring ring foot. One horizontal loop handle preserved. Purplish body with streaky black polish on both interior and exterior.

HoB 330 (P62.297) Pl. 76

Skyphos
H. 0.038, est. Diam. 0.12–0.14, Th. 0.003.
E5/S100 *97.50–97.0

Horizontal loop handle and rim of thin walled skyphos. Grayish-brown on exterior and reddish-buff on interior. Slightly inturned rim. Exterior is smoothed and interior is polished.

HoB 331 (P68.67) Pl. 76

Black on Red round-mouthed jug
Diam. of body 0.11, Diam. of neck 0.097, H. of
neck 0.004, Th. 0.005 (0.003 at rim), est. Diam.
of foot 0.06, W. of handle 0.017.
W13/S99 *97–96.8;
W10–15/S95–100 To *96.9

Black on Red jug. Buff-red micaceous clay. Vertical rim, slightly flaring toward [missing] spout. Globular body with splaying ring foot. Vertical handle, oval in section. Exterior: small concentric circles in a row around the neck and another row on the body, each consisting of only one large and one small circle within. Interior plain.

Phrygian influence.

Gürtekin-Demir 2014, no. 11. A Phrygian shape but no reason to think it is not a Lydian product.

HoB 332 (P65.220) Pl. 77

Black on Red “loose style” jug
H. 0.12, Diam. of neck 0.045, Diam. of body 0.15,
Diam. of base 0.075, W. of handle 0.025.
W1/S102 *97.40

Globular jug with flat base, much worn. One vertical band handle. Two black bands around shoulder of jug between which are crosshatched squares. Reserved spaces between squares are triangular. Another register of two bands with crosshatched squares is below. The final register, below the handle, consists of a band with a series of hand-drawn pendent concentric semicircles. This last register of decoration is not consistently level around the circumference of the jug. Discolored from burning.

HoB 333 (P66.69) Pl. 77

Bichrome jar
H. 0.11, W. 0.23, Th. 0.21.
W7/S91 *96.5

Shoulder fragment of large Bichrome jar with black and white paint on red slip. Buff fabric with pebble inclusions. Oval scar of a vertical band handle.

Most of the background of this pot is white. A black band runs along the vessel at the handle attachment, dividing an area of red slip with traces of semicircles painted white from another register of decoration consisting of a series of circles with a smaller circle inside; each of the circles is connected by five groups of six radial lines painted with a multiple brush. The larger circles are then all linked to each other by six lines painted with the same multiple brush. Set in between the circles are much smaller concentric circles with a dot in the center of each. Trace of a black band remains below the register of circles.

A unique design among Sardis finds.

HoB 334 (P13.21) Fig. 1.15, PL. 77

Bichrome jar with circle designs

H. 0.052, W. 0.075.

W9-14/S94-100 *97.4-97.1

Black on white slip on thick-walled fragment with red slip. Large circles with curved lines within. Two large black circles with two parallel curved lines (partial semicircles) facing in one direction, and presumably two facing in the other direction (only one preserved). Smaller concentric circles with a central dot between the large ones. Compare to a fragment from PC by the same painter, **PC 29**.

See Ramage 2018, p. 240 and fig. 13.

HoB 335 (P18.63) PL. 77

Ephesianizing rim

H. 0.023, W. 0.05, est. Diam. of rim 0.28

W6-13/S91-95 *97.2-96.4

One tiny piece of imitation Ephesian. White band on interior bordered by a horizontal line above and below. Short vertical black lines painted between the horizontal ones (dogtooth pattern).

HoB 336 (P65.274) PL. 78

Banded, flaring buff foot

H. 0.055, Diam. of foot 0.19.

W0-5/S101-103 *97.4

Flaring foot with thick red band around the base. Buff fabric. A small, raised ridge marks where the painted band ends. Three, thinner bands alternating with reserved bands. Traces of a thick band remain at uppermost break. Exterior polished. Discoloration due to fire.

HoB 337 (P66.37) PL. 78

Gray Ware trefoil jug

H. 0.10, W. of trefoil 0.135, L. of trefoil 0.155,

Th. 0.007.

E0-5/S105-107 To *97.1

Trefoil mouth and neck of a large Gray Ware jug with silvery wash. Spout of trefoil is pronounced and narrow. Evidence of handle attachment indicates a band handle running from rim to shoulder.

HoB 338 (P65.273) PL. 79

Gray Ware krater with mending holes

H. 0.185, Diam. of outer rim 0.54, Diam. of inner loop handle 0.023, L. of vertical spool or strut 0.08, Th. 0.09 × 0.013.

W0-5/S101-103 *97.4 floor;

W0-6/S98-101 To *97.4

Many fragments, some joining, of a large carinated, thick-walled krater that sustained discoloration from heavy burning. Wide ledge rim, ridged on the underside. Spool handle with loop rising vertically from the rim. A narrow decorative ridge from rim to carination on exterior. A series of mending holes extends from rim vertically down the body of the vessel. Polished.

HoB 339 (P65.221) Fig. 1.4, PL. 79

Gray Ware lid

H. 0.05, Diam. of rim 0.54, Th. 0.008.

W2-5/S97-101 *97.4

Large, domical Gray Ware lid with inward-turned rim. Coarse, dark clay. Stump of handle remains; presumably a matching one on the other side. Reconstituted from pieces found at several spots in the Central Area. Imprint of yarn around the edge; apparently decorative in purpose. The inside retains strong indications of throwing marks while the outside shows much more hand working. Fragments of the lid indicate heavy burning. As there was no sign of a bowl to go with it, this may have been specifically for smoking food over a fire.

HoB 340 (P66.35) PL. 80

Gray Ware lid

H. with handle 0.045, Diam. 0.105, Th. 0.006;

cutout 0.03 × 0.04 × 0.01.

W9-14/S93-95 *97.7-97.5

Small, circular lid with band handle. Gritty, micaceous fabric. A spoon or ladle slot cut from the edge of the lid on axis with the handle. Wet-smoothed on upper surface; underside roughly scraped.

HoB 341 (P62.288) PL. 80

Dark Gray Ware jug

H. 0.185, W. of band handle 0.03, Diam. of body 0.17, Diam. of base 0.075.

E0/S98 *97.10

Nearly complete Gray Ware jug. Raised band at join of shoulder and neck. Thin-walled mouth. Globular body with flat base. Band handle attaches from the rim to the shoulder. Surface has been well smoothed.

HoB 342 (P65.270) PL. 80

Coarse gray jar
H. 0.086, Diam. of rim 0.075, Th. 0.01,
W. of handle 0.04.
W0-5/S101-103 *97.4

Neck, shoulder, and handle of jar. Coarse fabric with heavy inclusions. Small neck with ridge running along join where it meets shoulder. Two loop handles on shoulder. Part of one vertical band handle, along with evidence for a second corresponding handle. Signs of burning on both interior and exterior.

HoB 343 (P14.34) PL. 81

Gray Ware handle
H. 0.109, W. 0.0295, Th. 0.0235.
W7-9/S100-105 *97.5-97.2

Handle made of three coils of dark gray mica-ceous clay. Triple round handle with two larger coils supporting a smaller one on top; the smaller band of clay is flanked by two bosses at its base. Highly polished.

HoB 344 (P13.33) PL. 81

Spout of a Gray Ware baby feeder
L. 0.026.
W2-5/S105-110 *97.2

Only the spout preserved. Round in cross section.

Tabulation of the Eastern Part of the Central Area:

	Burned matter under *97.6 floor
Gray monochrome	50%
Plain red and buff	30%
Pithos	5%
Cooking	5% [†]
Painted and finer wares	10%

[†] Many pieces showing severe burning; one with corroded copper adhering.

HoB 345 (P65.271) PL. 81

Imported Brown on Buff large metopal deep bowl
H. 0.06, est. Diam. 0.25-26, Th. 0.005,
Diam. of boss 0.015.
W0-5/S101-103 *97.4

Brown on Buff bowl. Simple rim with rounded lip. Exterior of bowl has a series of ten painted vertical lines that alternate with five vertical wavy lines. These lines are bordered at the lower side by three thicker horizontal bands that encircle the body. Two applied decorative "handles" (of three?) were made of at least two vertical applied cylinders, stuck together and flattened; traces of a third at the break. Probably there were originally four of these cylinders on the false handles (cf. **HoB 352**). A raised boss near the rim, directly adjacent to a series of vertical lines. The interior of the vessel is painted in red bands with a particularly wide band at

the rim that carries over to the exterior rim. There is a second painted band below. Vessel bears traces of burning. Interior and exterior are smoothed. The color of the clay is not typically Lydian.

HoB 346 (P62.251) PL. 82

Imported Geometric painted bowl
H. 0.05, Diam. 0.14, Th. 0.03.
E3/S97 *97.20

Rim sherd of bowl (or skyphos?) with nicked rim. Exterior painted with black on a buff surface. Scheme shows three "metope" lines at left side; in center, a vertical rectangle filled with a network of lozenges with smaller lozenges inside; then an adjacent rectangle subdivided into an upper register of animals (birds? horses?) and a lower register of false meanders. Single black line around rim. Interior black streaked.

Ernst Langlotz (personal communication to C. H. Greenewalt, jr., August 29, 1970) thought there were similar pieces in Cos. M. Kerschner identified this as the standard fabric of Teos, and dated it in the third quarter of the eighth century (personal communication, Sardis, July 1-2, 2016).

HoB 347 (P66.64) PL. 82

Greek Geometric cup
H. 0.025, est. Diam. 0.12-0.14, Th. 0.003-0.005.
W0-3/S98-100 *97.3-96.3

Small fragment of Greek Geometric cup (bird skyphos group). Fine, buff clay with dark inclusions. Part of geometric tree design with three vertical lines to right. Dark band at rim. Interior dark.

M. Kerschner assigned this to the second half of the eighth century.⁸

HoB 348 (P68.50) PL. 82

East Greek bird skyphos
H. 0.055, Diam. of rim 0.17, Th. 0.005.
W15.5/S101.5 *97.0

Bird skyphos with nicked rim and a black band. Fine buff clay. Exterior below band at rim is a metopal frieze with a geometric tree and cross-hatched bird separated by vertical lines. Interior painted dark. Both exterior and interior polished.

According to Cook and Dupont 1998, dated to 700-675 B.C. M. Kerschner (personal communication, 2016) said this piece would be fourth quarter of the eighth century or first quarter of the seventh century; and the fabric would be standard for Teos.

HoB 349 (P66.39) PL. 82

Corinthian Geometric linear kotyle
H. 0.043, Diam. 0.14, Th. 0.003.
W2-6/S87-91 *96.6

Fragment from the rim of a kotyle, with a portion of the handle frieze. Clay is hard, fine, and smooth.

⁸ Cf. Cosgun Özgünel, Late Geometric pottery from Smyrna.

Exterior: a line of glaze on top of the lip and two horizontal lines of glaze below. In the handle frieze, vertical lines flank two opposed triangles (this familiar pattern is variously referred to in the literature as either “bar and butterfly” or “double axe”) with vertical lines at left and right. Portions of two vertical lines preserved on the left, ten on the right. Three horizontal lines below the handle frieze. Interior, a reserved line near the rim; remainder of the interior is glazed dark brown. Coldstream (private correspondence, February 1990) placed the piece “comfortably within LG.” Coldstream dates LG between 750 and 720 (Coldstream, *GGP*, p. 237). Therefore the Sardis rim fragment probably dates ca. 740–730.

Sardis M10, cat. Cor 2.

HoB 350 (P96.27) Pl. 82

Corinthian kotyle
H. 0.06, W. 0.055.
E5–W10/S90–108 *97.5

Two joined fragments from the rim to mid-body of a Corinthian kotyle. Exterior: three horizontal lines near the rim. Vertical bars and dabs in the handle zone. The body is glazed on the exterior and interior. Glaze on exterior is worn away in the handle zone, but black immediately below and dark brown on the body.

620–610 B.C. Probably intrusive to this floor.

Sardis M10, cat. Cor 71 (Corinthian transitional skyphos).

HoB 351 (P65.222) Pl. 83

East Greek krater
H. of wall from rim 0.072, W. of handle 0.04,
W. of foot 0.065, Diam. of foot 0.18.
W2–5/S97–101 *97.4;
E5/S95 *98.0–97.60;
E5/S100 *97.50–97.00;
W2–5/S97–100 *97.4;
W0–5/S101–105 *97.4;
W4–6/S98–101 To *97.4;
W0–5/S101–103 *97.4;
W3–6/S101 *97.8–97.6;
W1–5/S94–100 *97.4–97.2;
W3/S97 *97.2;
W1–4/S93–96 *97.6–97.2;
W1.5–5/S94–96 *97.6

Large krater, imported. Everted rim, with repeated pattern of radiating straight lines made with a nine-tipped multiple brush on the flat top of the rim. Exterior: painted with a wide band below rim, covering short neck. Wide reserved panel (0.07 high) between handles is decorated with groups of small concentric circles in groups of three with vertical wavy lines ending in a hook at the bottom between circles. Handle area is painted black. Wall of body has at least three wide reserved bands, each

with three horizontal lines painted in a diluted glaze. Bands of Brown on Buff fabric alternate with reserved bands, and these continue on the foot. The band on the bottom of the foot is particularly thick followed by three thinner lines. A raised ridge runs along the foot within this band. Additionally, the interior had thick bands that are spaced further apart than those on the exterior. Exterior is polished.

Analyzed by M. Kerschner (sample Sard 48), and by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3771).

HoB 352 (P65.260) Pl. 84

Krater/bowl on high foot
H. ca. 0.17, Diam. of rim 0.24, Diam. of foot 0.12,
Th. 0.006, Handles 0.025 × 0.03.
W0–5/S101–103 *97.4 floor

A krater or bowl. The rim is slightly inturned. At the rim, a square-shaped handle is preserved in the form of four small, flattened vertical bands. A second handle is proposed on the reconstruction drawing. Vessel is decorated with bands of reddish-orange paint that vary in width. Exterior: the upper half is reserved. One wide band, and two narrower ones below, and the foot is painted as far as the lower reaches of the bowl. Interior, a large painted band that extends from the body of the vessel up over the rim; three more bands below this. Interior and exterior are both polished. The vessel was exposed to fire toward the base, resulting in discoloration. The clay is not typically Lydian.

HoB 353 (P66.41) Pl. 85

Greek Geometric krater
H. 0.067, W. 0.065, Th. 0.008.
W4/S94 *96.4

Fragment of belly of a Greek Geometric krater. Buff clay with fine black inclusions; little mica. Exterior: brown paint on smooth, buff slip; small panels arranged in bands with meanders, zigzags, and vertical lines. Also a band of horizontal zigzags. Interior has shades of brown.

This is the standard fabric for Teos, and should be dated in the Late Geometric period, second half of the eighth century, according to M. Kerschner (personal communication, Sardis, July 1–2, 2016).

HoB 353A (P17.3) Pl. 85

East Greek krater fragment
Est. D. 0.30–0.34, pres. L. 0.10.
E4–6/S104.5–111 *97.74–97.64

Three fragments (two joining) of an East Greek banded krater, found 13 meters apart; A. Ramage noticed the join nineteen years after discovery.

HoB 354 (P16.36) PL. 85

Imported Black on Red globular vessel
H. 0.055, W. 0.059, L. 0.063, Th. 0.003–0.004.
E5–W10/S90–S108 *97.5

Three fragments, joining, of globular vessel. Fabric is reddish-yellow. A portion of the belly and the beginning of the neck of a delicate pot. Thin horizontal lines throughout, interrupted by two reserved bands: the upper one, below neck, with an alternating pattern of five vertical lines and a dot in the resultant reserved square; and the lower, with a rudimentary dogtooth pattern made by short lines that jut upward, alternating with lines that jut downwards.

Analyzed by M. Kerschner (sample Sard 19), and by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 941).

Same findspot as **HoB 350**.

HoB 355 (P62.294) PL. 86

Corinthian Geometric trefoil jug (Manisa 4951)
H. 0.0194, Diam. of neck 0.035, Diam. of
shoulder 0.085, Diam. of belly 0.125, Diam. of
foot 0.080 Th. of neck 0.007, Th. of belly 0.005.

E5/S100 Ca. *97.50–97.00;
W2–52/S97–100 *97.4 floor;
E5/S100 *97.4 floor;
W0–1/S94–95 To *96.0;
W2/S98 *97.2

A nearly complete, but heavily mended, Corinthian Geometric jug. Yellow-buff fabric. Long, narrow neck with band handle attached at the rim and shoulder. Globular body with flat base. Solid black glaze on the trefoil mouth. Black glaze on the mouth, a portion of the neck, and an area of the shoulder misfired to red. Bands of black glaze on the neck, shoulder, and body, and on the exterior of the handle. At the level of the handle attachment to the shoulder is a wide band of black glaze with reverse sigmas in groups of six, painted in a fine solution of yellow clay (description from Schaeffer, *Sardis* M10, p. 19, cat. Cor 1). Solid black glaze on the lower part of the body and on the ring of the foot.

J. N. Coldstream (private correspondence, February 16, 1990) dates the jug to “the early years of Late Geometric,” in part on “the grouping of the sigmas with empty spaces in between.”

Hanfmann and Mierse, *SPRT*, p. 29, fig. 38; Hanfmann, “SARDIS 1965,” p. 10. Cf. a similar piece from Aetos: Benton 1953, pl. 58, no. 972, pointed out to us by K. DeVries. The decoration is comparable to Weinberg 1943, no. 104, pl. 15 (dated LG). The type developed from MG II examples. See Coldstream, *GGP*, pl. 18:a (Corinth Museum T2455).

HoB 356 (P65.269) PL. 87

Painted Milesian transport amphora
H. 0.20, Diam. of rim 0.20, Th. 0.007,
W. of handles 0.038.

W0–5/S101–103 *97.4 floor

Neck, handle, and shoulder of a coarse Milesian transport amphora. Gritty body with yellowish slip and red paint. Thick ledge rim and two handles connecting from the neck to the shoulder. Thick red band around the rim and part of the neck. At the top of each handle, a thick band that comes down on both sides, but does not encircle the handle. At the base of each handle, a circular band. Going down the length of each handle are two interlaced lines. Two red bands encircle the lower neck. On the shoulder, a thick red line that splits into two curves on the top, with another set of two curves further down, the whole suggestive of a tree. Three incisions on the handle made while wet. Discoloration due to burning.

Late eighth century. Angular profile a bit unusual, according to M. Kerschner.

Compare Bessios, Tzifopoulos, and Kotsonas 2012.

HoB 357 (P65.192) PL. 87

Two sherds of white fabric, imported
Larger sherd: H. 0.038, W. 0.038, Th. 0.003–0.006;
Smaller sherd: H. 0.023, W. 0.021, Th. 0.002.
W0–2.5/S99.5–101.5 *97.5;
W3–6/S102–105 *97.5–97.3

White fabric, open vessel. Thin-walled and fine fabric. Vertical rim. Highly polished on both exterior and interior.

TERRACOTTA

HoB 358 (T12.10) PL. 88

Wattle and daub wall or ceiling chunks with reed impressions

Largest: W. 0.06, L. 0.045, Th. 0.037;
Smallest: W. 0.037, L. 0.022, Th. 0.011.
W5–7/S99–100 *98.1–97.6

Reddish-buff, coarse micaceous lightly baked clay with reed impressions. All run parallel to one another. Evidence of burning.

HoB 359 (T12.13) PL. 88

Wattle and daub wall or ceiling chunks with reed impressions

Largest: W. 0.061, L. 0.045, Th. 0.022;
Smallest: W. 0.052, L. 0.045, Th. 0.022.
W1.5–5/S94–96 To *97.6

Reddish-buff, coarse, micaceous lightly baked clay with most reed impressions running parallel to one another. Evidence of burning.

HoB 360 (T12.8) PL. 89
Wattle and daub wall or ceiling chunks with reed impressions
Largest: W. 0.07, L. 0.05, Th. 0.021;
Smallest: W. 0.0375, L. 0.015, Th. 0.019.
W4-6/S96-97 *98.2-98, burned floor
Reddish-buff, coarse, micaceous lightly baked clay with reed impressions all appear to run parallel to one another. Evidence of burning.

HoB 361 (T12.9) PL. 89
Wattle and daub wall or ceiling chunks with reed impressions
W. 0.0575, L. 0.039, Th. 0.0385.
W2-5/S97-99 *97.4-97.1
Reddish-buff, coarse, micaceous lightly baked clay with reed impressions running parallel to one another.

METAL

HoB 362 (M11.3) PL. 89
Bronze tweezer fragment
W. 0.013, L. 0.0532, Th. 0.002.
W6-10/S90-93 To *97.3
Shaft of a pair of bronze tweezers, mended from three smaller fragments. Tapered shaft, flattened. Rectangular in section.

HoB 363 (M84.9) PL. 89
Bronze fibula
W. 0.021, L. 0.023, Th. 0.012.
E4/S111 *97.60
Bronze high-arched fibula with a large, round ball; triple coil spring; catchplate is partly preserved. Solid cast.
Caner, *Fibeln*, type V.

HoB 364 (M17.6) PL. 90
Iron knife
L. 0.10, max. W. 0.014.
E5/S100 *97.5-97.0
Iron knife blade. Three joining pieces. Heavily corroded. Concave edge tapered towards point. The other end slopes up and widens towards a flat edge.

HoB 365 (M17.7) PL. 90
Iron object
L. 0.16, W. 0.033-0.041.
W2-5/S97-99 *97.4-97.1
Heavily corroded iron object with rectangular sides.

HoB 366 (M15.6) PL. 90
Iron hook
H. 0.15, W. 0.12, Diam. 0.105, Th. 0.01.
W0-5/S101-103 On *97.4 floor
Hook has a rounded shape, about four-fifths of a circle. It is wider at the bottom and tapers toward the ends. Corroded.
Eighth century.
Sardis M8, cat. no. 942.

HoB 366A (M17.8) PL. 90
Iron points, three or four
Longest single element ca. 0.04 × 0.004.
W1/S101 *97.4
Iron points corroded onto rim sherd. Round section. Objects are pointed at both ends.

BONE

HoB 367 (BI66.2) PL. 90
Bone knife handle
W. 0.015, L. 0.07, Th. 0.005, Nail 0.013 × 0.007.
W0-3/S98-100 *97.3-96.3
Cut bone in a rectangular shape that tapers toward the direction of where the knife blade would be. Toward the knife blade end of handle is an iron rivet.

IN ASSOCIATION WITH THE HUMAN REMAINS FOUND IN A SHALLOW HOLE

HoB 368 (P68.27) PL. 91
Black on Red plate
H. 0.055, Diam. 0.34, Th. 0.006.
W6-8/S90-94 *96.0-95.8
Fragment of Black on Red plate with slightly in-turned rim. Interior, a register below the rim demarcated by two thick lines with five wavy horizontal lines in between. Below this is a metopal arrangement with groupings of six vertical wavy lines alternating with reserved spaces. Exterior, below the rim are the same group of six horizontal wavy lines between two bands, as on the interior. From the lower band, a series of pendent concentric semicircles. The red is a rich dark color. Both interior and exterior are polished.

HoB 369 (P68.6) PL. 91
Round-mouthed Bichrome jug
H. 0.09, H. with handle 0.145, Diam. of rim 0.12, Th. 0.003.
W6/S91 *96.1
Round-mouthed Bichrome jug with a wide mouth and high narrow strap handle. Two black lines below rim and another at bottom of high neck. The white band on the sharply carinated shallow body is decorated with alternating concentric circles in red with a central dot, and vertical groups of four black lines. Lower body undecorated, but exterior was burnished. Handle had panels of parallel vertical lines alternating with plain red slip. A black line painted along the two edges of the handle. Interior, traces of small pendent concentric semicircles below rim. Foot was broken off and smoothed for continued use after breakage. A Phrygian shape.
Gürtekin-Demir 2014, no. 14.

HoB 370 (P68.7)

Pl. 92

Large Bichrome stand

H. 0.13, Diam. of foot 0.20, Diam. of stand at upper break 0.10, Th. 0.01.

W7-8/S90-92 *96.1

Thick-walled base with flaring foot that transitions into a cylindrical neck. Painted on exterior with red and black paint on a white ground. On the cylindrical neck, outlined in black: vertical rectangles filled with diamonds made by diagonal intersecting lines in rows of white and red; another of white and red checkerboard; another with a large square with smaller squares of checkerboard alternating with reserved white; a rectangle filled with diamonds, and a rectangle filled with checkerboard. At the base of the neck, a raised ridge with a red band surrounded by two black bands. The flaring foot has two registers of decoration: the upper is decorated with unevenly spaced outlines of circles with a dot at the center. On the lower register, red upside-down triangles outlined in black, which together make a zigzag, rest upon a black band.

HoB 371 (P68.30)

Pl. 92

Black on Red stand or base

H. 0.245, Diam. of foot 0.33, Diam. at break of neck 0.115, Th. 0.01-0.02.

W6.5-9/S90-93 *96.3-96.0;

W6-8/S90-94 *96.0-95.8;

W7/S92 *95.8;

W7-8/S91-92 *95.7

Thick-walled conical Black on Red base with flaring foot. Strong colors of both the rich black paint and dark red clay. Seven horizontal lines, unevenly spaced along the base. Within the bottom two registers made by these lines are groups of six vertical lines made with a multiple brush.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3776).

HoB 372 (P12.25)

Pl. 91

Cooking pot with high handle

H. 0.108, H. with handle 0.135, Diam. of rim 0.12, Th. 0.006.

W6.5-9/S90-93 *96.3-96.0

Four joining fragments of high-handled cooking pot. Gray coarse micaceous clay with quartz inclusions. Band handle has two slightly raised ridges. Outwardly flaring rim with vertical profile. Globular body, much blackened by smoke.

HoB 373 (G68.1)

Pl. 92

Dark glass bead

H. 0.007, Diam. 0.011, Diam. of piercing 0.005 m.

W7-8/S90-92 *96.1

Small amber and black circular bead with a punctuated circular center. Lustrous on the surface.

Von Saldern, *Sardis M6*, no. 860.

Floor at W0-5/S98-101 *97.6-97.4

A "cache" of pots in what was perhaps a pit, under Floor, at W0-5/S98-101 *97.6-97.4. This cache, similar to a "puppy burial," includes **HoB 374**, **HoB 375**, **HoB 376**, and **HoB 377**. See Figs. 5.15 and 5.16.

However, this group did not contain an iron knife or canid bones, and was therefore rejected by Greenewalt in his study of these assemblages (Greenewalt and Payne, *Ritual Dinners*, p. 27, no. 1).

HoB 374 (P66.26)

Pl. 93

Black on Red low stemmed dish

H. 0.105, Diam. of rim 0.22, Diam. of foot 0.10, Th. 0.006.

W0-5/S98-101 *97.6-97.4

Deep bowl or dish with low flaring foot. Exterior: a series of standing concentric semicircles on a line. Interior, two thick lines with a series of evenly spaced crosshatched squares composed of thick lines that sometimes obscure the reserved little squares within the crosshatching. This motif of crosshatched squares within two lines repeats a second time, with a heavily abraded additional line toward the center. Part of a cache with **HoB 375**, **HoB 376**, and **HoB 377**.

Analyzed by M. Kerschner (sample Sard 47).

HoB 375 (P66.29)

Pl. 94

Black on Red jug

H. 0.11, Diam. of body 0.14, Th. 0.005.

W5-E0/S98-101 *97.6-97.4

Nearly spherical jug. Buff fabric. Traces of Black on Red decoration on much worn surface. Recessed lines appear on opposite sides of the shoulder but do not join nor do they go around the entire circumference of the vessel. Smooth scar of oval, vertical band handle on shoulder. No rim or foot preserved. Exterior much worn. Interior plain. Part of a cache with **HoB 374**, **HoB 376**, and **HoB 377**.

HoB 376 (P66.27)

Pl. 94

Gray Ware round-mouthed jug (Manisa 6592)

H. 0.155, H. with handle 0.17, H. of neck 0.042, Diam. of rim 0.26, Diam. of foot 0.097, Th. 0.005-0.008.

W0-5/S98-101 *97.6-97.4

Fine Gray Ware jug with vertical round handle. High, flaring neck with vertical rim. Spherical body with small, flaring ring foot. Similar to Phrygian models. Fine polished surface. Part of a cache with **HoB 374**, **HoB 375**, and **HoB 377**.

HoB 377 (P66.28)

Pl. 94

Small Gray Ware jug

H. 0.17, Diam. of body 0.15, Diam. of base 0.08, Th. 0.007.

W0-5/S98-101 *97.6-97.4

Globular jug with flat base and vertical band handle. High, narrow neck. Original surface well smoothed, now worn away. Part of a cache with **HoB 374**, **HoB 375**, and **HoB 376**.

HoB 378 (T66.2) Pl. 95

Hearth stand for a pot
 H. 0.135, H. with handle 0.15, Diam. of rim 0.20,
 Diam. of bottom edge 0.26; W. of handle 0.05.
 W0-5/S98-S101 *97.6-97.4

About a third of a hearth stand with a band handle and two [of three] triangular supports for a pot. Smooth edge of stand (for letting in air to the coals) preserved. Rough reddish fabric. Surface blackened from use inside and out.

South Side

POTTERY

Pottery analysis from two contiguous areas indicates that the proportion of different wares and imports gives a good idea of the chronological horizon that fits well with the impression gained from the imports in the Central Area that have already been described:

Associated with fragments of 1½ boxes (the foundations: floor rises to east):⁹

W4-15/S112-118 *97.00 Extending expanse of *97 floor to North:

*97 floor	
Gray monochrome	50%
Coarse Red	30%
Cooking	3%
Painted	10%

There is a considerable patch of burned floor¹⁰ that produced about half a box of pottery:

*97 floor	
Gray monochrome	40%
Coarse Red	20%
Cooking	20%
Painted	10%
Buff	10%
Misc.	

50% Gray; 15% Cooking; 15% plain; 20% Painted
 1 piece Lydian Geometric plate rim, concentric semicircles, Brown on Buff
 3 pieces, joining, of a high sloping foot of a large vessel, Brown on Buff

HoB 379 (P70.18) Pl. 96

Black on Red stemmed dish
 H. 0.09, est. Diam. of rim 0.21-0.215, Diam. of foot 0.08, H. of foot 0.038, Th. 0.003.
 W8-10/S113-117 *97.0 floor

Black on Red stemmed dish with simple rounded rim. Thick clay tapers toward stemmed disk foot.

Interior gray (discolored) with black band at rim; concentric semicircles hang from this band. At mid-bowl a central line with a series of offset concentric semicircles that give the impression of a wave pattern undulating around that line. In center of bowl are concentric circles. Exterior, a narrow band below rim with pendent concentric semicircles. Streaked black to brown, less paint around base. Not whole, but many fragments join. Cf. **HoB 325**.

HoB 380 (P64.358) Pl. 96

Black on Red bowl
 H. 0.05, Diam. 0.22, Th. 0.007.
 W24-25/S118-119 *97.0-96.7

Black on Red rim of a shallow bowl. Top of rim painted black. Pendent concentric semicircles with a dot in the center on exterior. Interior, black band below rim, and sets of vertical wavy lines painted with a multiple brush between that band and another one closer to the center; a trace of additional decoration below that. Both interior and exterior have a polished surface.

HoB 381 (P70.19) Pl. 96

Lydian imitation of Greek cup
 H. 0.055, Diam. ca. 0.20, W. of stump 0.03,
 Th. 0.007.
 W8-10/S113-117 *97.0 floor

Fragment of a Lydian cup imitating a Greek Geometric cup. Stump of horizontal loop handle remains. Rim is nicked. Red paint around exterior and part of interior of rim; large band of paint covers part of the stump; interior is pitted and not painted. Clay is gray toward center and red toward edges.

HoB 382 (P70.20) Pl. 96

East Greek Geometric cup
 W. 0.04, L. 0.36, Th. 0.004.
 W5-8/S112-116 *97.0 floor

East Greek (?) Geometric cup fragment. Fine pinkish-buff body with some mica. Exterior, a series of straight, vertical lines beside a group of vertical wavy lines in purplish paint. Interior overall shiny black.

HoB 383 (P70.16) Pl. 96

East Greek Geometric cup
 H. 0.034, W. 0.05, Th. 0.004.
 W4-15/S112-118 *97.0 floor

Imported East Greek Geometric cup. Orangey brown on buff; little mica. Exterior: crosshatched triangle below a row of horizontally opposed solid triangles ["butterflies"] between groups of vertical lines. Registers separated by pairs of horizontal lines. Interior, solid red. Finely levigated clay.

M. Kerschner (July 1-2, 2016) identified this as of the older type of decoration with the butterfly, and suggested a date in the second half of the eighth century.

⁹ W5-15/S115-118 *97.00.

¹⁰ At ca. W9-10/S112-116.

HoB 384 (P64.364) PL. 96
 Imported (?) Protogeometric Greek cup with thin metopal lines
 H. 0.055, W. 0.03, Th. 0.007.
 W25–32/S114.5–117 *97.05
 Wall fragment of cup. Dark paint on gray, not a normal Lydian color. Lower portion dark streaky paint; upper part: vertical lines made by a multiple brush, probably in a metopal design. Interior painted black.

HoB 385 (P66.57) PL. 97
 Large Gray Ware amphora
 H. 0.20, W. at shoulder 0.38, W. of handles 0.05, Diam. 0.25.
 W9/S113–114 *97.5
 Large Gray Ware amphora fragment. A sloping ledge rim. Two band handles run from neck to shoulder. Raised ridge around the base of the neck. Polished on the exterior. Large inclusions in the clay.

HoB 386 (P66.70) PL. 97
 Biconical stand (Manisa 7511)
 H. 0.39; Upper Diam. 0.32; Lower Diam. 0.32; Diam. of waist 0.13; inside Diam. of waist 0.08.
 W9/S113–114 *97.5
 Thick-walled biconical stand. Restored from many large fragments. Ridge at waist of stand; two thinner ridges above and below the central one. Traces of white paint with bands remain.

METAL

HoB 387 (M14.11) PL. 98
 Bronze fibula
 W20–W24/S114.5–116 *97.4–97.2
 Phrygian type bronze fibula fragments. Circular bosses that would have decorated the bow are preserved; also parts of a catch plate.
 Cf. Caner, *Fibeln*, pl. 32.

HoB 388 (M70.5) PL. 98
 Bronze spoon or spatula
 W. 0.002, L. 0.108, W. of spatula 0.007.
 W8–5/S112–116 *97 floor
 Long, thin shaft of bronze. One end knobbed and the other flattened into a spatula shape with two raised bands above it.
Sardis M8, cat. no. 642.¹¹

HoB 389 (M70.4) PL. 98
 Bronze pin
 W. 0.0015, L. 0.82, Diam. of coil 0.005.
 W8–5/S112–116 *97 floor
 Long narrow shaft of bronze pin that tapers to a point. The other end is flattened and rolled into a coil.
Sardis M8, cat. no. 660.

HoB 390 (M84.11) PL. 98
 Iron ingot
 H. 0.060, W. 0.080, L. 0.090; Wt. 1150 g
 E4–W1/S111–116 *97.95 (1984 probe)
 Roughly rectangular block of iron. Partly intact.
 Hanfmann 1985, p. 501.

Deep Sounding C and Vicinity

HoB 391 (P14.37) PL. 99
 Brown on Buff plate
 Diam. 0.030, Th. 0.0075.
 W3–5/S98–100 To *96.8
 Brown on Buff plate with wide ledge rim. Orangish buff with some mica. Pattern of opposing triangles between brown bands, and below, two brown bands, one thick, one thin, with pendent concentric semicircles. Interior smoothed but worn.

HoB 392 (P12.57) PL. 99
 Shallow Black on Red bowl
 H. 0.03, Th. 0.008–0.004.
 W0–2/S107–108 *97–96.6
 Black on Red bowl fragment. Red micaceous clay. Simple wide rim. Interior, two black lines with sets of horizontal wavy lines made with a multiple brush in the area between them. Then, a black line with sets of vertical lines below; all on red slip. Exterior, two black bands with sets of short vertical lines between them. Exterior and interior smoothed.

HoB 393 (P66.65) PL. 99
 Black on Red Cup
 H. 0.055, Diam. 0.13, Th. 0.002–0.004.
 W0–2/S107–108 *97–96.6
 One handle and rim of Black on Red cup, and smaller, unattached piece of same. Red, micaceous clay. Horizontal loop handle with shorter and longer vertical lines on outside; handle projects slightly above rim. Painted concentric circles under handle. Checkerboard pattern below rim, and pendent concentric semicircles below that. Interior has a row of concentric circles with a dot in the center of each. Interior and exterior slipped and smoothed.

¹¹ Waldbaum (*Sardis* M8) lists this as Roman–Early Byzantine zinc bronze in the analysis table (V.3) and without attribution in her catalogue. Since copper alloys with a significant percentage of zinc are known from finds of the same era at Gordion, it is not necessary to reject it, even if it is unusual, without better reason. Recent research suggests that electrode cleaning methods can introduce zinc to an item. See Ramage 2011.

- HoB 394** (P12.93) PL. 100
Brown on Buff cup
H. 0.060, Th. 0.0045–0.0085.
E0–5/S97–100 *97–96.5
Cup with slightly flaring walls. Orange-buff micaceous clay with grayish core. Exterior, a series of triangles with oblique crosshatching. The point of the triangle rests on a black band near the base of the cup. Exterior is polished. Interior has a red wash.
- HoB 395** (P12.85) PL. 100
Large cup
H. 0.0485, Diam. 0.24, Th. 0.0065.
W5–8/S90–93 *97.9–97.6
Fragment of a large cup with nicked rim. Reddish-orange clay with light gray core. Rim covered in light red band, below which is a reserved metopal pattern of alternating groups of vertical lines and wavy lines done with a multiple brush; a band of darker solid red on at least one side of metope; below this register is another solid band. Interior has a wide red band from the rim downward. Cf. **HoB 396**. Local fabric.
- HoB 396** (P12.84) PL. 100
Imported Geometric large cup
H. 0.0585, est. Diam. 0.22, Th. 0.0065.
W1–7/S90–95 *97.9–97.5
Fragment of a Geometric cup with nicked rim. Buff fabric. Exterior has black band running along rim, below which is a metopal band with an alternating series of six vertical lines and six vertical wavy lines done with a multiple brush. Below this is a thick, black band. Interior has a large red band running at the top.
- HoB 397** (P12.96) PL. 100
Black on Red krater
H. 0.0325, Th. 0.007.
W0–6/S90–93 *96.7–96.3
Fragment of a krater with Black on Red checkerboard alternating with black and reserved squares. Reddish-buff micaceous clay. Ledge rim is polished. Cf. **HoB 393**, cup with similar pattern.
- HoB 398** (P13.203) PL. 100
Brown on Buff jug
H. 0.077, W. 0.068, Th. 0.006.
E0–3/S105–106 *97–96.7 ~ Deep Sounding C
Body fragment of jug with Brown on Buff decoration. Orangish-buff micaceous clay. Exterior, metopal decoration of alternating concentric circles and groups of five vertical lines. Metopal reserved band has a brown band above and three thinner lines below.
- HoB 399** (P14.39) PL. 101
Shallow bowl
Diam. 0.023, Th. 0.006.
W1–5/S96–99 *97.3–96.8
Reddish-buff micaceous fabric; Gray Ware fabric but not reduced in firing. Shallow bowl with slightly inturned rim. Stick polished on interior and exterior.
- HoB 400** (P12.22) PL. 101
Gray Ware tool with holes
L. 0.0923, Diam. 0.039–0.033.
W3–5/S98–100 To *96.8
Gray Ware cylindrical tool of coarse fabric. The tool ends in a flattened knob at one side with a rounded triangle cut in relief and incision lines still visible around its perimeter. This triangle was possibly used for stamping. On the cylinder are six rows of small punctuated holes going down the length of the tool. The rows of holes are not evenly parallel nor are the holes within each row evenly spaced. The break at the other end of the cylinder reveals that the holes were punctuated quite far into the core of the object.
- HoB 401** (P12.36) PL. 101
Globular cooking pot
H. 0.0743, H. of decorative band 0.017,
est. Diam. of rim 0.13, Th. 0.007.
W3–7/S100–102 *96.4–95.8
Fragment of globular cooking pot with everted rim and slightly squared lip. Coarse, gray micaceous fabric with inclusions. At the shoulder is a wavy horizontal incised line bordered by two incised horizontal lines. The incised lines are not consistently level and at certain points the wavy line overlaps the border. Exterior was burned.
- W21–25/S117.50–119 to *96.10**
- HoB 402** (P14.38) PL. 101
Loop handle
H. 0.0525, Th. 0.0265.
W25/S114 *97.5–96.8
Part of a horizontal loop handle and rim. Very coarse dark gray fabric with grayish-buff core; lots of stone inclusions. Quasi-Gray Ware.

LYDIAN II

BY R. GÜL GÜRTEKİN-DEMİR

The Western Edge of the Lydian Trench

BUILDING H

POTTERY

Lydian Painted Decoration

HoB 403 (P12.139) PL. 102

Bichrome dish

H. 0.045, Th. 0.006, Diam. of rim 0.25.

W32–33/S124 *98.8 floor

Bichrome rim and body fragment of dish. Slightly everted and thickened rim; smooth carination below rim; shallow bowl. Matt black, red, and added white. Exterior, painted above rim; red horizontal band along and below rim. Interior, plain red paint along rim; white band with a single black horizontal line above and below; wide red band; white band with a black line above.

HoB 404 (P68.167) PL. 102

Streaky glazed skyphos

H. 0.085, Diam. of rim 0.13, Th. 0.004–0.007.

W31–35/S120–128 *99.0–98.8 floor

Two joining fragments of skyphos. Half of the pot is preserved. Plain rim, deep bowl, high ring base, and horizontal loop handle. Red to brown streaky glaze inside and out, except the handle zone and handle, which are left unpainted.

HoB 405 (P12.148) PL. 102

Streaky glazed skyphos

H. 0.068, Diam. of rim 0.12, Th. 0.0032.

W33/S124 *99.0;

W31–35/S120–128 *99.0–98.8

Four fragments of rim, body, and handle (one handle preserved) of skyphos. Slightly inverted plain rim, deep bowl, and horizontal loop handle below rim. Exterior is not painted. Interior, red to glossy black streaky glazed.

HoB 406 (P12.137) PL. 102

Black on Red dish

W30–35/S120–125 *99.1 floor

H. 0.036, Th. 0.007–0.01.

Black on Red rim fragment. Slightly carinated. Matt black over red slip. Exterior, black, painted over and along rim; horizontal band of simple hook meander row with a horizontal line above and below; three horizontal lines with a thicker line above (overlapping the lower frame of the meander band) and below. Interior, red slipped.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3711).

HoB 407 (P68.164) PL. 103

Bichrome oinochoe

H. 0.147, Diam. of body 0.193, Diam. of base 0.08, Th. 0.003–0.007.

W33/S124 *99.0 floor ~ north and middle part of Building H

Many joining fragments making up half the body of a red Bichrome oinochoe. Neck, rim, and handle missing. Globular body, plain base. Stump of vertical handle on mid-body preserved. Over reserved shoulder, a horizontal band painted red; and seven vertical lines to the right of the handle stump and a row of pendent concentric hooks (made with a seven-brushed tool). The band painted red is framed by two dark matt painted lines above and below. Then a reserved area and another painted red band with a single dark painted line above and below; followed by a reserved band. Traces of painted red band above the base.

HoB 408 (P65.202) PL. 103

Oinochoe

H. 0.021, Diam. of base 0.098, Th. 0.005–0.007.

W34–35/S123–125 *99.9–99.55

Many joining fragments of neck, body, base, and stump of a vertical handle of an oinochoe. Presumably a trefoil mouth. Globular body with a vertical strap handle from slightly above mid-body. Almost intact. Black on creamy white slip; plain base. Exterior, neck, plain slipped; shoulder has three horizontal lines and a row of pendent concentric semicircles (each four semicircles); a row with three sets of three concentric circles (four circles each); two black bands at maximum width, and two more on lower body.

HoB 409 (P64.201) PL. 103

Small jug

H. 0.145, Diam. of rim 0.06, Diam. of base 0.045.

W34/S119 *98.0 ~ space between north and east walls; between Buildings G and H, near H and circuit wall

Small jug intact, except small missing fragments of rim and body. Plain, slightly out-curved rim; ovoid body; flat base; vertical strap handle from shoulder to rim. Red bands on the neck and several below handle zone until lower body. Painted red along the handle zone, on the lower body, and on the handle.

HoB 410 (P68.163) PL. 104

Waveline amphora (Manisa 4109)

H. 0.40, Diam. of rim 0.23, Diam. of body 0.36, Diam. of base 0.10.

W33/S126 *99.00 floor ~ between east and west walls in the middle of Building H

Many joining fragments of Waveline amphora. Rounded and slightly outward curving rim; nearly vertical neck; sharp transition at the join between neck and shoulder; nearly globular body; flat base;

two vertical handles from mid-neck to shoulder. Decoration red to dark red, and added white single horizontal line on neck; loops on shoulder; wide bands overpainted with narrow bands in white on belly and lower body; vertical and horizontal bands on handle.

HoB 411 (P12.153) PL. 105

Bichrome amphora or oinochoe
L. 0.109, W. 0.181, Th. 0.005.

W31–35/S120–128 *99.0–98.8 floor

Red Bichrome. Three joining fragments of shoulder of Bichrome amphora or oinochoe. Matt black, added red and white. Exterior, over a red clay surface, lower parts of partially preserved concentric circles or hooks; two horizontal black lines; red band; white band with two horizontal lines above and below; wide red band; white band with two horizontal lines above.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3700).

Gray Ware and Other Monochrome

HoB 412 (P68.172) PL. 105

Stemmed dish
H. 0.088, Diam. of base 0.11, Th. 0.007–0.012.

W32–33/S124 *98.8 floor ~ north and middle part of Building H

Many joining fragments of lower body and stand of stemmed dish. Deep bowl; short stem; slightly ridged below stem; flaring base with wide resting surface. No traces of paint.

HoB 413 (P68.171) PL. 105

Gray Ware bowl
H. 0.068, Diam. of rim 0.146, Diam. of base 0.04, Th. 0.004–0.006.

W32–33/S124 *98.8 floor ~ north and middle part of Building H

Many joining fragments of rim, bowl, and bottom. Plain rim; hemispherical bowl; flat bottom. Exterior, horizontal ribbing from rim to lower body. Two mending holes below rim and one mending hole near mid-body.

HoB 414 (P68.86) PL. 106

Gray Ware jug
H. (restored) 0.16, Diam. of body 0.14, Diam. of base 0.06.

W30–34.5/S120–125 *98.9–98.8 floor

Gray Ware. Many joining fragments of jug. Rim, neck, and handle not preserved. Long neck; spherical body; flat bottom. Exterior, several incised lines.

HoB 415 (P68.173) PL. 106

Gray Ware amphora
H. 0.137, Diam. of rim 0.235, Diam. of neck 0.18, Th. 0.005–0.01.

W31/S120 *98.8 floor ~ northeast corner of Building H

Gray Ware. Large amphora rim, neck, and shoulder fragment. Everted rim; long and wide neck; gently rounded shoulder; two vertical handle stumps slightly above mid-neck.

HoB 416 (P65.219) PL. 106

Stand (?)
H. 0.125, Diam. of base 0.26.

W34.5/S122 *99.0 floor ~ middle of the room, opposite hearth and other fixtures of Building H

Red monochrome, not painted. Stand of a krater? Upper part of the stand not preserved. Conical stand with slightly concave sides. Wide and deep grooved horizontally immediately above base.

Cooking Ware

HoB 417 (P68.170) PL. 107

Cooking pot
H. 0.40, Diam. of rim 0.25, Diam. of base 0.12, Th. 0.006–0.007.

W31/S128 *99.0 floor ~ southeast corner of Building H

Many joining fragments of cooking pot. Rounded and slightly outward curving rim; wide neck; large ovoid body; flat base with six perforations put in after firing; two horizontal loop handles rising diagonally (only the stumps preserved). Surface worn.

HoB 418 (P65.217) PL. 107

Cooking pot
H. 0.0145, Diam. of rim 0.125, Diam. of body 0.165, Diam. of base 0.07, Th. 0.005–0.008.

W33/S121 *99.0 floor ~ middle of the room, opposite hearth and other fixtures of Building H

Cooking pot, intact except the handle and a small part of mid-body. Everted rim; spherical body; rounded bottom; single vertical strap handle from mid-body to rim (only stump preserved).

Imported

HoB 419 (P12.143) PL. 108

Bichrome oinochoe
H. 0.045, L. 0.059, W. 0.056, Th. 0.006–0.008.

W30–35/S120–125 *99.1 floor

Fragment of Bichrome oinochoe, neck, and shoulder. Anatolian (not Sardian) Bichrome with geometric patterns. Black over white coat (white paint worn off) and on red slip. White coat applied on red slip. Exterior, three horizontal lines; three short vertical lines on the upper band and reserved

on the lower; four short vertical lines; upper shoulder, over white coat, three lines forming two reserved bands that are cut off on right by three diagonal lines over white coat; to the left of diagonal bands, crosshatched triangle.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3702).

HoB 420 (P65.256) PL. 108

Small Protocorinthian oinochoe
H. 0.035, Diam. of base 0.025, Th. 0.003.
W30–35/S120–125 To *99.1

Middle or Late Protocorinthian. Base and lower body fragment. Ring base. Exterior, two narrow bands in purple over dark glazed surface; three horizontal lines in diluted glaze; linked pendent rays rising up from foot; base painted; central circle and a band on underside of the base.

Hanfmann, "SARDIS 1965," p. 14; *Sardis* M10, cat. Cor 30.

TERRACOTTA

HoB 421 (Seal65.2) PL. 108

Terracotta stamp seal
H. 0.043, Diam. of seal base 0.018–0.019, Diam. at top 0.014, Diam. of pierce 0.003.
W32/S133 *99.6 (level above floor) ~ gravel east of east wall of Building H

Cylindrical-shaped profile of seal; wider in diameter at the seal base; pierced transversely through its narrower top end for suspension. The sealing surface is incised with a cross; in each quadrant are incised linear symbols.

Hanfmann, "SARDIS 1965," p. 12, fig. 7.

METAL

HoB 422 (M18.5) PL. 108

Iron sickle
L. 0.15, W. of haft 0.024, L. of rivet 0.026.
W31–35/S125–128 *99.20–99.00

Three joining fragments. Corroded. Blade, curved with a concave edge; at one end half is preserved with a single iron rivet.

Sardis M8, cat. no. 119.

HoB 423 (M68.15) PL. 109

Iron spit
L. 1.07, Th. 0.02–0.04.
W33/S123 *98.8 floor

Heavily corroded spit. Long and straight; triangular leaf-shaped, flattened at one end, and pointed at the other end; two large knobs each placed near both ends; smaller knobs are preserved along the other parts of rod. The smaller knobs may well be part of the corrosion; however the two large knobs, especially the one near the pointed end, seem to have

stuck on the spit when it went out of use and do not belong to the original.

Hanfmann, Waldbaum et al., "SARDIS 1968, 1969," p. 28; *Sardis* M8, cat. no. 215.

BONE

HoB 424 (BI14.6) PL. 109

Knucklebones
L. × W. 0.081 × 0.056 (largest); 0.027 × 0.018 (smallest); Th. 0.021 (largest); Th. 0.014 (smallest)
W34/S127 *99.4 ~ Building H

Set of fourteen knucklebones: eight from cattle and six from sheep. One of the sheep and one of the cow knucklebones has a drilled hole; some show signs of being ground on both faces.

BUILDING G

POTTERY

Lydian Painted Decoration

HoB 425 (P68.159) Fig. 6.15, PL. 110

Black on Red stemmed dish (Manisa 7449)
H. 0.07, Diam. of rim 0.28, Th. 0.007.
W34/S114 *98.5 floor ~ beside the wall to the east of the stone foundation in Building G (found with an iron sheath in it)

Four joining fragments of Black on Red stemmed dish. Small parts of rim, stem, and base missing. Plain rounded rim. Matt dark over red clay surface. Exterior, single band along rim. Interior, from top to bottom, below rim: in a wide band with a single line above and below, groups of five parallel vertical wavy lines; on the central area of bowl with a single horizontal line above, groups of five parallel vertical wavy lines, horizontally arranged with a central single group of five parallel vertical wavy lines. Traces of the corrosion left by the iron sheath (**HoB 438**) found inside it.

HoB 426 (P68.129) PL. 111

Ephesian ware dish
H. 0.059, W. 0.064, Th. 0.006.
W31–35/S107–114 *98.5 floor ~ in the middle of Building G

Two joining fragments of body of Ephesian ware. Matt dark paint and additional red glaze over white slip on the interior. Paint badly worn. Exterior, two horizontal black lines and a band with ladder pattern over red slip, triangles in alternate red and black colors over white slip. Interior, single horizontal line; a band with a single line above and below: a ladder pattern on a red coat over slip; a band with a single line above and below: square bars divided by narrow vertical bands of ladder pattern, bars alternately filled in with red inner squares; a horizontal band with a single line above and below: ladder pattern on a red coat over slip; central part of bowl with a horizontal line above: from left to right, large square

with narrow ladder pattern and partitioned into a large diamond (with a red inner diamond), also with narrow ladder pattern, and triangles painted red on the corners; vertical band of meander pattern.

Greenewalt 1973, no. 20.

HoB 427 (P64.183) PL. 111

Black on Red round-mouthed jug
H. 0.06, W. 0.067, est. Diam. 0.085,
Th. 0.002–0.004.

W27–32/S115–117 *98.6–97.85

Two joining fragments of neck and body of Black on Red round-mouthed jug. Long, nearly vertical neck; articulated transition from neck to body; elliptically compressed and short body. Matt dark painted on clay surface. Exterior: on the neck, a row of elongated concentric S shapes (two Ss nested together) with a single horizontal line below; upper part of the body, traces of plain dark paint; possible trace of white band at widest point of pot.

HoB 428 (P12.152) PL. 111

Bichrome amphora (?)
L. 0.071, W. 0.079, Th. 0.005–0.008.

W31–35/S107–114 *98.5 floor

White Bichrome. Body sherd. Decoration black and added red over white slip. Exterior, circle with a red dotted band, and a red cross at center; two horizontal lines.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3662).

HoB 429 (P12.135) PL. 111

Bichrome amphora (?)
L. 0.116, W. 0.077, Th. 0.005–0.008.

W28–31/S104–108 *98.3–98.0

Red Bichrome. Two joining fragments of shoulder. Matt black, red, and added white. Exterior, on clay surface, pendent concentric hook (six hooks), two short vertical wavy lines to the right; two partially preserved concentric hooks or circles; two horizontal lines; horizontal band painted red; two horizontal lines framing the upper border of a band painted white and a partially preserved horizontal wavy line.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3667).

Gray Ware and Other Monochrome

HoB 430 (P65.279) PL. 112

Gray Ware stemmed dish
H. 0.12, Diam. of rim 0.32, Diam. of stem 0.055,
Th. 0.008–0.009.

W33–35/S108 To *98.5 floor ~ beside oven in Building G

Gray Ware. Many joining fragments of rim, bowl, and stem; more than half the stem and base missing. Flaring rim; shallow bowl.

HoB 431 (P65.214) PL. 112

Oinochoe
H. 0.0245, H. with handle 0.255, Diam. of neck 0.088, Diam. of body 0.20, Diam. of base 0.094, Th. 0.006.

W35/S112 *98.5 floor ~ beside oven in Building G

Not painted. Many joining fragments. Half of the neck and rim missing. Short neck; gently rounded shoulder; spherical body; low ring base; vertical strap handle from shoulder to neck.

Hanfmann, "SARDIS 1965," p. 12.

HoB 432 (P65.215) PL. 113

Gray Ware oinochoe (Manisa 7496)
H. 0.207, Diam. of neck 0.065, Diam. of body 0.19,
Diam. of base 0.10.

W35/S112 *98.5 floor ~ beside oven in Building G

Gray Ware. Half of the neck, rim, and handle missing. Single horizontal ridge immediately below the transition from neck to shoulder; spherical body; ring base; vertical handle starting from mid body. Three horizontal grooves on belly interrupted by handle.

Hanfmann, "SARDIS 1965," p. 12.

HoB 433 (P65.216) PL. 113

Small Gray Ware squat jar (Manisa 4349)
H. 0.09, Diam. of rim 0.045, Diam. of body 0.10,
Diam. of base 0.045.

W35/S112 *98.5 floor ~ beside oven in Building G

Gray Ware. Intact. Rounded everted rim; narrow and short neck; spherical body; flat base.

Hanfmann, "SARDIS 1965," p. 12.

HoB 434 (P65.278) PL. 113

Jar
H. 0.19, Diam. of base 0.123, Th. 0.005–0.009.

W33–35/S108 *98.5 floor ~ beside oven in Building G

Not painted, monochrome ware. Grayish clay on the outer surface, however the core and interior are red. Many joining fragments of body and base; neck and rim missing. Slightly compressed globular body; flat base.

Hanfmann, "SARDIS 1965," p. 12.

HoB 435 (P65.160) PL. 114

Small Gray Ware baby feeder
H. 0.06, Diam. of rim 0.03, L. of tube 0.017,
Th. 0.003–0.004.

W28–30/S110–115 *98.3–98.1

Gray Ware. Three joining fragments. Plain rim; narrow neck; spherical body; small sipping tube; single vertical handle stump preserved on mid-body.

Cooking Ware

HoB 436 (P68.168) PL. 114

Cooking pot (Manisa 7499)
H. 0.205, Diam. of rim 0.14, Diam. of base 0.08.
W27/S103 *98.5 floor ~ area between
Buildings G and K
Black cooking pot. Intact except missing small
fragments at base and body. Slightly out-curved rim;
spherical body; flat base; vertical strap handle from
slightly above mid-body to rim.

Imported

HoB 437 (P68.114) PL. 114

Bird bowl
H. 0.047, Diam. of rim 0.12, Th. 0.005.
W31–34/S119 To *98.6 ~ space between north and
east walls of Building G; between Buildings G and H
Rim, body, and handle fragment of bird bowl.
Nicked rim. Brown over polished clay surface.
Exterior, painted along rim; vertical band to the
right of handle, partially covering handle; a wide
reserved band along handle zone, from left to right,
three vertical parallel lines, a row of dots with two
lines above and below (placed immediately to the
right and below the midpoint of the three vertical
lines) bordering the lower part of the metope
decoration, which consists of a lozenge with a cross-
hatched core, three vertical lines, and the tail of a
bird to right. Interior, painted.
Second quarter of the seventh century, or about
650, not later, based on parallels with Akpınar
necropolis, Klazomenai, according to N. Aytaçlar and
M. Kerschner (personal communication, Sardis, July
1–2, 2016).

METAL

HoB 438 (M18.4) Fig. 6.15, PL. 114

Iron sheath
Max. L. 0.117, max. W. 0.059.
W34/S114 *98.5, found on the floor level inside

HoB 425

Three joining fragments of iron. Heavily corroded.
Flat side tapers to form a rounded end; the edges are
flanged; two rivets are preserved.
Sardis M8, cat. no. 7.

BUILDING K

POTTERY

*Lydian Painted Decoration***HoB 439** (P12.144) PL. 115

Bichrome dish
H. 0.045, Diam. of rim 0.26, Th. 0.005–0.006.
W34–35/S97 *98.7–98.3 floor;
W32–37/S95–98 *98.6–98.3;
W31–38/S95–103 *98.3 floor;
W35–37/S99–102 *98.6–98.3 ~ Building K

Red Bichrome. Six joining and nonjoining fragments
of rim and body. Everted and slightly thickened rim;
somewhat curved bowl. Matt black, red, and added
white. Exterior, painted red from over and below rim,
forming a thick band. Interior, below rim: a white
band with single black line above and two black lines
below; red band; white band with three horizontal
black lines above and below; central area painted red.

HoB 440 (P12.154) PL. 116

Ephesianizing dish
H. 0.033, est. Diam. of rim 0.38, Th. 0.008.
W34–37/S102–105 98.5–98.1;
W25–28/S114–116 *98.9–98.6 floor

Three joining Ephesianizing fragments of rim and
bowl. Plain rim with a very slight outcurve at the lip;
shallow bowl. Matt black and red over thick and fine
white slip. Exterior, band painted red, two horizontal
black lines; wide band (paint worn off): left end of a
loose spiral that ends up with a circular curl with a
central red dot; to the right of spiral, a circle painted
red with an outer circle in between two almond-
shaped eyes with a central dot. Interior, from top
to bottom, over rim, groups of short vertical black
lines over red coat; below rim, narrow band with a
single horizontal black line above and below: square
bars divided by solid short vertical bands painted
red (outlined in black), each square bar has a smaller
inner square outlined in black and painted with
alternating red and black; narrow band of ladder
pattern on a red coat, with a single horizontal line
above and below; single horizontal line.

HoB 441 (P12.138) PL. 116

Stemmed dish
H. 0.028, est. Diam. of rim 0.30, Th. 0.0055.
W30–32/S100–103 *98.6–98.3 floor

Rim and body fragment. Flaring rim. Dark on
white slip (paint worn off). Exterior, edge of rim
painted white; underside of rim at center, white
band with a single horizontal black line above and
below; below rim, white band with a single black
line above. Interior, completely white slipped; above
rim, a row of pendent semi-concentric circles with
two horizontal lines above; below rim, single hori-
zontal line, and five short vertical lines below.

HoB 442 (P12.141) PL. 117

Bichrome dish
H. 0.052, Diam. of rim 0.34, Th. 0.005–0.01.
W38–41/S103–106 To *98.2 floor

Red Bichrome. Rim, loop handle, and body fragment. Everted and thickened rim; carinated below rim; horizontal strap handle. Matt black, red and white. Exterior, from rim to carination painted red, including handle; two horizontal black lines below carination. Interior, between rim and carination, black horizontal wavy line over a white slipped band with a black horizontal line above and below; band painted red with two horizontal lines above and below; band painted white.

HoB 443 (P12.157) PL. 117

Black on Red krater
H. ca. 0.10, Diam. of rim 0.028, Th. 0.006–0.008.
W31–38/S95–103 *98.3 floor

Black on Red. Four joining fragments of rim and body. Everted triangular rim with groups of short radial lines; deep bowl. Matt black over red clay surface. Exterior, two thick horizontal lines with a thick wavy line between them; groups of six vertical wavy lines with three horizontal lines below.

HoB 444 (P12.151) PL. 118

Bichrome oinochoe (?)
H. 0.16, W. 0.118, Th. 0.005–0.01.
W31–33/S103–106 To *98.1 floor

Red Bichrome. Three joining fragments of shoulder and belly. Globular body. Matt black, red to black, and added white. Exterior, concentric pendent hooks (partially preserved); three horizontal lines; red band with a single horizontal line above and below; horizontal wavy line over band painted white; wide red to black band with a single horizontal line above and below; band painted white; wide red band with a single horizontal line.

HoB 445 (P12.136) PL. 118

Bichrome amphora (?)
L. 0.006, W. 0.077, Th. 0.006–0.007.
W26–28/S95–98 *98.6–98.3 floor

White Bichrome? Two joining fragments of body. Black over white slip. Exterior, wheel pattern with a single band, partially dotted at one part; central circle from which spokes radiate through the outer frame.

*Gray Ware and Other Monochrome***HoB 446** (P12.156) PL. 119

Gray Ware skyphos krater
H. 0.1405, Diam. of rim 0.30, Th. 0.005–0.006.
W35–37/S99–102 *98.6–98.3;
W31–38/S95–103 *98.3 floor

Gray Ware. Three joining fragments of rim, body, and loop handle. Everted and triangular rim; spherical body; thick, horizontal loop handle.

HoB 447 (P16.41) PL. 119

Gray Ware skyphos krater
H. 0.155, Diam. of rim 0.32, Th. 0.005–0.010.
W35–37/S99–102 *98.6–98.3 floor

Gray Ware. Seven joining fragments of rim and body. Everted and triangular rim; groove at the end of rim; spherical body.

HoB 448 (P16.43) PL. 119

Gray Ware skyphos krater
H. 0.095, Diam. of rim 0.46, Th. 0.012.
W31–33/S103–106 To *98.1 floor

Gray Ware skyphos krater, rim and body fragment. Everted and thickened rim; sharp flange on the exterior; single handle scar preserved.

*Imported***HoB 449** (P12.146) PL. 120

Bird bowl
H. 0.033, Th. 0.004.
W32–37/S95–98 *98.6–98.3, associated with
floor ~ Building K

Rim and body fragment of bird bowl. Nicked rim. Dark brown over well-burnished clay surface. Exterior, metopal band with a single line along nicked rim above and with a horizontal row of dots (bordered by two horizontal lines above and below). Metopes divided by three vertical lines, a small circle on the left and a crosshatched triangle with an outer frame on the right. Interior, painted.

M. Kerschner suggests a date of 675–650 B.C. (personal communication, Sardis, July 1–2, 2016).

HoB 450 (P68.162) PL. 120

Cup
H. 0.035, W. 0.00.039, Th. 0.005–0.008.
W31–38/S95–103 *98.3 floor ~ Building K

Cup with nicked rim and body fragment. Red to dark brown glaze over clay surface. Exterior, rim painted; five vertical lines on the left and panel has horizontal zigzags below rim on the right. Interior, painted.

M. Kerschner suggests a date in the late eighth–mid seventh century (personal communication, Sardis, July 1–2, 2016).

*METAL***HoB 451** (M14.10) PL. 120

Iron chisel
L. 0.013, W. of socket 0.019, W. of blade 0.0095,
Th. of blade 0.0055.
W36–40/S106–108 *98.8–98.5 ~ between K
and G, to west

Several joining pieces of iron chisel. Heavily corroded. It is composed of two main sections (blade and socket) where traces of joining are visible. Short and rectangular blade is preserved; bevel at the end has a flatter rectangular section and is broken. Socket is circular and open below.

- HoB 452** (M18.6) PL. 120
 Iron double axe
 L. 0.245, Diam. of pole 0.019.
 W29/S99 *98 floor ~ east corner of Building K
 Iron double-axe. Heavily corroded. Double-edged.
 Pole partially preserved.
 Hanfmann and Thomas, "SARDIS 1970," p. 9;
Sardis M8, cat. no. 129.

BUILDING L

POTTERY

Lydian Painted Decoration

- HoB 453** (P12.145) PL. 121
 Ephesianizing dish
 H. 0.031, Diam. of rim 0.31, Th. 0.006–0.007.
 W36–41/S93–97 *97.4 floor
 Ephesianizing. Rim and body fragment. Thickened and everted rim. Matt black, red over white slip. Exterior, over rim, painted black (paint worn off); below rim, over white slip, a single horizontal band (continued from above rim); narrow band of dogtooth pattern with a single horizontal line above and below; below white slipped area, two black horizontal lines over surface painted red. Interior, same as exterior. Paint worn off.
- HoB 454** (P12.142) PL. 121
 Ephesianizing dish
 L. 0.025, W. 0.049, Th. 0.008–0.009.
 W36–41/S93–97 *97.4 floor
 Ephesianizing fragment of center of dish. Matt black and red over thick white slip. Exterior, single horizontal black line; single red line; narrow black band of dogtooth pattern with a single horizontal line above and below. Interior, narrow band of dogtooth pattern, again with a single line above and below; the area at the very center, partitioned into alternating black and white triangles with a single band at one end.
- HoB 455** (P12.149) PL. 121
 Large streaky skyphos
 H. 0.14, Diam. of rim ca. 0.23, Th. 0.005–0.007.
 W36–38/S91–93 *100.0–99.0 gravel layer, above floor level
 Rim and bowl fragment. Plain rim. Dark red to black streaky glazed with metallic sheen and added white. Exterior and interior, plain streaky overall. Exterior, single white dot-rosette below rim; upper body, three horizontal white bands; a purple band above and below the three white bands; two horizontal white bands lower down. Interior, two white horizontal bands, one at upper body and the other at lower body.

- HoB 456** (P68.141) PL. 121
 Lebes (?)
 L. 0.082, W. 0.057, Th. 0.009.
 W37–40/S93–95 *98.2–97.6 ~ within Building L but not specifically from floor
 Body fragment. Exterior, matt dark brown and added red on fine thick white slip, two horizontal decorated broad bands, each bordered by a row of red dots within a thin band above and below; in each broad band a single square divided into four sets of nesting triangles; a reserved band in between these two decorated bands. Interior, painted red.

- HoB 457** (P68.161) PL. 121
 Closed vessel (oinochoe?)
 L. 0.031, W. 0.046, Th. 0.006–0.008.
 W36–41/S93–97 *97.4 floor
 Body sherd. Exterior, matt black and diluted brown over fine thick white slip (slip polished). From left to right, two crosshatched vertical bands, checkerboard pattern, matt black, each square alternately filled in with diluted brown and a matt black dot.

- HoB 458** (P12.147) PL. 121
 Bichrome stand
 H. 0.031, Th. 0.009.
 W35–38/S93–96 *98.7–98.2 floor
 White Bichrome. Base fragment. Thickened and everted base. Matt black over fine thick white slip. Exterior, five vertical short wavy lines; narrow band with ladder pattern with a single line above and below; horizontal band at the edge of base.

Gray Ware and Other Monochrome

- HoB 459** (P16.32) PL. 122
 Gray Ware neck amphora
 H. 0.158, Diam. of rim 0.25, Th. 0.004–0.007.
 W39/S97 *98.3–97.8
 Gray ware. Six joining fragments of rim, neck, shoulder, and single handle. Flaring rim; nearly straight-sided neck; vertical strap handle from neck to shoulder.

Cooking Ware

- HoB 460** (P68.169) PL. 123
 Cooking pot
 H. 0.255, Diam. of rim 0.21, Diam. of body 0.34, Diam. of base 0.095.
 W37/S93 *97.6 floor
 Pot is almost intact. Everted rim; globular body; flat base; two cylindrical loop handles on upper part of shoulder, rising up vertically. A total of six horizontal incised lines on the body: three on the shoulder, two on the level of handle stump, and one below handle. (The photo makes the pot bottom look narrower than the drawing because of the angle.)

Imported

HoB 461 (P68.135) PL. 122

Bird bowl

H. 0.026, Diam. of rim 0.18, Th. 0.004.

W40.5/S95 *97.4 floor

Two joining fragments of nicked rim and body of a bird bowl. Exterior, brown over polished clay surface. Below rim, a metopal band with a horizontal band above and three horizontal lines below; each metope divided by three vertical lines, from left to right: bird to right with crosshatched body; two circles on the right of bird, one below and the other in top corner; second metope, lozenge with a cross-hatched core. Interior, painted.

BUILDING O

POTTERY

Cooking Ware

HoB 462 (P70.17) PL. 124

Cooking pot (Manisa 7497)

H. 0.14, Diam. of rim 0.11, Diam. of body 0.14,

Diam. of base 0.077.

W26/S97 *97.7 ~ discovered on the hearth in Building O

Almost intact pot. Outward-curving rim; spherical body; flat base; vertical strap handle from shoulder to rim. Grooves on the interior of rim. Evidence of use in the fire.

Pithos

HoB 463 (P70.34) Fig. 6.23, PL. 124

Pithos

H. 1.20, Diam. of rim 0.465, Diam. of belly 0.95.

W31/S93 *97.5 at rim

Nearly complete pithos. Orange-brown clay is coarse, with gravel and pebbles in it. Flaring ledge rim; short neck; spherical body tapers to flat base. A rope pattern on a raised band at the base of the neck. Black burn marks on the exterior.

Sidney M. Goldstein reported (1970) that the interior might show evidence of piecing sections together in antiquity. Shown *in situ* in Fig. 6.23.

BUILDING J

POTTERY

Lydian Painted Decoration

HoB 464 (P12.65) PL. 125

Black on Red dish

H. 0.062, est. Diam. 0.27, Th. 0.0085.

W12-13/S96-97 *98.2-98.0 ~ east of Building J

Black on Red dish with plain rim. Exterior, two parallel black bands below the rim. Interior, groups of five large vertical wavy lines. They are bordered

on either side with a small, black band, the topmost of which is on the rim. Below, the motif repeats, although offset.

HoB 465 (P12.134) PL. 125

Skyphos

H. 0.118, Diam. of rim 0.12, Diam. of base 0.054, Th. 0.035.

W21-26/S93-96 *99.0-98.5 floor ~ area between O and J

Seven joining fragments of rim, bowl, foot, and handle (single handle preserved) of skyphos. Plain rim; deep and elongated bowl; conical foot; horizontal loop-handle below rim. Black metallic glaze over clay surface. Exterior, painted over rim, handle, and foot; two black horizontal bands below handle. Interior, painted.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 3725).

HoB 466 (P66.54) PL. 125

Bichrome skyphos

H. 0.117, Diam. of rim 0.185, Th. 0.004-0.006.

W16-19/S90-95 *98.3-98.0

Red Bichrome. Two joining fragments of rim, bowl, and handle of skyphos. Plain and slightly inverted rim; wide and deep bowl; thick loop handle (one handle preserved). Exterior, matt black and red. Painted red along rim. Handle zone, single horizontal dark wavy line with two horizontal dark lines (partially overlapping the red band along rim and below handle) above and below a reserved band; handle painted red; below handle, a red band; reserved band; lower bowl, single dark horizontal line over painted red area. Interior, four painted red bands from rim to lower body, plus a fifth band, or possibly a circle at bottom.

Imported

HoB 467 (P66.50) PL. 126

Protocorinthian kotyle

H. 0.06, Diam. of rim 0.09, Th. 0.002.

W16-20/S91-97 *98.2-98;

W17-20/S90-92 *98.5-98.2;

W16-19/S90-95 *98.3-98

Protocorinthian. Nine joining and nonjoining fragments from rim to lower body, including one handle and the stub of the other. Brown on burnished clay. Plain rim; deep bowl; loop handles. Exterior, two horizontal lines along rim; traces of a single horizontal line over both handles. Handle zone: a reserved band with a series of short vertical lines on each side of a row of dots on each face of the kotyle; below the handle until mid-bowl, fifteen horizontal lines; a reserved band. Lower body, a double horizontal line forming the upper border of rays (upper tips are preserved). Interior, a single horizontal line along rim in a reserved band; the rest painted.

Schaeffer (*Sardis* M10, cat. Cor 75) suggests a date of 620–610; Kathleen Lynch (personal communication, 2017) suggests a date in Late Protocorinthian, ca. 650–630 B.C.

HoB 468 (P66.53) PL. 126

Wild Goat style oinochoe
L. 0.74, W. 0.124, Th. 0.003–0.006.
W14–16/S90–93 *98.9–98.4;
W16–19/S90–95 *98.3–98.0;
W15–17/S93–95 *98.3–98.0;
W13–15/S90–92 *98.3–98.0;
W17/S100 *98.75–98.35 ~ Building J

Wild Goat style (South or North Ionian?) oinochoe in seven joining and nonjoining shoulder fragments. Dark and added red over creamy white slip. Exterior, single horizontal line; horizontal wide painted band with a single line above and below: pendent solid rays with dot-rosettes in between points; two horizontal thin red bands over dark painted surface.

Uncertain Orientalizing oinochoe, 630 or 625 to 600 B.C., according to M. Kerschner and N. Aytaçlar (personal communication, Sardis, July 1–2, 2016). They know of no comparable pieces in either South Ionian or North Ionian; the fabric looks Milesian.

METAL

HoB 469 (M14.12) PL. 126

Iron spit
L. 0.71, Th. 0.0013.
W16/S89 *98.3

Iron spit. Four pieces of long rod. Corroded. The spit is pointed at one end and flattened at the other. One piece bent, the other pieces are pointed at one end. Rectangular in section.

W20–25/S95–100 Between *98.4 Floor and *97.8

The following items (**HoB 470–HoB 476**) are not from Building J, but are from a level between J and a higher floor at *98.4 (“Floor Near Postholes,” on which see pp. 101–102), dating to between Lydian II and Lydian I.

POTTERY

Lydian Painted Decoration

HoB 470 (P62.490) PL. 127

Ephesianizing lid (?)
L. 0.064, W. 0.054, Th. 0.005–0.007.
W20/S100 To *97.30 ~ southeast corner

Ephesianizing ware. Two joining fragments of body of shallow lid. Dark red matt, and thick glossy white slip. Interior painted red. Exterior, over white slip, a ladder pattern on red coat over white slip; a reserved band bordered by a single dark line above; a ladder pattern on red coat over white slip; a dogtooth pattern with a single line above and below; a ladder pattern on red coat over white slip; and a red band over white slip.

Pithos

HoB 471 (P62.494) PL. 127

Pithos
L. 0.05, W. 0.053, Th. 0.014.
W20/S100 *98.40–97.80, below edges of floor
Body sherd of pithos. An incised mark of a diagonal zigzag and a bisecting horizontal line that had been pressed into the wet clay.

Imported

HoB 472 (P62.489) PL. 127

Corinthian kotyle
H. 0.015, Diam. of base 0.03, Th. 0.002–0.003.
W20–25/S95–100 To *97.30
Late Transitional or early in Early Corinthian kotyle base and lower body fragment. Dark brown over burnished clay. Exterior, lower body, a single horizontal band forming the lower border of standing rays; a single band on base. Underside of base, single horizontal line encircling outer part and a circle at the center. Interior, painted.
Sardis M10, cat. Cor 79.

HoB 473 (P62.491) PL. 127

Protocorinthian kotyle
H. 0.033, Th. 0.002.
W15–20/S95–100 *98.4–97.8, below edges of floor
Late Protocorinthian or early Transitional linear kotyle rim and body fragment. Plain rim; nearly straight-sided walls. Dark brown over burnished clay. Exterior, dark brown and red. Exterior, a single horizontal line over rim; handle frieze, bordered with a single line above and below: from left to right, four thick sigmas, six short vertical parallel lines, seven horizontal parallel lines. Interior, below rim, a horizontal dark line over a reserved band; below, painted red.

Sardis M10, cat. Cor 50.

HoB 474 (P62.492) PL. 127

Bird bowl
H. 0.03, Th. 0.003–0.004.
W20/S100 *98.40–97.80, below edges of floor
Rim, body, and handle fragment. Slightly inward curving rim. Dark brown. Exterior, horizontal band along rim; single vertical band on the right side of handle. Interior, painted. Burned.

HoB 475 (P62.493) PL. 127

Kotyle
Est. Diam. 0.20–22, H. 0.036, Th. 0.004.
W20/S100 *98.4–97.8, below edges of floor
Rim and body fragment. Nicked rim. Decoration red. Exterior, band along rim; below rim, reserved wide band: from left to right, three vertical lines (partially preserved), four horizontal rows of loose chevrons. Interior, plain painted.

TERRACOTTA

HoB 476 (T62.54) PL. 127

Terracotta loom weight
 H. 0.08, Diam. of hole 0.015, bottom 0.055 × 0.047,
 Wt. 235.1g
 W20/S100 *98.4–97.8, below edges of floor
 Four-sided, pyramidal loom weight. Top and
 bottom slightly broken. Hole on top. Traces of string
 impression within the upper part of hole.

In addition, one of two boxes of sherds yielded the
 following tabulation:

To level *97.30	
Gray monochrome	30%
Cooking	5%
Painted	10%
Polychrome	10%
Black on Red	5%
Breadtray	20%
Coarse red pithoi	5%
Skyphoi (all but one painted on inside only)	5%

South Side and Central Area: Bothroi
BOTHROS EAST OF BUILDING G

POTTERY

Lydian Painted Decoration

HoB 477 (P65.173) PL. 128

Ephesianizing stemmed dish with lug attachments
 (Manisa 7450)
 H. 0.035, Diam. of rim 0.24, Th. 0.006–0.01,
 lug attachments ca. 0.03 × 0.01.
 W29–31/S114–115 *98.2–97.2 hoard;
 W21–23/S113–115 *98.65–98.55;
 W27–30/S110–115 To *98.2;
 W28–30/S110–115 *98.3–98.1;
 W29–31/S114–115 *98.2–97.2 ~ South Side
 Several joining fragments of rim, bowl, and lugs
 of Ephesianizing stemmed dish. One lug attachment
 and stem missing. Flaring rim; very shallow bowl;
 four horizontal lug attachments placed opposite
 each other. Four horizontal ridges below rim on the
 exterior, and wide horizontal grooves, forming four
 widely spaced ridges on the interior. On the exte-
 rior, a horizontal ridge above stem and another one
 (less pronounced) on the stem. Dark matt paint and
 added red over creamy white slip. Exterior, along
 edge of rim, centrally dotted square bars in a band
 with a single line above and below; near the mid-
 body, wide band with two lines above and four lines
 below; a reserved band; lower body painted. Interior,
 centrally dotted square bars in a band with a single

line above and below; two lines and then a red band
 with a dark line above and below; two further lines;
 the two central ridges are painted red and framed by
 dark lines above and below, and with two horizontal
 lines between them; five lines at the central bowl.
 Lugs are painted.

HoB 478 (P65.178) PL. 129

Black on Red stemmed dish
 H. 0.055, Diam. of rim 0.28, Th. 0.006–0.01.
 W29–31/S114–115 *98.2–97.2 ~ South Side
 Two joining pieces of Black on Red rim and bowl.
 Stem missing. Plain and slightly everted rim; slightly
 carinated below rim. Matt dark over red slip inside
 and outside. Exterior, from rim to above stem, six
 groups of horizontal lines with thicker line above
 and below. Interior, single line over rim; not painted
 from rim to mid-bowl; groups of lines with a thicker
 line above and below; a row of dogtooth pattern;
 more lines with a thicker line above and below; a
 row of ladder pattern; more lines with a thicker
 line above and below; at the center bowl, two sets of
 nesting chevrons.

HoB 479 (P65.179) PL. 130

Black on Red stemmed dish
 H. 0.056, Diam. of rim 0.32, Th. 0.007–0.01,
 lug attachment 0.03 × 0.007.
 W29–31/S114–115 *98.2–97.2 ~ South Side
 Rim, body, and horizontal spool-shaped attach-
 ment of Black on Red stemmed dish. Plain and
 slightly everted rim. Matt dark painted over red slip
 inside and outside. Exterior, below rim, a band with
 a single line above and below, with centrally dotted
 squares divided by five short vertical lines; horizontal
 lines with a thicker line above (which is also the
 lower border of the band above) and below; more
 horizontal lines with a thicker line above and below;
 a horizontal band, with a single line above and below,
 with centrally dotted squares divided by seven short
 vertical lines. Interior, a single horizontal line over
 the rim; three horizontal lines below rim. The mid-
 line starts with short wavy lines and ends with a
 plain line.

HoB 480 (P65.189) PL. 130

Round-mouthed jug
 H. 0.095, Diam. of body 0.115, Diam. of base 0.06,
 Th. 0.003–0.01.
 W29–31/S114–115 *98.2–97.2 ~ South Side
 Many joining fragments of neck, body, and base of
 round-mouthed jug. Wide and nearly vertical neck;
 slightly compressed globular belly; short conical foot.
 Reddish brown painted on burnished clay surface.
 Exterior, single thick band at the join of neck and
 shoulder; single thick band covering base and above
 base. Interior, painted until shoulder.

- HoB 481** (P65.182) PL. 131
Oinochoe (Manisa 7403)
H. 0.14, Diam. of body 0.125, Diam. of base 0.055.
W29–31/S114–115 *98.2–97.2 ~ South Side
Trefoil mouth of oinochoe. Short neck, plump ovoid body, flat base; vertical strap handle from a little above mid-body to rim (?). Several pieces from rim and handle missing. Reddish black. Exterior, at the transition of neck to shoulder, a horizontal band; between handle and base, four horizontal bands.
- HoB 482** (P65.184) PL. 131
Oinochoe (Manisa 7405)
H. 0.125, Diam. of body 0.135, Diam. of base 0.065.
W29–31/S114–115 *98.2–97.2 ~ South Side
Trefoil mouth; short neck, spherical body, flat base, vertical strap handle from shoulder to rim (?). Red to black. Exterior, rim and neck painted; two red bands on belly.
- HoB 483** (P65.185) PL. 131
Oinochoe (Manisa 7401)
H. 0.13, Diam. of body 0.115, Diam. of base 0.055.
W29–31/S114–115 *98.2–97.2 ~ South Side
Oinochoe with trefoil mouth. Short neck, conical sided from neck to lower body, spherical body, flat base; vertical strap handle from shoulder to rim. Red to black. Exterior, band over rim and end of neck; cross on handle; two vertical bands on shoulder to each side of handle; two horizontal bands on body below handle.
- HoB 484** (P65.187) PL. 132
Bichrome amphora
H. 0.121, Diam. of rim 0.23, Th. of shoulder 0.005–0.007.
W29–31/S114–115 *98.2–97.2 ~ South Side
Red Bichrome. Three joining fragments of rim, neck, handle, and upper shoulder of amphora. Single handle stump preserved. Out-curved rim; wide neck; vertical strap handle from neck to shoulder (?). Black and red over matt white slip. Exterior: over rim, groups of white short vertical lines over band painted red; red band on and below rim; handle zone, single black wavy line with two horizontal lines above and below over white slip; in center of neck on one side, a lozenge with criss-cross; single thick red band at the join of neck and shoulder; plain white slipped; handle plain white paint.
- HoB 485** (P65.188) PL. 132
Amphora
H. 0.12, Diam. of rim 0.229–0.244,
Th. of neck 0.007–0.009.
W29–31/S114–115 *98.2–97.2 ~ South Side
Nine joining fragments of rim, neck, and handle of amphora. Out-curving rim; wide neck; vertical strap handled from neck to shoulder (?). Two handle stumps preserved. Traces of red paint over the rim

and handle, the rest worn off. Exterior, over the rim, groups of red short vertical lines with a single red line above and below over creamy white slip; red band encircling one handle; wavy red band on the handle zone, almost entirely worn off.

- HoB 486** (P65.180) PL. 132
Small Black on Red squat jar (Manisa 7469)
H. 0.075, Diam. of rim 0.046, Diam. of belly 0.088,
Diam. of base 0.052.
W29–31/S114–115 *98.2–97.2 ~ South Side
Black on Red intact jar. Rounded everted rim; short narrow neck; spherical body; flat base. Exterior, along rim, a band of short vertical lines with a single horizontal line above and below; neck, four horizontal lines; a band of square bars with a single horizontal line above and below; from shoulder to mid-body, horizontal lines.
- HoB 487** (P65.181) PL. 132
Small squat jar
H. 0.055, Diam. of body 0.09, Diam. of rim 0.065.
W29–31/S114–115 *98.2–97.2 ~ South Side
Flaring rim; elliptically compressed body; rounded bottom. Traces of horizontal black lines over the upper body.

Gray Ware and Other Monochrome

- HoB 488** (P65.183) PL. 133
Oinochoe
H. 0.126, Diam. of body 0.115, Diam. of base 0.05,
Th. of neck 0.003.
W29–31/S114–115 *98.2–97.2 ~ South Side
Red monochrome. Intact, except small fragments of rim and neck. Handle missing. Trefoil mouth; short neck; spherical body; flat base; vertical handle starting from shoulder. Not painted.
- HoB 489** (P65.186) PL. 133
Gray Ware round-mouthed jug
H. 0.10, Diam. of neck 0.074, Diam. of body 0.105,
Diam. of base 0.06, Th. of neck 0.005.
W29–31/S114–115 *98.2–97.2 ~ South Side
Intact Gray Ware jug except rim and handle. Wide, nearly straight-sided neck; slightly compressed globular belly; vertical strap handle from belly to rim (?); low ring base.
- HoB 490** (P65.191) PL. 133
Gray Ware amphora
H. 0.0118, Diam. of rim 0.24, Th. 0.005–0.007.
W29–31/S114–115 *98.2–97.2 ~ South Side
Many joining fragments of rim, neck, shoulder, and handle of Gray Ware amphora. Out-curving rim; wide neck; gentle transition from neck to shoulder; vertical strap handles (only stumps preserved) from neck to shoulder.

Cooking Ware**HoB 491** (P65.190) PL. 134

Cooking pot (Manisa 7501)
H. 0.021, Diam. of rim 0.16, Diam. of body 0.24,
Diam. of base 0.09, Th. 0.006.
W29–31/S114–115 *98.2–97.2 ~ South Side
Cooking pot is missing handles. Everted rim;
globular body; flat base; two vertical handles from
slightly above mid-body to shoulder.

HoB 492 (T65.15) PL. 134

Breadtray
L. with handle 0.63, W. 0.275, Th. of long side,
rim 0.045, Th. of short side, rim 0.075.
W29–31/S114–115 *98.2–97.2 ~ South Side
Four joining fragments of breadtray. A little more
than half of it missing. Flat tray; high and rounded
edge at one long side and a higher rounded edge on
one short side.

Imported**HoB 493** (P65.177) PL. 134

Small bowl
L. 0.025, W. 0.047, Th. 0.005.
W29–31/S114–115 *98.2–97.2 ~ South Side
Aeolic? Rim and body fragment of small bowl. Plain
rim. Dark brown painted over a fine thick white slip.
Exterior, a single horizontal line along rim and a row
of standing nesting triangles. Interior, a row of short
vertical lines over rim; a horizontal band below rim.
Perhaps Aeolic (?), according to M. Kerschner and
N. Ayaçlar (personal communication, Sardis, July
1–2, 2016).

HoB 494 (P65.174) PL. 135

Imitation Protocorinthian aryballos
H. 0.25, Diam. of base 0.015, Th. 0.002.
W29–31/S114–115 *98.2–97.2 ~ South Side
Imitation of Protocorinthian ovoid aryballos.
Lower body and base fragment. Ring base. Red to
black on a well-burnished clay surface. Exterior,
three horizontal parallel lines; a row of rays rising
from a horizontal line below; single horizontal line
and another on base; two horizontal lines encircling
underside of base.
Sardis M10, cat. Cor 146 (imported, but not
Corinthian; perhaps East Greek); corresponding to
MPC–LPC (690–630 B.C.).

HoB 495 (P65.175) PL. 135

Late Protocorinthian aryballos
H. 0.025, Diam. of mouth 0.01, Diam. of rim 0.04,
Diam. of neck 0.015.
W29–31/S114–115 *98.2–97.2 ~ South Side
Late Protocorinthian rim and neck fragment of
aryballos. Flat, disc-shaped mouth; narrow neck;
stump of handle. Brown over well-burnished clay

surface. Exterior, eight circles over the mouth; edge
of handle painted.

Sardis M10, cat. Cor 43.

HoB 496 (P65.176) PL. 135

Imitation Late Protocorinthian aryballos
H. 0.025, Diam. of rim 0.045, Diam. of neck 0.019.
W29–31/S114–115 *98.2–97.2 ~ South Side
Imitation of Late Protocorinthian aryballos, mouth
and neck fragment. Thin disc-shaped mouth; narrow
cylindrical neck. Painted red over creamy white slip.
Exterior, single horizontal line encircling mouth; a
row of rays below the horizontal line.
Sardis M10, cat. Cor 147.

TERRACOTTA

HoB 497 (T65.16) PL. 135

Loom weight
H. 0.053, Diam. of hole 0.005, Bottom 0.028 ×
0.027, Top 0.018 × 0.015; weight 30.5 g.
W29–31/S114–115 *98.2–97.2 ~ South Side
Four-sided, pyramidal loom weight. Two sides, top
and bottom slightly broken. Hole on top.

OTHER BOTHROI

POTTERY

*Lydian Painted Decoration***HoB 498** (P12.162) PL. 135

Black on Red dish
H. 0.07, Th. 0.006–0.01.
W27–30/S110–115 To *98.2 ~ bothros, east of
Building G at a higher level
Four joining fragments of rim and body of Black
on Red dish. Plain rounded rim. Matt black over
burnished clay surface. Exterior, three horizontal
lines. Interior, broad band with a line above and
below: groups of six vertical wavy lines which
continue above the upper border of the band to and
over rim; two horizontal lines.

HoB 499 (P65.128) PL. 135

Streaky glazed skyphos
H. 0.09, Diam. of rim 0.12, Diam. of base 0.05,
Th. 0.003–0.004.
W28–30/S110–115 *98.3–98.1 ~ discovered at
a higher level (slightly above the bothros group;
however, below *98.60 floor) but associated with
the occupation around Building G
Several joining fragments of rim, body, handles,
and base of skyphos. Red to black streaky glazed.
Plain rim; deep bowl; high ring base; two loop
handles (one of them partial, the other intact).
Exterior, not painted. Interior, streaky glazed.

HoB 500 (P65.167) PL. 136
 Skyphos (Manisa 4950)
 H. 0.145, Diam. of rim 0.22, Diam. of base 0.092.
 W20–25/S108–112 To *98.6 ~ discovered at
 a higher level (slightly above the bothros group;
 however, below *98.6 floor) but associated with
 the occupation around Building G
 Skyphos with nicked rim, deep bowl, ring foot,
 and two horizontal loop handles. Brownish red on
 clay surface. Exterior, a horizontal wavy line just
 below rim with a single line above and below; in
 the handle zone, a row of concentric circles on a
 reserved band; then three horizontal bands; a hori-
 zontal wavy line; three horizontal lines below; lower
 body and base, and handles, painted. Interior: a wide
 band covering rim and below rim; wide band near
 mid-bowl; center of bowl painted.

HoB 501 (P12.150) PL. 136
 Bichrome amphora (?)
 L. 0.131, W. 0.186, Th. 0.006–0.009.
 W20–25/S110–115 To *98.5 floor
 Body fragment of Bichrome amphora (?). Black
 over painted white. Exterior, groups of eight vertical
 lines over white slipped band, with two horizontal
 lines below; reserved red band; a series of two contig-
 uous concentric circles, each with a central dot of the
 compass painted black, over band painted white with
 two horizontal lines above and below; red band.

Gray Ware and Other Monochrome

HoB 502 (P65.127) PL. 136
 Gray Ware round-mouthed jug
 H. 0.135, Diam. of rim 0.12, Diam. of base 0.07,
 Th. 0.004–0.006.
 W28–30/S110–115 *98.3–98.1
 Gray Ware. Many joining fragments of rim, body,
 base, and handle of round-mouthed jug. Plain rim;
 straight-sided neck; gently rounded shoulder; slightly
 compressed globular body; flat base; vertical strap
 handle from mid-body (only the stump preserved).
 Exterior, wheel-burnished.
 Analyzed by Kealhofer and Grave (Kealhofer,
 Grave, and Marsh 2013: sample AIA 927).

Imported

HoB 503 (P65.96) PL. 137
 Large bowl
 H. 0.052, Diam. of rim 0.024, Th. 0.006.
 W28–30/S111–115 *98.6–98.4 ~ discovered at
 a higher level (slightly above the bothros group;
 however, below *98.60 floor) but associated with
 the occupation around Building G
 Rim and body fragment. Nicked rim. Brown over
 clay surface. Exterior, a single horizontal band along
 rim; a row of concentric circles on a reserved band;

inside the center circle, the compass mark can be
 seen, and the centers have a painted dot. Two hori-
 zontal bands. Interior, streaky.
 Cycladic or Euboean.

HoB 504 (P66.60) PL. 137
 Small Black on Red squat jar
 H. 0.065, est. Diam. of belly 0.105–0.11.5, Th. 0.05;
 Largest fragment: 0.052 × 0.054.
 W3–7/S90–95 *98.3–97.8;
 W2–5/S89–91 *97.5–97.3;
 W2–7/S90–95 *98.4–98.0

Four fragments of neck, shoulder, and body of a
 globular closed vessel. Exterior, black crosshatched
 meanders; row of butterfly pattern; narrow band
 of diagonal hashes; band with no decoration except
 one dot, which may be a stray drip; narrow band of
 ladder pattern; rays; band of two lines with vertical
 hashes between. Very similar to **HoB 505**, but not
 the same vessel.

HoB 505 (P66.9) PL. 137
 Small squat jar
 H. 0.028, W. 0.024, Th. 0.0035.
 W2–6/S86–90 *98.4–98.0

A single fragment of a small globular closed
 vessel with a crosshatched meander above a narrow
 horizontal line and butterfly pattern beneath. Very
 similar to **HoB 504**. The meander is slightly smaller
 than the other one, and the profile has a slight
 bulge on the interior that is not present on the
 other. These two probably came as a pair.

BONE

HoB 506 (BI61.27) PL. 137
 Bone roundel (Manisa 5351)
 Diam. 0.025, H. 0.01.
 W19/S90 *98.85
 Bone roundel, front side, stylized abstract depic-
 tion of two bird heads. The design is incised over
 ca. three-quarters of the area of the roundel, with
 two incised lines demarcating the edge of the
 design. The two eyes of the birds (with a central
 incised dot in each) are set opposite each other;
 long curved bills following the curve of the roundel
 extend from each eye, joining on top of each other at
 the right side of the roundel; a circular cutting with
 a central incised dot is placed above the bills. Back
 side: a central attachment tenon.

Greenewalt, "SARDIS 1972," pp. 33–34, fig. 11;
 Greenewalt, Cahill et al., "SARDIS 1986," pp. 166–167,
 figs. 34–37; Ivantchik 2001a, pp. 74–75; Dusinberre
 2010, p. 195, fig. 2; *LATW*, p. 451, no. 55.

HoB 507 (BI65.2)

PL. 137

Bone roundel (Manisa 4341)

Diam. 0.043.

W24.5/S112.5 *98.5 ~ South Side (bothroi)

Bone roundel. Incised decoration in nomadic Animal Style. Front side: stylized, abstract depiction of a curled animal. Upper central part: head encircled with a half-circle of short vertical incised lines; eye formed by a small circle with a central incised dot; ear, placed to the right of eye, is circular and has a triangular cut set at the base. From left, one hind leg that terminates in a volute (bordered with a narrow band of short vertical incised lines) lies below a linear tail that ends in a volute. From right, a foreleg with a paw shown as a volute (under a narrow band of short vertical incised lines). A three-quarter circle, encircled with a narrow band of short vertical incised lines and with an incised star at center, is placed between the head and tail. A narrow band of short vertical incised lines borders the underside of the animal at the central lower part of the roundel. Back side: flat.

Hanfmann, "SARDIS 1965," pp. 13–14, fig. 9; Greenewalt, "SARDIS 1972," pp. 33–34, fig. 11; Greenewalt, Cahill et al., "SARDIS 1986," pp. 166–67, 173 n. 49, figs. 34–37; Ivantchik 2001a, pp. 73–75; Dusinberre 2010, p. 195, fig. 2; *LATW*, p. 450, no. 54.

HoB 507A (T12.12)

PL. 138

Wattle and daub wall or ceiling chunk with reed impressions

W. 0.120, L. 0.074, Th. 0.053.

E5/S90–95 To floor *98.3

Reddish-buff, coarse, micaceous lightly baked clay with reed impressions all running parallel to one another. Evidence of burning.

Ramage, *Sardis M5*, figs. 25, 26, p. 9, dated seventh century.

East End

The following were found close together in the area E5–10/S95–100 to *99.0 and were described as a "nest" of pots.

*Lydian Painted Decoration***HoB 508** (P60.602)

PL. 138

Large Bichrome jar

H. 0.177, Diam. of rim 0.28.

E5–10/S95–100 To *99.00 ~ East End

White Bichrome. Several joining and nonjoining fragments of rim, neck, and shoulder of Bichrome jar. Thickened and flaring rim; wide and nearly vertical neck. Matt dark and red over white slip. Exterior, red paint covers rim; then a wide band of white slip painted with three lines, a wavy line with a horizontal line above and below, a row of closely arranged pendent concentric hooks of three lines each; and a wavy line with a line above and below; and two more horizontal lines. Transition to shoulder painted red. Partly preserved concentric circle below.

HoB 509 (P60.523A)

PL. 138

Large Bichrome jar

L. 0.09, W. 0.081, Th. 0.005.

E5–10/S95–100 To *99.00 ~ East End

Red Bichrome. Body fragment of jar. Matt dark over white slip and added red paint. Exterior, a row of concentric hooks with a single horizontal line below over white slip; wide painted red band; two horizontal lines over white slip.

HoB 510 (P60.424)

PL. 138

Wild Goat style stemmed dish fragment

H. 0.025, L. 0.063, W. 0.09, Th. 0.006–0.011.

E5–10/S95–100 To *99.00 ~ East End

Wild Goat style (could be local Lydian). Lower bowl fragment. Red to brown over white slip (slip on the interior worn off, but well preserved on the exterior). Exterior, from top to bottom, rising rays, a single horizontal line, then solid paint. Interior, a row of lotus flowers with a horizontal line below; center of the bowl painted.

LYDIAN I

BY R. GÜL GÜRTEKİN-DEMİR

Lydian Areas beneath the Roman House of Bronzes

THE LYDIAN SHOP

POTTERY

Lydian Painted Decoration

HoB 511 (P58.580) PL. 139

Black on Red stemmed dish
H. 0.078, Diam. of base 0.10, Th. of bowl 0.007.
The Lydian Shop *96.7 floor
Stem, base, and central bowl of Black on Red dish.
Little of the bowl remains. Matt black, painted over
red slip. Exterior, painted red from upper stem to
base. Interior, lines encircle central bowl.

HoB 512 (P58.581) PL. 139

Black on Red stemmed dish
H. 0.08, Diam. of base 0.1, Th. of bowl 0.006–0.007.
The Lydian Shop *96.7 floor
Stem, base, and central bowl fragment of Black
on Red dish. Little of the bowl remains. Matt black,
painted over red slip. Exterior, painted red from
upper stem to base. Interior (paint worn off), lines
encircling central bowl. Graffito on base (Sardis inv.
IN58.17; see line drawing on Pl. 139).
Johnson 1960, p. 7.

HoB 513 (P58.582) PL. 139

Black on Red stemmed dish
H. 0.082, Diam. of base 0.105.
The Lydian Shop *96.7 floor
Black on Red stem and base of dish. Little of the
bowl remains. Matt black, painted over red slip.
Exterior, painted red from upper stem to base, two
horizontal lines near lower stem.

HoB 514 (P58.583) PL. 139

Black on Red stemmed dish
H. 0.08, Diam. of base 0.1, Th. of bowl 0.008–0.011.
The Lydian Shop *96.7 floor
Five joining fragments of stem and base of Black
on Red stemmed dish. Little of the bowl remains.
Matt black, painted over red slip. Exterior, painted
red from upper stem to base. Interior, parallel lines
encircling central bowl.

HoB 515 (P58.570) PL. 139

Bichrome dish
H. 0.10, Diam. of rim 0.32, Diam. of base 0.09,
Th. 0.004–0.01.
The Lydian Shop *96.7 floor
Red Bichrome. Many joining and not joining frag-
ments of rim, bowl, and base of Bichrome dish.

Flaring square rim; articulated carination below rim;
shallow bowl; high ring base. Fifteen repair holes.
Black over white slip and wide red bands. Exterior,
wide red band from rim to carination. Interior, rim
painted red; below rim, band with single black wavy
line with a single black line above and below over
white slip; wide horizontal red band; band of white,
with a black line above and below; central part of
bowl, plain red.

HoB 516 (P58.573) PL. 140

Bowl
H. 0.076, Diam. of rim 0.0155, Diam. of base 0.63,
Th. 0.003–0.004.
The Lydian Shop *96.7 floor
Many joining fragments of rim, bowl, and base.
Slightly inverted rim; deep bowl; flat base with
irregular string cut. Thick horizontal ridges and buff
slipped on the exterior.

HoB 517 (P58.589) PL. 140

Skyphos
H. 0.027, Diam. of base 0.049.
The Lydian Shop *96.7 floor
Conical foot of skyphos. Trimmed on top. White
on plain dark streaky paint with a metallic sheen.
Exterior, two horizontal lines below base. Interior,
two lines encircling center part of skyphos.
Ramage 2008, p. 84, figs. 5–6.

HoB 518 (P58.578) PL. 140

Lid (Manisa 6591)
H. 0.184, H. of handle 0.081, Diam. of rim 0.418,
Th. 0.019.
The Lydian Shop *96.7 floor
Rounded and domed lid; loop handle at central
top. Repair holes. Red slipped and burnished.

HoB 519 (P58.595) PL. 141

Lid
H. 0.06, Diam. of rim ca. 0.22, Th. 0.006.
The Lydian Shop *96.7 floor
Rim and body fragment of lid. Inverted rim.
Exterior, red slipped, red to black, with a single
horizontal line below. Interior, gray fired.

HoB 520 (P58.584) PL. 141

Lekythos (Manisa 2210)
H. 0.237, Diam. of rim 0.042, Diam. of
shoulder 0.143, Diam. of base 0.069.
The Lydian Shop *96.7 floor
Many joining fragments of lekythos. Mushroom
mouth with an everted rim; cylindrical neck with
a ridge where the handle joins the neck (a typical
Lydian feature); ovoid plump body; high ring base;
vertical strap handle from shoulder to mid-neck.
Exterior painted red. Graffito on shoulder (IN58.16;
see line drawing on Pl. 141).
Johnson 1960, p. 7.

HoB 521 (P58.588) PL. 142

Myrina amphora (Manisa 5365)
H. 0.415, Diam. of rim 0.305, Th. 0.005–0.008.
The Lydian Shop *96.7 floor

Myrina type amphora. Many joining fragments of rim, body, and handle. Flaring square rim; nearly vertical neck; articulated transition at the join between neck and shoulder; spherical body; centrally grooved basket handle set on shoulder (single handle preserved). Matt black and red to dark streaky on fine thick white slip. Exterior, painted on rim; edge of rim white slipped. Neck has four horizontal bands of centrally dotted metopes divided by twelve short vertical lines, each band with a single horizontal line above and below, and separated by a horizontal red-black streaky band; a single dark line over the lowest streaky band at the transition from neck to shoulder. Shoulder: band of lotus “flower and bud” chain and filling ornament of standing triangle with a drop at top, and star-rosette; handle is plain streaky. Belly is streaky, with a dark line above and three dark lines below. Lower body, a row of concentric hooks over white slip.

Hanfmann, “SARDIS 1958,” p. 33, fig. 15; Fogg Art Museum, *Annual Report* (1957–1958), p. 17; Mellink 1960, pl. 14, fig. 13. Greenewalt 2010b, p. 110, fig. 3.

HoB 522 (P58.587) PL. 143

Waveline amphora (Manisa 2209)
H. 0.325, Diam. of rim 0.223, Diam. of body 0.35,
Diam. of base 0.102, Th. 0.009.
The Lydian Shop *96.7 floor

Many joining fragments of rim, neck, shoulder, body, and base of Waveline amphora. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (scars preserved); plump ovoid body; high ring base. Many repair holes; three pieces of lead remain on base. Red to black streaky glaze. Exterior, band along rim and below rim. Neck has a single horizontal wavy line; horizontal band at the join between neck and shoulder. Shoulder has double horizontal S curves, arranged horizontally, and an inverted V painted over handle stump; lower shoulder, a thick horizontal band and a horizontal large double arc; two thick horizontal bands on lower body. Interior, band continued from over rim to below rim.

Hanfmann, “SARDIS 1958,” p. 31, fig. 14; Ramage 2008, p. 83, fig. 4.

HoB 523 (P58.586) PL. 143

Amphora (?)
H. 0.1, Diam. of rim 0.12, Th. 0.004–0.006.
The Lydian Shop *96.7 floor

Rim, neck, body, and handle fragment of amphora (?). Everted and thickened rim; vertical neck; articulated transition at the join between neck

and shoulder; vertical strap handle from shoulder to mid-neck. Exterior, fine, painted red. Interior, fine, painted red from rim to mid-neck.

Note: The following amphora or hydria necks (**HoB 524–HoB 533**) are illustrated upside down to show that they were undoubtedly used as pot stands after breakage. They have been purposely sheared off. See also **HoB 630, HoB 702–HoB 707, HoB 711, and HoB 765** as well as Fig. 1.2.

HoB 524 (P58.561) PL. 143

Waveline amphora neck
H. 0.12, Diam. of rim 0.26,
Th. of neck 0.014–0.018.
The Lydian Shop *96.7 floor

Several joining fragments of rim and neck of Waveline amphora. Everted and thickened rim; nearly vertical neck; scar of vertical strap handle on both sides of neck. Glossy dark streaky glaze. Exterior, band along rim and below rim; neck has a single wavy line; black band at the end of neck. Interior, band continued over rim.

HoB 525 (P58.560) PL. 143

Waveline hydria neck
H. 0.124, Diam. of rim 0.26, Th. of shoulder 0.008–
0.01, Th. of neck 0.013.
The Lydian Shop *96.7 floor

Several joining fragments of rim and neck, with small part of shoulder and handle, of Waveline hydria. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (handle stump preserved). Red to black glaze. Exterior, band along rim. Neck, single wavy line; band at the join between neck and shoulder. Upper shoulder has part of horizontal wave line overlapping a horizontal large double arc. Interior, band continued over rim.

HoB 526 (P58.562) PL. 144

Waveline hydria neck
H. 0.117, Diam. of rim 0.26,
Th. of neck 0.014–0.017.
The Lydian Shop *96.7 floor

Intact rim and neck of Waveline hydria. Everted and thickened rim; nearly vertical neck; vertical strap handle (scar preserved). Exterior, band along rim. Neck has a single reddish horizontal wavy line; horizontal band at bottom of neck. Interior, band continued over rim.

HoB 527 (P58.563) PL. 144

Waveline hydria neck
H. 0.135, Diam. of rim 0.24, Th. of shoulder 0.005–
0.007, Th. of neck 0.012–0.014.
The Lydian Shop *96.7 floor

Several joining fragments of rim and neck, with part of shoulder and handle of Waveline hydria.

Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (handle stump preserved). Red to black streaky glaze. Exterior, band along rim; neck, single wavy line; band at the join between neck and shoulder; upper shoulder, part of wave line overlapping a horizontal large double arc. Interior, band continued over rim.

HoB 528 (P58.564) PL. 144

Waveline hydria neck
H. 0.11, Diam. of rim 0.24, Th. of shoulder 0.004, h. of neck 0.008–0.014.
The Lydian Shop *96.7 floor

Intact rim and neck, and small fragment of shoulder, of Waveline hydria. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (scar preserved). Red to black streaky glaze. Exterior, band along rim. Neck has a single horizontal wavy line; upper shoulder has horizontal large double arc. Interior, band continued over rim.

HoB 529 (P58.565) PL. 144

Waveline hydria neck
H. 0.123, Diam. of rim 0.26, Th. of shoulder 0.004–0.007.
The Lydian Shop *96.7 floor

Several joining fragments of rim and neck, and small part of shoulder of Waveline hydria. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (scar preserved). Red to black streaky glaze. Exterior, band along rim. Neck has a single wavy line; band at the join between neck and shoulder; upper shoulder, part of horizontal wave-line overlapping a horizontal large double arc, triangle at the join of arcs. Interior, band continued from rim.

Ramage 2008, p. 81, fig. 2.

HoB 530 (P58.566) PL. 144

Waveline hydria neck
H. 0.132, Diam. of rim 0.25, Th. of shoulder 0.008–0.009, Th. of neck 0.013–0.015.
The Lydian Shop *96.7 floor

Several joining fragments of rim, neck, and shoulder of Waveline hydria. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (stump preserved). Red to black streaky glaze. Band along rim. Neck has a single wavy line; horizontal band at the join between neck and shoulder; upper shoulder, part of horizontal wavy line. Interior, band continued over rim.

Analyzed by M. Kerschner (sample Sard 55).

HoB 531 (P58.567) Fig. 1.2, PL. 145

Waveline hydria neck
H. 0.118, Diam. of rim 0.26, Th. of neck 0.01–0.013.
The Lydian Shop *96.7 floor

Two joining fragments of rim and neck of Waveline hydria. Neck cut down. Everted and thickened rim; nearly vertical neck; vertical strap handle (stump preserved). Red glaze. Exterior band along rim. Neck has a single wavy line; horizontal band at the join between neck and shoulder. Interior, band continued over rim. See Fig. 1.2.

Ramage 2008, p. 85, fig. 10.

HoB 532 (P58.568) PL. 145

Waveline hydria neck
H. 0.113, Diam. of rim 0.24, Th. of neck 0.01–0.012.
The Lydian Shop *96.7 floor

Intact rim and neck of Waveline hydria. Shoulder especially neatly removed for reuse. Everted and thickened rim; nearly vertical neck; vertical strap handle (scar preserved). Red to black streaky glaze. Exterior, band along rim; neck, single wavy line; horizontal band at the join between neck and shoulder. Interior, band continued over rim.

HoB 533 (P58.569) PL. 145

Waveline hydria neck
H. 0.127, Diam. of rim 0.285, Th. 0.011–0.014;
H. 0.325, Diam. of rim 223, Diam. of body 0.35, Diam. of base 0.102.
The Lydian Shop *96.7 floor

Four joining fragments of rim and neck of Waveline hydria. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle (scar preserved). Red to black streaky glaze. Exterior, band along rim. Neck has a single wavy line; horizontal band at the join between neck and shoulder. Interior, band continued over rim.

Hanfmann, "SARDIS 1958," p. 28.

HoB 534 (P58.610) PL. 145

Large Ephesian ware closed vessel
Fragment 1: L. 0.067, W. 0.059, Th. 0.01–0.012;
Fragment 2: L. 0.44, W. 0.057, Th. 0.009–0.01.
The Lydian Shop *96.7 floor

Ephesian ware. Two body fragments that don't join. Matt dark and red over a thick white slip. Exterior, fragment 1. Partially preserved open palmette: the outer petals (calyx) and the five inner petals outlined; the outer petals dark spotted, the central inner petal red; the center of palmette outlined and painted red; ridge painted red at the stem of palmette; below the ridge, two opposed scrolls and an outlined, red spotted petal on the right. Fragment 2. Four standing rays, dark outlined and alternately plain red and painted dark, with a single dark horizontal line below; a row of squares

bordered with a single line above and below, squares alternately dark outlined and painted red.

HoB 535 (P58.598) PL. 145

Pot stand

H. 0.0115, Diam. of base 0.22, Th. of stem 0.008.

The Lydian Shop *96.7 floor

Many joining fragments of pot stand. Open at top and bottom; plain edge at top; cylindrical and wide stem; flaring base. Painted red on the exterior.

Ramage 2008, p. 82, fig. 3, left.

HoB 536 (P58.574) PL. 146

Spool

H. 0.084, Diam. of top and bottom 0.094,

Diam. of bottom hole 0.021.

The Lydian Shop *96.7 floor

Almost intact hollow spool, top hole broken. A thick torus at top and bottom; two deep concave grooves in between them. Traces of red to brown paint.

Ramage 2008, p. 84, figs. 6–7.

HoB 537 (P58.575) PL. 146

Spool

H. 0.076, Diam. of top and bottom 0.092, Diam. of bottom hole 0.022, Diam. of top hole 0.037.

The Lydian Shop *96.7 floor

Almost intact hollow spool, slightly broken at top. A thick torus at top and bottom; two deep concave grooves in between them. Traces of red to brown paint.

HoB 538 (P58.576) PL. 146

Spool (Manisa 6567)

H. 0.082, Diam. of top and bottom 0.096,

Diam. of top hole 0.022.

The Lydian Shop *96.7 floor

Almost intact hollow spool, bottom hole broken. A thick torus at top and bottom; two deep concave grooves in between them. Traces of red to brown paint.

HoB 539 (P58.579) PL. 146

Spool

H. 0.078, Diam. of top and bottom 0.095,

Diam. of top hole 0.042.

The Lydian Shop *96.7 floor

Almost intact hollow spool, bottom hole and resting surface broken. A thick torus at bottom; two thinner ridges at top and at mid-body. Traces of red to brown paint over white slip.

HoB 540 (P58.585) PL. 147

Red Bichrome pyxis

H. 0.20, Diam. of rim 0.12, Diam. of base 0.92,

Th. 0.004–0.005.

The Lydian Shop *96.7 floor

Many joining fragments of rim, body, base, and handles of red Bichrome pyxis. Rim, bevelled in; wide and cylindrical neck; biconical body: sharp-angled shoulder, slightly concave-sided belly,

sharp-angled transition to lower body; ring base; two loop handles, rising vertically, set on both sides of the transition of belly. Matt dark and red colors. Exterior, rim painted red; upper shoulder: wide reserved band with a series of downward hanging red petals with a single dark line above and two below. Handle zone: band painted red, two short vertical lines on each side of the handles which are painted red. Belly has a red band with a line above and below, then a single dark horizontal line, red band with a line above and below; base: painted red, a horizontal dark line below base.

HoB 541 (P58.572) PL. 147

Lydion

H. 0.082, Diam. of rim 0.062, Diam. of belly 0.067, Diam. of base 0.031.

The Lydian Shop *96.7 floor

Nearly intact lydion; small fragments missing from rim and base. Everted rim; slightly flaring neck; slightly compressed globular body; conical foot. Horizontally fluted body. Exterior, plain red to black paint. Interior, traces of paint over rim.

Ramage 2008, p. 84, fig. 6.

HoB 542 (P58.571) PL. 147

Lydion

H. 0.108, Diam. of rim 0.1, Diam. of belly 0.098, Diam. of base 0.043.

The Lydian Shop *96.7 floor

Joining fragments of lydion; small fragments missing from rim, neck, and body. Everted rim; slightly flaring neck; slightly compressed globular body; conical foot. Exterior, red spiral bands over white slip on neck and body. Interior, red painted over rim and neck.

Imported

HoB 543 (P58.577) PL. 148

Wild Goat style oinochoe

H. 0.0061, W. 0.0078, Th. 0.004–0.006.

The Lydian Shop *96.75

Wild Goat style (South Ionian) body sherd of oinochoe. Dark over fine white slip. Exterior, wide band: filling ornament (circle encircled with dots), browsing goat to right; filling ornament (pendent triangle, diamond rosette, hooked swastika); browsing goat (?) to right, filling ornament (standing triangle; dot-rosette; concentric circle, encircled with dots; crisscross, partially preserved hooked swastika).

N. Aytaçlar suggests a date of about 630–620 B.C. (personal communication, Sardis, July 1–2, 2016).

Below the Floor of the Lydian Shop*Lydian Painted Decoration***HoB 544** (P58.620) PL. 148

Black on Red dish

H. 0.087, W. 0.073, Diam. 0.15, Th. 0.011.

Test pit below the floor of the Lydian Shop, oven in southwest corner *96.50–96.00

Rim and body fragment of Black on Red dish.

Inverted rim; deep bowl. Rim has short radial lines across it. Exterior, two black bands below rim.

Interior, broad band with a horizontal line below and above; groups of vertical wavy lines made by five-point multiple brush; horizontal black line.

HoB 545 (P58.622) PL. 148

Black on Red dish

H. 0.064, W. 0.059, Th. 0.01.

Test pit below the floor of the Lydian Shop, oven in southwest corner *96.50–96.00 or *95.90

Body fragment of Black on Red dish. Badly worn.

Exterior, overlapping horizontal wavy lines made with a multiple brush of three or four points. Then two black lines with white (?) slip added. Pendent ovoid concentric semicircles below. Interior, paint not preserved.

HoB 546 (P58.633) PL. 148

Bichrome dish

H. 0.038, est. Diam. 0.23–0.26, Th. 0.007.

Test pit below the floor of the Lydian Shop, southwest corner *96.40

Rim and body fragment of Bichrome dish. Slightly inverted rim. Exterior, two narrow black bands and a red line between them; a white band with two black bands on top; dark band below is abraded and possibly unpainted. Interior, a white slipped band below the rim framed with a horizontal line above and below: a horizontal black wavy line and a horizontal line. Red slip toward the center.

HoB 547 (P58.621) PL. 148

Black on Red dish

L. 0.04, Th. 0.011.

Test pit below the floor of the Lydian Shop, oven in southwest corner *96.5–95.9

Body fragment of Black on Red dish. Exterior not painted. Interior, groups of vertical wavy lines, made with five-pointed multiple brush and two horizontal lines below.

HoB 548 (P58.612) PL. 148

Bichrome oinochoe (?)

L. 0.04, W. 0.035.

Below the floor of the Lydian Shop, not from actual test pit *96.40–95.00

Strap handle fragment of Bichrome oinochoe (?).

Red and black over white slip. Exterior, horizontal band with a single line below. A row of linked lozenges, alternately reserved and crosshatched at the center.

Compare **PC 76**.**HoB 549** (P59.201) PL. 149

Pot stand

H. 0.10, Diam. of upper part 0.2, Diam. of lower part 0.24, Th. 0.01.

E20/S60 *96.60 ~ west of Lydian Room, fill above floor level

Many joining fragments. Rim thickened out on the upper part; below rim, walls flare out forming a conical lower stand. Exterior, painted red, much worn.

Analyzed by M. Kerschner (sample Sard 56).

Ramage 2008, p. 82, fig. 3, right.

*Gray Ware and Other Monochrome***HoB 550** (P58.631) PL. 149

Gray Ware bowl

H. 0.11, W. 0.138, Th. 0.011.

Test pit below the floor of the Lydian Shop, southwest corner *96.40

Body fragment of large Gray Ware bowl with subtle ribbing from throwing marks. Slight carination at bend of belly. Shiny silver wash on exterior and interior.

*Cooking Ware***HoB 551** (P58.623) PL. 150

Cooking pot

H. 0.18, Diam. of base 0.10, Th. 0.08–0.017.

Test pit below the floor of the Lydian Shop, oven in southwest corner *96.50–96.00

Cooking pot, body and base fragments. Flat-bottomed kitchen ware, blackened by fire. Wheel made.

*TERRACOTTA***HoB 552** (T59.16) PL. 150

Terracotta mold

L. 0.023, W. 0.031, Th. 0.007–0.008.

E20/S60 *96.55 ~ test pit below the floor of the Lydian Shop, west of Lydian Room

Rectangular mold. Cutting on upper surface: a small square and a horizontal line above; square and horizontal line is intersected by a short vertical line immediately above the square. Pour channel is placed below the square. Two small holes at opposite corners.

THE LYDIAN ROOM*POTTERY**Lydian Painted Decoration***HoB 553** (P59.477) PL. 151

Skyphos

H. 0.06, W. 0.035.

W10/S70 *98.00 ~ west of Lydian Room

Fragment of rim, body, and single handle stump of skyphos. Plain rim, deep bowl. Red over creamy white slip. Handle painted; three parallel horizontal bands below handle. Interior painted.

HoB 554 (P59.449) PL. 151
 Streaky glazed oinochoe
 H. 0.195, Diam. of base 0.08, Diam. of rim 0.095.
 W10/S70 *98.00 ~ west of Lydian Room, ashy dirt
 Oinochoe with flat base, ovoid body, vertical neck, and everted rim. Highswung handle. Streaky glaze on neck; groups of five pendent petals on shoulder; wide streaky band at mid-body; handle glazed. Black bands at junction of neck and shoulder, and streaky band on body. Banded on the interior from rim to near mid-neck.

HoB 555 (P59.479) PL. 151
 Strainer
 L. 0.053, W. 0.047, Th. 0.007.
 W10/S70 *98.00 ~ west of Lydian Room
 Fragment of bottom of strainer, painted red. Perforated overall. Painted red on both sides.

HoB 556 (P59.500) PL. 152
 Wild Goat style column krater
 H. 0.05, Diam. of rim 0.24, Th. 0.006.
 W10/S70 *98.00 ~ west of Lydian Room
 Wild Goat style (could be local Lydian). Eleven fragments, some joining, of rim, neck, shoulder, body, and handle of column krater. Flaring rim; slightly outward curved sides at neck; single loop handle rising vertically and joined to the rim with a strut. Dark painted over a white slip. Ledge rim has circles with a large central dot alternating with five radial strokes. Exterior, on each side of the handle two vertical lines; over the handle, short vertical brush strokes. Neck, partially preserved petals of a palmette rosette. On the shoulder, a wide reserved panel with three large palmette flowers (one pendent, the second standing over the horizontal line below, the last set vertically), and filling ornament of a hooked swastika and cross with a single dot in each quarter between palmette rosettes; a single painted band with a meander bordered with a line above and below, and each motif separated by two short vertical lines; a single painted horizontal band. Interior, plain dark painted from below rim to underside of shoulder.
 Hanfmann, "SARDIS 1959," p. 30, fig. 15.

Imported

HoB 557 (P59.377) PL. 152
 Wild Goat style oinochoe
 H. 0.09, W. 0.115, Th. 0.004–0.006.
 E5–10/S55–60 *97.64–97.00 ~ west of Lydian Room, earlier level
 Wild Goat style (North Ionian). Three fragments, two joining, of mouth, neck, and shoulder. Trefoil mouth; articulated transition from neck to shoulder. Red to dark over diluted creamy white slip. Painted from rim to upper neck. Neck has a reserved band, with a single horizontal line above and below, and

a centrally dotted broken guilloche; shoulder band, from left to right, upper body of a dog to right; pendent filling ornament (three adjacent tongues, concentric semicircles surrounded by dots) above the dog; tail of a goat (?); filling ornament (rosette: central circle with four surrounding T's).

Hanfmann dated the piece to ca. 625–600; N. Aytaçlar dates to 650–625 B.C. (personal communication, Sardis, July 1–2, 2016). Hanfmann, "SARDIS 1959," p. 30, fig. 16.

LAMP

HoB 558 (L59.81) PL. 152
 Lamp body
 H. 0.03, L. 0.09, Th. 0.006.
 W10/S70 *98.70 ~ south of Lydian Room
 Lamp body and nozzle fragment. Rounded and open; diagonal and flaring rim; horizontal and high edge; small nozzle; flat bottom with concave center. Decoration, red to black. Exterior, band over rim; band above bottom. Interior, single band inside the lamp; nozzle painted.

**TEST PITS INTO LYDIAN II LEVELS
 EAST OF LYDIAN ROOM**

E3–5/S55.5–57

POTTERY

Lydian Painted Decoration

HoB 559 (P59.395) PL. 153
 Bichrome krater
 H. 0.05, W. 0.010, Th. 0.09, W. of ledge rim 0.024.
 E3–5/S55.5–57 *95.33–94.23, test pit
 Rim and body fragment of a large Bichrome krater. Everted rim. To left and right of vertical lug, white slip and heavy black line bordering the panel. A second vertical line divides the left hand panel. Reddish clay, unglazed.

HoB 560 (P59.440) PL. 153
 Bichrome amphora or oinochoe
 L. 0.1, W. 0.061, Th. 0.008.
 E3–5/S55.5–57 *93.40–92.83 ~ east of Lydian Room
 Red Bichrome. Shoulder fragment of amphora or oinochoe. Matt dark paint. Trace of a horizontal band over the transition to shoulder, and below two partially preserved pendent concentric hooks.

Gray Ware and Other Monochrome

HoB 561 (P59.549) PL. 153
 Gray Ware oinochoe
 H. 0.08, W. 0.08, Th. 0.008.
 E3–5/S55.5–57 *95.5–93.5, test pit
 Gray Ware. Rim fragment of a trefoil oinochoe. Shiny silvery wash. Stick polished on exterior.

Imported

- HoB 562** (P59.379) PL. 153
 Protocorinthian linear kotyle
 L. 0.028, W. 0.012, Th. 0.002.
 E3-5/S55.5-57 *97.64-97.00 ~ east of Lydian
 Room
 Protocorinthian linear kotyle body fragment. Dark
 red glazed. Exterior, four narrow vertical parallel
 lines; six narrow horizontal parallel lines. Interior
 painted red.

E7-10/S55-57

POTTERY

Lydian Painted Decoration

- HoB 563** (P59.451) PL. 154
 Black on Red dish
 H. 0.043, W. 0.055, Th. 0.008.
 E7-10/S55-57 Ca. *96.55
 Black on Red rim and body of shallow dish.
 Concentric semicircles resting on a narrow black
 band on the broad flaring rim. Beyond the sharply
 edged rim, concentric pendent semicircles with a
 horizontal line above.
- HoB 564** (P59.453) PL. 154
 Ephesianizing dish
 H. 0.04, W. 0.026, Th. 0.007.
 E7-10/S55-57 *96.55
 Ephesianizing dish lower body fragment. Matt
 black and additional red over a thick white slip
 inside and out. Exterior, ladder pattern in between
 two horizontal lines over a red coat. Two lighter
 dilute horizontal red lines above and another one
 below that pattern. Interior, nearly the same design
 as on the exterior.
- HoB 565** (P59.452) PL. 154
 Ephesianizing dish
 H. 0.045, W. 0.04, Th. 0.008.
 E7-10/S55-57 *96.55
 Ephesianizing dish rim and body fragment. Slightly
 inverted rim; shallow bowl. Matt black and addi-
 tional red. White on two of the bands. Exterior, two
 horizontal black lines over red; ladder pattern in
 between two horizontal lines over white; white band;
 two black horizontal lines. Interior, black band over
 rim and below it; over a white coat: a row of latticed
 squares framed with a band above and below; a
 thinner band over red coat.
- HoB 566** (P59.467) PL. 154
 Black on Red bowl
 W. 0.065, L. 0.085, Th. 0.007.
 E7-10/S55-57 Ca. *96.05
 Black on Red body fragment of bowl. Exterior,
 remains of a concentric circle (two circles); band on

outer edge of fragment. Interior, a wavy line pattern
 made with a four-pointed multiple brush. Heavily
 burned and discolored.

- HoB 567** (P59.518) PL. 154
 Ephesianizing bowl
 H. 0.15, est. Diam. of rim 0.24, Th. 0.006.
 E7-10/S55-57 *96.05 (floor, burned level)
 Rim fragment of a shallow Ephesianizing bowl.
 Plain rim. Exterior, rim is dark red. Thick white
 slip makes the background for two latticed square
 patterns in black. Interior red slipped.

- HoB 568** (P59.448) PL. 154
 Streaky glazed small jug
 H. 0.07, Diam. of rim 0.04, Th. 0.007.
 E7-10/S55-57 Ca. *96.60
 Rim, neck, upper body, and handle fragment. Plain,
 slightly everted rim, short neck, vertical handle from
 rim to shoulder. Dark red to black streaky glazed.

Gray Ware and Other Monochrome

- HoB 569** (P59.450) PL. 155
 Buff Ware oinochoe
 H. 0.17, Diam. of base 0.06.
 E7-10/S55-57 Ca. *96.55
 Buff Ware. Complete body and most of short neck
 of a trefoil oinochoe. Most of rim missing. Wide,
 conical neck; spherical shoulder and belly; flat base.
 Stump of handle on the shoulder. Fabric is smooth but
 not shiny. Unglazed.
- HoB 570** (P59.466) PL. 155
 Gray Ware basin
 H. 0.08, W. 0.85, Th. 0.015.
 E7-10/S55-57 *96.05
 Gray Ware basin rim, body and handle fragment.
 Rim out-turned and rounded; handle stump preserved.
- HoB 571** (P59.409) PL. 155
 Gray Ware small jar
 H. 0.105, Diam. of neck 0.008, Diam. of belly 0.11,
 Diam. of base 0.05, Th. 0.003-0.004.
 E7-10/S55-57 Ca. *96.05
 Several joining fragments of neck, body, and base
 of Gray Ware jar. Rim missing. Slightly sagging
 towards belly; flat bottom.
 Hanfmann, "SARDIS 1959," p. 31, fig. 17.

Imported

- HoB 572** (P59.443) PL. 155
 Late Protocorinthian kotyle
 H. 0.031, Diam. of rim 0.12, Th. 0.005.
 E7-10/S55-57 Ca. *96.05
 Two joining fragments of rim, body, and single
 handle of Late Protocorinthian kotyle. Nicked
 rim; rounded shallow bowl; two stumps of single
 loop handle slightly rising upwards. Glaze hardly

preserved. To the left of handle, three vertical lines from rim down to below handle; near the left stump, two vertical lines.

Although called a pyxis by J. Schaeffer, fragment is a kotyle.

650–630 B.C.

Sardis M10, cat. Cor 27.

East End BUILDING A

POTTERY

Lydian Painted Decoration

HoB 573 (P60.340) PL. 156

Streaky glazed skyphos

H. 0.0107, Diam. of rim 0.10, Diam. of base 0.04, Th. 0.003–0.004.

E0.5/S104 *99.45 ~ inside Building A

Seven joining fragments of rim, bowl, base, and handle (one preserved) of skyphos. Plain rim; deep bowl, low conical foot; loop handles below rim. Streaky red glazed. Rim painted red; reserved on the handle zone; painted red from below handle to base; one side of handle painted. Interior painted red.

HoB 574 (P62.159) PL. 156

Bichrome skyphos

Est. h. 0.12–0.13, Diam. of rim 0.14, Diam. of base 0.06, Th. 0.004–0.006.

E5/S105 *98.90, below the second floor level *99.15 ~ inside Building A

Red Bichrome. Eight joining and nonjoining fragments of rim, bowl, base, and stump of single handle of skyphos. Plain rim; deep bowl; low conical foot. Exterior and interior, matt black with added white color over slightly streaky red slip. Exterior, single horizontal dark line over and below rim; three triple lines (a single white horizontal line with a dark line above and below) placed below handle, at mid-bowl and lower body. Interior, four triple lines (a single white horizontal line with a dark line above and below), placed below rim, at upper body, and around the center of bowl.

HoB 575 (P62.158) PL. 156

Streaky glazed oinochoe

H. without handle 0.128, H. with handle 0.135, Diam. of rim 0.06, Diam. of bottom 0.08, Diam. of body 0.127, Th. of neck 0.003–0.004.

E5/S105 *98.90, below the second floor level *99.15 ~ inside Building A

Almost intact streaky glazed oinochoe except for spout and a small missing part from rim. Trefoil mouth with a plain rim; short cylindrical neck; spherical body; rounded bottom; vertical strap handle

from mid-body to rim. Exterior, red to black streaky glazed overall from rim to bottom, including handle.

HoB 576 (P62.99) PL. 156

Wild Goat style oinochoe

L. 0.081, W. 0.042, Th. 0.004–0.006.

E5/S105–110 To *99.40 ~ inside Building A

Rim and rotelle (of handle) of Wild Goat style oinochoe. Trefoil mouth. Decoration reddish-black glaze with a metallic sheen over creamy slip on the exterior. Painted on rim and behind the rotelle; partially preserved horizontal brush stroke. Circular face of rotelle has a dot in the center encircled by other dots. Rim painted on interior.

HoB 577 (P62.208) PL. 157

Waveline hydria (Manisa 5354)

H. 0.41, Diam. of rim 0.23, Diam. of body 0.36, Diam. of base 0.12.

E5/S105 *98.90, below the second floor level *99.15 ~ inside Building A

Almost intact Waveline hydria. Several joining fragments of rim, neck, shoulder, and handle. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handle, from shoulder to near mid-neck; two horizontal loop handles rising diagonally at shoulder; plump ovoid body; ring base. Red to black glossy streaky glaze. Exterior, band along and below rim; neck has single horizontal wavy line; horizontal band at the end of neck; upper shoulder, horizontal large arcs overlapping, with diamonds at the juncture of arcs; large loops placed above a horizontal band (at lower shoulder) so that their rounded ends overlap the arc above; two thick horizontal bands, one below handles, the other over base; vertical handle has horizontal lines; loop handles, painted. Interior, band continued from top to below rim

HoB 578 (P62.220) PL. 157

Waveline hydria or amphora

H. 0.37, Diam. of rim 0.40, Th. of neck 0.005–0.01, Th. of body 0.005–0.007.

E5/S105 *98.90, below the second floor level *99.15 ~ inside Building A

Waveline hydria or amphora. Many joining and nonjoining fragments of rim, neck, shoulder, body, and handle (single loop handle preserved). Everted and thickened rim; nearly vertical neck; horizontal loop handle rising diagonally at shoulder; plump ovoid body. Painted red over clay surface. Exterior, single band along rim and two bands below rim; neck, a single horizontal wavy line; horizontal band at the end of neck; shoulder, horizontal double arc, diamond at the juncture of arcs; double loop pattern overlaps both the horizontal lines (above handle) and the arcs above; two narrow horizontal bands above handle and lower body.

LAMPS

HoB 579 (L60.37a–j) PLS. 158, 159

Ten lamps (Manisa 4313 [L60.37E], 4314 [L60.37H], 4315 [L60.37J], 4316 [L60.37A], 4317 [L60.37D], 4318 [L60.037F], 4319 [L60.37B], 4320 [L60.37I], 4321 [L60.37C, G])

H. 0.028, Diam. of rim 0.07, Diam. of bottom 0.07.
E15/S105 *99.15 ~ east of Building A

A total of ten complete lamps. Rounded and open; horizontal and concave rim; vertical and high edge; large nozzle; high central cone; flat base with concave center. Traces of dark paint over rim, upper cone and nozzle.

POTTERY

Cooking Ware

HoB 580 (P60.508) PL. 160

Cooking pot

H. without handle 0.10, H. with handle 0.137,
Diam. of rim 0.12, Th. 0.003–0.005.

E0–5/S105 To *99.40–99.30 ~ inside Building A

Cooking pot. Two joining fragments of rim, shoulder, body, and handle. Thickened and everted rim; single vertical strap handle from shoulder to rim.

Imported

HoB 581 (P62.100) PL. 160

Wild Goat style dish

Fragment A: L. 0.081, W. 0.086, Th. 0.005–0.006;

Fragment B: L. 0.042, W. 0.10, Th. 0.005–0.006;

Fragment C: L. 0.032, W. 0.058, Th. 0.005.

E5/S105–110 To *99.40;

E0–5/S105 *99.40–99.10;

E0–5/S108–110 To *99.60 ~ discovered within the upper filling of walls; inside Building A

Seven joining and nonjoining fragments of Wild Goat style dish. Plain, thickened, and long rim; sharp transition to shallow bowl; stumps of two omega handles. Red over white slip.

Exterior, fragment A: rim, meander row; handle stump, vertical brush strokes; two horizontal lines; leg of a deer or goat between filling ornament. Fragment B: rim plain slipped; handle stump, vertical brush strokes; two horizontal lines; a feline to left, with spotted body and legs; filling ornament between legs. Fragment C: two horizontal bands at lower part of register with paint worn off, traces of single foreleg of a goat or deer to right, filling ornament, dotted cross.

Interior, fragment A: hatched area of unidentified motif (tail?); filling ornament (standing triangle); horizontal band framing the upper border of a band (dogtooth pattern?); two bands with a horizontal line above and below. Running S (traces of meander on the right); dogtooth pattern; rim painted. Fragment

B: short horizontal battlement meander and a foreleg of a deer or goat to right, filling ornament (standing triangle), dog to left (head and forelegs preserved) and traces of filling ornament in between legs; series of bands with a horizontal line above and below: running S with dogtooth pattern on the right; meander row; dogtooth pattern; rim painted. Fragment C: horizontal battlement meander; running S with a horizontal band above and below.

In the opinion of M. Kerschner and N. Aytaçlar (personal communication, Sardis, July 1–2, 2016), certainly not Ionian; perhaps Lydian of the lower Hermus valley, or Aeolic. Probably last quarter of the sixth century.

HoB 582 (P62.93) PL. 161

Ionian cup

H. 0.03, Th. 0.003–0.004.

E0/S105 To *98.80, below the second floor level
*99.15 ~ west face of Building A

Ionian. Rim and body fragment of cup. Everted rim. Black glaze and added red color. Exterior, rim and below rim plain black glazed; two horizontal red lines over glaze below rim. Interior, over the rim, reserved band, single horizontal red line over plain black glazed; below rim, plain black glazed.

Late seventh to mid-sixth century, according to M. Kerschner; early sixth century, according to N. Aytaçlar (personal communication, Sardis, July 1–2, 2016).

HoB 583 (P60.291) PL. 161

Attic black-figure stemmed cup

H. 0.036, Th. of tondo 0.008.

W1–E3/S101–104 *99.50 ~ discovered within the filling of the walls, perhaps suggesting a late phase of this building

Foot and tondo fragment of Attic black-figure stemmed cup. Exterior, plain black glazed. Tondo, naked satyr running (?) to right, torso, tail, legs, and arms partially preserved; incision on torso, genitals, and left thigh; traces of additional white color over torso and right thigh. Leafless Group, ca. 500 B.C. (D. von Bothmer).

Hanfmann, "SARDIS 1960," p. 12; *Sardis* M10, cat. Att 73.

HoB 584 (P60.504) PL. 161

Wild Goat style oinochoe

L. 0.053, W. 0.075, Th. 0.004–0.007.

E0–5/S105 To *99.40–99.30 ~ discovered within the upper filling of walls; inside Building A

Wild Goat style (North Ionian). Shoulder fragment of oinochoe; ridge at the transition from neck to shoulder. Black and added red over white slip. Exterior, single band on the ridge; filling ornament (pendent concentric semicircle), up-turned tail of lion to right (lion not preserved); filling ornament

(dot-rossette) inside the loop of tail; lion to right (tail, upper body, rump, part of hind legs, and one foreleg preserved) with its tail meeting with the tail of the other lion. A circle with a dot below the join of tails; lion outlined in incision; added red color on the lower head, mid-body, and one hind leg; filling ornament (dot-rossette) inside the loop of tail.

Late seventh century, according to N. Aytacılar (personal communication, Sardis, July 2016).

HoB 585 (P62.92) PL. 161

Early Corinthian alabastron
H. 0.042, Diam. of rim 0.026, Th. 0.003.
E0-5/S100-105 To *98.80, below the second floor level *99.15 ~ west face of Building A
Mouth, neck, shoulder, and handle of Early Corinthian alabastron. Disc mouth; handle from mouth to shoulder. Black over clay surface. Exterior, over mouth, three concentric circles; neck, pendent tongues; shoulder, below handle, a single horizontal band; then painted solid.

Sardis M10, cat. Cor 99.

HoB 586 (P62.127A) PL. 161

Middle or Late Corinthian aryballos
L. 0.035, W. 0.04, Th. 0.002-0.003.
E0-5/S100-105 To *99.0, below the second floor level *99.15 ~ discovered within the upper filling of walls; inside Building A

Middle or Late Corinthian warrior aryballos. Two joining fragments of belly. Black over clay surface, paint worn. Exterior, horizontal row of petals; two horizontal lines; traces of incision at head and shield.

Sardis M10, cat. Cor 139.

TERRACOTTA

HoB 587 (T61.18) PL. 161

Architectural terracotta
H. 0.126, W. 0.152, Th. 0.023-0.039.
W9/S99 *99.60

Terracotta sima (?) fragment. Partially preserved. Decoration in relief. Painted black and red. Above, a meander pattern on a raised border; below, a triple petalled palmette (petals painted red and dark alternately) placed on the upper junction of red volutes.

This item was actually found in the vicinity of Building B, not Building A.

Ramage, *Sardis* M5, cat. no. 45.

METAL

HoB 588 (M62.37) PL. 162

Bronze clothing attachment?
H. 0.019, W. 0.015.
E5/S105 To *98.50 ~ Building A, west face
Copper alloy. Open, triangular-shaped; flat horizontal bar at apex.

Sardis M8, cat. no. 905.

HoB 589 (M65.5) PL. 162

Bronze fibula
Span arc: 0.03, Th. 0.005.
W3/S100 *99.30 ~ west of Building A
Copper alloy. Semicircular arc, flat on one side and convex on the other. Five groups of three rings on arc.
Hanfmann, "SARDIS 1965," p. 13; *Sardis* M8, cat. no. 675.

BONE

HoB 590 (BI62.2) PL. 162

Bone pin
L. 0.078, D. 0.004-0.009.
E5/S105 To *98.50 ~ Building A, west face
Round bone pin. Nearly complete; tan. Pointed end missing. Roughly circular section; tapering to a point at one end; cone-shaped head, pointed at top; below head, three deep horizontal grooves forming two ridges, each with shallow grooves.

HoB 591 (BI60.13) PL. 162

Bone object
H. 0.03, Diam. at top 0.006, Diam. at bottom 0.007-0.009.
E0-5/S105 *99.60-99.40 ~ Building A
Cone-shaped bone object. Cut smoothly on both ends; vertically trimmed on the exterior. Spongy bone visible on bottom end.

HoB 592 (BI14.7) PL. 162

Bone blank
L. 0.049, W. 0.016, Th. 0.0035.
E0-5/S105 To *99.4 ~ Building A
Bone broken on one end. Smoothed on both sides, better smoothed on one side. On one vertical edge, three semicircular cutouts; the vertical edge is smoothed.

HoB 593 (BI14.2) PL. 162

Bone blank for pin?
L. 0.075, Diam. on both ends 0.009.
E10-15/S110 To *99.50 ~ near Building A
Cylindrical bone, cut smoothly on both ends.

BUILDING B

POTTERY

Lydian Painted Decoration

HoB 594 (P61.506) PL. 163

Ephesianizing stemmed (?) dish
L. 0.061, W. 0.037, Th. 0.005-0.007.
E5/S95 *98.00-97.65 ~ northeast of Building B
Ephesianizing ware, body fragment. Shallow bowl, almost flat. Matt dark, red, and thick paint over glossy white slip. Exterior painted red. Interior, over white slip, a band of standing and pendent dark

lattice squares, framed above and below with red horizontal line between two dark horizontal lines; dogtooth pattern.

HoB 595 (P65.99) PL. 163

Red Bichrome bowl
H. 0.115, Diam. of rim 0.20, Diam. of base 0.066, Th. 0.004–0.007.
W2–3.5/S99–101 *98.50–98.25, above floor ~ Building B
Five joining fragments of rim, bowl, and base of bowl. Plain and slightly inverted thick rim; deep bowl; plain base. Matt black and red (red paint worn). Exterior, a row of pendent concentric short hooks (each seven brushes) with three horizontal lines below; traces of red paint on mid-body. Interior, traces of red paint below rim.

HoB 596 (P65.15) PL. 163

Round-mouthed jug
H. 0.103, Diam. of body 0.15, Diam. of base 0.007, Th. of neck 0.004–0.006, Th. of body 0.006–0.008.
W9/S99 *98.80 ~ discovered outside of Building B, but at the same level as the room
Several joining and nonjoining fragments of rim, neck, body, base, and handle of jug. Plain rim; nearly vertical neck; slightly compressed globular body; ring base; vertical strap handle from shoulder (?) to rim. Red to black streaky glaze. Exterior, streaky from below mid-body to base. Interior, painted from rim to mid-neck; bottom of interior also painted.

HoB 597 (P65.6) PL. 164

Wild Goat style lebes (?) (Manisa 5887)
H. 0.155, W. 0.18, Th. 0.006.
W7/S96 *99.30 ~ Discovered at the north corner of west wall, below foundation of Building B
Sardis Wild Goat style. Matt black and red over creamy white slip. Exterior, first register: spotted sphinx to right (three of its paws preserved); single horizontal band; second register: filling ornament (dot-rosette), bird to right (head turned back left), sphinx to left (foreleg spotted, rest with reserved lower leg and solid painted upper leg), filling ornament (dot-rosette and circle with dots), sphinx (?) to right (one hind paw preserved); third register: filling ornament (dot-rosette), goat to right, body solid painted (feet and head not preserved), filling ornament above deer (cross with triangle in between extremities and dot-rosette); filling ornament (two dot-rosettes); tail of a goat (?) to right. Interior painted red.

Hanfmann, "SARDIS 1965," p. 15, fig. 11; Greenewalt 1970, no. 15, pl. 9, fig. 2.

Gray Ware and Other Monochrome

HoB 598 (P61.258) PL. 164

Bowl rim
W. of rim 0.017, est. Diam. 0.18–0.20, Th. 0.005.
E0/S100 *99.10 floor ~ Building B, floor and wall
Red ware. Rim fragment with flat ledge. Not painted. Incised decoration. Exterior, two rows of short radial lines incised irregularly. Interior, a horizontal row of dots, short vertical lines overlapping irregularly.

HoB 599 (P61.257) PL. 164

Lebes
H. 0.046, W. 0.086, Th. 0.008.
E0/S100 *99.10 floor ~ Building B, floor and wall
Red ware. Rim, body, and spool-shaped attachment. Attachment placed below rim.

Imported

HoB 600 (P61.199) PL. 164

Dish
L. 0.033, W. 0.046, Th. 0.006.
W5/S100 To *99.30 floor ~ discovered outside of Building of B, but at the same level as the room
Local Anatolian (other than Lydian or Lydianizing) dish fragment. Plain rim; shallow bowl. Black and added red over a creamy slip. Exterior, below rim, a band of linked crosshatched lozenges (with alternating red and black hatching), with a single horizontal line above and below; another single horizontal line below. Interior, below rim, a band of linked crosshatched lozenges with alternating red and black hatching.

HoB 601 (P65.9) PL. 164

Bird bowl
L. 0.036, W. 0.043, Th. 0.004.
W2–3/S99–103 *99.45–98.80 ~ south of Building B
Rim and body fragment of bird bowl. Red paint over burnished clay surface. Exterior, metopal band: metopes divided by three vertical lines, left metope a crosshatched lozenge with an outer lozenge. Interior, painted.
650–600 B.C., according to N. Aytaçlar (personal communication, Sardis, July 2016).

STONE

HoB 602 (S61.17) PL. 165

Stone mold
H. 0.015, L. 0.071, W. 0.045.
W5/S100 *99.30 floor ~ Building B, foot of wall
Stone (gray-green schist) mold for earrings. Rectangular-shaped; partially broken at one end. Two-sided.

1. Cuttings for two boat-shaped earrings. Boat-shaped ends, below, face to right and each has a pin-line vertical straight ending above; pour channels are placed immediately below the central part of boat-shaped ends. A small depression between the pin-shaped ends, and a larger depression above the mold (partially missing).

2. Nearly three-quarters of a circular cutting placed to left, on the longer edge of mold, leaving the circle open; center of circle cutting is high, flat, and cone-shaped with a tiny hole at center. A pour channel is placed to the central right of circle, on the right edge of mold. Two small depressions, one deep and the other quite shallow, near the lower right corner of mold.

Sardis M8, cat. no. 951.

HoB 603 (S61.16) PL. 165

Stone mold (Manisa 6654)

H. 0.014, L. 0.07, W. 0.045.

W5/S105 *100.0 ~ south of Building B and above its floor

Stone (gray-green schist) mold for earrings and perhaps for other jewelry. Possibly rectangular-shaped; partially broken and missing. Two-sided: 1. Cuttings for three boat-shaped earrings. Boat-shaped ends, below, face to left and each has a vertical pin-line, ending straight above (partially preserved); pour channels are placed immediately below the central part of boat-shaped ends meeting the lower edge of mold; 2. Small segment of a circular cutting placed to the right edge of mold; another cutting, long, vertical, and arrow-like, is placed below, to the right of this circular cutting.

Sardis M8, cat. no. 950.

HoB 604 (S63.1) PL. 165

Stone mold (Manisa 6653)

H. 0.005, L. 0.053, W. 0.051.

W20/S115–120 To *102.50 ~ west of Building F

Stone (gray-green schist) mold for small, thin objects. Nearly square-shaped. Two sided: 1. A circle and a rectangle, both low relief, with a central small hole; a small circle is slightly preserved on the surface of rectangle; the area in between and around the circle and rectangle are cut and include small, tiny holes; two shallow pouring channels below the circle and the rectangle; 2. Segment of a circle in low relief is surrounded with circular cutting with small, tiny holes, similar to the other side.

Sardis M8, cat. no. 952.

HoB 605 (S63.6) PL. 165

Stone mold

H. 0.016, L. 0.032, W. 0.03.

W20/S110–115 To *100.90 ~ west of Building F

Stone (gray-green schist) mold for jewelry. Possibly narrow, rectangular-shaped; small fragment

of central mold preserved. Cutting preserved on one side, near the longer edge of mold: three-quarters of a circle with a central tiny hole; pour channel placed nearly at the center of circular cutting on the other long edge of mold. A small circular depression near upper right corner of mold. Another circular more shallow depression is on the long left edge.

Sardis M8, cat. no. 953.

BONE

HoB 606 (BI61.15) PL. 166

Bone pin

L. 0.033, Diam. 0.003–0.008.

E0–W5/S100 To *99.30 floor ~ east of Building B

Dark tan bone. Small round pin. Head and pointed end missing. Roughly circular in section; tapering to point at one end.

HoB 607 (BI61.16) PL. 166

Bone pin

L. 0.071, L. of head 0.022, Diam. 0.004–0.001,

Th. of head 0.003–0.005.

E5–10/S95 *99.30–98.80 ~ east of Building B

Tan bone. Complete. Head, long and rectangular in section; below head, roughly circular in section; tapering to point at the other end.

HoB 608 (BI61.17) PL. 166

Bone pins (Manisa 6719)

L. 0.07, Diam. of head 0.006.

E0–W5/S100 *99.30 floor ~ Building B

Two tan bone pins, both nearly complete: 1. Head rounded; roughly circular in section; tapering to point at one end; 2. Head rounded; roughly circular in section; tapering to point at one end.

HoB 609 (BI61.18) PL. 166

Bone pin (Manisa 6718)

L. 0.07, D (head). 0.006.

E0–W5/S100 *99.30 floor ~ Building B

Tan bone pin. Complete. Head rounded; roughly circular in section; tapering to point at one end.

HoB 610 (BI14.3) PL. 166

Antler

H. 0.08, Diam. of top ca. 0.003 × 0.0047,

Diam. of bottom ca. 0.0038 × 0.0051.

W5/S100 To *99.30 floor ~ Building B

Hollow antler. Cut out smoothly at both ends forming a slightly bent, cylindrical, hollow pipe-like tool. Exterior, three smoothed areas; slightly cracked at several parts in between the natural grooves on the antler; small hole that does not go through to the interior. Interior, spongy bone preserved.

Central Area

BUILDING D AND EXTENSION

POTTERY

Lydian Painted Decoration

HoB 611 (P63.608) PL. 167

Ephesianizing stemmed dish
 H. 0.076, L. 0.121, W. 0.20, Th. 0.006–0.009.
 W15–16/S103–104 *99.30–99.05;
 W8–13/S110–115 *98.65;
 W15–20/S103–106 *99.10–98.80;
 W16–18/S105 *99.30–99.00 ~ Building D;
 upper (?) fragment from Building F
 Ephesianizing ware. Four joining fragments of bowl and the beginning of stemmed foot. Matt black glazed and added red over fine and thick white slip. Exterior, three horizontal lines over band painted red; groups of short vertical wavy lines in a band with a single horizontal line above and two horizontal lines below; reserved band; horizontal row of black dots over a band painted red with a single narrow black band of dots (bordered with a line above and below); rising rays above a single horizontal line, outlined in black and alternately painted with red and black. Lower bowl and start of foot painted red; transition from lower bowl to foot, two narrow black bands of dots bordered with a line above and below. Interior, from top to bottom, partially preserved band of square bars with a single horizontal line below; reserved band; single horizontal line; a row of dots in a narrow band painted red with a horizontal line above and below; a band of dogtooth with a single line above and below; a row of dots in a narrow band painted red with a horizontal line above and below; rising rays (paint largely worn off) above a single horizontal line, outlined in black and alternately painted with red and black. Center of bowl, a meander pattern bordered by a single horizontal line above and below; checkerboard pattern, alternately red latticed, dark latticed and centrally dotted.

Analyzed by M. Kerschner (sample Sard 18).

HoB 612 (P68.24) PL. 168

Lydian Orientalizing dish
 H. 0.03, Diam. of rim 0.17, Diam. of base 0.054,
 Th. 0.004–0.005.
 W10–15/S106–110 *98.7–98.30 floor ~ area
 between Buildings D and F

Dish with wide, flaring rim, single horizontal groove above and below shield-shaped rim; very shallow bowl, ring base. Red over creamy white slip. Exterior, two horizontal bands below rim, mid-bowl and above base; base painted. Interior, rim plate: metopal band, divided by three vertical lines, circle and dot-rossette in each metope; transition from rim to bowl, a single horizontal band. In center, a single band

encircling central pattern of a five-pointed star with a small cross between each point. Clear signs of burning

HoB 613 (P61.221) PL. 169

Dish
 H. 0.025, Diam. of rim 0.21, Th. 0.004–0.005.
 W13/S101 *99.20;
 W10–15/S104–107 *98.6 ~ Building D
 Thirteen joining fragments. Shallow bowl; omega loop handles on opposite sides; a total of six vertical lugs, three on each side between the handles. Rounded bottom (partially missing). Exterior, dark glaze over creamy white slip. A thin band along rim; a chain of pendent triple lotus flowers; three rows of horizontal bands. Interior, dark glaze over creamy white slip. A chain of triple petal lotus flowers followed by two rows of horizontal bands; and another chain of triple petal lotus flowers. Vertical lugs and the projection of the handles dark glazed. Clear signs of burning.

Knudsen 1964; Gürtekin-Demir 2014, no. 9.

HoB 614 (P12.161) PL. 170

Bichrome dish
 H. 0.061, Diam. of rim 0.30, Th. 0.008–0.011.
 W15–20/S100–105 *98.9 ~ near third floor of
 Building D

Red Bichrome. Two joining fragments of rim and body of dish. Exterior, red band below rim (paint worn off). Interior, painted red over rim; below rim wide red band, a single horizontal black line above band with a red band mid-bowl.

HoB 615 (P65.116) PL. 170

Black on Red dish
 H. 0.026, Diam. of rim 0.20, Diam. of rim with
 attachments 0.225, Th. 0.004–0.006.
 W15–20/S103–109 *98.60 ~ fourth floor of
 Building D

Three joining fragments of rim and bowl of dish. Thickened square-shaped rim with one deep groove. Two wide projections with a deep groove are attached at the edge of rim, making them on the same level with rim. One of the attachments bears two pierced holes over the groove; shallow bowl. Matt black over red slip. Exterior not painted. Interior, a single horizontal band over each groove over the rim and the attachments; two groups of horizontal lines (one below rim and the other near center of bowl).

HoB 616 (P65.73) PL. 170

Wild Goat style dish
 L. 0.065, W. 0.053, Th. 0.007.
 W15–20/S105–110 *99.0–98.80 ~ third floor
 of Building D

Two joining body sherds of Sardis Wild Goat style (photograph on PL. 170 shows only one of the sherds). Matt black and added red over fine and

thick white slip. Exterior, partially preserved two rays, alternately black outlined and painted red and black in silhouette. Interior, wing (?) is outlined in black and scaled with red dots; to the right of the pattern, radially arranged, narrow petal-like areas, each outlined in black and filled in with alternating red and black, possibly forming pin feathers of the wing. The decoration is also attested on a dish from Sardis depicting a winged Potnia Theron (Greenewalt 1970, no. 16).

HoB 617 (P65.28) PL. 170

Small streaky glazed skyphos
H. 0.08, Diam. of rim 0.115, Diam. of foot 0.05, Th. 0.003–0.009.
W12/S103 *98.90 ~ near third floor of Building D
Rim, bowl, base, and handle (single handle preserved) of streaky glazed skyphos. Slightly inverted plain rim; slightly hemispherical bowl; low conical foot; horizontal loop handle below rim. Red to black (with a metallic sheen on the interior). Exterior: band along rim; handle zone reserved and not painted (including the handle); below handle, streaky overall down to the end of foot. Interior, streaky overall.

HoB 618 (P63.480A) PL. 171

Bichrome lebes
H. 0.17, Diam. of rim 0.29–0.30, Th. 0.004–0.006.
W13–15/S105–109 *99.40 floor
Red Bichrome. Many joining and nonjoining fragments of rim, body and horizontal handle (single stump preserved) of lebes. Flaring rim; spherical body; horizontal cylindrical handle below rim. Matt black, red, and white. Exterior, over rim: groups of diagonal red strokes with single horizontal black line below over white slip; red band below rim; at least four bands, with a single line above and below, with groups of ten or eleven short vertical lines. Lower body: wide red band with two black horizontal lines above and below; three horizontal white lines; two black horizontal lines; lower body painted red.

HoB 619 (P65.38) PL. 172

Ephesianizing lebes
H. 0.063, Th. 0.009–0.012.
W15–20/S100–105 To *98.90 ~ near third floor of Building D
Ephesianizing ware. Rim and body fragment of lebes. Flaring triangular rim. Matt black and red over a fine, thick white slip. Exterior, horizontal red band; narrow band with short dogtooth pattern, with a line above and below; a broad area partitioned into adjacent large squares each with a different pattern: from upper left to right, black crosshatched, red crisscross with nesting triangles in between stalks, black crisscross with red dots between stalks; from lower left to right: red crisscross with nesting triangles in between stalks. Interior, thick red band below rim.

HoB 620 (P65.43) PL. 172

Bichrome oinochoe
H. 0.15, Diam. of body 0.28, Th. 0.005–0.009.
W15–20/S102–106 *98.80 floor ~ third floor of Building D
Red Bichrome. Several joining fragments of neck, shoulder, body and handle (stump preserved) of oinochoe. Vertical neck; sharp transition to shoulder; spherical body; vertical strap handle. Matt black, red to brown and added white over clay surface. Exterior, neck, plain red to brown painted; single horizontal line above shoulder. Shoulder, row of pendent concentric hooks (each seven hooks) on a reserved red to brown band with black horizontal line above and below; white band and two black lines above and below; wide red to brown band with black line above and below; wide white band and a red to brown line above.

HoB 621 (P65.145) PL. 173

Streaky glazed oinochoe
H. with handle 0.24, L. of mouth 0.093, W. of mouth 0.044, Th. 0.003–0.006.
W5–8/S91.50–88 *98.60–98.40 ~ northeast of Building D and east of Building J
Many joining fragments of rim, neck, body and handle of streaky glazed oinochoe. Trefoil mouth; ridge at the end of neck; sagging from below neck towards lower body; vertical, double cylindrical handle from shoulder to rim. Red to black streaky glazed with added matt black paint. Exterior, rim and neck streaky; two horizontal black lines at the join between neck and shoulder. Shoulder has a row of elongated petals in streaky paint over a wide reserved band; handle streaky; three horizontal black lines at the end of shoulder; plain streaky down to lower body, three groups of two horizontal black lines (one on mid-body and two on lower body).

HoB 622 (P12.155) PL. 173

Bichrome oinochoe or amphora fragment
L. 0.082, W. 0.084, Th. 0.005.
W19–22/S106–108 *99.50 floor ~ Building D
Bichrome. Two joining fragments of body. Matt black, red, and white. Exterior, partially preserved pendent concentric hooks; two black horizontal lines; lower portion painted red.

HoB 623 (P63.574) PL. 173

Wild Goat style oinochoe or amphora
L. 0.106, W. 0.117, Th. 0.005–0.009.
W17–20/S105 *99.30–99.0 ~ above the second floor of Building D, near the hearth in the southwest corner of the room
Shoulder fragment in Sardis Wild Goat style. Matt black and added red on white slip. Exterior, wide band framed with three parallel horizontal black lines over a red-coated band below: partially preserved open palmette flower (petal outlined and

painted alternately red and black) with a central circle painted red, resting on a large spiral; vertical black band of meander pattern with vertical lines left and right; outer frame of a large square (?), outlined in black and crosshatched in red.

HoB 624 (P65.75) PL. 174

Bichrome Waveline amphora

H. 0.31, Diam. of rim 0.22, W. of handle 0.043.

W11.5/S105 *98.50 ~ southeastern side of Building D

Ten joining fragments of rim, neck, shoulder, body, and handle (single handle preserved) of Bichrome Waveline amphora. Everted and thickened square rim; nearly vertical, long neck; ovoid body; vertical strap handle. Red to black, and added white. Exterior, from top to bottom, edge of rim plain red to dark painted; single horizontal red to dark band at the transition from rim to neck; upper neck, horizontal wavy line over a white band; red to black horizontal band at the end of neck; shoulder, red to black horizontal S curve; three horizontal narrow bands; horizontal wave line over white band; three horizontal bands; two dark horizontal bands; elongated crisscross on handle. Interior, over rim, a row of groups of seven white short vertical lines over red to black surface; rim and below rim, red to black.

HoB 625 (P12.163) PL. 175

Bichrome jar

H. 0.172, Diam. of rim 0.50, Th. 0.009–0.011.

W14–16/S103–105 To *98.00–97.00;

W15–17/S102–105 *98.30–98.05;

W18–20/S101–104 *99.20–99.00 ~ Building D

Red Bichrome. Six joining fragments of rim and body of storage jar. Everted and thickened rim; sharp flange on the exterior; nearly vertical walls. Matt black, red, and white. Exterior, plain red to dark streaky from rim to flange with horizontal black lines above and below; over white slip, pendent concentric hooks; two horizontal black lines; painted red. Interior, below rim, plain red to dark streaky and a horizontal black line below. On the edge of rim, diagonal lines over white slip with alternating red and black colors.

HoB 626 (P63.269A, B, C) PL. 175

Orientalizing thymiaterion (?)

Fragment A: H. 0.034, H. of knob 0.02, W. 0.096, est. Diam. 0.016, Th. 0.005–0.007;

Fragment B: H. 0.0072, W. 0.119, Th. 0.005–0.008;

Fragment C: H. 0.052, W. 0.061, Th. 0.005–0.007.

W16–20/S103–106 *100.15–99.90 ~ Building D

Seven joining and nonjoining fragments of thymiaterion (?). A: two joining fragments of upper body and knob. B: single fragment of shoulder, wall, and handle stump. C: four joining fragments of shoulder and body. Top body surface nearly flat, knobbed at

top; sharp-angled transition from top to walls; nearly straight-sided wall; single stump of horizontal handle preserved. Red to orange over a fine creamy white slip. Knob painted red; three horizontal lines encircling knob; four pendent rays and seven-petalled floral decoration. Between rays, below each floral decoration, a large dot encircled with small dots. Then, a single horizontal line, a row of dots, and a thin band of square bars, alternately dotted and painted solid, with a single horizontal line above and below. A wider band on the carination. Reserved band at handle height: a row of birds to right. Between birds, a dot-rosette or crisscross and groups of short lines above and below. Five parallel lines below reserved band.

Local Orientalizing vessel, not Aeolic, according to N. Aytaçlar (personal communication, Sardis, July 1–2, 2016).

HoB 627 (P65.14) PL. 176

Small Black on Red pyxis

H. 0.095, Diam. of rim 0.082, Diam. of base 0.047,

Th. 0.004–0.005.

W11/S101 *99.0, near second floor ~ Building D

Black on Red. Three joining fragments of pyxis, complete, except a small piece on lower body. Plain rim; wide and cylindrical neck; sharp-angled shoulder; slightly concave-sided belly; sharp-angled transition to lower body; flat base. Matt black on red slip (paint largely worn off). Exterior, red slipped from rim to a little below belly; two horizontal lines below rim; horizontal lines below neck and lower body; three dark lines on lower body. Interior: neck painted red.

HoB 628 (P65.123) PL. 176

Ephesianizing handle

L. 0.05, W. 0.042, Th. 0.006.

W14–18/S104–107 *98.50 ~ Building D

Ephesianizing strap handle fragment. Sides are finely edged. Matt dark and red over a thick creamy white slip. On top of handle, the three sides have three dark parallel lines forming two narrow bands; the outer band is red coated over slip and is decorated with a dark ladder pattern; the inner is reserved and is decorated on two long sides and possibly on the short side with red ladder pattern; center of handle has linked vertical lozenges.

Hanfmann, "SARDIS 1965," p. 14.

Gray Ware and Other Monochrome

HoB 629 (P65.45) PL. 176

Gray Ware stemmed dish (small)

H. 0.085, Th. 0.04–0.007.

W15–20/S102–106 *98.80 floor ~ third floor of Building D

Four joining fragments of rim, bowl, stem, and base of Gray Ware stemmed dish. Slightly inverted plain rim; shallow bowl; short stem. Underside of base, near stem, a graffito, Lydian (d) incised before firing.

HoB 630 (P65.44) PL. 176
 Gray Ware amphora neck
 H. 0.14, Diam. of rim 0.26, Th. 0.009–0.012.
 W15–20/S102–106 *98.80 floor ~ third floor of Building D
 Gray Ware. Ten joining fragments of rim and neck. Everted rim; vertical neck; two vertical strap handles (stumps preserved). Found upside down on a floor.

Cooking Ware

HoB 631 (P63.575) PL. 176
 Cooking ware bowl
 H. 0.061, Diam. of rim 0.19, Diam. of bottom 0.09, Th. 0.005–0.009.
 W17–20/S105 *99.30–99.0 ~ second floor of Building D, near the hearth in the southwest corner of the room
 Coarse gray ware. Eight joining and nonjoining fragments. Slightly everted rim; shallow bowl; rounded bottom.

Pithos

HoB 632 (P66.79) PL. 177
 Pithos
 H. 0.755, Diam. of rim 0.29, Diam. of body 0.62, Diam. of base 0.145, Th. 0.017.
 W18/S108.5 *97.8–97.1 ~ south of Building D
 Thickened flaring rim; short vertical neck; wide ovoid body; flat base.

Imported

HoB 633 (P63.581) PL. 177
 Black on Red stemmed dish
 H. ca. 0.035, Th. 0.011–0.013.
 W13–17/S99–100 *98.90–98.50;
 W12–14/S100–102 *97.90–97.50;
 W15–20/S95–100 *98.90 ~ northern part of Building D
 Anatolian Black on Red (not a Sardian product). Eleven joining and nonjoining fragments of bowl and the beginning of stem. Shallow bowl. Matt black over red slip. Exterior, four sets of horizontal lines with a single thicker line above and below. Interior, narrow band of a simple hook meander with a horizontal line above and below; narrow band of broken running S with, again, a horizontal line above and below; narrow band of a simple hook meander with a horizontal line above and below; center of bowl, leaf rosette (each leaf outlined and painted), and dotted triangular areas in between the leaves.

HoB 634 (P65.39) PL. 178
 Bird bowl
 H. 0.065, est. Diam. of rim 0.012–0.13, Diam. of base 0.051, Th. 0.002–0.004.
 W15–20/S100–105 To *98.90, near third floor ~ Building D
 Five joining fragments of rim, bowl, and base of bird bowl. Plain rim, hemispherical bowl; ring base. Dark brown over burnished clay surface; added red-purple color on the interior. Exterior, painted over rim (paint worn off); metopal band with three horizontal lines below: metopes divided by three vertical lines, from left to right, thick slightly diagonal line, crosshatched lozenge with an outer lozenge; five thick reserved rays, rising from the base; base painted. Interior painted overall except a narrow reserved band at mid-bowl; two parallel horizontal red-purple lines on upper bowl and on the center of bowl.
 Hanfmann, "SARDIS 1965," p. 14.
 625–600 B.C., according to M. Kerschner;
 640–620 B.C., according to Ü. Güngör (personal communication, Sardis, July 1–2, 2016).

HoB 635 (P61.570) PL. 178
 Ionian cup
 H. 0.0774, Diam. of rim 0.162, Diam. of base 0.65, Th. 0.003–0.004.
 W10/S105 *99.50–99.20, near the upper floor levels ~ area between Buildings D and A
 Many joining fragments of rim, bowl, base, and handle (one complete, the other stumps preserved) of Ionian cup. Flaring rim; low, flaring conical base; horizontal loop handles below rim. Glossy black glazed. Rim painted; reserved band below rim; single horizontal line above handle; handles painted; reserved band at handle level; painted from below handle down to base.
 South Ionian (Miletus), 625–600 B.C., according to M. Kerschner; 600–550 B.C., according to N. Aytaçlar (personal communication, Sardis, July 1–2, 2016).

HoB 636 (P65.77) PL. 178
 Black-polished round-mouthed jug (Manisa)
 H. 0.055, Th. 0.005.
 W10–12/S106–107.50 *98.60 ~ Building D
 Black-polished neck and body fragment of round-mouthed jug. Finely polished. Slightly flaring neck; globular body. A horizontal ridge below neck; single horizontal groove; a small rectangular panel, with ridged lines (lower frame not preserved); inside the panel, herringbone pattern composed of ridged lines.

HoB 637 (P65.83) PL. 178

Ionian oinochoe
L. 0.061, W. 0.08, Th. 0.003–0.006.
W15–20/S95–100 *98.90, third floor ~
northern part of Building D
Three joining fragments of shoulder. Red to dark
brown over well-burnished clay surface. Reserved band
with a horizontal line above and below: four vertical
lines; standing crosshatched triple nested triangle,
with a hooked T at top; three horizontal lines.
Hanfmann, "SARDIS 1965," p. 14.
Before mid-seventh century B.C., according to
M. Kerschner (personal communication, Sardis,
July 1–2, 2016).

HoB 638 (P63.394) PL. 178

Wild Goat style oinochoe
H. 0.028, L. 0.036, W. 0.062, Th. 0.005.
W19–22/S106–108 *99.5, from fill over latest
floor level in Building D
Wild Goat style (South Ionian) lower body frag-
ment of oinochoe. Brownish black over thick and
fine creamy white slip. Rising rays and filling orna-
ment (concentric circle with dots, hooked swastica).
620–600 B.C., according to M. Kerschner
(personal communication, Sardis, July 1–2, 2016).

HoB 639 (P15.54) PL. 179

Chian amphora
H. 0.12, Diam. of rim 0.17, Th. 0.007.
W23–25/S100–104 *98.50–98.10
Joining and not joining fragments also from
W13–15/S113–119 *99.90–99.50;
W36/S115 To *98.80; W34–35/S114 *98.50
floor (Room C) ~ northern part of Building D
Many joining and nonjoining fragments of rim,
neck, shoulder, body, and single handle of Chian
amphora. One-piece amphora. Flaring, thick echinus
rim; nearly straight-sided neck; wide strap handle.
Red over creamy white slip. Painted on rim and
below rim; thick horizontal band at the transition
to neck; handle projection, encircled with thick
band; over the handle, a thick vertical band; shoulder,
traces of horizontal S loop; body: single vertical
band overlapping two horizontal bands. Over the
handle, a potter's mark incised after firing. Probably
last quarter of the seventh century.

Pithos**HoB 640** (P63.507) PL. 179

Pithos
W13–15/S105–108 *99.4 floor ~ Building D
L. 0.115, W. 0.144, Th. 0.013.
Body fragment of pithos. Not painted. A graffito,
made before firing, is composed of deep incision
lines forming a star that probably had six points
(four points are preserved).

Imported**HoB 641** (P63.573) PL. 179

Early Corinthian alabastron
H. 0.015, Diam. of bottom 0.026, Th. 0.003–0.005.
W17–20/S105 *99.30–99.0 ~ over the second
floor of Building D, near the hearth in the south-
west corner of the room
Early Corinthian, rounded bottom fragment of
alabastron. Black over clay surface. Feline to right
(paws preserved), incision on paws; filling orna-
ment (incised rosette) between front and hind paws;
bottom, pinwheel rosette with large spots at the
ends.
Sardis M10, cat. Cor 80.

TERRACOTTA**HoB 642** (T65.4) PL. 179

Terracotta bird (?) figurine
L. 0.075, W. 0.049.
W17–20/S101–104 *99.00–98.70 ~ third floor
of Building D
Fragmentary bird (?) figurine, broken at top,
below, and on back. Possibly molded in two pieces.
Upper part of body and neck preserved. Black
and added red over creamy white slip. Upper body
divided by a red line into two areas, each cross-
hatched in black; little red spots on breast and neck;
traces of red paint on the lower edges. Cf. **PC 43**.
Hanfmann, "SARDIS 1965," p. 14.

HoB 643 (P61.533) PL. 180

Terracotta figure (?)
H. 0.128, Diam. of largest fragment 0.06.
W4–5/S89–91 *99.15–98.85;
W5–6/S89–90 *99.00–98.74
Three fragments of a large terracotta figure (?).
Formerly thought to be fragments of Hittite-
type rhyta, and published as such several times.
Exterior shaved and polished before the slip was
applied. White glazed band on one of the fragments.
All fragments are wheelmade, and slipped on the
inside; the fragment with the largest curve is rough
and unpainted on the interior, but slipped farther
down (see drawing).

HoB 644 (T68.2) PL. 180

Spindle whorl (Manisa)
H. 0.012, D. 0.022, Diam. of hole 0.002.
W9–14/S106–110 *98.70–98.30 ~ Building D
Biconical shape. Single hole. Top and bottom
painted. A single horizontal line encircling center
of spindle whorl; above center, dotted square bar;
below center, row of dots divided by triple lines.

HoB 645 (T14.19) PL. 181

Loom weights

#1: H. 0.078, bottom 0.048 × 0.041 m; Wt. 190 g

#2: H. 0.079, bottom 0.044 × 0.4 m; Wt. 170 g

#3: H. 0.063, bottom 0.051 × 0.039 m; Wt. 120 g

#4: H. 0.063, bottom 0.045 × 0.042 m; Wt. 110 g

#5: H. 0.06, bottom 0.044 × 0.039 m; Wt. 95 g

#6: H. 0.068, bottom 0.047 × 0.041 m; Wt. 120 g

#7: H. 0.067, Diam. of hole 0.008, bottom 0.046 × 0.037 m; Wt. 110 g

#8: H. 0.06.

#9: H. 0.063, bottom 0.054 × 0.048.

#10: H. 0.045, bottom 0.044 × 0.043.

#11: H. 0.047, bottom 0.044 × 0.041.

#12: H. 0.047, bottom 0.045 × 0.04.

#13: H. 0.056, bottom 0.043 × 0.039.

#14: H. 0.055, bottom 0.039 × 0.037.

#15: H. 0.063, bottom 0.053 × 0.042.

#16: H. 0.051, bottom 0.045 × 0.043.

#17: H. 0.059, bottom 0.041 × 0.034.

#18: H. 0.04, bottom 0.041 × 0.036.

#19: H. 0.047, bottom 0.043 × 0.042.

#20: H. 0.035, bottom 0.039 × 0.038.

#21: H. 0.039, bottom 0.032 × 0.029.

#22: H. 0.06.

#23: H. 0.047.

#24: H. 0.057.

#25: H. 0.061.

#26: H. 0.047.

W10/S85 *99.90–99.60 ~ D Extension

Twenty-six unfired loom weights. All are four-sided pyramidal loom weights. Several have holes near the top. Seven are well-preserved and nineteen are poorly preserved.

South Side**BUILDING E**

POTTERY

*Lydian Painted Decoration***HoB 646** (P63.496) PL. 182

Bichrome stemmed dish (Manisa 4355)

H. 0.07, Diam. of rim 0.16, Diam. of base 0.072.

W21–23/S110–113 *99.60–99.40;

W20–23/S110–113 *99.40–99.30 ~ Building E

Red Bichrome. Several joining and nonjoining fragments of rim, bowl, and stem of stemmed dish. Flaring wide rim; articulated carination below rim; shallow bowl. Black, red to black over white slip. Exterior, rim is painted red to black; alternating red to black and white horizontal bands; black band at juncture and at top of ring foot; stem not painted. Interior, over the rim, black horizontal wavy line over a white slipped band with a black line above and

below; below rim, red horizontal band with a black line above and below; mid-bowl, reserved band, three narrow red bands with a black horizontal line above and below; traces of paint at the center of bowl.

HoB 647 (P63.495) PL. 182

“Early Fikellura” skyphos

H. 0.052, W. 0.043, Diam. of rim 0.2,

Th. 0.004–0.006.

W21–23/S110–113 *99.60–99.40 ~ Building E

Rim and body fragment of skyphos. Plain inturred rim. Matt black, painted on a fine white slip.

Filling ornament (dot-rosette), bull to right (head preserved). Interior painted black.

HoB 648 (P63.626) PL. 182

Miniature streaky glazed lekythos

H. 0.045, Th. 0.003.

W20–23/S110–113 *99.40–99.30 ~ Building E

Neck, shoulder, body, and handle stump of streaky glazed lekythos. Narrow cylindrical neck with a central ridge; sharp-angled shoulder; vertical handle from shoulder to ridge on neck. Brown streaky glazed. Single horizontal band above and below ridge; a row of petals on reserved shoulder; below shoulder, streaky.

HoB 649 (P63.627) PL. 182

Handle attachment (?)

H. 0.3, L. 0.085, W. 0.03.

W20–23/S110–113 *99.40–99.30 ~ Building E

Elongated and slightly curved triangular horn-shaped attachment. Two sides red over white slip; one side, over the rim, painted red. Over the two sides, vertically placed herringbone pattern with a vertical line on the right and left; and with three horizontal parallel lines at both short ends, above and below; underside and top ridges as well as the beginning of rim are painted red.

LAMPS

HoB 650 (L63.60) PL. 183

Lamp (Manisa 4255)

H. 0.03, Diam. of rim 0.08, Diam. of bottom 0.085.

W20–23/S110–113 *99.40–99.30 ~ Building E

Complete. Rounded and open; horizontal rim, slightly flaring edge; high central cone; flat base with concave center; short nozzle. Red clay. Bands on rim, under rim, and base. Interior, band around base of cone.

HoB 651 (L63.50A) PL. 183

Lamp (Manisa 4279)

H. 0.04, Diam. of rim 0.075.

W21–23/S110–113 *99.60–99.40 ~ Building E

Complete lamp, except nozzle. Rounded and open; horizontal and concave rim; vertical and high edge; high central cone; flat base with concave center. Red clay. Traces of paint on rim, under rim, and upper cone.

- HoB 652** (L63.50B) PL. 183
Lamp (Manisa 4252)
H. 0.04, Diam. of rim 0.08.
W21–23/S110–113 *99.60–99.40 ~ Building E
Complete lamp. Rounded and open; horizontal and concave rim; vertical and high edge; high central cone; flat base with concave center. Red clay. Traces of paint on rim, under rim, and upper cone. Nozzle blackened at top.

BUILDING F

POTTERY

Lydian Painted Decoration

- HoB 653** (P65.23) PL. 186
Ephesian ware stemmed dish
L. 0.063, W. 0.077, Th. 0.006–0.01.
W8–9/S110–114 *99.30–99.00 ~ Building F
Ephesian ware. Central bowl fragment of stemmed dish. Two horizontal ridges encircling stem on the exterior. Partially worn brownish dark and added red over creamy white slip on the interior. Exterior, a thin horizontal band of ladder bordered with a dark line above and below red slip. Interior, a row of square bars with a thin band of red ladder pattern bordered with a dark line above and below; a thin horizontal band of ladder bordered with a dark horizontal line above and below over a red coat; floral register with a single line above: two volutes partially preserved (there must have been a total of four originally). In between the volute on left, two centrally painted standing triangles (alternately a pendent dark crosshatched triangle, pendent triangle painted red, and pendent dark crosshatched triangle); dark crosshatched square; partially preserved checkerboard pattern in dark with red fills. Of right volute, only left spiral preserved. In between the left and right volutes, single standing dark crosshatched triangle between two pendent dark crosshatched triangles; rectangle painted red; red triangle.
Greenewalt 1973, no. 17.

- HoB 654** (P63.240 and P63.491) PL. 184
Ephesianizing dish
H. 0.032, Diam. of rim ca. 0.32, Th. 0.006–0.008.
W5/S110 *100.30–99.70;
W7–9/S106–111 *99.50–99.10;
W6–9/S107–110 *99.90–99.55;
W15–20/S110–115 *99.30 ~ Building F;
W2–5/S95–96 *99.20–99.00 ~ Building B
Ephesianizing ware. Eight joining and nonjoining fragments of rim and bowl of dish. Plain rim; shallow bowl. Matt black and added red over thick, fine white slip. Paint over rim worn off. Exterior, below rim, three lines over red band; a band of dogtooth pattern with a horizontal line above and below; two lines over

a narrow red band. Interior, below rim, two lines over a narrow red band; band with a line above and below: large square bars, divided by two short vertical lines, each painted with a red crosshatched area alternating with a black hour-glass; two horizontal lines over a narrow red band; single horizontal line.

Greenewalt, Cahill et al., "SARDIS 1986," p. 173, n. 49.

- HoB 655** (P68.53) PL. 185
Large stemmed dish
H. 0.075, Diam. of rim 0.36, Th. 0.007–0.013.
W8–13/S114–116 *99.00–98.70 floor ~
Building F
Ten joining fragments of rim and bowl of stemmed dish. Flaring rim; deep bowl. Four mending holes (two on rim, rest below rim). Black on white slip (largely worn off on the interior bowl). Exterior, groups of six short vertical lines on edge of rim. Interior, over rim, pendent and standing concentric semicircles (each made by five brushes) with a single line above and below; two horizontal lines below rim; traces of pendent concentric semicircles.

- HoB 656** (P63.606a) PL. 185
Large stemmed dish
H. 0.045, Diam. of rim 0.32, Th. 0.009–0.015.
W13–15/S101–103 *98.70–98.30;
W2–7/S90–95 *98.70–98.10;
uninventoried fragments from
W2–7/S101–105 *98.70–98.40;
W13–15/S101–13 *98.70–98.30;
W2–7/S105–120 *97.90–97.50;
W5–8/S102–110 *99.30–99.00;
W20–23/S105–110 *99.00–98.70;
E0–W4/S105–107 *99.20–98.90;
W5–20/S97–105 *99.20;

fragments found in 1963, 1965 and 1968 scattered in areas between W2–23/S101–120 *99.30–97.50. Associated with floor ~ area between Buildings D, A, and F

Many joining and nonjoining fragments of rim and body of stemmed dish. Flaring rim; deep bowl. Matt black and added red over white slip. Edge of rim, groups of six short radial lines. Interior, over rim, pendent and standing concentric semicircles (each made with five brushes) with a single line above and below; below rim, single red band; upper bowl, band with a single horizontal line above and below: pendent and standing concentric semicircles (each five semicircles).

- HoB 657** (P65.159) PL. 186
Black on Red stemmed dish
H. 0.053, Diam. of rim ca. 0.028, Th. 0.004–0.007.
W13–20/S110–115 *98.30–98.00 ~ area
between Buildings E and F
Rim and bowl fragment of Black on Red stemmed dish. Slightly thickened and inverted rim. Black over

red clay surface. Exterior, single horizontal band below a row of pendent concentric semicircles (each made with four brushes). Interior, thick band with a group of seven vertical wavy lines with a horizontal line above and below; partially preserved band (same as the band above).

HoB 658 (P63.351) PL. 186

Imitation of a Protocorinthian kotyle
L. 0.071, W. 0.127, Th. 0.002–0.005.

W6–7/S110–115 *100–99.50 ~ northeast of Building F

Lydian imitation of a Late Protocorinthian linear kotyle. One nonjoining rim and body fragment and three joining fragments of lower body. Dark over creamy white slip. Exterior, single line along rim; partially preserved horizontal row of dots over reserved area below rim; five horizontal parallel lines on mid-body and a single standing ray below. Interior, plain dark painted.

HoB 659 (P63.613) PL. 186

Round-mouthed jug

H. without handle 0.075, H. with handle 0.083,
Diam. of rim 0.06, Th. 0.004.

E0–W5/S114–116 *99.40–99.00 ~ at the south wall, below foundation; east of Building F

Many joining fragments of rim, neck, body, and handle of round-mouthed jug. Plain rim; nearly vertical neck; spherical body; vertical strap handle from mid-body to rim. Exterior, painted red overall, including handle. Interior, below rim, painted red.

HoB 660 (P65.65) PL. 187

Bichrome amphora

L. 0.105, W. 0.25, Th. 0.006–0.008.

W14–15/S110.5–115 *98.96 floor ~ Building F

White Bichrome. Seven joining fragments of shoulder and belly of amphora. Matt black over white slip. Wide band, a row of birds to right with outlined and reserved bodies; three horizontal lines over a red coated band; groups of six vertical wavy lines over a white band with a single horizontal line above and below.

HoB 661 (P12.160) PL. 187

Bichrome amphora

L. 0.093, W. 0.142, Th. 0.007–0.009.

W7–13/S115–117 *99.30–99.00 floor ~ Building F

White Bichrome. Two joining fragments of body of amphora. Matt black and red over thick fine white slip. Three bands, each separated by triple horizontal lines (a red line in between two black lines): first band, pendent concentric semicircle (three brushes) with central painted dot between latticed rectangles; second band: groups of three short vertical bands of ladder pattern; a row of pendent concentric semicircles (each four brushes); triple lines.

Gray Ware and Other Monochrome

HoB 662 (P65.71) PL. 187

Small squat jar (Manisa 7470)

H. 0.08, Diam. of rim 0.055, Diam. of body 0.095.

W10.50/S111 *98.80 ~ Building F

Almost intact. Rounded everted rim; narrow and short neck; slightly compressed spherical body; flat base. Slipped.

HoB 663 (P63.494) PL. 188

Body sherd

L. 0.034, W. 0.064, Th. 0.006.

W7–9/S106–111 *99.50–99.10 ~ Building F

Red ware. Body sherd. Graffito, incised before firing.

Imported

HoB 664 (P63.493) PL. 188

Bird bowl

L. 0.037, Diam. of rim 0.14, W. 0.064, Th. 0.005.

W7–9/S106–111 *99.50–99.10 ~ Building F

Rim and body fragment of bird bowl. Black over clay surface. Plain slightly nicked rim. Exterior, horizontal band over rim; metopal band: from left to right, partially preserved crosshatched lozenge; three vertical dividing bands; filling ornament (pendent crosshatched triangle), bird to right (head not preserved), body crosshatched, filling ornament (circle with a central dot); three horizontal lines; band. Interior, painted.

650–625 B.C., according to N. Aytaçlar (personal communication, Sardis, July 1–2, 2016).

Greenewalt, Cahill et al., "SARDIS 1986," p. 173, n. 49.

HoB 665 (P63.492) PL. 188

Corinthian transitional linear kotyle

H. 0.034, W. 0.063, Th. 0.003.

W7–9/S106–111 *99.50–99.10 ~ Building F

Corinthian transitional linear kotyle. Two joining fragments of lower body. Red over clay surface. Exterior, three horizontal lines; reserved band; horizontal band framing the upper border of rays (ends preserved) rising from base. Interior, painted.

Greenewalt, Cahill et al., "SARDIS 1986," p. 173, n. 49. *Sardis* M10, cat. Cor 76.

HoB 666 (P64.23) PL. 188

Wild Goat style oinochoe

L. 0.062, W. 0.047, Th. 0.004.

W5–10/S114–116 *99.60–98.60 floor ~ Building F

Wild Goat style (North Ionian). Mixed technique. Body fragment of oinochoe. Black over slip (?) (paint and slip, if they existed, worn off almost completely). Exterior, first register: filling ornament (hooked swastika), deer or goat to right (haunch and hind foot preserved), filling ornament (horizontal spiral); second register: a single horizontal line above, ends of two vertical lines?

Late seventh century B.C., according to M. Kerschner; and 610–575 B.C., in the opinion of N. Aytacılar (personal communication, Sardis, July 1–2, 2016).

LAMP

HoB 667 (L63.49) PL. 188
Lamp (Manisa 4280)
H. 0.03, L. 0.115, Diam. 0.009.
W7–E9/S106–111 *99.50–99.10 ~ Building F
Complete. Rounded and open; horizontal rim, slightly flaring edge; high central cone; flat base with concave center; short nozzle. Red clay. Bands on rim, body, and base. Interior, band around base of cone.

TERRACOTTA

6 unbaked pyramidal loom weights. See page 100.

HoB 668 (T64.9) PL. 189
Terracotta female figurine
H. 0.069, W. 0.0843, Th. 0.006–0.012.
W9/S99 *98.20;
W18–20/S117–119 *99.70–99.50 ~ west of Building F
Two joining fragments of upper torso of female. Breasts, left upper shoulder, belly to upper chest preserved. Hollow and wheel made. Back of the figurine not preserved. Dark over creamy white slip. Three horizontal bands, from top to bottom: (1) left, partially preserved dotted vertical thin bands; right (near left shoulder), horizontally hatched rectangle with three dotted bands on the three sides; (2) along breast, from top to bottom, a row of centrally dotted pendent three-quarter circles; a row of dots on the left and right sides of each breast; crisscrossed diamond net in between and possibly over the breasts (paint worn); a row of meanders on each side of breasts; (3) pendent and standing crisscrossed triangles forming a zigzag; over the back side of left shoulder, partially preserved hatched areas.

BONE

HoB 669 (BI63.11) PL. 189
Bone weaving tablet
L. 0.04, W. 0.015, Th. 0.004.
W7–9/S110–112 To *99.30 ~ corner of walls, Building F
Four joining fragments of a bone weaving tablet. Broken and missing a small piece at one side. Worn out due to ancient use at one side. Trimmed in order to achieve a rough cylindrical shape. Cut smoothly at both ends forming a rounder section. One end is relatively smaller than the other. A single small shallow drill hole is preserved at both ends. Two holes appear on the body of tablet, near the ends. Three sets of two shallow incisions forming a ridge encircle the tablet.

HoB 670 (BI18.10) PL. 189
Bone roundel
W11–14/S113–116 *99.75–99.25 ~ Building F,
found either just over the floor or just outside the west wall

Unfinished incised decoration in nomadic style on both sides of hollow bone roundel. One-quarter missing. Front side, slightly incised decoration along with a relatively finished incised curve: to the left of the break, foreleg (with a narrow band of short vertical incised lines), paw missing; deeply incised curve at central part below the roundel, and above it is one hind leg that terminates with a volute (bordered with unfinished narrow band of short vertical incised lines). Back side, two combined vertical lines (one is deeply incised and the other is relatively shallow) probably intended to create stylized legs of an animal.

Greenewalt, "SARDIS 1986," pp. 166–67.

HoB 671 (BI18.11) PL. 189
Small bone roundel
W7–9/S106–111 *99.5–99.1 ~ Building F, east side of the north corner
Slightly conical roundel, pierced through the center. Convex front side, incised design encircling the central piercing: on one side, a concentric circle with a central drilled hole; on other side, two intersecting concentric circles (one with a central drilled hole, and the other with a central drop pattern) forming a spiral. Back side, flat.

Floor at W5–10/S114–116 *99.6–98.9

The following six inventoried pieces (**HoB 672–HoB 677**) came from the floor at W5–10/S114–116 *99.6–98.9; four additional boxes are tabulated below:

Level *99.6–98.9	
Gray monochrome	10%
Lydian Buff Ware	25%
Cooking	5%
Painted	60%
Buff	
Misc.	6 pyramidal loom weights, 3 spindle whorls, one lump of iron, one bit of bronze, 1 animal bone, 1 chip of quartz

Lydian Painted Decoration

HoB 672 (P64.22) PL. 190
Skyphos
H. 0.087, Diam. of rim 0.13, D. of base 0.045, Th. 0.03.
W5–10/S114–116 *99.6–98.9 floor ~ Building F
Eight joining fragments of rim, bowl, base, and single handle of skyphos. Plain rim; deep bowl; low conical foot; single horizontal loop handle. Exterior not painted. Interior painted red.

HoB 673 (P64.27a) PL. 190
 Bichrome oinochoe
 H. 0.124, Th. 0.004–0.007.
 W5–10/S114–116 *99.60–98.90 floor ~
 Building F
 Red Bichrome. Twelve joining fragments of shoulder of oinochoe. Matt black, red, and added white over clay surface. A row of concentric hooks over a reserved band (on upper shoulder); single horizontal black line; red band framed with a black horizontal line above and below; white band with horizontal black line above and below; wide red band framed with horizontal black line above and below; white painted area.

HoB 674 (P64.27b) PL. 190
 Bichrome oinochoe
 H. 0.14, Diam. of base 0.18, Th. 0.005–0.009.
 W5–10/S114–116 *99.60–98.90 floor ~
 Building F
 Red Bichrome. Twelve joining fragments of base and lower body of oinochoe. Matt black, red, and added white over clay surface. Wide red band with a single line below; two horizontal lines on a white painted band; wide red band with a single horizontal line above and below.

Imported

HoB 675 (P64.25) PL. 191
 Black on Red oinochoe
 L. 0.082, W. 0.113, Th. 0.004–0.007.
 W5–10/S114–116 *99.60–98.90 floor;
 W9–11/S110–114 *98.90–98.70 ~ Building F
 Anatolian Black on Red (not Lydian or Lydianizing). Four joining fragments of oinochoe. Matt black over surface painted red. Exterior, pendent rays and small concentric circles with dots in between; narrow band of ladder; horizontal lines; narrow band of ladder; more horizontal lines; narrow band of dogtooth; more horizontal lines.

HoB 676 (P64.24) PL. 191
 Wild Goat style oinochoe
 L. 0.08, W. 0.066, Th. 0.005–0.007.
 W5–10/S114–116 *99.60–98.9 floor ~
 Building F
 Wild Goat style (South Ionian). Shoulder fragment, horizontal ridge at the join of neck and shoulder of oinochoe. Red to brown over white slip (paint worn off). Exterior, the shoulder register is framed with a horizontal band above and below: from left to right, goose to right (head and neck preserved); filling ornament (small concentric circle); large concentric circle (possibly forming one of the spirals of a volute pattern of which the other half is not preserved); pendent triangle.

630–610 B.C., according to M. Kerschner; and 630–620 B.C., in N. Aytacılar's opinion (personal communication, Sardis, July 1–2, 2016).

HoB 677 (P64.26) PL. 191
 Black on Red small squat jar
 L. 0.037, W. 0.033, Th. 0.004.
 W5–10/S114–116 *99.60–98.90 floor ~
 Building F
 Anatolian Black on Red (not Lydian or Lydianizing). Shoulder fragment of jar. Matt black on painted red surface. Exterior, three parallel lines; narrow band of groups of five short vertical lines and a dot in between, with a horizontal line above and below; three horizontal lines; a band with crosshatched broken meander pattern with a single horizontal line above.
 Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 944).

WELL ASSOCIATED WITH F

The catalogue here includes only the material prior to mid-sixth century from the well, not the later finds.

Lydian Painted Decoration

HoB 678 (P63.100) PL. 192
 Dish
 H. 0.021, est. Diam. of rim 0.13, Th. 0.004–0.005.
 E0/S115 To *98.97 ~ well associated with
 Building F
 Rim and body fragment of dish. Flaring and wide rim; shallow bowl. Dark over creamy white slip inside and out. Exterior, paint poorly preserved, traces of single band along rim and on the transition to bowl. Interior, horizontal lines over rim and below rim. Faint wiggly lines toward the center.

Imported

HoB 679 (P63.72) PL. 192
 Black polished oinochoe (?)
 L. 0.04, W. 0.056, Th. 0.003–0.006.
 E0/S115 *99.30 ~ outside well associated with
 Building F
 Black polished ware, shoulder fragment. Two slight horizontal ridges forming a band: incised wheel pattern of double circles encircling dotted triangular sectors.

Floors South of Building C

Floor Near the Postholes at *98.4

*98.4 Floor	
Gray monochrome	10%
Lydian Buff Ware	15%
Cooking	15%
Painted	15%
Streaked skyphoi	15%
Polychrome	5%
Black on Red	10%
Breadtray	10%
Misc.	5%

POTTERY

Lydian Painted Decoration

HoB 680 (P62.483) Pl. 193

Stemmed (?) dish
H. 0.052, Diam. of rim 0.28, Th. 0.007–0.01.
W20/S100 *98.4 floor

Two joining fragments of rim and shallow bowl. Slightly inverted plain rim; slightly carinated below rim. Red and matt dark. Exterior, single horizontal dark line bordering red band along rim and below rim. Interior, traces of red band below rim.

HoB 681 (P62.482) Pl. 193

Streaky glazed oinochoe (Manisa 7404)
H. 0.146, Diam. of base 0.06.
W20/S100 *98.4 floor

Nearly complete oinochoe (small fragments of rim and handle missing). Trefoil mouth; wide and short neck with a collar on neck; ovoid body, compressed on the shoulder area; flat base; vertical handle from rim to shoulder (stump preserved). Brown to dark streaky glaze on mouth and neck. A single streaky wavy line on reserved shoulder; horizontal band framed with a horizontal line above and below; reserved band; on lower body, wide horizontal band with two horizontal lines above and below.

HoB 682 (P62.485) Pl. 193

Bichrome amphora or oinochoe
H. 0.103, Diam. of base 0.08, Th. 0.004–0.007.
W20/S100 *98.4 floor

Red Bichrome. Four joining fragments of base, mid-body and lower body. Globular body; plain base. Red, matt dark, and white. Exterior, white band; single horizontal dark line; red band; two horizontal dark lines. Not painted on the lower body.

Gray Ware and Other Monochrome

HoB 683 (P62.484) Pl. 194

Bowl
H. 0.07, Diam. of rim 0.162, Diam. of bottom 0.065,
Th. 0.004–0.006.

W20/S100 *98.4 floor

Not painted. Ten joining fragments of rim, bowl, and bottom. Nearly complete; small fragments of rim and body missing. Roughly modeled with wheel marks on the exterior.

Imported

HoB 684 (P18.23) Pl. 194

Bird bowl
H. 0.037, W. 0.035.

W20/S100 *98.4 floor

Bird bowl, rim and body fragment. Plain rim. Exterior, red band along rim; below rim, bird, painted black, to right (head and body preserved); horizontal line and a thicker band below in dark red. Interior, painted red.

HoB 685 (P18.29) Pl. 194

Bird bowl
Est. D. of rim 0.16, H. 0.031, W. 0.059,
Th. 0.0022–0.0032.

W20/S100 *98.4 floor

Rim and body fragment. Rim curved inwards. Exterior, two sets of three red parallel horizontal lines placed on the upper and near mid-body. Interior painted red.

HoB 686 (P18.31) Pl. 194

Ionian cup
H. 0.02, W. 0.022, Th. 0.029.

W20/S100 *98.4 floor

Rim fragment of Ionian cup. Flaring rim. Black and dark red glazed. Exterior, red glazed. Interior, black glazed except a narrow reserved band near the edge of rim, which is painted red.

HoB 687 (P18.27) Pl. 194

Bird bowl
H. 0.027, W. 0.03, Th. 0.0034.

W20/S100 *98.4 floor

Bird bowl, body fragment. Black and red paint. Exterior, small black circle and trace of black paint spot. Interior, two parallel horizontal red lines over surface painted black.

HoB 688 (P18.25) Pl. 194

Ionian cup
Est. D. of rim 0.12, H. 0.01, W. 0.03, Th. 0.0019.

W20/S100 *98.4 floor

Ionian cup rim fragment. Flaring rim. Fine black glazed over rim, except the edge of rim; four parallel horizontal lines under rim.

HoB 689 (P18.24) PL. 194
 Corinthian aryballos
 H. 0.031, W. 0.042, Th. 0.0035.
 W20/S100 *98.4 floor
 Body fragment of Corinthian aryballos. Three joining fragments. Exterior, traces of black paint; elongated body of a feline (panther?). Upper and lower body bordered by two parallel curved lines of incision; incised vertical parallel lines within body.

HoB 690 (P18.32) PL. 194
 Bowl
 H. 0.021, W. 0.021, Th. 0.002.
 W20/S100 *98.4 floor
 Body fragment of a bowl. Red, white, and light red. Exterior, three parallel horizontal light red lines in between two white horizontal lines over red slip. Interior, painted red.

Above the Floor by the Postholes

POTTERY

Lydian Painted Decoration

HoB 691 (P62.479) PL. 195
 Ephesianizing stemmed (?) dish
 H. 0.031, Th. 0.01.
 W20/S100 *98.90–98.50
 Ephesianizing ware. Rim and body fragment. Slightly inward curving plain rim; shallow bowl, almost flat. Matt dark red, and thick glossy white slip. Exterior, below rim, single dark horizontal line over white slip; a hook meander pattern with a horizontal line above and below; a ladder pattern with a line above and below over red coat; a single horizontal line. Interior, over white slip, a ladder pattern with a line above and below over red coat; a band of hook meander pattern, again, with a single line above and below; a ladder pattern with a line above and below over red coat; a single horizontal line.

HoB 692 (P62.464) PL. 195
 Imitation of a Protocorinthian kotyle
 H. 0.095, Diam. of rim 0.12, Diam. of base 0.042, Th. 0.004.
 W20/S100 *98.8
 Lydian imitation of a late Protocorinthian linear kotyle. Fourteen joining fragments of rim, body, base and handle (stumps of one handle preserved). Plain rim; deep bowl; ring base; loop handles. Red to dark paint. Exterior, horizontal band along rim; metopal decoration on handle frieze: seven vertical lines alternating with three horizontal but curved rows of dots; three broad horizontal bands below handle area; standing rays rising above a band on base; handle stumps painted. Interior, painted red.

Imported

HoB 693 (P62.481) PL. 195
 Wild Goat style skyphos
 H. 0.025, Th. 0.003.
 W20/S100 *98.90–98.40
 Wild Goat style skyphos rim and body fragment. Black (poorly preserved) paint over creamy white slip. Exterior, a single horizontal band below rim; dog (?) running to left (head, left claw and a thin line at the end of neck reserved, rest solid painted); filling ornaments (swastika, flower rosette, pendent triangle). Careful drawing and slip look South Ionian, but the shape is rare in South Ionia and more common in North Ionia, according to N. Aytaçlar (personal communication, Sardis, July 1–2, 2016).

METAL

HoB 694 (M62.83) PL. 195
 Bronze cross-shaped object
 L. 0.03, W. 0.03.
 W20/S 100 *98.60
 Copper alloy. Cruciform object, four arms of nearly equal length; traces of three parallel shallow grooves near the extremities; a hole at the center.
Sardis M8, cat. no. 919.

STONE

HoB 695 (S62.67) PL. 195
 Stone whetstone
 L. 0.12, W. 0.027, Th. 0.01–0.012.
 W20/S100 *98.90–98.40
 Dark gray, fine-grained. Rectangular-shaped. Smooth on all sides and edges.

Pot Hoard A at *99.05

Lydian Painted Decoration

HoB 696 (P14.51) PL. 196
 Black on Red stemmed dish
 Diam. of rim 0.195, H. 0.043, Th. 0.005–0.007.
 W21/S99 *99.05 ~ south of Building C (“Hoard A”)
 Black on Red stemmed dish rim and bowl fragments (three joining and one nonjoining fragments). Slightly inverted and thickened rim; shallow bowl; stem not preserved. Matt black over red slip. Interior, two groups of seven horizontal lines, one below rim, the other near mid-bowl; partially preserved group of lines encircling central bowl. Exterior, red band along rim and below rim.

HoB 697 (P62.466) PL. 196

Bowl
H. 0.032, Diam. of base 0.084, Th. 0.004–0.006.
W19/S99 *99.05 ~ south of Building C (“Hoard A”)
Lower body and base fragment. High ring base.
Decoration red to brown. Interior, band at lower
body; center of the bowl painted.

HoB 698 (P14.93) PL. 197

Streaky glazed krater
L. 0.065, W. 0.091, Th. 0.006–0.01.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Streaky glazed. Shoulder fragments (six joining
and nonjoining fragments) of krater. Added white
over red to black streaky glazed. Exterior, a row of
short vertical white lines hanging down from a single
horizontal line on the shoulder; single horizontal
white band. Interior, streaky glazed.

HoB 699 (P14.54) PL. 197

Waveline hydria or amphora
H. 0.26, Diam. of rim 0.023,
Th. of body 0.004–0.008.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Many joining fragments of rim, neck, shoulder,
and body of Waveline hydria or amphora. Everted
and thickened rim; slightly curving neck; articu-
lated sharp transition at the join between neck and
shoulder; stumps of vertical strap handle on the
neck and on the shoulder (single handle partially
preserved); plump ovoid body. Glossy black glaze,
occasionally streaky, applied over clay surface.
Exterior, band along rim and below rim; neck, single
horizontal wavy line; horizontal band at the join
between neck and shoulder; shoulder, double hori-
zontal S curves, arranged horizontally; three petals,
arranged as palmettes, at the join of curves; below
handle, a wide band framed with a thin band above
and below; vertical single band on both sides of the
handle on the shoulder; handle painted. Interior,
band continued from over rim to below rim.

HoB 700 (P62.462) PL. 198

Waveline hydria
H. 0.0225, max. Diam. 0.42, Th. 0.008.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Many joining fragments of shoulder, body, and
handle of Waveline hydria. Two horizontal loop
handles with seven small holes on each (holes do not
go through the other end of the handle). Decoration
red to dark. Exterior, two horizontal bands at the
juncture of neck and shoulder; two horizontal bands
above and below handles; all of these bands are verti-
cally crossed by several double large loops; handles
plain streaky.

HoB 701

Fragments of three or more additional hydrias or
amphoras (discarded 1962)
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Of different fabrics and decorations; one thin-
walled buff fabric with fine bands of pale orange-
red slip; one buff fabric with gray core and repair
holes (?); one buff fabric with gray-buff slip or wash.

The following hydria and amphora necks (**HoB 702–
HoB 707**) are illustrated upside down, as pot stands, since
that is undoubtedly how they were meant to be used after
breakage. See also **HoB 524–HoB 533**, **HoB 711**, and
HoB 765 as well as Fig. 1.2.

HoB 702 (P14.49) PL. 198

Waveline hydria neck
H. 0.118, Diam. of rim 0.28,
Th. of shoulder 0.007–0.011.
W21/S99 *99.05, south of Building C (“Hoard A”)
Rim and neck of Waveline hydria. Everted and
thickened rim; nearly vertical neck; articulated sharp
transition at the join between neck and shoulder;
vertical strap handle (only handle stump preserved).
Red to black glaze, streaky, applied over clay surface.
Exterior, band along rim and below rim; neck, single
horizontal wavy line; horizontal band at the join
between neck and shoulder; two horizontal bands.
Interior, band along and below rim. Other parts of
the vessel clearly had been sheared off.

HoB 703 (P14.50) PL. 198

Waveline hydria neck
H. 0.11, Diam. of rim 0.3,
Th. of shoulder 0.006–0.007.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Rim and neck of Waveline hydria. Small and
shallow drill holes (but not reaching thorough as
mending holes do) below rim and occasionally on
neck. Everted and thickened rim; nearly vertical
neck; articulated sharp transition at the join between
neck and shoulder; vertical strap handle (missing).
Red to black streaky glaze, applied over clay surface.
Exterior, band along rim and below rim; neck, single
horizontal wavy line; horizontal band at the join
between neck and shoulder. Interior, band along and
below rim. Other parts of the vessel clearly had been
sheared off.

HoB 704 (P14.53) PL. 199

Waveline hydria neck
H. 0.105, Diam. of rim 0.27,
Th. of shoulder 0.006–0.007.
W19/S99 *99.05, south of Building C (“Hoard A”)
Five joining fragments of rim and neck of Waveline
hydria. Everted and thickened rim; nearly vertical
neck; articulated sharp transition at the join between
neck and shoulder; vertical strap handle (handle

stump preserved). Black glaze over clay surface. Exterior, band along and below rim; neck, single horizontal wavy line; horizontal band at the end of neck. Interior, band along and below rim. Other parts of the vessel clearly had been sheared off.

HoB 705 (P14.60) PL. 199

Waveline hydria or amphora neck
H. 0.1, Diam. of rim 0.28, Th. of neck 0.008–0.017.
W21/S99 *99.05, south of Building C (“Hoard A”)
Rim and neck of Waveline hydria or amphora.
Everted and thickened rim; nearly vertical neck.
Black glaze over clay surface, glaze worn. Exterior, band along and below rim; neck, single thin horizontal wavy line; horizontal band at the end of neck. Interior, band along and below rim. Other parts of the vessel clearly had been sheared off.

HoB 706 (P14.48) PL. 199

Waveline hydria or amphora neck
H. 0.104, Diam. of rim 0.26,
Th. of neck 0.008–0.016.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Rim and neck of Waveline hydria or amphora.
Everted and thickened rim; nearly vertical neck.
Black glaze over clay surface, glaze worn. Exterior, band along and below rim; neck, single thin horizontal wavy line; horizontal band at the end of neck. Interior, band along and below rim. Other parts of the vessel clearly had been sheared off.

HoB 707

Fragments of perhaps seven additional Waveline jar necks (discarded 1962)

HoB 708 (P14.52) PL. 199

Waveline (?) hydria or amphora
H. 0.058, Diam. of base 0.11,
Th. of body 0.004–0.008.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Conical foot and lower body fragment, perhaps of Waveline hydria or amphora. Decoration red to dark. Foot streaky.

HoB 709 (P14.55) PL. 199

Bichrome closed vessel
L. 0.0038, W. 0.053, Th. 0.012.
W19/S99 *99.05 ~ south of Building C (“Hoard A”)
White Bichrome closed vessel body fragment.
Matt dark over creamy white slip. Crosshatched broken meander.

Gray Ware and Other Monochrome

HoB 710 (P62.447) PL. 200

Stemmed dish
H. 0.098, Diam. of base 0.075.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Red monochrome. Stem only. Long cylindrical stem with two ridges. Well polished.

Cooking Ware

HoB 711 (P14.47) PL. 200

Cooking ware amphora neck
H. 0.104, Diam. of rim 0.24, Th. of shoulder 0.013.
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Four fragments of rim, neck, shoulder, and handle of amphora in cooking ware. It is rare to have a pot of this shape in this fabric. Everted and thickened rim; nearly vertical neck; articulated sharp transition at the join between neck and shoulder; vertical strap handles (handle stumps preserved). Neatly trimmed at junction with shoulder. Apparently reused as a pot stand. See also **HoB 524–HoB 533**, **HoB 702–HoB 707**, and **HoB 765**.

HoB 712

Fragments of two or more cooking pots (discarded 1962)
W21/S99 *99.05 ~ south of Building C (“Hoard A”)
Including one small disk base, two vertical strap handles, many body sherds.

HoB 713

Fragments of breadtray (discarded 1962)
W21/S99 *99.05 ~ south of Building C (“Hoard A”)

Imported

HoB 714 (P14.59) PL. 201

Bird bowl
L. 0.034, W. 0.036, Th. 0.003–0.004.
W19/S99 *99.05 ~ south of Building C (“Hoard A”)
Rim and body fragment of bird bowl. Plain rim.
Brown over smooth clay surface. Exterior, thin band along rim; below, metopal decoration: three vertical lines, pendent triangle, back of bird. Interior, painted.

HoB 715 (P14.58) PL. 201

Ionian cup
L. 0.022, W. 0.021, Th. 0.002.
W19/S99 *99.05 ~ south of Building C (“Hoard A”)
Body fragment of cup. Trace of single handle stump. Glossy black glazed inside and out, except for a single reserved band on the exterior.

TERRACOTTA

HoB 716 (T14.18) PL. 201

Group of loom weights
#1: H. 0.083, Diam. of hole 0.007, bottom 0.056 × 0.045 m; Wt. 160 g
#2: H. 0.075, Diam. of hole 0.008, bottom 0.044 × 0.042 m; Wt. 120 g
#3: H. 0.067, Diam. of hole 0.006, bottom 0.042 × 0.035 m; Wt. 80 g
#4: H. 0.067, Diam. of hole 0.007, bottom 0.048 × 0.047 m; Wt. 100 g
#5: H. 0.056, bottom 0.045 × 0.039 m; Wt. 70 g
#6: H. 0.059, bottom 0.033 × 0.032 m; Wt. 70 g

W21/S99 *99.05 ~ south of Building C ("Hoard A")

Six loom weights (two fired and four unfired), from an original group of thirty-two (remainder discarded in 1962).

#1. Four-sided pyramidal loom weight (fired).

Almost intact, except a small break on top. Hole on top.

#2. Four-sided pyramidal loom weight (fired).

Almost intact, except a small break on one side. Top, flattened. Hole on top. Traces of string impressions within the upper part of hole and on bottom.

#3. Four-sided pyramidal loom weight (unfired).

Almost intact. Bottom and one side slightly broken. Top flattened. Hole on top.

#4. Four-sided pyramidal loom weight (unfired). Top, bottom, and one side slightly broken. Hole on top (hole does not go through the other side).

#5. Four-sided pyramidal loom weight (fired). Top and one side slightly broken. Hole not preserved.

#6. Four-sided pyramidal loom weight (unfired). Very poorly preserved.

STONE

HoB 717 (S62.57) Pl. 202

Upper grindstone (saddle quern)

H. 0.055, W. 0.155, L. 0.37.

W21/S99 *99.05 ~ south of Building C ("Hoard A")

Granite. Slightly broken at one end. Lower side worked smooth; upper side left roughly shaped.

BONE

HoB 718 (BI14.5) Pl. 202

Bone pin

H. 0.041, W. 0.019.

W19/S99 *99.05 ~ floors south of Building C ("Hoard A")

Poorly preserved, end broken, trimmed at both rounded sides. Pin head, knobbed; two thin ridges above and below a torus.

Floor with Puppy Burials at *99.4

Lydian Painted Decoration

HoB 719 (P62.363) Pl. 203

Streaky glazed stemmed dish

H. 0.105, Diam. of rim 0.14, Diam. of flange 0.16, Diam. of base 0.09.

W20/S100 *99.4 floor ~ south of Building C

Nearly complete streaky glazed stemmed dish; small fragments of rim and base missing. Plain, straight sided rim; flanges out below rim; shallow bowl; long, cylindrical stem; immediately above resting surface, base is in two degrees. Decoration red to dark.

Exterior, rim and over the flange streaky glazed; traces of streaky paint on the lower body, stem, base, and resting surface. Interior, plain streaky glazed.

HoB 720 (P62.442B) Pl. 203

Black on Red stemmed dish

H. 0.07, Diam. of rim 0.11, Diam. of base 0.06.

W19-21/S95-97 *99.4 floor ~ south of Building C

Complete, only a tiny piece from bowl missing, of Black on Red stemmed dish. Three joining pieces. Slightly inverted plain rim; shallow bowl; high stem. Matt black over red slip. Exterior, red band along rim: four groups of eight short vertical lines; another red band below rim; horizontal lines framing this red band: single above and double below; from beginning of stem to down below the base painted red: four lines at mid-stem and three over base. Interior, two groups of horizontal lines (six to eight), one below rim, the other near mid-bowl; central bowl, encircled with a group of concentric lines.

HoB 721 (P62.442A) Pl. 203

Black on Red stemmed dish

H. 0.07, Diam. of rim 0.12, Diam. of base 0.07.

W19-21/S95-97 *99.4 floor ~ south of Building C

Nearly complete Black on Red stemmed dish; several pieces missing from base. Many joining fragments. Slightly inverted plain rim; shallow bowl; high stem. Matt black over red slip. Exterior, red band along rim: four stems of eight short vertical lines; red band below rim with horizontal lines above and double below; from beginning of stem to below the base painted red: four lines at mid-stem and three spiral horizontal lines over base. Interior, two groups of horizontal lines (five to six), one below rim, the other near mid-bowl; central bowl, encircled with a group of concentric lines.

HoB 722 (P62.444) Pl. 204

Streaky glazed skyphos (Manisa 7118)

H. 0.073, Diam. of rim 0.09, Diam. of base 0.04.

W19-21/S95-97 *99.4 floor ~ south of Building C

Painted, slightly streaky intact skyphos. Plain rim; ring base; two loop handles immediately below rim. Decoration red to dark. Exterior, area between handles, reserved; rim, below handle area, and handles painted; lower body and base not painted. Interior, streaky painted.

HoB 723 (P62.443A) Pl. 204

Streaky glazed small skyphos

H. 0.065, Diam. of rim 0.075, Diam. of base 0.035.

W19-21/S95-97 *99.4 floor ~ south of Building C

Plain, slightly streaky skyphos. Nearly complete, but small pieces missing from body and base. Several joining fragments. Plain rim; ring base; two loop handles immediately below rim. Exterior, red band along rim; area between handles reserved; painted below handle area to base; traces of paint below handles. Interior, painted.

HoB 724 (P62.443B) PL. 204
 Streaky glazed small skyphos (Manisa 6667)
 H. 0.05 m. Diam. of rim 0.07 m,
 Diam. of base 0.032 m.
 W19–21/S95–97 *99.4 floor ~ south of Building C
 Intact skyphos, similar to **HoB 723**.

HoB 725 (P62.441) PL. 204
 Oinochoe (Manisa 7084)
 H. 0.115, H. with handle 0.131, W. of trefoil 0.06,
 L. of trefoil 0.065, Diam. of base 0.07.
 W19–21/S95–97 *99.4 floor ~ south of Building C
 Semi-glazed. Nearly complete oinochoe. Trefoil
 mouth; nearly vertical neck; globular body; wide
 ring base; vertical strap handle from rim to shoulder.
 Decoration red. Exterior, painted handle and rim to
 end of shoulder. Interior, painted below rim.

Gray Ware and Other Monochrome

HoB 726 (P62.445) PL. 205
 Oinochoe (Manisa 6665)
 H. 0.09, H. with handle 0.095, Diam. of base 0.45.
 W19–21/S95–97 *99.4 floor ~ south of Building C
 Not painted. Complete oinochoe. Trefoil mouth;
 nearly vertical neck; globular body; flat base; vertical
 strap handle from rim to shoulder.

Cooking Ware

HoB 727 (P62.446) PL. 205
 Hearth stand
 H. 0.162, H. with handle 0.177, Diam. of top 0.2,
 Th. 0.01–0.012.
 W19–21/S95–97 *99.4 floor ~ south of Building C
 Hearth stand, complete; only small fragments
 are missing. Tapering cylindrical body, cut away on
 one side to give access to coals within. Thickened
 lip with three triangular lugs to support a cooking
 pot. Handle from rim to mid-body. Eight joining
 fragments.

❖❖

Lydian Painted Decoration

HoB 728 (P62.386) PL. 206
 Semi-glazed lekythos (Manisa 4116)
 H. 0.137, Diam. of base 0.04.
 W19/S99 *99.45 ~ south of Building C
 Semi-glazed. Nearly complete small lekythos
 (handle and rim missing). Slightly flaring, narrow
 neck; cylindrical body; plain base; vertical strap
 handle from rim to upper body. Matt red to dark.
 Exterior, dipped inside and out from rim to upper
 body.

This item belongs with the floor near the post-
 holes, not with the floor near the puppy burials.

HoB 729 (P65.2) PL. 206
 “Early Fikellura” aryballos
 H. 0.052. Th. 0.003–0.005.
 W15–20/S115–120 *99.20–98.90 ~ south of
 Building C
 Narrow neck, rounded transition to body, and
 single handle stump of “Early Fikellura” aryballos.
 Dark over white slip. Exterior, horizontal band at
 the end of neck; partially preserved traces of paint
 on left, three short and one thicker diagonal line on
 right; three hanging vertical lines; neck and tail of
 another bird. Thin reserved band with horizontal
 thick lines above and below: centrally painted square
 bars divided by thin vertical short lines.
 Greenewalt 1971b, EF 29.

Gray Ware and Other Monochrome

HoB 730 (P62.216) PL. 206
 Gold Dust ware lid with rectangular cutout
 Diam. 0.17, L. of cutout 0.055, H. of handle 0.05,
 Th. 0.013.
 W20/S90 To ca. *99.50, in earth below stones
 Slightly arched lid with vertical loop handle.
 Straight vertical edge. Rectangular cutout for a
 spoon. A fine gold-colored wash inside and out.
 Compare **PC 60**.

Imported

HoB 731 (P62.351) PL. 207
 Ionian kantharos
 H. 0.085, Diam. ca. 0.095, W. of handle 0.015.
 W20/S100 *99.50 ~ south of Building C
 Fragments of Ionian kantharos. Ovoid body
 turning sharply to high, flaring rim and upswung
 handle. Lower body and handle painted in black
 glaze; rim reserved. Thin bands of white and red at
 midpoint of body; vertical band on handle.

HoB 732 (P62.155) PL. 207
 Black-polished round-mouthed oinochoe
 H. 0.117, Th. 0.005.
 W22–24/S89–92 *99.60–99.40, gravel surface ~
 south of Building C
 Black-polished oinochoe. Many joining and
 nonjoining fragments of rim, neck, body, and handle.
 Finely burnished on exterior and interior down
 to neck. Wheel-marks on interior body. Plain rim;
 nearly straight sided neck; spherical body; single
 vertical strap handle fragment preserved.
 Analyzed by M. Kerschner (sample Sard 50), and
 by Kealhofer and Grave (Kealhofer, Grave, and Marsh
 2013: sample AIA 895).

In addition to these vessels, there were many fragments
 of both local and probably imported pottery recorded in
 the field notes.

TERRACOTTA

HoB 733 (T14.17) PL. 207

Loom weights

#1: H. 0.07, bottom 0.053 × 0.051 m; Wt. 200 g;
 #2: H. 0.053, bottom 0.048 × 0.046 m; Wt. 140 g.
 W20/S100 *99.25–98.90 ~ south of Building C

Two unfired loom weights with green fabric.

1. Four-sided pyramidal loom weight. Top broken and one side at the bottom slightly broken. Hole not preserved.

2. Four-sided pyramidal loom weight. Poorly preserved.

METAL

HoB 734 (M61.92) PL. 208

Intaglio die (Manisa 6655)

L. 0.05, W. 0.05, Th. 0.005.

W19/S95 *99.6 ~ south of Building C

Copper alloy intaglio die for raising gold foil. Square-shaped; edges roughly shaped. Upper surface cuttings: a square with bead-and-reel pattern; inside the frame at the side, a centrally dotted nearly three-quarter circle, encircled with bead-and-reel pattern, adjacent to each of the four sides of the square; circle with central dot at the center; single crisscross between each three-quarter circle on the corners. A single hole is preserved on the outer edge, for suspension?

Hanfmann, "SARDIS 1962," pp. 11–12, fig. 8;
Sardis M8, cat. no. 948.

HoB 735 (M62.8) PL. 208

Bridle ornament

H. 0.035, W. 0.043, Base 0.017 × 0.013, Diam. of lateral opening 0.01; 0.008; 0.006; 0.009.

W20–25/S90 To *99.80, higher in fill ~ floors south of Building C

Copper alloy. Nomadic style bronze bridle ornament. Hollow, cube-shaped base with a wide hole (lateral opening) on each side; upper part of the base is solid and beak-shaped, stylized in a bird's beak: four horizontally curving flutes running parallel with the beak-shaped part on both sides.

Sardis M8, cat. no. 86; Ivantchik 2001a, p. 82 and fig. 34.5.

HoB 736 (M62.57) PL. 208

Unfinished bronze ibex bridle or harness ornament

H. 0.042, H. of loop 0.015, L. 0.050, W. of loop 0.018, Diam. of loop 0.008, Th. 0.009.

W20–25/S90–95 *99.80

Tin bronze bridle or harness ornament.

Recumbent ibex in relief, facing to right; face turned backwards; long horn curves up from the forehead down to the neck. Back: two loop attachments.

Unfinished, solid cast.

Hanfmann, "SARDIS 1962," p. 11, fig. 9; *Sardis* M8, cat. no. 87; *LATW*, p. 447, no. 49.

Refuse Piles

POTTERY

*Lydian Painted Decoration***HoB 737** (P63.405P) PL. 209

Black on Red stemmed dish

H. 0.06, Diam. of rim 0.26, Diam. of base 0.1,
 Th. of lower body 0.002–0.004.

W11–13/S103–104 *99.50–99.30 ~ refuse pile

Black on Red. Rim, body, center of bowl, stem, and base of stemmed dish. Slightly inverted rim, shallow bowl. Matt dark and red paint. Exterior, rim plain painted; single horizontal dark line on mid-stem; mid-stem and base painted red. Interior, two sets of parallel horizontal lines (one below rim, the other near mid-bowl) and concentric spiral dark lines encircling central bowl.

HoB 738 (P63.406Q) PL. 210

Stemmed dish

H. 0.097, Diam. of base 0.1, Th. 0.005–0.01.

W11–13/S103–104 *99.50–99.20 ~ refuse pile

Painted red. Two joining fragments of bowl, stem, and base. Cylindrical stem. Matt red on exterior, and interior.

HoB 739 (P63.405O) PL. 210

Black on Red stemmed dish stem

H. 0.09, Diam. of base 0.104.

W11–13/S103–104 *99.50–99.20 ~ refuse pile

Black on Red. Stem and base preserved. Red and matt dark. Exterior, two parallel horizontal dark lines on mid-stem; stem and base painted red.

HoB 740 (P63.375) PL. 211

Bichrome dish

H. 0.085, Diam. of rim 0.34, Diam. of base 0.105;
 Th. 0.003–0.008.

W11–13/S103–104 *99.50–99.20 ~ refuse pile

Red Bichrome. Eight joining and nonjoining fragments of rim, bowl, and base of dish. Flaring rim; articulated carination below rim; high ring base; stump of loop (?) handle. Black over white slip (in some areas overlapping red bands) and wide red bands. Exterior, red band along the carination and over the stump handle; foot painted red. Interior, painted red over rim, with a single line above and below; below rim, white band with two horizontal lines below and a single horizontal line above (i.e., the lower border rim); wide red band; mid-bowl, white band with a single line above and below; center of bowl, white band encircled with two horizontal lines above and below.

- HoB 741** (P63.405N) PL. 212
Bichrome dish
H. 0.28, Diam. of base 0.088, Th. 0.009–0.01.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Red Bichrome. Several joining fragments of rim, bowl, and base. Flaring rim; articulated carination below rim; high ring base. Red, matt dark, and white. Exterior, red band with two horizontal black lines below; lower body and base painted red. Interior, red band with two horizontal dark lines above and a single horizontal dark line below; single horizontal wave line over white band; single horizontal dark line; four parallel bands in alternate red and white; center painted red.
- HoB 742** (P63.393A) PL. 213
Streaky glazed skyphos (Manisa 4350)
H. 0.088, Diam. of rim 0.095, Diam. of base 0.047.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Streaky glazed. Nearly complete skyphos. Plain rim; deep bowl; low conical foot; loop handles slightly rising diagonally. Exterior, red along rim and below the area between handles; area between handles reserved; handles, partially painted. Interior, painted.
- HoB 743** (P63.393B) PL. 213
Streaky glazed skyphos
H. 0.105, Diam. of rim 0.1, Diam. of base 0.045, Th. 0.002–0.004.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Streaky glazed. Eight joining fragments of nearly complete skyphos, missing one handle and small pieces of rim and body. Plain rim; deep bowl; low conical foot; two loop handles (one missing). Red to black. Exterior, painted along rim and below the area between handles, which is left reserved; handles, partially painted on the upperside and underside. Interior, painted.
- HoB 744** (P63.393C) PL. 213
Streaky glazed skyphos
H. 0.091, Diam. of rim 0.085, Diam. of base 0.045, Th. 0.003–0.004.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Streaky glazed. Seven joining fragments of rim, bowl, foot, and handle of skyphos. Plain rim; deep bowl; low conical foot; two loop handles (one missing, only single stump preserved). Brownish black. Exterior, painted along rim and down below the area between handles which is left reserved; handles, partially painted on the upper side and underside. Interior, painted.
- HoB 745** (P63.393D) PL. 213
Streaky glazed skyphos
H. 0.09, Diam. of rim 0.01, Diam. of base 0.045, Th. 0.002–0.004.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Streaky glazed. Four joining fragments of rim, bowl, foot, and handle of streaky glazed skyphos. Plain rim; deep bowl; low conical foot; two loop handles (one missing). Brownish black. Exterior, painted along rim and down below the area between handles, which is left reserved; handles, partially painted on the upper side and underside. Interior, painted.
- HoB 746** (P63.393E) PL. 214
Streaky glazed skyphos
H. 0.122, Diam. of rim 0.16, Diam. of base 0.06, Th. 0.003–0.005.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Streaky glazed. Fifteen joining fragments of rim, bowl, foot, and handle of streaky glazed skyphos. Almost complete. Plain rim; deep bowl; low conical foot; two loop handles. Red to black. Exterior, painted along rim and down below the area between handles, which is left reserved; handles, partially painted on the upper side and underside. Interior, painted.
- HoB 747** (P63.393G) PL. 214
Skyphos
H. 0.102, Diam. of base 0.06, Th. 0.004–0.008.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Four joining fragments of rim, body, base, and handle fragment (single stump of one handle preserved) of skyphos. Plain rim, deep bowl, ring base. Red over creamy white slip on the exterior and black on the interior. Exterior, handle stumps, encircled; below handle area three horizontal bands; lower body, two narrow bands; base and above base, streaky. Interior, painted.
- HoB 748** (P63.393F) PL. 214
Skyphos
H. 0.09, Diam. of rim 0.10, Diam. of base 0.048, Th. 0.002–0.003.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Painted red. Lower body and base fragment. Low conical foot.
- HoB 749** (P63.431) PL. 214
Bichrome skyphos krater
H. 0.071, Diam. of rim 0.27; Th. of body 0.004–0.005.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Red Bichrome. Two joining fragments of rim, neck, and body of skyphos krater. Slightly everted rim; flaring neck; pronounced transition from neck to body. Red, matt dark, and white. Exterior, painted red over the rim; white painted band along neck; single horizontal dark wavy line with two horizontal dark lines above and below (single line overlapping the red band below); red band; two horizontal dark

lines below the red band; upper body, two partially preserved horizontal S loops. Interior, red band below rim.

HoB 750 (P63.366) FRONTISPIECE OF VOL. II,
PL. 215

Wild Goat style lebes (Manisa 1676)
H. 0.24, Diam. of rim 0.32, Diam. of base 0.07.
W10/S100 *100.30–99.60;
W13/S99 *99.00;
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Several joining fragments of “Sardis Style”
Orientalizing lebes. Everted rim; spherical body;
slightly flattened bottom. Red and dark paint over
fine white slip on the exterior and red on the inter-
ior. Exterior, over rim, a band of rectangular spaces
divided by two short vertical lines: the spaces are
alternately decorated with crisscross, and dots and
circle with a central dot encircled by other dots; red
banded on the edge of rim; three registers on the
body, each divided by a single red band:

1. Red spotted and dark outlined feline walking
left (hind preserved), two dark outlined and red
spotted deer walking to right, small bird and hind
of a running dog to right, red silhouette painted
feline (?) to left (hind foot preserved), a red silhou-
ette painted feline to right (foreleg, two hind legs,
and underbelly preserved), and a bird painted red;
filling ornament.

2. Spotted feline to left (hind foot preserved),
grazing goat to right, walking goat to right, two
antithetic lions, lion to right (fore and hind body of
all lions are dark and mid-body red), spotted deer to
right, filling ornament.

3. Reserved band.

Analyzed by M. Kerschner (sample Sard 58), and
by Kealhofer and Grave (Kealhofer, Grave, and Marsh
2013: sample AIA 899).

Hanfmann, “SARDIS 1963,” p. 11, fig. 6; Detweiler
and Mitten 1963, p. 10, fig. 4; Mellink 1964, p. 163,
pl. 52, fig. 20; Mitten 1966, p. 48, fig. 8 on p. 49; *Art
Treasures of Turkey* (Washington, D.C.: Smithsonian
Institution, 1966), pp. 29, 87, no. 113; Hanfmann
1967, p. 287, pl. 334; Greenewalt 1970, no. 1;
Greenewalt 2010b, p. 117, fig. 16; *LATW*, p. 476,
no. 90.

HoB 751 (P63.370) PL. 216

Small olpe (Manisa 4353)
H. 0.132, H. with handle 0.143, Diam. of rim 0.048,
Diam. of base 0.047.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Complete olpe. Flaring rim; cylindrical neck; piri-
form body; plain base; vertical strap handle from rim
to upper body. Decoration dark. Exterior, dipped
inside and out from rim to upper body. Interior,
glazed from rim to lower neck.

HoB 752 (P63.371) PL. 216

Small olpe
H. 0.122, H. with handle 0.136, Diam. of rim 0.04,
Diam. of base 0.051.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Complete olpe. Flaring rim; cylindrical neck; piri-
form body; plain base; vertical strap handle from rim
to upper body. Matt red. Exterior, dipped inside and
out from rim to upper body including the handle.

HoB 753 (P63.367) Fig. 1.11, PL. 216

Bichrome oinochoe (Manisa 4423)
H. 0.325, H. with handle 0.35, Diam. 0.235,
Diam. of base 0.09–0.092.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Red Bichrome. Intact oinochoe. Trefoil mouth;
long neck; ovoid body; ring base; vertical strap
handle from rim to shoulder. Matt dark and red to
dark streaky glaze. Exterior, rim and neck streaky;
a single horizontal dark line at the transition from
neck to shoulder; shoulder, a row of matt dark
concentric three-quarter circles on a reserved band;
broad streaky glazed band on body with two or three
dark lines above; single line on lower part of streaky
glazed area; lower body reserved; handle streaky.

HoB 754 (P63.372B) PL. 217

Small oinochoe (Manisa 7099)
H. 0.11, H. with handle 0.12, Rim 0.065 × 0.065,
Diam. of base 0.035.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Complete oinochoe. Trefoil mouth; neck with
nearly vertical sides; ovoid body; plain base; vertical
strap handle from rim to shoulder. Matt black glaze.
Exterior; dipped from mouth to shoulder with
occasional drips from shoulder to below lower body.
Interior, glazed from rim to end of neck.

HoB 755 (P63.372C) PL. 217

Small oinochoe
H. 0.102, H. with handle 0.111, Rim 0.054 × 0.059,
Diam. of base 0.041, Th. 0.004.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Nine joining fragments of small oinochoe. Nearly
complete (only lower handle and small fragments
of body missing). Trefoil mouth; neck with nearly
vertical sides; ovoid body; plain base; vertical strap
handle from rim to shoulder. Matt black glaze.
Exterior, dipped in glaze from mouth to shoulder,
including the handle; occasional drips from shoulder
to below lower body. Interior, glazed from rim to
end of neck.

HoB 756 (P63.372D) PL. 217

Small oinochoe
 H. 0.116, H. with handle 0.125, Rim 0.063 × 0.064,
 Diam. of base 0.041.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Two joining fragments of nearly complete
 small oinochoe (lower handle and part of rim
 missing). Trefoil mouth; neck with nearly vertical
 sides; ovoid body; plain base; vertical strap handle
 from rim to shoulder. Matt black glaze. Exterior,
 dipped in glaze from mouth to shoulder including
 the handle; one drip from shoulder to below lower
 body. Interior, glazed from rim to end of neck.

HoB 757 (P63.411S) PL. 218

Small oinochoe
 H. 0.122, Rim 0.059 × 0.054, Diam. of base 0.041,
 Th. 0.003-0.006.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Eleven joining fragments of rim, neck, body, and
 base of small oinochoe; handle and several fragments
 of body missing. Trefoil mouth; nearly vertical neck;
 ovoid body; plain base; vertical handle from rim to
 shoulder (only scar on shoulder preserved). Red to
 dark glazed. Exterior, dipped in glaze from rim to
 shoulder. Interior, glaze over the rim.

HoB 758 (P63.405H) PL. 218

Small oinochoe
 H. 0.122, H. with handle 0.127, Rim 0.059 × 0.051,
 Diam. of base 0.044.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Nearly complete; handle missing. Trefoil mouth;
 neck with nearly vertical sides; ovoid body; vertical
 strap handle from rim to shoulder (handle stump
 on rim and scar on shoulder preserved); plain base.
 Underside of base, on the outer edges of resting
 surface, sixteen small drill holes. Red to dark glazed.
 Exterior, dipped in glaze from rim to shoulder
 with occasional drips from shoulder to lower body.
 Interior, glazed on rim and handle.

HoB 759 (P63.405L) PL. 218

Small oinochoe
 H. 0.145, Diam. of base 0.068, Th. 0.002-0.007.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Several joining pieces of rim, neck, shoulder, body,
 and base of small oinochoe. Trefoil mouth, nearly
 vertical sided neck, globular body; low ring base. Red
 and black paint. Exterior, on shoulder, a row of red
 petals on a reserved band bordered with two hori-
 zontal matt dark lines below; painted red down to
 above base, with a single matt dark horizontal line.

HoB 760 (P63.405K) PL. 219

Small oinochoe
 H. 0.101, H. with handle 0.113, Rim 0.059 × 0.058,
 Th. 0.001-0.003.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Three joining fragments of small oinochoe. More
 than half of the vessel is complete (lower body and
 base missing). Trefoil mouth; neck with nearly
 vertical sides; ovoid body; vertical strap handle from
 rim to shoulder. Weak red, partially burned, glazed.
 Exterior, dipped in glaze from rim to shoulder
 with occasional drips from shoulder to lower body.
 Interior, glazed from rim to neck.

HoB 761 (P63.405M) PL. 219

Small oinochoe
 H. 0.123, H. with handle 0.173, Diam. of base 0.061,
 Th. 0.002-0.006.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Shoulder, body, base, and handle fragment of
 small oinochoe. Ovoid body; plain base; vertical,
 strap handle possibly from rim (not preserved) to
 shoulder. Red and matt dark paint. Exterior, single
 horizontal dark line on the transition from neck
 to shoulder; shoulder, reserved, group of seven red
 petals, semicircular band under handle; vertical red
 band near handle; wide red band down to lower
 body: four horizontal dark lines (three overlapping
 the wide red band) on the upper body, below handle,
 a single dark horizontal line near center of band and
 lower frame of the band.

HoB 762 (P63.430) PL. 219

Small oinochoe
 H. 0.062, H. with handle 0.102, Diam. of base 0.04,
 Th. of body 0.001-0.003.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Seven joining fragments of shoulder, body, base,
 and handle of small oinochoe; rim and neck missing.
 Globular body; plain base; vertical strap handle from
 rim to shoulder. Dark brown over a creamy white
 slip. Exterior, from top to bottom, single band at
 the upper shoulder; a row of pendent petals hanging
 from the band above; two bands on mid-body and
 one on lower body; handle, two horizontal strokes
 near rim and two strokes near the mid-handle.
 Evidence of burning.

HoB 763 (P63.405I) PL. 220

Small oinochoe
 H. 0.081, Diam. of base 0.04, Th. of neck 0.003.
 W11-13/S103-104 *99.50-99.20 ~ refuse pile
 Neck, body, and base of small oinochoe. Globular
 body; plain base; vertical handle from rim (?) to
 shoulder (scar on shoulder preserved). Red to dark
 glazed. Exterior, dipped in glaze from rim (?) to
 shoulder with occasional drips from shoulder to
 lower body.

HoB 764 (P63.372A)

Small oinochoe (Manisa 6672)

H. 0.155, H. with handle 0.165, Rim 0.07 × 0.07,
Diam. of base 0.06.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Complete small oinochoe. Trefoil mouth; ovoid body; ring base; vertical, strap handle from rim to shoulder. Red and matt dark. Exterior, rim and neck painted red; two horizontal dark lines on the transition from neck to shoulder; shoulder reserved, a row of red petals, semicircular band under handle; wide red band down to lower body; two horizontal dark lines on the upper body, and two others on lower body.

HoB 765 (P63.411V)

PL. 220

Waveline amphora or hydria neck

H. 0.115, Diam. of rim 0.24, Diam. of neck 0.17,
Th. 0.007-0.014.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Rim and neck of Waveline amphora or hydria. Handle stump preserved. Rim, thickened and out-turning. Nearly vertical, slightly flaring towards rim. A row of small repair holes were made along the end of the neck. Dark paint on clay surface. Exterior, dark band along rim; single horizontal wavy line on neck; single horizontal band at the end of neck; traces of paint on the stump. Interior, dark band along rim. Other parts of the vessel clearly had been sheared off for re-use of this neck. Illustrated upside down to show how it would have been used. See also **HoB 524-HoB 533**, **HoB 702-HoB 707**, and **HoB 711**.

HoB 766 (P63.429)

PL. 220

Miniature hydria

H. 0.045, Th. 0.003-0.004.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Shoulder, body, and handle fragment of miniature hydria. Ovoid body; horizontal loop handle. Dark paint and added white and red colors. Exterior, reserved on top of shoulder; shoulder and handle painted dark with a single horizontal white band; at the level of handle, reserved band on mid-body; lower part of the body painted dark with a horizontal red band above.

HoB 767 (P63.438)

PL. 220

Small jar

H. 0.032, Diam. of base 0.02, Th. 0.003.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Body and base fragment of small jar. Plain base; nearly vertical. Red paint over clay surface. Exterior and underside of base red bands.

Gray Ware and Other Monochrome**HoB 768** (P63.411U)

PL. 221

Bowl

H. 0.03, Diam. of rim 0.22, Th. 0.003-0.005.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Not painted. Eight joining fragments of rim, bowl, and bottom of bowl. Slightly inward curving rim; shallow bowl; rounded bottom. Roughly modeled with occasional wheel marks on the exterior and interior.

HoB 769 (P63.411T)

PL. 221

Round-mouthed jug

H. 0.118, H. with handle 0.128, Diam. of rim 0.086,
Th. of body 0.004-0.06.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Not painted. Three joining fragments of rim, neck, body, and handle. Plain rim; short, nearly vertical neck; spherical body; vertical strap handle from rim to shoulder. Traces of burning on neck and body.

HoB 770 (P63.373)

PL. 222

Jar (Manisa 4351)

H. 0.105, H. with handle 0.125, Diam. of rim 0.83,
Diam. of base 0.05.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Complete jar. Shape similar to cooking pot. Everted rim; ovoid body; plain base; vertical handle from rim to mid-body.

HoB 771 (P63.442)

PL. 222

Stemmed dish (?) rim fragment

H. 0.03, Th. 0.009-0.01.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Rim and bowl fragment of stemmed dish. Plain rim, slightly inverted; shallow bowl. Not painted. Graffito: partially preserved symbols, incised after firing.

Hanfmann, "SARDIS 1963," p. 25.

Cooking Ware**HoB 772** (P63.369)

PL. 222

Cooking pot (Manisa 7498)

H. 0.155, H. with handle 0.19, Diam. of rim 0.16,
Diam. of base 0.07, Th. 0.004.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Nearly complete cooking pot. Everted rim; spherical body; rounded bottom; single high vertical strap handle from mid-body to rim.

HoB 773 (P63.407R)

PL. 222

Cooking pot

H. 0.063, H. with handle 0.095, Diam. of rim 0.095,
Th. of body 0.003-0.005.

W11-13/S103-104 *99.50-99.20 ~ refuse pile

Eleven joining fragments of rim, neck, shoulder, body, and handle of cooking pot. Lower body and base are missing. Flaring rim; spherical body; vertical strap handle from rim to shoulder.

Imported

- HoB 774** (P63.641) PL. 223
Rosette bird bowl
H. 0.091, Diam. of rim 0.17, Diam. of base 0.05,
Th. 0.004–0.006.
W10–13/S110–113 *99.10–98.90 ~ refuse pile,
at lower level
Four joining fragments of rim, body, base,
and handle of rosette bird bowl. Plain rim; wide
bowl; disc base; only stumps of single loop handle
preserved. Red to brown over polished clay surface.
Exterior, metope decoration bordered with a line
along rim and a band below. Handle zone: stalked
rosette in metope with short vertical lines on each
side. Central part of bowl missing. Rays rise from
foot. Interior: four red lines applied over a matt dark
line over light brown slip; the upper red horizontal
line, below rim, is applied over an added white band.
Center of bowl, two thin lines encircling a single dot
over a reserved area.
625–600 B.C., according to M. Kerschner.
- HoB 775** (P63.508) PL. 223
Rosette bird bowl
H. 0.066, Diam. of rim 0.2, Th. 0.003–0.005;
Fragment #1: L. 0.047, W. 0.031, Th. 0.005;
#2: L. 0.035, W. 0.021, Th. 0.004–0.005;
#3: L. 0.047, W. 0.027, Th. 0.004–0.005;
#4: L. 0.005, W. 0.004, Th. 0.005.
W14–15/S106–109 *99.70–99.20 ~ refuse pile
Seven joining and nonjoining fragments of rim
and body of rosette bird bowl. Plain rim; wide bowl.
Brown over polished clay surface. Exterior, 1. rim and
bowl fragment: metopal band with a horizontal line
along rim, and a thicker one below: three pendent
small triangles, bird at left facing right with a cross-
hatched body and long tail, pendent semicircle with
a central dot above and a circle with a central dot
below, three vertical lines. Stalked dot-rosette filling
the area of a single metope, three vertical lines;
below, single pendent ray. 2. Rim fragment: partially
preserved two dots of a dot-rosette, three vertical
lines, single pendent triangle, tail of a bird. 3. Rim
and upper body fragment: four pendent triangles,
lower body (crosshatched) and legs of a bird to right,
horizontal band below; 4. Lower body fragment:
upper part of a standing ray. Interior, three red hori-
zontal bands with a single horizontal white line above
and below over a plain dark painted surface.
625–600 B.C., according to M. Kerschner.
- HoB 776** (P63.434) PL. 224
Bird bowl
Diam. of base 0.05, Th. 0.002–0.004.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Two joining fragments of a ring base of a bird
bowl. Decoration, dark over clay surface. Exterior,
standing rays; base and under base plain dark paint.
Interior, plain dark paint.
650–600 B.C., according to N. Aytaçlar.
- HoB 777** (P63.436) PL. 224
Bird bowl
Diam. of base 0.04, Th. of lower body 0.003.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Base fragment of bird bowl. Ring base. Dark
red over cream slip (exterior) and red (interior).
Exterior, over base, lower parts of pendent ray; base
and under base painted red. Interior, painted red.
- HoB 778** (P63.435) PL. 224
Bird bowl
L. 0.061, W. 0.057, Th. 0.003–0.005.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Body fragment of bird bowl. Brown over creamy-
white slip (exterior) and red (interior). Exterior,
three horizontal lines above and a standing ray below.
Interior, painted red.
650–600 B.C., according to N. Aytaçlar.
- HoB 779** (P63.433) PL. 224
Bird bowl
L. 0.052, W. 0.051, Th. 0.005–0.009.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Body fragment of bird bowl. Red over burnished
clay (exterior) and dark brown (interior). Exterior,
standing ray. Interior, single horizontal reserved band
with a single matt dark band above and below over
dark brown slip.
650–600 B.C., according to N. Aytaçlar.
- HoB 780** (P63.437) PL. 224
Cup
H. 0.018, Diam. of base 0.05.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Conical foot, fragment of cup. Reddish brown over
creamy white slip. Exterior, streakly applied glaze.
Underside of base, single horizontal line on the
outer edge of resting surface.
- HoB 781** (P63.439) PL. 224
Cup
H. 0.045, Diam. of rim 0.14, Th. 0.002.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Three joining fragments of rim and body of cup.
Plain rim. Decoration creamy white over dark red
(interior) and creamy white (exterior). Exterior,
plain creamy white slip over a burnished clay surface.
Interior, red band over the lip; reserved narrow band;
two horizontal white lines over painted red area.
- HoB 782** (P63.440) PL. 224
Aryballos (?) bottom
Diam. of bottom 0.04, Th. 0.0006.
W11–13/S103–104 *99.50–99.20 ~ refuse pile
Rounded bottom fragment. Creamy slipped over a
well-burnished clay surface.

LAMP

HoB 783 (L63.38)

Pl. 224

Lamp

H. 0.026, Diam. of rim 0.088, Diam. of bottom 0.085, Th. 0.004–0.006.

W11–13/S103–104 *99.50–99.20 ~ refuse pile

Two joining fragments of lamp. Nearly half preserved. Rounded and open; horizontal rim, slightly flaring edge; high central cone; flat base with concave center; short nozzle (partially preserved).

Red clay. Exterior, bands on rim, under rim, and base. Interior, band around base and top of cone.

TERRACOTTA

HoB 784 (T63.48)

Pl. 225

Terracotta camel (ungulate?) figurine

H. of right leg 0.145, L. of base 0.126, W. of base 0.046, Th. of base 0.006, Th. of legs at knees 0.0265.

W11–13/S103–104 *99.50–99.20 ~ refuse pile

Two joining fragments of figurine. Only two legs extant, belonging to a cloven-hoofed ungulate, probably a camel. Long, straight, tubular legs, with two projecting dewclaws at back near the hoof, and larger, rounded protrusions, possibly knees, on the opposite side. The hooves, which were modeled up from a thin rectangular base, are cloven, as indicated by painted detail. The base has three pairs of parallel, circular piercings: two pairs flank the legs on the exterior; one pair lies in between but is not centered. Red and white paint on reserved ground. Legs are red, while hooves are white, with silhouette delineated in red. Only the left hoof seems to have a cleft, also in red; might be the result of dripping paint from above (evidence of dripping paint elsewhere on the base). The right leg has a thin, white, horizontal line below the “knee”; could also be extraneous. The base was left in reserve. Handmade and solid. The legs were rolled into tubes; other elements were modeled separately. [entry by Frances Gallart Marqués]

Hanfmann, “SARDIS 1963,” p. 11, fig. 5; Gallart Marqués 2018.

HoB 785 (P63.307, P63.308)

Pl. 226

Terracotta “Exhibitionist” figurine (Manisa 4359 and 4360)

Torso and head: H. 0.35, Diam. of belly 0.176, Th. of body 0.0018–0.024;

Leg and foot: H. 0.136, L. 0.06–0.07, Diam. of top leg 0.058–0.6;

Phallus: L.:0.087, Diam. of shaft 0.032–0.035.

W10/S100 *99.60–99.30;

W13/S104 *99.45–99.30;

W13/S104 *100.45–99.30

Ithyphallic man. Three nonjoining units, each mended from several fragments: the head and torso, the left leg and foot, and the phallus. Unusual and ornately decorated figure of a seated, ornately dressed ithyphallic man. Light-skinned, bearded male, with long black double-tresses framing an extended neck. He wears a sleeved jacket over a thinner garment, long banded trousers, and boots. A triangular cap or hood falls at his back. Barrel body with tubular appendages. Possibly a water-pressure trick vase in which the phallus works as the spout. Entire outer surface, except for sole of foot, painted in creamy white, dark purple-gray, brown-gray, and red. The style of the head seems to be inspired by contemporary East Greek fashions; the ornate costume seems to be Asiatic. Complicated vessel made in many separate parts. The torso, extant leg, and penis are all wheelmade and hollow, while the head seems to have been made with a combination of mold and free-hand modeling. Local fabric. [entry by Frances Gallart Marqués]

Hanfmann, “SARDIS 1963,” p. 11, fig. 3. Greenewalt 1971a; Greenewalt thought he was a Persian, but he comes from a Lydian context.

CATALOGUE OF CERAMICS AND OTHER FINDS FROM PACTOLUS CLIFF

by Nancy H. Ramage

The objects in this catalogue are ordered by zone, and within each zone, as much as possible, by level, moving from earlier material to later.

Because the stratigraphy has been so challenging to define, the listing is not consistently regularized by Lydian level numbers (IV to I, as in sector HoB).

ZONE 4

PC 1 (P60.193) PL. 227

Round-mouthed jug
H. with handle 0.072, W. 0.085, W. of band handle 0.019, Th. 0.005, est. Diam. 0.095–0.105.
Zone 4 *87.50 [Just before digging test pit]
Neck, handle, and shoulder of a jug of orange-buff fabric. Vertical rim with a tapered lip. Band handle is high swung and connects from rim to shoulder. Just below exterior rim, a trace of orange-red slip. Black painted decoration on neck and shoulder: two registers demarcated by four narrow black lines and one band of orange red slip between upper two and lower two lines. In each register, a series of pendent concentric three-quarter circles made of three lines; those in the upper band have a dot at the center. Smoothed on exterior. Wide band of orange-red slip on interior below rim. Shape related to Phrygian jugs.

Analyzed by Kealhofer and Grave (Kealhofer, Grave, and Marsh 2013: sample AIA 929).

PC 2 (P13.51) PL. 227

Black on Red dish
Max. Diam. 0.0365 × 0.0335, Th. 0.007.
Zone 4 *88.00–87.00 [Before digging test pit]
Fragment of a dish with a Black on Red design. Looks like a wheel with spokes, surrounded by dots around outer circle. An unusual motif. Underside slipped.

PC 3 (P60.164) PL. 227

Black on Red krater foot or stand (?)
H. 0.075, L. 0.07, Th. 0.013.
Zone 4 *88.00–87.00
Black on Red fragment of a large foot or stand. Thick-walled with a raised ridge, with a narrow line below and wavy line above it. Large meanders with diagonal crosshatching. Much worn on interior.

PC 4 (P13.26) PL. 227

Shallow bowl
H. 0.032, Th. 0.006.
Zone 4, SE corner outside “walls XY”
*88.20–88.00
Red on Black shallow bowl fragment. Interior: a crosshatched square bordered by a thick line, and pendent concentric semicircles, also bordered by a thick line. The concentric semicircles are made by a four-tipped multiple brush, and the inner semicircle is done by hand.
[Walls XY not identifiable now.]

PC 5 (P13.79) PL. 227
 Gray Ware twisted handle
 H. 0.0146, W. 0.03
 Zone 4, SE corner outside “walls XY” *88.20–88.00
 Silver wash on the twisted handle.
 [Walls XY not identifiable now.]

PC 6 (P60.111) Fig. 1.14, PL. 227
 Geometric carinated cup
 H. 0.035, L. 0.042, Th. 0.004; rim too small to
 provide a Diam.
 Zone 4 *88.24–88.00
 Rim fragment of an open vessel, perhaps a cup,
 with inward carination. Dark orangish-red fabric with
 a buff-colored slip on exterior and a red slip on inte-
 rior that also covers the rim. Geometric decoration: a
 narrow black line beneath the rim and then a zone of
 hatched meanders. Two horizontal lines below.

PC 7 (P60.106) PL. 228
 Lydian imitation of a Greek Geometric krater
 H. 0.052, Diam. 0.32–0.33, Th. 0.005.
 Zone 4 *88.50
 Everted ledge rim with groups of four radiating
 lines. Reserved area below rim filled with large red
 blobs with a small black dot in each. To the left of
 the red blobs, the neck is painted streaky red, same
 as interior. Below the red blobs, the first of the three
 horizontal lines is red, the next two horizontal lines
 are light brown streaky glaze. Below, a reserved
 panel with four vertical lines; then a diamond
 divided into four squares, with a dot in each. Short
 lines around diamond on each side. Likely a tail next
 to the diamond. Interior streaky red glaze. Models
 for red blobs, unusual in Lydian pottery, would have
 come from Samos or Exochi.

PC 8 (P60.109) Fig. 1.3, PL. 228
 Omphalos of a phiale
 H. 0.015, Diam. 0.055.
 Zone 4 *88.50
 A Black on Red omphalos, cut down from a large
 phiale, presumably to be used as a stopper or game
 piece. A black ring encircles the omphalos, and four
 diagonally crosshatched triangles meet in the center.
 Upper side burnished, and underside red-slipped.
 Cf. **PC 72** and see discussion in Chapter 1 on p. 7.
 Notice how the design is similar to that in the center
 of **HoB 325**.

PC 9 (P60.52) PL. 228
 Bichrome amphora
 H. 0.08, W. 0.126, est. Diam. of rim 0.26–0.28,
 Th. 0.007.
 Zone 4 *89.74–89.54
 Rim, neck, and upper body of a white Bichrome
 amphora. Everted ledge rim with white slip on exte-
 rior of rim; slipped on top (worn). At join of short
 neck to body, an irregular thick black line. Below neck,

a band of white slip bordered by a black band above
 and below, with a repeated pattern of wiggly vertical
 lines made by a six-headed multiple brush. Three
 more horizontal lines, black on red, below the white
 band. Not glazed or slipped on interior. Another frag-
 ment is from the shoulder of the same pot.

Test Pit

PC 10 (P13.73) PL. 228
 Cup
 H. 0.027, Diam. of foot 0.035, Th. 0.03.
 Zone 4, test pit *87.50–87.00
 Nearly vertical wall fragment and foot of a small
 Black on Red cup. Three black horizontal lines
 preserved on a red-slipped body. Found with much
 Gray Ware.

PC 11 (P60.172) PL. 228
 Imported bird kotyle
 H. 0.047, Diam. 0.26, Th. 0.005.
 Zone 4, test pit *87.75
 Nicked rim of deep-sided kotyle with dark brown
 on a buff fabric. Concave walls with slightly inturned,
 offset tapering rim. Two dark bands at and just below
 the rim. On the body, a diamond with a second smaller
 diamond with diagonal crosshatching inside. Two
 vertical bands separate this motif from a large bird
 whose body is filled with oblique crosshatching. Above
 and below the tail of the bird are smaller diamonds
 with oblique crosshatching. Both exterior and interior
 are polished. Interior is slipped red.
 Ca. 720–700 B.C.

ZONE 3

PC 12 (P60.198) PL. 229
 Gray Ware baby feeder
 H. 0.073, W. of body 0.074, Diam. of rim 0.04,
 Diam. of base 0.04.
 Zone 3 *87.80
 Small Gray Ware baby feeder with silvery slip.
 Ovoid juglet with everted rim and rounded lip. Band
 handle attached from rim to the widest part of the
 belly. Small sucking spout, circular in section and
 with a very small hole, was separately attached to
 the vessel at its widest point. Flat base. Exterior is
 polished. Cf. others from PC as well as **HoB 215**.
 See discussion of Gray Ware, Chapter 1, p. 10.

PC 13 (P60.80) PL. 229
 Orientalizing East Greek or Island jug
 H. 0.13, Diam. of foot 0.13, Th. 0.007.
 Zone 3 to *89.25 and Zone 1 *90.00
 Globular body of a jug of orangish-buff fabric
 with a broad-based foot. Cream slip on exterior of
 vessel with black painted decoration consisting of

thicker and thinner horizontal black bands with a reserved band of continuous interlaced loops at the widest part of the belly. The exterior of the disc foot is decorated with two narrow bands with standing black rays. The interior of the foot has a black band. Compare **PC 53**.

Hanfmann, "SARDIS 1960," p. 22 compares it to Schiering 1957, pp. 8f., pls. 3:2, 4f., dated ca. 650 B.C.

PC 14 (P60.66) PL. 229

Lydian imitation of a Protocorinthian skyphos
H. 0.11, Diam. of rim 0.12–0.13, Diam. of
foot 0.052, Th. 0.003.
Zone 3 *89.50

A skyphos with vertical rim and tapering lip. Horizontal loop handle is painted red. Exterior: a group of five vertical lines below the rim; below are seven horizontal bands. Standing rays extend from the foot of the vessel. Flaring ring foot is red on exterior. Three rings are painted on its underside. Interior is red.

PC 15 (P60.68) PL. 230

Black on Red decorated jar (?)
H. 0.16, W. 0.115, Th. 0.006.
Zone 3 *89.50

Wall fragment of shoulder, from the beginning of the neck to the belly. Rounded body. Black on Red pendent concentric semicircles, partially overlapping, near neck. Then three bands with crosshatched squares, each row separated by black lines. Below, another black band and pendent concentric semicircles. Red-slipped overall on exterior. Black glaze is thin or worn. Interior unslipped.

PC 16 (T60.3) PL. 230

Biconical spindle whorl
H. 0.025, Diam. 0.037, W. of hole through
middle 0.008.
Zone 3 *89.50

Biconical spindle whorl of fired clay with hole through the center. Four groups of incised roughly concentric semicircles decorate the edges of the top of the spindle whorl. Tiny neat holes (Diam. 0.001) frame the incised semicircles, and three or four additional holes surround the central hole on the top side. Found on tamped floor of Zone 3.

PC 17 (P60.67) PL. 230

Protocorinthian kotyle
H. 0.020, Diam. 0.10, Th. 0.002.
Two fragments, from Zone 3 *89.50 and
Zone 2 *89.38

Rim and handle of a fine thin-walled kotyle with vertical rim and tapering lip. Exterior decoration consists of two red bands at the rim. Below are short, vertical lines except where the handle is attached. Beneath this register are horizontal red bands. Red on interior, partly streaky, with a single

narrow reserved band below rim. Horizontal loop handle has a red line along its top.

670–650 B.C.

Hanfmann, "SARDIS 1960," p. 21; N. H. Ramage 1994, p. 174, pl. 15.5.3; *Sardis* M10, cat. Cor 18.

PC 18 (P60.76) PL. 231

Orientalizing East Greek shallow bowl
Diam. 0.40, H. 0.06, Th. 0.007.

*89.55 (below floor level) and Zone 1 *89.14

Fragments of a shallow bowl with thickened rim. A cream-colored slip over the entire bowl, inside and out. Top and exterior of rim is red. Exterior: two red bands below rim. A broad register has a palmette with alternating black and red petals. Decorative spirals curve to the sides. Other motifs: part of a square pinwheel-like design and an Orientalizing pattern of floral designs of concentric petals and triangles. Below this, two thick bands above and below two registers of black squares filled with diagonal lines alternating with reserved squares. The tips of two rays, one of which may be red, preserved from the base. Interior: below the rim, a fleeting pattern of zigzags. A dark band below this, and at least two more dark bands. Colors altered by burning. Cf. Eilmann 1933.

Diagonal Cut

PC 19 (P60.194a) PL. 232

Gray Ware stemmed dish or lid
H. 0.085, Diam. of rim 0.26.

*87.80

Profile of a shallow bowl with the stump of a foot that must have been flaring. The short vertical wall turns out slightly at the rim. Could have been used for a lid. Interior is slipped. Edges of foot have been chipped off on purpose.

PC 20 (P13.67) PL. 232

Black on Red jar
H. 0.095, W. 0.075, Th. 0.04.

*88.00–87.00

Fragment of the neck and shoulder of a Black on Red jar; the dark color is purplish. Smooth curve from neck to shoulder. Neck decorated with diagonally crosshatched triangles, with diagonal lines bordering the triangles between horizontal lines. On the shoulder, opposed triangles or chevrons between horizontal lines. Interior unglazed, with pronounced ridge marks from the potting.

PC 21 (P14.8) PL. 232

Gray Ware double handle with boss
H. 0.062, W. 0.043, Th. 0.019.

*88.00–87.00

The lower part of a Gray Ware handle with a boss or knob at its base. The handle is made by joining

two tubular pieces of clay, one larger than the other. A silvery wash on the outside of the handle. The stance suggests that the knob end was joined to the shoulder of a large vessel. Hard, micaceous fabric.

PC 22 (P60.214) PL. 232

Krater

H. 0.066, W. 0.08, Th. 0.01.

*88.00–87.50

Wide ledge rim. Pattern of one thick line and two thinner ones radiating on rim. Upper wall decorated with crosshatched diamonds in a dark purplish paint, bordered by horizontal lines above and below. Below carination another horizontal line.

PC 23 (P13.71) PL. 233

Black on Red jar

H. 0.037, W. 0.078, Th. 0.004.

*88.00–87.50

Fragment with a horizontal line at the join of neck to shoulder. The upper parts of two diagonally hatched upside-down V shapes. Unglazed on interior.

A Geometric piece from Lydian IV, perhaps as early as ninth century, based on comparisons to HoB.

PC 24 (P13.72) PL. 233

Black on Red jar

H. 0.064, W. 0.064, Th. 0.004.

*88.00–87.50

Black on Red fragment with two diagonally hatched upside-down V-shaped designs that rest on a horizontal line. A second horizontal line, and then opposed triangles painted solid black. Unglazed on interior.

A geometric piece from Lydian IV (ninth century).

PC 25 (P13.27) Fig. 1.14, PL. 233

Black on Red closed vessel

H. 0.044, W. 0.052, Th. 0.0065.

*88.0–87.5

Body fragment of Black on Red closed vessel with a crosshatched meander.

PC 26 (P60.256) PL. 233

Black on Red stemmed dish (Manisa 7077)

H. 0.065, Diam. 0.42, W. of ledge rim 0.045,

Th. 0.004–0.008.

Zone 3, diagonal cut, at X *88.00

Large dish with a wide ledge rim. Stemmed foot is missing. Exterior is red burnished. Interior: ledge rim and bowl has a series of concentric bands with crosshatched squares alternating with reserved areas. The placement of the crosshatched squares carefully ensures that they alternate from one band to another. Similar to **PC 27**.

[It is not now clear where X was in the diagonal cut.]

Hanfmann, "SARDIS 1960," fig. 12.

PC 27 (P60.257) PL. 234

Black on Red stemmed dish

H. 0.12, Diam. of rim 0.38, Diam. of foot 0.13.

*88.00

Large, shallow stemmed dish. Wide ledge rim with slightly rounded lip. Stemmed base with flaring ring foot. A black band marks the inner and outer limits of the ledge rim. Between these bands, a series of crosshatched squares that alternate with reserved squares. A black line within the ledge rim, and then the same crosshatched squares motif repeats within the dish for at least two registers, although the surface is extremely worn. Exterior is undecorated. Both interior and exterior are polished. Similar to **PC 26**.

The reconstruction makes the pot look more irregular than it was originally.

PC 28 (P60.197) PL. 235

Pithos with graffito

H. 0.105, Diam. 0.18, Th. 0.018.

Zone 3, diagonal cut, at X *88.00

Rounded ledge rim fragment of pithos projects outward from narrower neck, and was applied separately to the top of the neck, which flares outward toward the shoulder. A groove at join of neck to shoulder. On neck, two incised graffiti, each made with deep grooves while the clay was wet: at left, two short lines of a larger mark; at right, two diagonal lines crossing at a point, and two vertical lines at left and right of the diagonals, making what looks like two triangles meeting at a point.

[It is not now clear where X was in the diagonal cut.]

Hanfmann, "SARDIS 1960," p. 24, fig. 10.

PC 29 (P60.207) Fig. 1.15, PL. 235

Bichrome jar

H. 0.17, W. 0.31, Th. 0.01.

*88.40

Large belly fragment of a jar with orange-red fabric, slipped red. On body, a wide register with thick white glaze, bordered by two horizontal black bands. This register is slightly raised from the area above and below it. Over the white paint, a design of large black circles with two smaller circle segments facing up and facing down within the large circle, and a gently curved vertical line in the center. Smaller concentric circles with a central dot fill the empty spaces between the large ones. The large circles are too large for the space within the band, and project beyond the upper border line. Smoothed on exterior. Interior unslipped.

Compare **HoB 334**, which has a similar decoration and must be by the same hand. See discussion in Chapter 1, p. 16. **HoB 334** came from a secure eighth-century level, confirming that **PC 29** is also of that date.

PC 30 (P13.69) PL. 236

Part of thick dish (?) painted in Black on Red
H. 0.06, W. 0.045, Th. 0.01.
*88.50–88.00

Black on Red painted designs on the upper side of a thick dish or lid. A series of diagonally hatched diamonds between horizontal lines, with short lines in the interstices between the diamonds, on top and bottom. A second horizontal line, with opposed triangles toward the center of the dish. Underside is red-slipped.

Lydian IV, Geometric. Ninth century.

PC 31 (P13.29) PL. 236

Shallow bowl
H. 0.055, est. Diam. 0.028, Th. 0.008–0.005.
*88.50–88.00

Rim and body of a Black on Red shallow bowl. Interior: a series of concentric circles around the middle. Exterior: Concentric semicircles just below the rim, using the same decoration and the same brushes as on the interior. Circles are made with a three-tipped multiple brush, and the inner circle is done by hand; a dot added in the middle of the circles. Slip is somewhat streaky, inside and out. Compare **PC 109** and Fig. 1.10.

ZONE 2**PC 32** (P13.24) PL. 237

Black on Red jug
H. 0.062, Th. 0.0075–0.0055.
Zone 2, cleaning inclined steps ca. *88.21

Neck and shoulder fragment of a Black on Red jug. Upper two bands, separated by horizontal lines, have Xs made by thick lines. Lowest band apparently has thin-lined nested triangles, or pendent semicircles (unclear). Slipped on interior.

PC 33 (P13.45) PL. 237

Gray Ware lid
Diam. 0.13, Th. 0.011.
Zone 2 *88.40–87.6

Gray Ware lid with stump of the handle and a rectangular cutout for a ladle. Clear signs of burning.

PC 34 (P60.176) PL. 237

Bird bowl
H. 0.045, W. 0.05, Th. 0.005.
Zone 2 *88.40–88.00

Fragment of a bird bowl of orange-buff fabric. Concave, body fragment of a bird bowl. A thick band of black below two narrower bands, with the bottom half of a diamond. Two lines, intersecting with the two narrow bands, perhaps bird legs. Interior is streaky.

Ca. 650–640 B.C., according to Ümit Gungör (personal communication, Sardis, July 2019).

PC 35 (P60.152) PL. 237

Pithos
H. 0.08, W. 0.175, Th. 0.016.
Zone 2 *88.40–88.00

Shoulder fragment of a thick-walled pithos. Two registers of downward-pointing incised triangles with diagonal crosshatching. The upper register is on a slightly raised ridge. The two registers of triangles alternate with one another. The decorator in one instance neglected to fill in a triangle, and made a diamond with diagonal crosshatching instead.

PC 36 (P60.153) PL. 238

Pithos with graffito
H. 0.056, W. 0.125, Th. 0.015.
Zone 2 *88.40–88.00

Fragment of a pithos just below the neck. A deeply grooved graffito made with a round-tipped object appears to represent an arrow sign. A shallow groove above the sign.

Hanfmann, "SARDIS 1960," p. 24, fig. 11.

PC 37 (P13.77) PL. 238

Gray Ware foot (?)
H. 0.0285, W. 0.175, L. 0.0935,
Diam. of hole 0.0325.
Zone 2 *88.40–88

A Gray Ware object of uncertain function. Finished on one side, starting to rise just at the break. Hole in the center is neatly finished. Other side left rough. Compare the unusual objects ("spools") from HoB, **HoB 536**, **HoB 537**, and **HoB 539**, that seem somewhat in the same spirit as this object. I am grateful to Catherine S. Alexander for this observation.

PC 38 (G60.4) PL. 238

Glass bead
H. 0.008, Diam. 0.01, W. of hole 0.005.
Zone 2 *88.50

Complete bead with large hole. Black with yellow circles and wavy line around middle. Similar beads from early Iron Age contexts analyzed in Van Ham-Meert, Dillis et al. 2019.

PC 39 (P60.130) Fig. 1.16, PL. 239

Painted krater
H. 0.24, W. 0.18, Th. 0.01.
Zone 2 *88.60–88.35

Eight fragments of a large Orientalizing krater, reddish-brown on buff. Outlines of fish swimming to right on left side of attached handle. Alternating dark red and buff bands on rim. Alternating colors also on handle, which has a thumb rest on top, and had a boss (now missing) at bottom. The same alternating colors on a raised band below the fish. Lower part of krater was slipped, as was the interior. Lydian manufacture. A second krater fragment, P60.187, with similar but not exactly the same profile, and with

completely different surface treatment, was found at *88.20–88.00.

Early seventh century at the earliest.

PC 40 (P96.3) PL. 239

Early Protocorinthian kotyle

Diam. of foot 0.038, Th. 0.0015–0.003.

Zone 2 *88.60–88.35

Fine Early Protocorinthian linear kotyle. Reddish glaze on buff. Horizontal lines below [missing] rim. Lower body solid painted except for two reserved bands. Underside of foot reserved. Interior streaky glazed.

Late Early Protocorinthian (Schaeffer).

Hanfmann, "SARDIS 1960"; *Sardis* M10, cat. Cor 7.

PC 41 (P96.2) PL. 239

Early Protocorinthian linear kotyle

H. 0.05, W. 0.045, Th. 0.003.

Zone 2 *88.6–88.35

Rim and upper body of a fine Protocorinthian linear kotyle. Two horizontal lines at the rim. A bird faces right next to vertical lines. Schaeffer identifies this bird as transitional between a soldier bird and a wire bird.

Late Early Protocorinthian.

Found with two other Early Protocorinthian kotyle bases (**PC 40** and **PC 47** [*Sardis* M10, cat. Cor 7 and Cor 8]).

Sardis M10, cat. Cor 6.

PC 42 (P13.46) PL. 240

Cup or bowl

H. 0.0335, est. Diam. 0.15, Th. 0.0035.

Zone 2 *88.6–87.8 at east end of walls

A rim fragment of a cup or bowl with purple paint on buff. Exterior: a line below the rim, and concentric circles below that. Surface has a shiny micaceous wash. Interior red-slipped.

PC 43 (P60.110) PL. 240

Figural terracotta of a bird

H. 0.0224, L. 0.0477, Th. 0.005.

Zone 2 *88.80

Slightly concave body fragment of a terracotta bird. A cream slip on the exterior with an oblique crosshatched pattern painted in black. Within most diamonds created by the crosshatching, a painted black dot. Interior a gray color. Made in two pieces: the outer part is partially broken away, so that one can see thumbprints on the inner layer. A second, finer layer was then applied. (Total thickness of wall 0.004 m.) The piece is not round. Perhaps not local.

Compare **HoB 642**, a terracotta bird from HoB, where the dots within the crosshatching are red.

PC 44 (P60.129) PL. 240

Gray Ware lid

Diam. 0.13, H. of loop 0.04, W. of handle 0.02, span of handle 0.035, Th. 0.007.

Zone 2 *89.00

Small, flat Gray Ware lid. Vertical, loop handle, oval in section. Beginning of a cutout for a spoon or ladle just preserved.

PC 45 (P60.127) PL. 240

Imported painted bowl

H. 0.05, Diam. 0.14–0.15, Th. 0.0055.

Zone 2 *89.00

Rim and upper body of an imported deep bowl. A horizontal line at the inverted rim. Vertical lines below rim continue into the slightly streaky black area below the reserved upper portion of the wall. Horizontal lines in what must have been the center of the bowl under the rim. Traces of five diagonal lines, apparently made with a multiple brush, within reserved panel near the rim. Interior streaky red glaze.

PC 46 (P60.107) PL. 240

Late Geometric or Early Protocorinthian linear kotyle

H. of largest fragment 0.047, W. 0.029, Th. 0.0015.

Zone 2 *89.00 ~ From the burned area between levels II and III.

Linear kotyle with buff fabric and eggshell thin walls. Vertical rim with a tapering lip. Exterior decoration consists of two narrow bands along the rim with a series of short vertical lines in groups of five in the handle zone, punctuated by opposed triangles. There are twenty-four thin horizontal lines on the body. A stump of a horizontal loop handle remains. Small ring foot with a glazed black interior. Towards the base of the cup, black glaze, however leaving three reserved bands with narrow black bands within. Interior, reserved rim with a narrow black band. The remainder glazed black.

Early Protocorinthian, 720–700 B.C.

Hanfmann, "SARDIS 1960," p. 22, fig. 9; *Sardis* M10, cat. Cor 4.

PC 47 (P96.4) PL. 241

Early Protocorinthian linear kotyle

H. of foot frag 0.001, Diam. of foot 0.029,

Th. 0.0015–0.002.

Zone 2 *89.00

Complete foot and fragments of the wall of a fine Early Protocorinthian kotyle. Walls decorated with fine red lines. Underside of foot unglazed.

Schaeffer dates to "Probably late Early Protocorinthian."

Sardis M10, cat. Cor 8.

- PC 48** (P60.100a) PL. 241
Black on Red dish
H. 0.06, Diam. 0.26, Th. 0.006 (thinning toward base).
Zone 2 *89.38–89.00
Rim and body sherd of a Black on Red stemmed dish or bowl. Interior: Crosshatched squares between two lines, and then pendent semicircles. Exterior: ascendant semicircles resting on a line below the rim. Strong black and strong red slip.
- PC 49** (P60.101) PL. 241
East Greek bird bowl
H. 0.077, est. Diam. 0.014, Th. 0.005.
Zone 2 *89.38
Rim, body, and one handle of a large and deep East Greek bird bowl. Nicked inturned rim. Reserved panel has three vertical lines near handle zone that border two nesting diamonds, the center one diagonally crosshatched. The front of the body and one leg of a bird in the central reserved panel, framed by horizontal and vertical lines. A zigzag near bottom of reserved panel, and then three horizontal lines above the solid black lower body. A second fragment preserves the beginning of the second handle and the three vertical lines and part of a diamond. Triangular reserved area beneath the loop handle. Interior black glazed.
Early seventh century?
- PC 50** (P13.75) Fig. 1.3, PL. 242
Pierced pottery disk
Diam. 0.04–0.045, Th. 0.05.
Zone 2 *89.50–89.44
A loom weight or game piece purposely cut down and rounded from the wall of a Waveline hydria. A hole is cut in the center.
- PC 51** (P60.71) Fig. 1.12, PL. 242
Jug
L. 0.07, W. 0.075, Th. 0.007.
Zone 2 *89.75
Fragment of the shoulder of a jug with concentric hooks on white slip. The surviving hooks have an unusual wiggle made with the multiple brush. One of the brushes was much wider than the others. The piece was burned, so the red clay has turned to dark gray. The decoration is within a reserved panel, traces of which survive at the right and bottom edges. See p. 14.
- PC 52** (P60.55) PL. 242
Gray Ware with graffito
H. 0.065, W. 0.06, Th. 0.009, H. of letters ca. 0.025.
Zone 2 *90.15
Coarse, Gray Ware body fragment of a closed vessel. Graffito appears to read: XXI.
- PC 53** (P60.77) PL. 242
East Greek or Island lid
H. 0.049, W. 0.047, Th. 0.005.
Zone 2 *90.15
Fragment of a nearly flat lid in a fine cream-colored fabric. Brown painted decoration consists of two groups of six to seven parallel lines encircling the lid. Between these groups, a series of interlacing loops, each resembling an 8. Smoothed on the exterior. Interior unglazed. Compare **PC 13**.
- PC 54** (P60.65) Fig. 1.5, PL. 242
Pithos with incised decoration
H. 0.215, W. 0.10, Th. 0.016.
Zone 2 *90.20
Large shoulder fragment of a thick-walled pithos. Red fabric with micaceous gold wash. Near top of fragment, slightly raised ridge with incised line directly beneath. Below this is another incised line, below which are six slightly curving lines that overlap one another to form a star. Blunt-tipped tool used to incise decoration before firing.
- PC 55** (T60.2) PL. 243
Terracotta sima tile with scroll pattern
H. 0.18, W. 0.16, Th. 0.035.
Found at X in Zone 2 *90.50
Terracotta tile with two opposing black scrolls and a three-petalled palmette between them. The scrolls have a red knob at both terminals. Alternating black and red chevrons below. This is the scroll of a star-and-scroll sima. For a more complete example (although in poor condition), see Ramage, *Sardis* M5, cat. no. 42.
Ca. 580–540 B.C.
[The location of X is unknown.]
Hanfmann, "SARDIS 1960," p. 21, fig. 8; Ramage, *Sardis* M5, cat. no. 43. *LATW*, p. 454, cat. no. 58.
- PC 56** (T60.4) PL. 243
Cover tile
L. along ridge 0.12, W. of ridge 0.09,
Th. of tile 0.018.
Found at X in Zone 2 *90.70
Part of a black diamond preserved on a cover tile.
[The location of X is unknown.]
Not in Ramage, *Sardis* M5.
- PC 57** (P13.68) PL. 244
Large closed vessel
H. 0.075, W. 0.115, Th. 0.017.
Zone 2 *90.70 above floor
Fragment of the shoulder of a large closed vessel. Painted overall with a white slip, on which reddish lines are painted to form bold diagonal hatching. A wide red band at top of hatching, at least 0.016 m wide. Clay is reddish. An unusual decoration.

PC 58 (P13.50) PL. 244
 Pithos
 H. 0.13, est. Diam. of rim 0.56, Th. 0.022.
 Zone 2 *90.70
 Rim, neck and beginning of shoulder of a large pithos. Rounded ledge rim. On shoulder, a herringbone pattern that looks like a rope incised on a raised band.

PC 59 (P13.49) PL. 244
 Pithos
 H. 0.083, L. 0.0945, W. 0.18, Th. 0.02.
 Zone 2 *90.70
 Thick-walled pithos fragment preserves a deeply incised rope pattern made by pressing in an actual rope, or else an object (a stick?) repeatedly impressed on the diagonal. A second smaller rope pattern lightly impressed in a second zone above the first.

Test Pit

PC 60 (P60.173) PL. 245
 Small jug with gold wash
 H. 0.075, Diam. of neck 0.11 at widest point, Th. 0.003.
 Zone 2 test pit *87.70
 Trefoil mouth and neck of a small jug. Buff fabric with micaceous gold wash. Neck decorated with four narrow brown bands, with streaky glaze between the top two bands. A narrow horizontal wave pattern between the second and third bands. Then a wide red painted band bordered by dark lines, top and bottom, where the body flares out. Traces of purple dots on the rim. Pronounced raised ridge where neck and shoulder of the vessel meet.

Lydian IV, probably ninth century B.C.

PC 61 (P60.174) PL. 245
 Lydian jug (?) with gold wash
 H. 0.058, W. 0.037, Th. 0.003–0.006.
 Zone 2 test pit *87.70
 Small fragment of shoulder and trace of the turn to neck of jug. At right, a streaky broad band divides two reserved panels. To left of band, a border in stronger dark red color at top, bottom, and side of the panel with concentric circles. At top of panel, a second horizontal line below the top border, with short vertical strokes and a blob between the two lines. Interior ribbed. Exterior surface covered with a micaceous gold wash.

PC 62 (P13.35) Fig. 10.3, PL. 245
 Cooking pot with impressed boss
 H. 0.070, W. 0.078, Th. 0.008.
 Zone 2 test pit *88.50
 Fragment of a large round cooking pot with a boss. The boss was impressed in two directions, making an X across the top surface. Made by a round-shaped implement such as a small bone

that was pressed in the clay. The broken fragment was apparently cut down for reuse, perhaps as a game piece. Clear evidence of burning. Compare **HoB 209** and **HoB 263**.

ZONE 2A

PC 63 (P13.31) Fig. 1.13, PL. 246
 Black on Red dish or bowl
 H. 0.034, est. Diam. 0.25, Th. 0.005.
 Zone 2A *88.00
 Rim fragment of a Black on Red shallow dish or bowl. Exterior, with pendent semicircles, heavily worn. Interior: below the rim, a black line frames a wavy line pattern made with a five-headed multiple brush that was held at an angle, so that the lines appear to make a knitting pattern. Two black lines and then pendent semicircles.

PC 64 (P60.159) PL. 246
 Greek Geometric jug
 Diam. of foot 0.14, Th. 0.004.
 Zone 2A *88.00; joining fragments from Zone 3, diagonal cut *88.5
 Large jug of buff fabric with rich black painted decoration. Lower neck of jar (barely preserved) is black. Shoulder has a reserved panel of horizontal bands, alternating between zigzags and vertical wiggly and straight lines (made with the same five-tipped multiple brush). These bands are separated by thick horizontal lines. Below the widest part of the belly, a group of streaky horizontal bands. The lower part of the body and the exterior of foot are solid black. Underside of foot unglazed.

Late eighth century, but the context in which it was found was not secure.

PC 65 (P13.78) PL. 246
 Gray Ware bowl
 H. 0.03, Diam. 0.092.
 Test pit, Zone 2A *88.00–87.75
 Complete tall base of a Gray Ware bowl. Has clearly been cut down and the edges chipped for reuse as a stopper or lid. Burnished on exterior. This is from the lowest point where sherds were found in Zone 2A.

PC 66 (P13.42) PL. 246
 Black on Red shallow bowl
 H. 0.038, Th. 0.0048.
 Zone 2A *88.40–88
 Rim fragment of a Black on Red shallow bowl. Exterior: overlapping pendent concentric semicircles below the rim. Interior: a black line below the rim; a broad reserved area with a group of four (or more) vertical lines, and wiggly horizontal lines made with a multiple brush. Toward center, another black line and then pendent concentric semicircles.

- PC 67** (P13.70) PL. 246
 East Greek bowl
 H. 0.055, W. 0.047, Th. 0.007.
 Zone 2A *88.40–88.
 Small fragment of a large East Greek bowl. Two concentric circles (with a dot in the center) above two horizontal lines, a wide black band, and two narrow horizontals. Black on interior.
 Early seventh century.

ZONE 1

- PC 68** (P60.211) PL. 247
 Bichrome stemmed dish
 L. 0.073, W. 0.04, est. Diam. 0.075–0.08.
 Zone 1 *88.00–87.50
 Fragment of a white Bichrome dish with a central indentation or dip. Exterior has a raised, circular area surrounding the (missing) stem. Black band along the raised area, and then a pattern of standing Vs with crosshatching. Interior: a thick, white band bordered by two black bands. Then groups of radial black lines. Then a white-slipped area with diagonal crosshatching. Both interior and exterior are polished. The indentation and the rest of the fragment is red-slipped on both sides. This is the early style of white Bichrome, according to A. Ramage.
 First half of seventh century.
- PC 69** (P60.209) PL. 247
 Lydian Geometric dish
 L. 0.07, W. 0.038, Th. 0.008.
 Zone 1 *88.00–87.50
 Fragment of a Brown on Buff shallow dish, rising at the edge near the rim. Interior: two dark bands, concentric semicircles each with a central dot, three more bands, and then a central circular dark field. Exterior: pendent triangles with diagonal lines near the rim; three lines, a register of meanders, and three more lines. Interior of vessel is heavily discolored by burning to a dark and light gray.
- PC 70** (P13.23) PL. 247
 Black on Red dish
 H. 0.023, Th. 0.0075–0.005.
 Zone 1 *88.00–87.50
 Black on Red fragment from near the center of a dish. Interior: two black concentric circles with dots in the space between them and another dot in the center. This motif repeated immediately next to it. The beginning of what looks like an omphalos in the center at the break. Underside, slipped, shows the thickening toward the foot. Coloration is dark, but not burned. Compare this to **PC 80**, likely by the same painter.

- PC 71** (P60.213) PL. 247
 Lydian imitation of an East Greek lebes
 H. 0.095, W. 0.057, Th. 0.017.
 Zone 1 *88.00–87.50
 Rim of a thick-walled lebes. Outwardly thickened ledge rim decorated with alternating Xs and radiating lines in dark brown over burnished clay. Just below the rim are three streaky red lines with black concentric circles painted on top. Below the short neck, the clay thickens, and is painted with streaky horizontal lines below which are two vertical lines alternating with diagonally hatched triangles. Exterior is polished. Streaky black interior. Heavily burned in part.
 Cf. Friis-Johansen 1958, pp. 102f., and Boardman 1967, pp. 106ff. and pls. 19ff.

- PC 72** (P60.208) Fig. 1.3, PL. 247
 Cut-down omphalos with Black on Red decoration
 H. 0.015, Diam. 0.035.
 Zone 1 *88.00–87.50
 Black on Red omphalos. A black band follows the circumference of the boss. Within the circle are two diagonally crosshatched triangles that meet at their points. The remainder of the boss is red-slipped. Underside also red-slipped. This has clearly been cut down for reuse, perhaps as a stopper or a game piece.
 See discussion on p. 7 in Chapter 1.

- PC 73** (P60.210) PL. 247
 Shoulder of an East Greek Geometric closed vessel
 H. 0.045, W. 0.035, Th. 0.005.
 Zone 1 *88.00–87.50
 Brown on Buff shoulder fragment from a closed vessel. Two narrow lines at the point closest to the neck are followed by a register of false meanders and then two more lines. Vessel was sharply carinated at the turn to the body, which is marked at this juncture by a horizontal chevron pattern. Polished on exterior. From the lowest levels of Zone 1, below the pebble floor.

- PC 74** (P60.191) PL. 248
 Black on Red shallow dish
 H. 0.045, Diam. 0.23–0.235, Th. 0.01.
 Zone 1 *88.20
 Shallow dish with a stem, now missing. The stem must have broken, and it was then smoothed off for continued use as a stemless dish. Wide ledge rim and rounded lip. Black band running around outer and inner boundaries of the rim. A series of pendent concentric semicircles on the ledge rim. Just below the rim, a series of further pendent concentric semicircles. In one place, the semicircles overlap, as the artist ran out of room. Rest of the interior of the dish filled with small concentric circles (two circles each) with a dot at the center. Exterior is not decorated, but there is a shallow groove near the bottom. Both interior and exterior are polished.
 Hanfmann, "SARDIS 1960," p. 25, fig. 12.

- PC 75** (P60.192) Pl. 249
 Bichrome krater?
 H. 0.034, W. 0.048, Th. 0.009.
 Zone 1 *88.20
 A small fragment of the wall of a pot with streaky glaze on interior. Exterior has a white slip with a dark brown meander pattern, crosshatched in brown and red.
- PC 76** (P13.43) Pl. 249
 Bichrome strap handle
 H. 0.0405, W. 0.272, Th. 0.103.
 Zone 1 *88.35–88
 Upper end of a red-slipped handle, with a band of white slip framed by thin black lines. Over the white slip, diagonal lines in both directions, making a crosshatched diamond in the center, with the exterior lines of the diamond continuing to the edge of the handle, thus stretching the design. Compare to **HoB 548**, another handle with similar design.
- PC 77** (P60.189) Pl. 249
 East Greek [bird?] bowl
 H. 0.03, W. 0.025, Th. 0.004.
 Zone 1 *88.41, on pebble floor
 Small fragment of an East Greek bowl of buff fabric with offset rim and a tapering lip. Exterior rim is black. Two series of vertical lines with concentric lozenges between. Interior of the vessel is black. Polished on both exterior and interior. Found with a group of Geometric (Lydian and imported) fragments.
- PC 78** (P60.190) Pl. 249
 East Greek cup
 H. 0.048, Diam. 0.11–0.12, Th. 0.004.
 Zone 1 *88.41, on pebble floor
 Cup made of buff-colored fabric. Slightly inturned rim with tapering lip. Below narrow black rim, a reserved band with a register of alternating groups of vertical lines and crossed lines making Xs. Below, three black bands, and then the body of the cup, which is streaky black with at least one horizontal line, possibly added white, painted over it. Interior is streaky black.
- PC 79** (P13.18) Pl. 249
 Stemmed dish (?)
 L. 0.049, W. 0.066, Th. 0.005–0.0125.
 Zone 1 *88.75–88.00
 The center of a Black on Red stemmed dish, just where it thickens to join the foot. Central design had a thick black band marking the tondo, with a (barely surviving) crosshatched square in the center surrounded by widely spaced horizontal and vertical lines linking the square to the circle. Beyond the tondo, a square with crosshatching. Underside red-slipped.
- PC 80** (P13.20) Pl. 249
 Black on Red dish
 W. 0.045, L. 0.07, Th. 0.011–0.007.
 Zone 1 *88.75–88.00
 A fragment of a Black on Red dish with a double concentric circle with dots connecting the two circles on the interior. A dot was placed in the center. Compare **PC 70**, probably by the same painter. This one here has a redder slip. Exterior is slipped.
- PC 81** (P13.30) Pl. 250
 Black on Red bowl
 H. 0.063, est. Diam. 0.36, Th. 0.008–0.0125.
 Zone 1 *88.75–88.00
 Rim and upper body fragment of a large Black on Red bowl. Outwardly turned rim has groups of radial lines (six in a group) made with a multiple brush on its flat top. Below rim, two bands preserved, bordered by horizontal lines. Within each band, vertical lines making squares, within which are wiggly lines made by the same six-headed multiple brush. Third zone, at carination, is not preserved. Interior and exterior red-slipped. Black glaze is elusive. One of two fragments from the same location, but with different profiles. See **PC 82**.
- PC 82** (P13.37) Pl. 250
 Black on Red deep bowl
 H. 0.065, est. Diam. 0.30, Th. of body 0.011–0.005.
 Zone 1 *88.75–88.00
 Rim of a large Black on Red deep bowl. Small thickened rim with radial black lines. Two bands preserved, bordered by horizontal lines. Within each band, vertical lines making squares, within which are wiggly lines made by a six-headed multiple brush. Dark red slip on inside and out. Exterior was burnished. One of two fragments from the same location, but with different profiles. See **PC 81**.
- PC 83** (P13.17) Pl. 250
 Black on Red shallow bowl or dish
 W. 0.09, L. 0.055, Th. 0.011–0.004.
 Zone 1 *88.75–88.00
 Fragment of a Black on Red shallow bowl or dish. A meander pattern preserved with diagonal crosshatching. A trace of a round design next to the meander. This is unusual. Dark red and rich black slip on both sides.
- PC 84** (P13.25) Pl. 251
 Black on Red shallow dish
 L. 0.085, W. 0.055, est. Diam. 0.038, Th. 0.04.
 Zone 1 *88.75–88.00
 Fragment of floor of Black on Red shallow dish with no original edges preserved. Crosshatched rectangles in outer (surviving) register. These are made by a six-pointed multiple brush, with two additional lines added separately for the lowest two horizontal strokes; the vertical strokes are made by the same

six-headed brush. The next register has a thick wavy line; and toward the center, crosshatched squares, these made by the same six-pointed multiple brush (but without the two added lines). Each register is separated by a thick line. Strong red slip over entire bowl, inside and out; and black glaze was strong too, but partially discolored to greenish-yellow.

PC 85 (P13.28) PL. 251

Black on Red dish
L. 0.062, W. 0.088, Th. 0.007.
Zone 1 *88.75–88.00

Black on Red shallow dish fragment, decorated on both sides. Interior: crude pendent semicircles made with a multiple brush. Exterior: two bands of wavy lines separated by thick black lines, and again crude pendent semicircles made with the same multiple brush (with four brush heads).

PC 86 (P60.206) PL. 251

Gray Ware bowl with graffito
H. 0.068, W. 0.104, Diam. 0.24, Th. 0.008.
Zone 1 *88.75–8.00

Shallow Gray Ware bowl with silvery wash inside and out. Simple rim and slightly rounded lip; rim is thinner than the rest of the vessel. Graffito on exterior consisting of several interconnected lines making what look like stars. Interior is highly polished and exterior is much worn but was likely polished as well.

PC 87 (P60.199) PL. 252

East Greek bird bowl
Frag. 1: W. 0.063, L. 0.043, Th. 0.005;
Frag. 2: W. 0.038, L. 0.055.
Zone 1 *88.75–88.00

Fine buff fabric sherds of an East Greek bird bowl. The upper body has three horizontal lines with a diamond and three vertical lines preserved. Two feet of a bird rest on the top line. Black rays rise from the base. Interior is slipped black. Interior and exterior are both polished.

PC 88 (P60.155) PL. 252

Lydian Black on Red bowl
H. 0.062, Th. 0.004.
Zone 1 *88.90 (middle of trench against north end at Wall 7)

Wall of a bowl. Interior: large black concentric circles with a dot in the center. Exterior: a band of large squares, each filled with smaller checkerboard squares. Two horizontal lines and ascendant semicircles with a dot in the center. Exterior polished.

PC 89 (P60.154) PL. 252

Krater with a horizontal loop handle
H. 0.13, W. 0.08, Th. 0.01.
Zone 1 *88.90 (middle of trench against north end at Wall 7)

Body fragment of a red-on-buff painted krater with the beginning of a horizontal loop handle, which is unusual. Handle painted in streaky red. Horizontal line at top of handle, and three below it. Then apparently a solid area of the same streaky glaze. Interior: Thick horizontal bands of red paint, separated by a reserved band (slipped). Micaceous.

PC 90 (P60.156) PL. 252

Gray Ware amphora
H. 0.095, W. 0.135, Th. 0.007, est. Diam. 0.19.
Zone 1, northeast corner against east wall *89
(above mud floor)

Fragment of the neck and beginning of the shoulder of a large Gray Ware amphora. An unusual form in Gray Ware. A silvery wash over the surface where not burned. Burnished on the exterior.

PC 91 (P60.147) PL. 252

Ephesianizing ware
H. 0.027, est. Diam. 0.28, Th. 0.004.
Zone 1 *89.15

A small fragment from the rim of an Ephesianizing bowl. Rounded rim, black on top, inside, and outside. Exterior: white slip overall, with a delicate dogtooth pattern of short vertical black lines, alternating upwards and downwards between two horizontal black lines. Worn at carination. A black line just above carination, and traces of two beneath it. Interior: white slipped, painted with two brown horizontal lines, between which are squares with diagonal crosshatching: one in a grayish color and the other in orangey-red. Fine and delicate painting. Coloring is close to **PC 115**. Compare also **HoB 454**, with same decoration on exterior.

PC 92 (P60.82) Fig. 10.15, PL. 253

Black on Red stemmed dish, part of a canine ritual cache
H. 0.008, Diam. of rim 0.16, Diam. of foot 0.07,
Th. 0.006.

Zone 1 *89.80, near Wall 9

Small stemmed shallow dish. Slightly flaring rim decorated with two lines. Numerous narrow spirals encircle the interior of the dish. On the exterior, one black line below the rim and three bands around the stemmed foot; otherwise only red slip.

Lydian I, probably before mid-sixth century B.C.

- PC 93** (P60.85) FIG. 10.15, PL. 253
 Skyphos, part of a canine ritual cache
 H. 0.035, Diam. 0.07, Th. 0.003.
 Zone 1 *89.80, near Wall 9
 Rim and handle of a skyphos with a slightly
 inturned rim and tapering lip. Orange-buff fabric
 with red slip on interior and spilling over the rim on
 the exterior. A lighter, more streaky slip continues on
 the exterior beneath the horizontal loop handle.
 A reserved band at handle height. Polished on exte-
 rior and interior (?).
 Lydian I, probably before mid-sixth century B.C.
- PC 94** (P60.83) FIG. 10.15, PL. 253
 Complete olpe, part of a canine ritual cache (Manisa
 7463)
 Diam. of rim 0.04, Diam. of base 0.04,
 W. of band handle 0.02.
 PC Zone 1 *89.80, near Wall 9
 Jug has a vertical band handle. Dipped or painted,
 and burnished on upper body. Lower body a smooth
 buff. Painted band inside rim.
 Lydian I, probably before mid-sixth century B.C.
- PC 95** (P60.84) FIG. 10.15, PL. 253
 Jug, part of a canine ritual cache
 H. without handle 0.08, H. with handle 0.105,
 Diam. of rim 0.08, Diam. of base 0.04,
 W. of band handle 0.023.
 Zone 1 *89.80, near Wall 9
 A complete red ware jug with globular body.
 Everted rim with ledge slanting inward. High swung
 band handle. Flat disc base. Exterior of vessel is
 burnished and is covered in a micaceous gold wash.
 Lydian I, probably before mid-sixth century B.C.
- PC 96** (P60.103) PL. 254
 East Greek bird bowl
 L. 0.026, W. 0.025, Th. 0.003; rim too small to
 provide a Diam.
 Zone 1 *90.00–89.50
 Rim fragment of a bird bowl. Simple, vertical rim
 with a tapering lip. Buff, fine fabric. Exterior has
 painted decoration consisting of a nested diamond
 with oblique crosshatching and a series of vertical
 lines. Polished on exterior. Black slip on interior.
- PC 97** (P60.125) FIG. 1.12, PL. 254
 Bichrome skyphos krater
 H. 0.11, Diam. of outer rim 0.36, Th. 0.006.
 Zone 1 *90.00
 Fragment of a bichrome skyphos krater with
 flaring everted ledge rim. Interior of rim and top
 of ledge have red slip with black bands. The top of
 the rim is decorated with groups of black radial
 lines. Exterior of rim had been painted with white
 (now fugitive) and a zigzag line of black, now mostly
 gone, painted over the white. A black band at top
 and bottom of the white band. A thick red band
 at base of rim and at join to the shoulder; this is
 bordered on top and bottom by narrow, black lines.
 Concentric pendent hooks of eleven lines each
 decorate the shoulder of the vessel. Polished on the
 exterior. Interior has a reddish slip. Compare the
 pendent hooks on red Bichrome jug from HoB,
HoB 620, and jar **HoB 625**.
- PC 98** (P60.78) PL. 254
 Ephesianizing dish
 L. 0.035, W. 0.035, Th. 0.007.
 Zone 1 *90.15
 A small sherd, decorated on both sides, imitating
 Ephesian ware. Overall red-slipped with white paint
 on both sides. Exterior: a band of white with black
 lines making a bracket meander between two black
 lines. Toward center, dark red slip with radiating
 short lines. The beginning of the foot marked by an
 indented groove filled with black. Interior: Overall
 white slip with, again, the bracket meander pattern,
 and a red band with radiating black lines and purple
 (?) blobs, between the two black borders of the band.
- PC 99** (P13.32) PL. 254
 Cup
 H. 0.03, W. 0.015, Th. 0.004.
 Zone 1 *90.30–90.00
 Rim of a cup. A tiny fragment of the rim of a fine
 cup with a painted Black on Red checkerboard
 pattern on the exterior. Squares are solid black.
 Interior red-slipped.
- PC 100** (P13.22) PL. 254
 Pithos
 H. 0.063, Th. 0.016.
 Zone 1 *90.30–90.00
 Fragment of a pithos with deep crisscrossed cuts
 in the clay to make a pattern that imitates a rope on
 a raised band.
- PC 101** (P13.44) PL. 254
 Corinthian alabastron
 H. 0.0358, Th. 0.004.
 Zone 1 *90.30–90.00
 A small fragment of an alabastron with a bird's
 head; paint entirely worn away leaving only incision.
 Fine white clay.
 The bird's head is facing downwards; other inci-
 sions are unreadable in their fragmentary state.
 Middle Corinthian?
 Not in *Sardis* M10.
- PC 102** (P60.79) PL. 254
 Bichrome lid
 H. 0.08, W. 0.033, Th. 0.012.
 Zone 1 *90.50–90.15
 Reddish-buff fragment of a thick-walled shallow
 lid. Cream-colored slip on exterior. Nearer the outer
 edge, two concentric bands in red; between them,

smaller black concentric circles and in the center of the design, a black dot. Toward the center of lid, bands of black, then red, then a reserved cream band, then a wider red band with two black bands (one faint) on top. Unglazed on interior. Evidence of burning on exterior and interior.

PC 103 (P13.19) PL. 254

Red on buff open-shaped vessel
L. 0.048, W. 0.066, Th. 0.08.
Zone 1 *90.50–90.15

Broad brush strokes make two vertical lines and one horizontal on a small fragment. Also a narrow vertical and horizontal line. Interior has broad light-colored brushmarks.

LVC/NORTH

PC 104 (P60.464) PL. 255

Shoulder of Lydian jug
L. 0.058, W. 0.075, Th. 0.006.
Beneath LVC/North *87.50–87.00

Fragment of the shoulder of a small painted jug. Brown on Buff with parts of two large painted triangles preserved. One triangle filled with an oblique checkerboard pattern with brown and reserved diamonds. The other, with oblique crosshatching. Of typical Lydian color and fabric, which is here red, but burned.

PC 105 (P60.465) PL. 255

Pithos with graffito
H. 0.105, W. 0.12, Th. 0.017;
Interwoven letters: H. 0.04, W. 0.05.
Beneath LVC/North *87.50–87.00

Thick-walled body fragment of a pithos. Coarse red clay. Two small raised bands between which is a symbol resembling an X with an additional extra diagonal line running from the bottom half of the X and another extra short diagonal line at the top half of the X.

PC 106 (P60.467) PL. 255

Gray Ware krater
H. 0.088, W. 0.144, Diam. 0.36, Th. 0.011.
Beneath LVC/North *87.50–87.00

Large vessel with ledge rim that also projects slightly inward. On the exterior, four distinctive raised ridges run horizontally on the vessel below the rim. The top of the rim is decorated with an incised wave pattern and is polished. Smoothed on exterior and interior. Burned.

PC 107 (P60.399) PL. 255

Island Geometric krater
L. 0.05, W. 0.08, Th. 0.007.
Beneath LVC/North *87.50–87.00

Red on buff body fragment of a krater. Parts of two large concentric circles, a star burst, part of

a swastika, and dots. This field is separated from another by four vertical lines. Then, two vertical lines filled with diagonal hatching, which may be part of a meander. Interior is streaky red. Exterior is polished and the clay is fine. Lynn Roller (personal communication, ca. 1990) is confident this is a Chian piece.

Cf. similar pattern, Boardman 1967, pl. 48, no. 548, at left.

PC 108 (Gem60.1) PL. 255

Raw amber
L. 0.008, W. 0.006.
Beneath LVC/North *87.60
Tiny fragment.

PC 109 (P60.455) Fig. 1.10, PL. 256

Bichrome dish
Diam. of rim 0.22, Th. 0.007.
Beneath LVC/North *88.00

Rim and two body fragments of a Lydian bichrome dish. Flat ledge rim, painted on top with black or dark red squares on a white slip. Exterior: white band covers area below rim. Orange-red concentric circles closely spaced on this white band, each with a dot in the middle. The inner circle is hand-drawn. Dark red slip below carination, and then three white bands. The middle one of these (the widest) has the same concentric circles as those below rim. Red slip is dark. Interior: four white bands over dark red slip. The first and third bands (again the widest) have the same pattern of concentric circles.

PC 110 (P60.457) PL. 256

Deep basin with painted decoration
H. 0.056, Diam. 0.58, Th. 0.012.
Beneath LVC/North *88.00

The rim projects both outward and inward. Vertical attached (nonfunctional) handle has a flat projection at the top. The scar of the other side of the handle, which looped downwards, is preserved at the left of the fragment. Painted decoration on the inside of the handle has a pinkish slip square that was originally presumably white. A double line surrounds this square, which is painted with delicate lines: diagonal crosshatching within a triangle. Red slip on exterior, ledge rim, and a band at top of interior.

PC 111 (P60.438) PL. 257

Bichrome bowl
L. from rim 0.08, W. 0.056, Th. 0.004,
Th. of rim 0.008.
Beneath LVC/North *89.50–88.00

Rim fragment of a white Bichrome dish or shallow bowl. Overall red-slipped. Exterior: Rim painted black, and a black line just below the rim. Then a thick white band bordered by black lines, and one dividing it down the middle. On both halves of the white band, crosshatched squares. Another black

band toward the center. Interior: below the inverted rim, a wide white painted band bordered on both sides by a thick black band. Crosshatched squares in black on the white band (as on exterior).

PC 112 (P60.437) Fig. 1.7, Pl. 257

Marbled skyphos with white slip and vertical red wiggly lines

H. 0.095, W. 0.072, est. Diam. 0.14, Th. 0.004.

Beneath LVC/North *89.50–88.00

Rim, handle, and body fragments of a large skyphos. Inturned rim with a tapering lip. Exterior is slipped in white. A reddish-orange band along the rim. Body has sections of vertical red wiggly lines made with a ten-headed multiple brush, making a marbled effect. The horizontal loop handle also decorated with this same decoration. Three small holes at the broken edge of the body on the right are from an ancient repair. Interior is streaky black.

See discussion on repair on p. 8 in Chapter 1.

PC 113 (P60.435) Pl. 257

Large Black on Red krater

H. 0.075, Diam. 0.38, Th. 0.007.

Beneath LVC/North *89.50–88.00

Rim and body fragment of large krater. Ledge rim projects outward. Upper body covered with Black on Red decoration. Below the rim, two overlapping horizontal bands. Below, squares with crosshatching alternating with reserved squares. In the register below another thick black band, the same pattern but alternating. At carination, another thick black band and the beginnings of pendent concentric semicircles.

PC 114 (P60.442) Pl. 257

Bowl with handle

H. 0.07, W. with handle 0.10, Th. 0.09.

Beneath LVC/North *89.50–88.00

Handle and rim of a Bichrome bowl. Handle, rising from the rim, is slipped white on both sides and on top; vertical lines painted over the white on all sides. This pattern continues on the flat top and both sides of the rim, which has a square profile. Exterior: below the rim, the beginning of pendent semicircles. Interior: red-slipped. The way this fragment survives makes it look like a duck or bird, or possibly an animal. One might speculate that it was trimmed this way, and may have been given to a child as a toy.

PC 115 (P60.445) Pl. 258

Bichrome pyxis

Largest fragment: H. 0.075, W. 0.125, Th. 0.008.

Beneath LVC/North *89.50–88.00

Body and shoulder fragments of a red Bichrome pyxis with a white slip. Large cylindrical body with tapering shoulder. Orange-red fabric with cream slip on exterior. A register of a horizontal, orange wavy

line just below where the shoulder bends toward the neck. Bordered on either side with a light-gray (or in places, a dark brown) band. Below, a large register with a continuous series of diagonally crossing lines, each creating an X. Each X is outlined in light-gray and filled in orange with black diagonal lines. The diagonal lines cease where the two diagonal lines cross, creating a diamond shape. In the triangular spaces that each X leaves is either a triangle or a diamond. Both triangles and diamonds are obliquely crosshatched with a light-gray and orange line. Another wavy line, like that on the upper side, is found on the lower side. Smoothed on exterior and burnished on interior.

Cf. *LATW*, p. 474, cat. no. 87.

PC 116 (P60.443) Pl. 258

Lydion

H. 0.068, est. Diam. 0.082, Th. 0.018.

Beneath LVC/North *89.50–88.00

Small thick-walled body fragment of a lydion.

Neck of vessel is black. Differently sized bands of black at the shoulder and belly. Streaky black near (missing) base. It looks as if a slice was purposely broken off the belly, perhaps to obtain better access for breaking off the [missing] foot, which could have served effectively as a stopper.

Cf. *LATW*, pp. 479–80, cat. nos. 95–97.

PC 117 (P60.444) Pl. 259

Gray Ware deep omphalos phiale

H. 0.06, Diam. of rim 0.15–0.16, Diam. of base 0.042, Th. 0.007.

Beneath LVC/North *89.50–88.00

Shallow, Gray Ware bowl with everted rim and rounded lip. Three recessed grooves (the lowest of which is more prominent) run horizontally around the body of the vessel. Center has an omphalos. Smoothed on interior and polished on exterior.

PC 118 (P60.436) Pl. 259

Gray Ware lid

Diam. 0.14, Th. 0.015.

Beneath LVC/North *89.50–88.00

Flat lid with a loop handle. Lid has a central hole and a second squared cutout for a ladle at the edge. Traces of burning on bottom.

PC 119 (P60.440b) Pl. 259

East Greek bird bowl

H. 0.046, W. 0.044, Th. 0.005.

LVC/North *89.50–88.00

Fragment of a large bird bowl, imported. The reserved panel from the cup wall preserves two vertical lines, and three horizontal lines at the bottom with a horizontal wavy line above these and the beginning of another horizontal line above that. Interior black glazed.

Early seventh century.

PC 120 (P60.440c) PL. 259

East Greek cup

H. 0.032, W. 0.03, Th. 0.003.

Beneath LVC/North *89.50–88.00

Small fragment of cup. Preserved from just below the nicked rim to lower part of handle band. Four black on buff vertical lines, and vertical zigzags on both sides of the lines. Interior black-glazed. Two other East Greek fragments were found nearby and at the same level (**PC 119** and **PC 122**).

PC 121 (P60.432) PL. 260

Skyphos

H. 0.036, est. Diam. 0.10, Th. 0.002.

Beneath LVC/North *89.50–88.00

Two fragments of a thin-walled skyphos with buff-fabric. Slightly inturned rim with tapering lip. Horizontal loop handle. Exterior: a narrow band at the rim. The handle is black and the handle zone has raised knobs on each side of the handles, also painted black. Small hole perforated in the top of each knob; one barely pierces through, the other just misses. Perhaps used to hang up the cup? In the handle zone, rectilinear motifs composed of dots. Below the handle zone, a narrow band followed by a much thicker one. Interior is black. Similar to rosette bowls.

PC 122 (P60.440a) PL. 260

East Greek jug

H. 0.028, W. 0.079, Th. 0.005.

Beneath LVC/North *89.50–88.00

Geometric patterns from a reserved panel on the shoulder of an East Greek jug. Panel bordered by three vertical lines at left. A geometric “tree” and crosshatched triangles bordered by double lines within the reserved panel. Unglazed on interior.

Early seventh century.

PC 123 (P60.459) PL. 260

Bichrome dish

H. 0.051, W. 0.056, Th. 0.009.

Below LVC/North *90.00–89.50

Wide flat rim fragment, turning into the body of a dish. Exterior: a dark red slip with a band of black wiggly lines made by a multiple brush, bordered at top and bottom by black lines. Interior: dark red slip, with a band of thick white paint, bordered at top and bottom by a black line. Within the white band, a checkerboard and black line. Below carination, a trace of another black horizontal line. Burnished inside and out.

LVC/SOUTH**PC 124** (P60.382) PL. 261

Protocorinthian linear kotyle

H. 0.051, W. 0.041, est. Diam. at top of sherd 0.165, Th. 0.003.

Beneath LVC/South *87.50

Body fragment of an unusually large, thin-walled, early linear kotyle. Horizontal lines and the beginning of the dark lower body. Light buff fabric with narrow black bands. Exterior polished. Interior buff slipped. 720–690 B.C.

Not in *Sardis* M10.**PC 125** (P60.403) PL. 261

Bichrome lug handle

H. 0.095, L. 0.05, H. 0.026.

Beneath LVC/South *88.00

Large lug handle with hole in center. Orientation is unclear, but because the edge where it was attached is completely flat, perhaps it was one of two handles attached to a lid, or else one of two at the end of a flat “tray.” On one side of the handle a segment of pinkish-cream colored paint outlined in black with four crosshatched triangles. The same pinkish-cream color on the inside of the perforated hole. Triangles are not evenly sized nor spaced. Orange-red fabric with red slip. Red-slipped on other side. Smoothed on both sides.

PC 126 (P60.404) PL. 261

East Greek jug

H. 0.0855, W. 0.052, Th. 0.003–0.006.

Beneath LVC/South *88.00

Three fragments of the body of an East Greek jug. A diamond with four smaller hatched diamonds within the larger one. Three vertical lines to one side of these patterns, and then the beginning of a solid red field of color at the left. Above this are two horizontal lines and then diagonally hatched triangles. At the carination from lower to upper body: vertical lines alternating with solid opposed triangles. Exterior is polished and shows traces of burning. Clay is gray, not local. Exterior colors are red on buff.

See Friis-Johansen 1958, p. 119, fig. 209a–b; Boardman 1967, pl. 49, esp. no. 554.

PC 127 (P60.405) PL. 261

East Greek jug (?)

H. 0.074, W. 0.05, Th. 0.008.

Beneath LVC/South *88.00

Body fragment of a jug with cream slip and black decoration. All registers are separated by horizontal lines. There is a solid field of black with a reserved section next to it; a horizontal zigzag; and a register of alternating opposed triangles and vertical lines. Exterior is smoothed. Not local.

Late ninth–early eighth century.

Referred to in Hanfmann, “SARDIS 1960,” p. 23, n. 29.

PC 128 (P60.357) PL. 261
 East Greek bowl
 H. 0.031, Diam. 0.16, Th. 0.006.
 Beneath LVC/South *89.50
 Fragment with inward curving nicked rim of bowl, painted black. Upper body reserved, and painted with alternating groups of vertical wiggles and of vertical straight lines. Interior: A wide band of black below rim. Clay is buff.
 Late ninth or early eighth century.

PC 129 (P60.359) PL. 261
 Gray Ware krater (?)
 H. 0.112, W. 0.118, Th. 0.005, W. of handle 0.06.
 Beneath LVC/South *89.50
 Gray Ware wall of bulbous krater (?) with knobs under handle. Stump of a band handle with three knobs beneath, imitating a metal pot where rivets would have attached the handle. Wall is thin for the size of pot.

Test Pit

PC 130 (P60.397) PL. 262
 Gray Ware band handle
 H. 0.037, W. 0.03.
 Beneath LVC/South *87.00
 Gray Ware handle with delicately incised decoration consisting of two obliquely crosshatched triangles. Between them, three tiny hook-shaped stamps, and above each triangle is a stamped circle, more firmly pressed in on the left than the right. Coarse gray fabric.

PC 131 (P60.408) Fig. 1.14, PL. 262
 Geometric vessel
 H. 0.07, W. 0.11, Th. 0.013.
 Beneath LVC/South *87.40
 Thick-walled fragment of a Brown on Buff closed vessel. Exterior decoration consists of two horizontal bands with vertical crosshatched meanders and two horizontal bands with obliquely crosshatched triangles. These two different designs alternate with one another. Exterior smoothed. Interior unslipped. Phrygianizing in coloration and in the miniature crosshatching.
 Hanfmann, "SARDIS 1960."

PC 132 (P60.398) PL. 262
 Hearth stand
 H. 0.052, W. 0.065, L. of pointed spur 0.04.
 LVC/South *87.40
 Fragment includes the rim and inward-facing spur of a hearth stand. The triangular spur, sloping downward, would have supported a cooking pot over the fire. A small lump of clay was added on the rim at the side of the spur. Black gritty fabric with signs

of heavy burning. Found near handle with graffito,
PC 130.
 Cf. *LATW*, p. 458, cat no. 62.
 Early Iron Age.

PC 133 (P60.409) PL. 263
 Krater
 H. 0.068, Diam. 0.28, Th. 0.008.
 Beneath LVC/South *87.40
 Rim and handle fragment of a krater with buff fabric. Chocolate brown color over creamy slip. Everted ledge rim with projecting lug serving as the place where the curved faux handle attaches to the rim. Curved handle imitation is attached to the body of the vessel. Cream slip on exterior with brown decoration. Top of rim is decorated with thick, radial strokes, and the edge is outlined in a narrow band. Side of rim has a series of solidly filled triangles that emerge from a thick band below. Pseudo-handle is outlined in thick bands and is filled with diagonal lines. Surface between the inside of the handle and the rim of the vessel is decorated with triangles. The register between the rim and the exterior of the handle is composed of a checkerboard pattern with brown and reserved squares and a series of narrow vertical lines. Below the handle is another thick band and the beginning of a checkerboard pattern. Streaky brown on interior. Exterior and interior are smoothed.

PC 134 (P13.76) PL. 263
 Gray Ware jug
 H. 0.081, Th. 0.0065.
 Test pit beneath LVC/South *87.50–87.00; in association with the boulders, Wall 2
 Lower neck and shoulder fragment of a Gray Ware jug with bulbous body. Four grooves at the join of neck to shoulder. A silvery wash on the exterior.

PC 135 (P13.66) PL. 263
 Gray Ware twisted handle
 L. 0.078, Diam. 0.02.
 Test pit beneath LVC/South *87.50–87.00
 Fragment of a handle with spiral incisions. A thumb indentation pressed in near bottom.

PC 136 (P13.34) PL. 263
 Gray Ware baby feeder
 H. 0.066, Diam. 0.073, Th. of base 0.009, Th. of wall 0.008, Th. of neck 0.0035.
 Test pit beneath LVC/South *87.50–87.00
 Approximately half of a globular Gray Ware baby feeder, preserving whole profile except the spout and handle. Surface burnished. Cf. **PC 12** and baby feeders from HoB: **HoB 215** (from a ninth- or eighth-century level in Deep Sounding C) and **HoB 344.**

SVC**PC 137** (P60.39) PL. 264

Black on Red jug

H. 0.055, Diam. 0.08, Th. 0.003.

West of SVC *89.87–89.75

Rim with a trace of the handle, neck, and upper body of a jug. Rim is not quite round, may show the start of a trefoil mouth. Slightly outward tilted straight-sided neck, with sharply flaring shoulder of a finely potted squat jug. Neck has a series of vertical black wiggly lines made with a four-tipped multiple brush, black on a red slip. Horizontal lines, one at bend to shoulder, one just above. More of the same wiggly lines on shoulder, again in groups of four lines each. This brush had a wider gap in the middle, i.e., two brush heads and two more brush heads, all used together. Interior slipped.

Seventh century.

PC 138 (P60.42) PL. 264

Globular cooking pot with “gold dust” slip

H. 0.125, W. 0.13, W. of handle 0.042,

est. Diam. 22–23, Th. 0.003–0.006.

West of SVC *89.87–89.75

Wall of a finely potted globular cooking pot and the base of a band handle, squared at bottom of handle. Surface covered with a gold-colored micaeous slip (Gold Dust ware). Red clay. Had been used for cooking, as indicated by blackened lower portion.

PC 139 (P60.46)PL. 264

Bichrome open vessel

W. 0.05, H. 0.032, Th. 0.006.

North of SVC *90.50–89.75

Upper body fragment of open vessel. Surface slipped in a pinkish-white color, with red Vs and the beginning of inverted Vs below, to make a repeated X pattern. Vertical lines and a diamond pattern to the right. Two broader bands in red with two wavy black lines on at least one of them. Interior red-slipped.

APPENDIX

NAA Analysis of Lydian Ceramics from Sectors HoB and PC

BY NICHOLAS D. CAHILL

Scientific analysis of ceramics at Sardis has a long history, dating back to the 1970s and covering the long chronological range from the Early Bronze Age through the Byzantine period.¹ Among the goals were to identify local Sardian ceramic industries and their products; for although kilns and pottery workshops are not common at Sardis, the consistency of fabrics and decorative techniques in many different periods, as well as molds and other finds, clearly suggests the presence of a strong local industry that supplied the majority of pottery used at the city through most of its history. Many of these analytic studies remain incomplete and unpublished, but two in particular have produced data relevant to the material from HoB and PC. The current Report is not intended to present the results and conclusions of these analyses, which are ongoing, but a brief mention of their history is in order.

In 2004–2005 two projects began independent studies of Lydian pottery at Sardis using neutron activation analysis: the Anatolian Iron Age Project (AIA), led by Lisa Kealhofer and Peter Grave; and Michael Kerschner and Hans Mommsen, studying the pottery of western Anatolia. Fortuitously, Kerschner, Grave, and Kealhofer overlapped at the site in 2005, and so were able to coordinate and cross-sample a number of sherds to allow comparison of their analyses. In 2004 and 2005, Kealhofer and Grave took 344 samples of

local sediments and of ceramics, including sixteen in the current volume, for NAA analysis, and samples of ceramics for residue analysis. The results of their NAA analyses were published in 2013, and the raw data made available on Open Context.² Based on statistical analysis of their elemental compositions, Kealhofer and Grave divided the ceramics and sediments into three major groups, A, B, and C. One group, Macrogroup A, included six subgroups, A1.1–A1.6, and was identified as local production based on chemical similarities to two local sediment samples. From an archaeological point of view, this is a generally coherent set of artifacts, most of which we would have otherwise identified (with greater or lesser certainty) as local products. The group includes most common local shapes and decorative techniques such as lydions, marbled ware, and other typical Lydian features.

A second set of ceramics, Macrogroup B, included sediments from the foothills of the Tmolus range as well as a wide variety of ceramics. While the sediments are obviously local, some of the ceramics are, from an archaeological point of view, clearly imported, such as the East Greek Geometric krater **HoB 351**, Corinthian pottery (including an aryballos), and bird bowls. Other ceramics in this macrogroup, however, are very probably local products. A third set of ceramics, Macrogroup C, was matched by one local sediment sample and included a diversity of different ceramic wares, some of which are identified as imports to Sardis on archaeological grounds. Kealhofer

¹ See for instance Jones 1997; Scott and Camilli 1981; Rotroff et al. 2018, pp. 134–35 for analyses begun in the 1970s but not completed then. Samples of pottery from many different periods were taken for analysis at the Missouri University Research Reactor (MURR); those have not been included in this volume.

² Kealhofer, Grave, and Marsh 2013: <https://opencontext.org/projects/cbd24bbb-c6fc-44ed-bd67-6f844f120ad5>.

and Grave also compared their groups to the published results of Mommsen's analyses of pottery from various East Greek sites, to try to identify the sources of some of their nonlocal groups.

Kerschner sampled seventy-seven Lydian ceramic artifacts, including thirteen in the current volume; his analysis remains in progress.

In 2020, Hans Mommsen reanalyzed Kealhofer and Graves' raw data, and arrived at a number of different conclusions. We are still in the process of analyzing these

datasets and comparing the results of the different analyses, both chemical and statistical, and this is not the place for a discussion of this ongoing research. We hope, however, to publish this analysis shortly, and are extremely grateful that the work of the authors of this volume has so clarified the typology and chronology of Lydian pottery, as this will help advance the technical studies as much as the technical studies will in turn help us understand the production of Lydian pottery at Sardis and more broadly through western Anatolia.³

³ On regional production of Lydian pottery see especially Gürtekin-Demir 2002; Gürtekin-Demir 2003; Gürtekin-Demir 2007; Gürtekin-Demir 2014; and Gürtekin-Demir forthcoming.

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Throughout this volume, all bibliographical abbreviations used for the titles of periodicals and other frequently cited works follow those adopted by the *American Journal of Archaeology*; these are listed at <https://www.ajaonline.org/submissions/abbreviations>.

ABBREVIATIONS

AST

Araştırma Sonuçları Toplantısı

Athenian Agora 12

Brian A. Sparkes and Lucy Talcott, *Black and Plain Pottery of the Sixth, Fifth, and Fourth Centuries B.C.*, Athenian Agora 12 (Princeton, N.J.: American School of Classical Studies, 1970).

Caner, *Fibeln*

Ertuğrul Caner, *Fibeln in Anatolien 1*, *Prähistorische Bronzefunde XIV.8* (Munich: Beck, 1983).

Coldstream, *GGP*

John Nicolas Coldstream, *Greek Geometric Pottery: A Survey of Ten Local Styles and Their Chronology* (London: E. Benn, 1968).

Greenewalt and Payne, *Ritual Dinners*

Crawford H. Greenewalt, jr., and Sebastian Payne, *Ritual Dinners in Early Historic Sardis*, University of California Publications in Classical Studies 17 (Berkeley: University of California Press, 1978).

KST

Kazı Sonuçları Toplantısı

LATW

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ILLUSTRATION CREDITS

OBJECT DRAWINGS

The following draftspersons created the object drawings and profiles appearing throughout these two volumes: Catherine S. Alexander (1987–present), Güven Bakır (1959–1960), Sallie Carlisle (1969–1971), Emel Erten (1979–1981), Elaine Gazda (1968–1975), Kathryn L. Gleason (1980–1983), Charlotte Greenewalt (1961–1962), Rosemary Jones (1972–1975), Nancy H. Ramage (1964–1975, 1986), Elizabeth Wahle (1974–1986), and Fikret K. Yegül (1963).

Many object drawings in the plates employ a digital shading technique developed by Rana Irmak Aksoy to depict the colors and finishes of the pottery. The process of creating this technique was, like all Sardis endeavors, a team effort, with guidance from Catherine S. Alexander, the authors, and Nick Cahill. The technique was devised in a way that would allow for easy repetitive digital application that still retained the handmade feeling of the pottery and the inkings. Rana worked with the scans of Cathy's inkings, filling the outlines with two texture templates developed from scanned watercolors: one streaky, to represent streaky glaze, and one textured differently, to represent all other colors, from light orange to red to brown. The convention for both added white paint and unpainted areas/reserve is to have those sections of the drawings remain blank, but when a pot contains both unpainted areas and added white, the latter is distinguished digitally by a pale gray. If a sherd or pot is simply Black on Red with no other color or reserve, the red was not digitally shaded. There are a few exceptions among the shaded drawings, where Cathy added some dilute ink to the inking rather than digital texture being applied.

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Brianna Bricker compiled, digitized and, with the help of the Ramages, edited the site plans appearing in these volumes, which were drawn by Jülide Aker, Daniel Belknap, Constance J. Bell, Mehmet C. Bolgil, Thomas H. Canfield, Stuart L. Carter, Anthony B. Casendino, Frederick B. Hammann, Thomas N. Howe, A. H. Hyatt, Ralph K. Iler, Stephen W. Jacobs, Robert A. Mayers, Richard Penner, Brian Percival, Jeremy R. Richmond, Charles F. Rogers, Leon Satkowski, Andrew R. Seager, and Robert Lindley Vann. The maps were prepared by LauraLee Brott, and the urban plan by Nicholas D. Cahill and Philip T. Stinson.

CONCORDANCE OF SARDIS INVENTORY NUMBERS

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P66.76	HoB 157	P96.35	Chapter 7, note 53
P66.79	HoB 632		
P66.82	HoB 158	S12.1	HoB 102
P66.107	HoB 1	S12.2	HoB 103
P66.115	HoB 196	S12.3	HoB 239
P66.119	HoB 155	S12.4	HoB 240
P66.137	HoB 141	S14.7	HoB 266
P66.138	HoB 216	S14.109	Chapter 7, note 29
P66.139	HoB 15	S61.16	HoB 603
P66.140	HoB 30	S61.17	HoB 602
P66.154	HoB 16	S62.57	HoB 717
P66.157	HoB 18	S62.58	Chapter 2, note 43; chapter 4, note 3
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T02.9	HoB 251
T12.3	HoB 232
T12.5.1	HoB 220
T12.5.2	HoB 221
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T12.5.4	HoB 223
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T12.5.6	HoB 228
T12.5.7	HoB 224
T12.5.8	HoB 225
T12.5.9	HoB 226
T12.5.10	HoB 223
T12.5.11	HoB 229
T12.5.12	HoB 34
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T12.11	HoB 276
T12.12	HoB 507A
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T14.14	HoB 231

Sardis Inv. No.	Sardis R8 Cat.
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T14.18	HoB 716
T14.19	HoB 645
T59.16	HoB 552
T60.2	PC 55
T60.3	PC 16
T60.4	PC 56
T60.42	HoB 265
T60.44	HoB 129
T61.18	HoB 587
T62.41	HoB 98
T62.48	HoB 99
T62.52	HoB 100
T62.54	HoB 476
T63.48	HoB 784
T64.9	HoB 668
T65.4	HoB 642
T65.15	HoB 492
T65.16	HoB 497
T66.2	HoB 378
T68.2	HoB 644
T98.2	HoB 230

CONCORDANCE OF MANISA MUSEUM NUMBERS

Manisa Museum No.	Sardis R8 Cat.	Manisa Museum No.	Sardis R8 Cat.
Manisa —	HoB 636	Manisa 4359	HoB 785
Manisa —	HoB 644	Manisa 4360	HoB 785
Manisa 1676	HoB 750	Manisa 4423	HoB 753
Manisa 2209	HoB 522	Manisa 4950	HoB 500
Manisa 2210	HoB 520	Manisa 4951	HoB 355
Manisa 4109	HoB 410	Manisa 5346	HoB 325
Manisa 4116	HoB 728	Manisa 5351	HoB 506
Manisa 4252	HoB 652	Manisa 5354	HoB 577
Manisa 4255	HoB 650	Manisa 5365	HoB 521
Manisa 4279	HoB 651	Manisa 5887	HoB 597
Manisa 4280	HoB 667	Manisa 6567	HoB 538
Manisa 4313	HoB 579	Manisa 6591	HoB 518
Manisa 4314	HoB 579	Manisa 6592	HoB 376
Manisa 4315	HoB 579	Manisa 6653	HoB 604
Manisa 4316	HoB 579	Manisa 6654	HoB 603
Manisa 4317	HoB 579	Manisa 6655	HoB 734
Manisa 4318	HoB 579	Manisa 6665	HoB 726
Manisa 4319	HoB 579	Manisa 6667	HoB 724
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Manisa 4321	HoB 579	Manisa 6676	HoB 295
Manisa 4339	HoB 105	Manisa 6702	HoB 324
Manisa 4341	HoB 507	Manisa 6718	HoB 609
Manisa 4349	HoB 433	Manisa 6719	HoB 608
Manisa 4350	HoB 742	Manisa 7077	PC 26
Manisa 4351	HoB 770	Manisa 7084	HoB 725
Manisa 4353	HoB 751	Manisa 7099	HoB 754
Manisa 4355	HoB 646	Manisa 7118	HoB 722

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Manisa 7404	HoB 681
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