



EDITED BY

SHARON R.

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McMAHON

≡ The Oxford Handbook of
**ANCIENT
ANATOLIA**

THE OXFORD HANDBOOK OF

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ANCIENT ANATOLIA

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10,000–323 B.C.E.

Edited by

SHARON R. STEADMAN
AND GREGORY McMAHON

OXFORD
UNIVERSITY PRESS

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Oxford New York
Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in
Argentina Austria Brazil Chile Czech Republic France Greece
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Published by Oxford University Press, Inc.
198 Madison Avenue, New York, New York 10016

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Library of Congress Cataloging-in-Publication Data
The Oxford handbook of ancient Anatolia (10,000–323 B.C.E.) / edited by
Sharon R. Steadman and Gregory McMahon.

p. cm.

Includes bibliographical references.

ISBN 978-0-19-537614-2

1. Turkey—Antiquities. 2. Excavations (Archaeology)—Turkey. 3. Turkey—History—To 1453.
4. Turkey—Civilization. 5. Philology—Turkey. I. Steadman, Sharon R. II. McMahon, John Gregory
- III. Title: Handbook of ancient Anatolia (10,000–323 B.C.E.).

DR431.O95 2011

939'.2—dc22 2010027106

To Girish and Mindy, without whom none of this would have been possible

1 3 5 7 9 8 6 4 2

Printed in the United States of America
on acid-free paper

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CHAPTER 52

SARDIS: A FIRST MILLENNIUM B.C.E. CAPITAL IN WESTERN ANATOLIA

CRAWFORD H. GREENEWALT JR.

SARDIS (at modern Sart) is located about 90 km (60 miles) east of the Aegean coast at Smyrna (modern İzmir); it rests on the south side of the valley and plain of the Hermus River (modern Gediz Çayı), where that plain meets the foothills of Mt. Tmolus (modern Boz Dağı) (figure 52.1). One foothill, high (300 m) and steep-sided, was the physical nucleus of settlement: a citadel or acropolis. Flanking the acropolis were two perennial mountain streams, the westerly one called Pactolus (modern Sart Çayı). Ancient settlement existed on the north slopes of the acropolis and extended into the plain, mainly between the two streams (figures 52.1, 52.2). Outside settlement limits, especially in the two stream valleys, were cemeteries (the best known today being those flanking the Pactolus stream). In its ancient heyday, Sardis controlled the river plain immediately to the north (known as the Sardiane). On the north side of the plain, a low limestone ridge was the site of an élite tumulus cemetery (modern Bin Tepe), and just beyond it, further to the north, lies a large lake, the Gygaean Lake or Lake Koloe (modern Marmara Gölü) (figure 52.1).

Environment probably played a role in the emergence and continuity of settlement. Some environmental features would have fulfilled basic requirements; the acropolis was both a refuge (in recorded history never taken by direct assault) and a stronghold, the Pactolus stream a dependable source of fresh water. Other features would have become assets after settlement was established: the river plain a resource

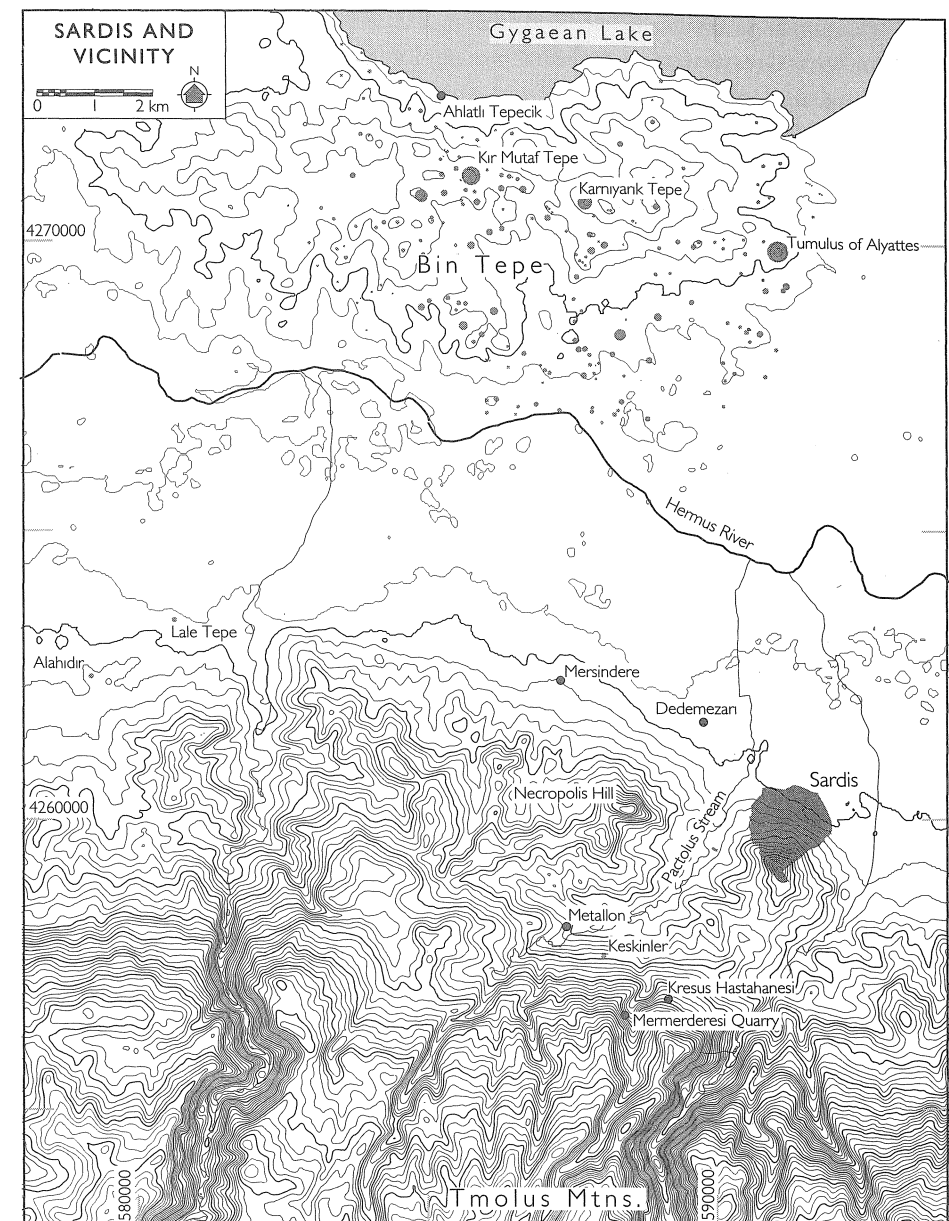


Figure 52.1. Sardis and vicinity. The Hermus River plain is in the center of the map; the lower north slopes of the Mt. Tmolus range in the lower part. The south part of the Gygaean Lake appears at the top; below it are indicated major tumuli of the cemetery at Bin Tepe; the tumulus of Alyattes (figure 52.6) is toward the right. Shaded at lower right is the intramural core of Sardis and the summit of its acropolis. The Pactolus stream is to the left of the city core.

for large-scale agriculture and a corridor for communication between inland Anatolia and the Aegean, Tmolus for timber, fuel, and summer pasturage in its highland valleys, the Pactolus and other mountain streams on the north side of Tmolus for alluvial gold.

Settlement at Sardis has existed for three and a half millennia, from ca. 1500 B.C.E. to the present (Greenewalt 2006; Hanfmann 1983); it may have existed even earlier, in the third millennium B.C.E. (perhaps even before that). During its long existence, the settlement hosted many cultures: western Anatolian, Lydian, Persian, Greek, Roman, Byzantine, Turkish. Contemporaneous cultures typically merged (e.g., Anatolian and Greek, Byzantine and Turkish), and earlier cultural traditions affected later ones (Hanfmann 1975). In the first half of the first millennium B.C.E., Sardis was the capital of an independent state created by the Lydians, a western Anatolian people who inhabited valleys of the Hermus, Kayster, and Maeander Rivers and adjacent highlands and mountains and who had distinctive cultural traditions; the Lydian language, an Anatolian sub-branch of Indo-European, is known from a relatively small number of alphabetic texts (Gusmani 1964, 1980; Melchert 2010). The nature and extent of settlement has fluctuated between the extremes of a

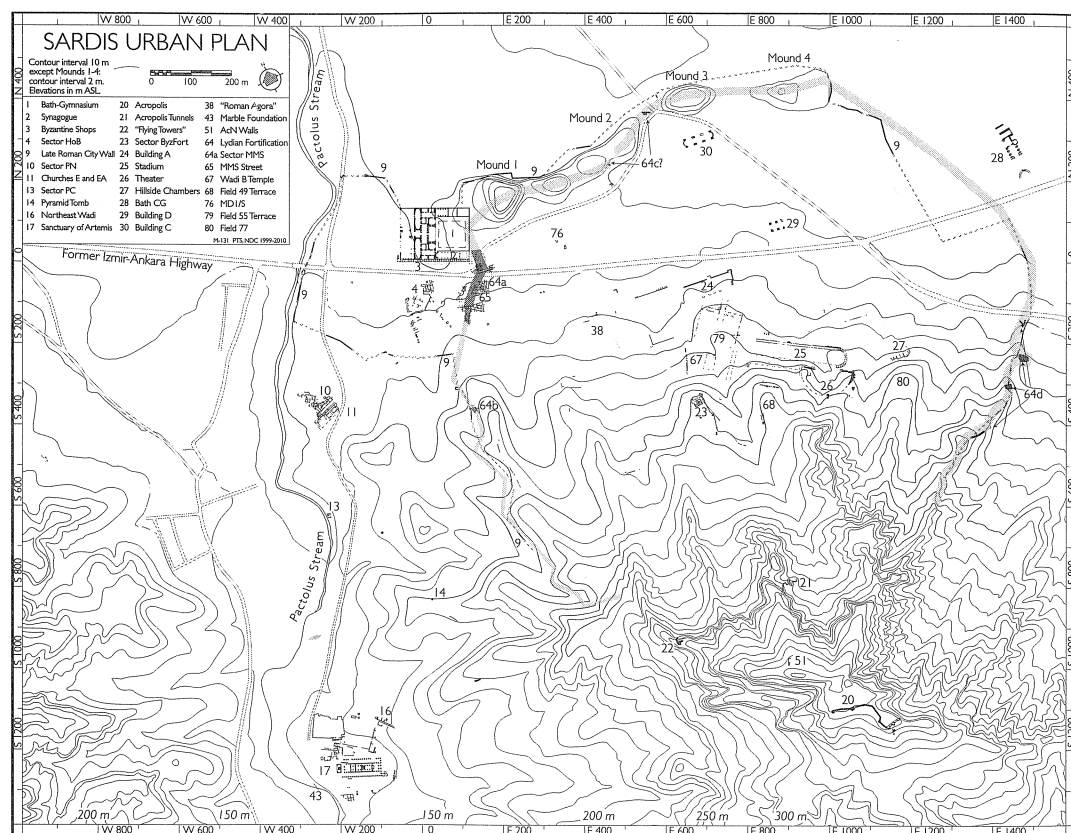


Figure 52.2. Sardis, site plan. The acropolis is at lower right. The Lydian city core defenses are marked by a broad gray line; the segment with the gate shown in figure 52.3 is at no. 64a. Terracing shown in figure 52.4 is at nos. 23 and 68. Lydian installations for refining precious metal are at no. 10. The temple of Artemis in figure 52.6 is at no. 17. Lydian houses are located at nos. 4, 64a, 65, and 26 (under the theater). The Hellenistic and Roman theater is at no. 26. The plan also shows many Roman, Late Roman, and Byzantine architectural features.

large prosperous city and a modest hamlet or group of hamlets, sometimes coexisting with transhumant populations. For more than a millennium, from the seventh century B.C.E. to the seventh century C.E., Sardis was a large city of major political and cultural importance, occupying at maximum extent an estimated 200 ha of land (including an intramural core of 108 ha in the mid-sixth century B.C.E., 127.6 ha in the fourth century C.E., an acropolis summit of perhaps 5 ha, and extramural zones possibly totaling 100 ha) (figure 52.2).

STRATIGRAPHY AND OCCUPATION DEPOSITS

Stratigraphy at Sardis varies, with respect to major as well as minor occupation phases, in different parts of the large, topographically complex site. In the archaeological record to date, Late Bronze and Early Iron Age occupation strata are known only from very small spaces in an extramural region; strata of the Persian era are insubstantial; monumental architecture of the Hellenistic era, apart from the temple of Artemis, is absent, and no graves earlier than the sixth century B.C.E. have been identified in Sardis cemeteries (although a few earlier graves have been located in zones of later occupation). Chronological demarcations are provided by a destruction stratum of the eighth century B.C.E. in an extramural zone and another of the mid-sixth century B.C.E., identifiable with the Persian capture of Sardis in the 540s B.C.E., in intramural zones (Cahill and Kroll 2005; Cahill 2010b; Greenewalt 1992); but none so far have been securely identified with the historical events of the Cimmerian capture in the seventh century, Ionian destruction in 499, and destruction by Antiochus III in 215–213 B.C.E. (Rotroff and Oliver 2003:11–15).

BEGINNINGS THROUGH IRON AGE SARDIS (CA. 700 B.C.E.)

Sardis is not mentioned in the *Iliad* (although the Hermus River, Mt. Tmolus, and the Gygaean Lake are: *Iliad* 2:864–66; 20:381–92), which may have led Strabo to suppose that its foundation postdated the Trojan War (13.4.5/625). Strabo reported the tradition of an early name, Hyde, for the city or its acropolis (13.4.5–6/625–26). The site name has also not been identified in Hittite texts. The name Sardis (in one of its variant forms) is first attested in Greek literature (Sappho fr. 96, 98; perhaps Alcaeus fr. 105e). The root of the Lydian name was *'sfar-* (*'sfard-*? *'sfari-*?); the Akkadian, Hebrew, and Persian names, respectively, *Sapardu*, *Sepharad*, and *Sparda*. In Greek and Latin, the plural form Sardeis and Sardes is common. The root of the name, Sart, has survived for the settlement that exists at the site today.

According to Herodotus (1.7) Lydia was ruled for more than 500 years in the later second and early first millennia B.C.E. by the Attyad and Heracleid Dynasties; the latter founded by Herakles and the Lydian queen Omphale or her serving lady. A Lydian origin for the Etruscans, associated with Lydian migration to Italy in the reign of Atys (Herodotus 1.94), was alleged and disputed in antiquity (Beekes 2003; Briquel 1991); inundation of Lydian lands by tephra from the explosion of Thera/Santorini in the second millennium B.C.E., however, could have created famine conditions of the kind that reportedly prompted migration (Sullivan 1988, 1990). Lydia has been identified with the Šeha River Land of Hittite texts; rulers of this region in the fourteenth and thirteenth centuries B.C.E. were vassals of the Hittite king, and one reportedly was in communication with the king of Ahhiyawa (i.e., a Mycenaean Greek state? [Hawkins 1998; see Beal, chapter 26, and Bryce, chapter 15 in this volume]). A few Neolithic and Early Bronze Age artifacts (stone celt and mace head, and some pottery) recovered out of context in the city site might or might not attest to settlement during those eras, but Early Bronze Age cemeteries existed seven miles away, on the south shores of the Gygaean Lake, close to an elite cemetery of the Lydian and Persian eras (Greenewalt 2010b; Roosevelt 2010). Occupation in the Late Bronze and Early Iron Ages at Sardis is attested by pottery in a continuous sequence of occupation strata, exposed in one part of the site. The earliest pottery in that sequence has broad affinities with Mycenaean shapes and decoration. A few pottery items recovered elsewhere in the site and out of context have shapes and burnished surfaces of Hittite tradition. As yet, no architectural remains in Bronze Age contexts are known.

LYDIAN SARDIS, SEVENTH AND SIXTH CENTURIES B.C.E.

With the last Lydian dynasty of the Mermnadai and its kings Gyges, Ardys, Sadyattes, Alyattes, and Croesus, who ruled in patrilineal succession between ca. 680 and the 540s B.C.E., Lydian history and culture and Sardis topography emerge from the shadows of earlier eras (Greenewalt 1995, 2006, 2010b; Cahill 2010a). Those rulers created an empire in western Anatolia (its eastern limit defined by the River Halys, modern Kızıl Irmak; Herodotus 1.6, 72) and made the Lydian state an international power. International events reported in ancient sources include the following. Gyges attacked Smyrna and Miletus, took Colophon (Herodotus 1.15) controlled the Troad (Strabo 13.1.22/590), fought against Cimmerian nomadic invaders, sought aid against them from Assyria, and sent military aid to Egypt (Akkadian texts of Aššurbanipal; Cogan and Tadmor 1977). Ardys took Priene, attacked Miletus, and suffered raids by nomadic invaders, the Cimmerians, who took Sardis “all but the Acropolis” (Herodotus 1.15). Alyattes took Smyrna, attacked

Miletus, invaded Clazomenae, drove the Cimmerians from Asia, received Scythian refugees in Lydia, warred against the Medes, and accepted peace terms (which involved a dynastic marriage) (Herodotus 1.28, 69–70, 73–91; Huxley 1997–8) brokered by the kings of Cilicia and Babylon (Herodotus 1.16–22, 73–74; Summers 1999). Croesus made tributary Ionian and Aeolian Greek states (notably Ephesus), held in subjugation all Anatolian peoples west of the Halys River except for Cilicians and Lycians, made an alliance with Sparta, and went to war with the Persians, who defeated his forces in battle, captured Sardis, ended his rule, and made Lydian lands part of their empire (Herodotus 1.28, 69–70, 73–91).

Major resources of precious metal that Mermnad dynasts controlled were proverbial already in the reign of Gyges (Archilochus fr. 19) and are directly related to Lydian territorial expansion and to the beginnings of coin money in electrum, gold, and silver, which Lydians were either the first or among the first to issue, presumably at Sardis (Xenophanes ap. Pollux 9.3; Herodotus 1.94; Cahill and Kroll 2005; Kroll 2010). Spectacular testimonials to those resources, which survived the Lydian kingdom by several centuries, were the fabulous offerings of precious metal, as well as architecture and works of art, which Gyges, Alyattes, and Croesus dedicated at Greek sanctuaries (notably Delphi, Ephesus, Didyma, and Assesos; Herodotus 1.14, 25, 50–51, 92; Pausanias 10.16.1–2; Buxton 2002; Kalaitzoglou 2008). The best-known source of Lydian gold is the Pactolus stream at Sardis (Herodotus 1.93; Strabo 13.4.5/625–26; other primary sources in Pedley 1972), but other mountain streams on the north side of Mt. Tmolus also contain alluvial gold, and gold deposits elsewhere were reportedly controlled or accessible to Lydian kings (at Astyra in the Troad and between Atarneus and Pergamon in Mysia; Strabo 13.1.23/591, 14.5.28/680). Silver may have been a resource of Lydia (Herodotus 5.49; How and Wells 1928:20).

By the end of Croesus's reign, Sardis was a city of monumental architecture that included: a fortification wall twenty meters thick (figure 52.3) that enclosed a lower city area of about 108 hectares; terraces of white ashlar masonry that regularized natural slopes and contours of the acropolis (figures 52.4, 52.5; Ratté 2011); probably the triple-wall defenses of the acropolis—if they are not Persian—that later impressed Alexander the Great (Arrian, *Anabasis Alexandri* 1.17.5; Lucian, *Charon* 9); three huge tumuli at Bin Tepe—the largest more than 350 m in diameter (figure 52.6)—that were visible from afar and heralded the city to those approaching it (Roosevelt 2009).

Of urban organization and major buildings and building, notably within the city core, little is known. A large extramural zone that accommodated residential, commercial, and industrial quarters extended west and northwest of the city core (at least as far as the Pactolus stream). Cemeteries included rock-cut chamber tombs, small tumuli, and cist and sarcophagus burials (best known from the Pactolus valley; Butler 1922; Baughan 2010). A palace of Croesus, substantially built of mudbrick, reportedly was still standing in the time of Christ, when it was being used as a *gerousia* (Vitruvius 2.8.9–10; Pliny, *Historia Naturalis* 35.49.172). An important sanctuary of Cybele that was burned in ca. 498 B.C.E. probably antedated

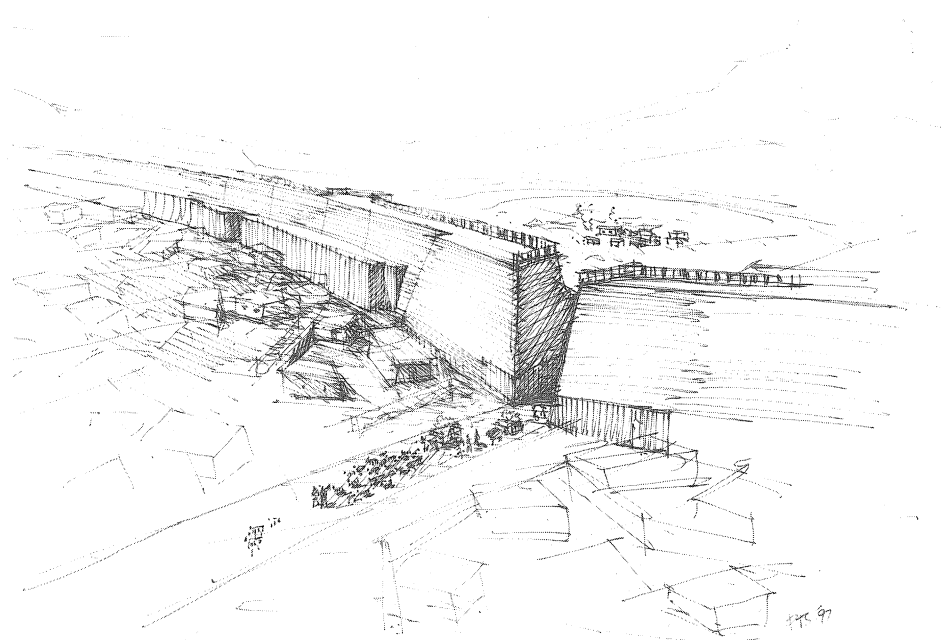


Figure 52.3. Lydian defenses of Sardis: reconstruction, showing a segment on the west side of the city, with one of the city gates; view looking west, from the inner city toward extramural parts. The wall is supplemented on its farther side (and not visible in this view) by an earthwork glacis more than thirty meters thick at the base, and probably a ditch.

the Persian conquest; it may have been located near the site of the Late Roman synagogue, in which Archaic marble votive sculpture appropriate for a mother goddess (and building parts from a Classical or Hellenistic *metroon*) had been reused as building material (Hanfmann and Ramage 1978). In another part of the site, a relatively simple altar may be identified with Cybele (because of a pottery fragment inscribed *kuvav* [that was found nearby and because it contained four small stone statues of lions, Cybele's favored animal]); it may have been a thank offering for success in gold refining (Ramage and Craddock 2000; see later discussion). Beginnings of an extramural sanctuary of Artemis in the Pactolus valley may be attested by marble sculpture (statues of two lions and a raptor; perhaps a huge lion head) and a few fragments of architectural ornament in an Archaic style. A sanctuary or temple of Apollo is alleged by Ctesias (*Persica* F9.5; see Herrmann 1996). Folk religion is attested in extramural (to date) parts of the city by buried offerings in the form of dinner services; each service consisting of pottery cooking pot containing an immature canid skeleton, dish, pitcher, cup, and iron knife (Greenewalt 1978; Greenewalt 2010d: 239–46 and references). Houses of the seventh and sixth century B.C.E. have been excavated in different parts of the city site (intramural and extramural, the latter not far west of the city wall and near the west bank of the Pactolus

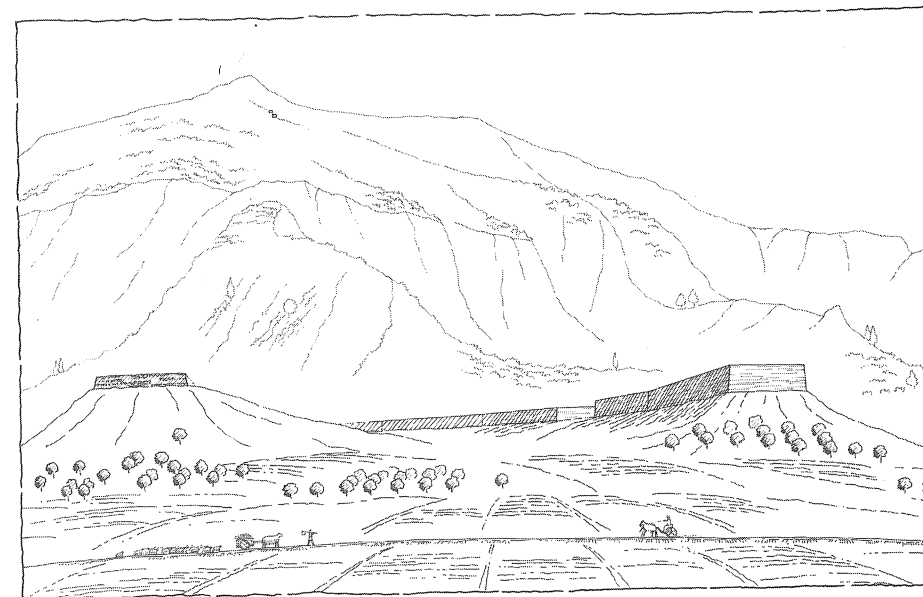
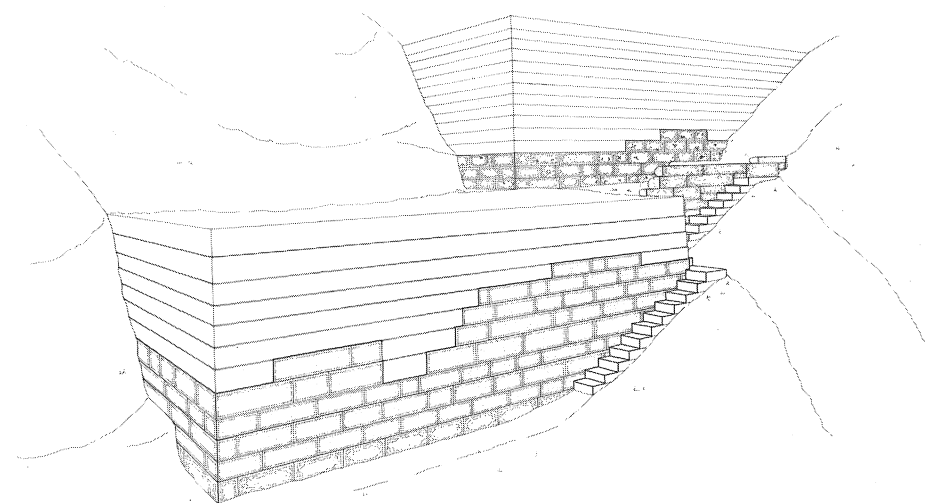


Figure 52.4. Lydian terrace walls on lower north slopes of the acropolis, restored; view looking south. (The terraces are at nos. 23 and 68 in figure 52.2.)



ACROPOLIS NORTH WALLS
RESTORED PERSPECTIVE VIEW

CZ 1988
REV PTL 1992
REVARD 1992
CSA 2009
AC 43

Figure 52.5. Lydian terrace wall, upper parts and staircase restored, near the summit of the acropolis; view looking southeast. (These walls are marked near the summit of the acropolis in figure 52.3.)

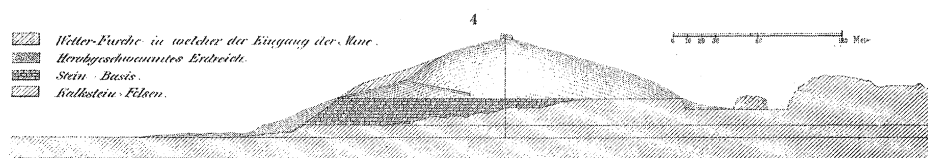


Figure 52.6. The tumulus at Bin Tepe identified as the Tomb of Alyattes. Elevation, showing on its south side the eighteen-meter-high crepis wall identified by excavator L. Spiegelthal. The tumulus has a base diameter of 355 m. (Reproduced from von Olfers 1859:pl. II.)

stream); noteworthy for well-preserved contents are intramural houses located near the western gate and on the site of the later theater, which were destroyed and soon thereafter buried under destruction debris in the middle of the sixth century B.C.E., probably when Sardis was captured by the Persians. Houses were multiroom and included courtyards. Their walls were built of fieldstone and mudbrick, their roofs commonly of clay and straw (as Herodotus 5.101 reported for houses at Sardis in the beginning of the fifth century B.C.E.), although roof tiles—of Corinthian, “Sicilian,” and composite pan- and cover-tile systems—as well as decorated sima and geison tiles were used in Lydian Sardis, and probably for affluent houses as well as public buildings. Because no complete house has been excavated, overall size and form are unknown. The only functionally identifiable rooms are for food preparation (Cahill 2004; Cahill, 2010a); for the Persian destruction of houses, see Cahill 2010b; Cahill and Kroll 2005; Greenewalt 1992). Separation of gold and silver from alluvial gold was accomplished in an extramural environment of simple installations near the Pactolus stream; there cementation, smelting, and cupellation processes were used to separate gold from electrum and recover metallic silver from silver chlorides that had been created in the cementation process (Ramage and Craddock 2000; Craddock, Cowell, and Guerra 2005). (That metallurgical activity may be related to the production of coins; but there is no evidence for nearby location of the mint.) Pleasure gardens at Sardis are reported in the context of relaxed Lydian morals (Clearchus ap. Athenaeus 12.515e–516a, 540f; see Herodotus 7.8.β3).

PERSIAN SARDIS, CA. 547–334 B.C.E.

The capture of Sardis by the Persians, under Cyrus the Great, in the 540s B.C.E. (following the Persian defeat of Lydian forces in the field) ended the reign of Croesus, the Lydian Empire, and Lydian independence. Under Persian rule Sardis was the capital of a province (both called Sparda in Persian texts) that included Lydia and, at various times, other parts of western Anatolia; the region was regularly ruled by a viceroy called a satrap. The city remained internationally important

even after the Lydian defeat (see also Harl, chapter 34, and Sams, chapter 27 in this volume); at the west frontier of the Persian Empire, it was on a major communications route, the “Royal Road” (Herodotus 5.52–54; 8.98). Two of its satraps were brothers of the king: Artaphernes, brother of Darius I, and Cyrus the Younger, brother of Artaxerxes II, and two reigning kings sojourned there: Darius I, in 512 B.C.E., and Xerxes in 480 B.C.E. Destruction by Greek raiders of the sanctuary or temple (*hieron*) of Cybele in ca. 498 B.C.E. was a pretext for Persian invasion of continental Greece (Herodotus 5.102; 7.8.β3).

Sardis played a major role in Persian–Greek relations. Its satraps—notably Tisaphernes, Tiribazos, and Autophradates—were intimately involved in Persian policy toward Greek states and in Athenian and Spartan politics. Important Greek leaders visited or spent time at Sardis, including the Spartan commanders Lysander and Kallikratidas, and the Athenian Alcibiades. The “Ten Thousand” Greek mercenaries who marched with Cyrus the Younger to Mesopotamia, and whose successful retreat through Persian territory opened Greeks’ eyes to the weakness of Persia, in 401 B.C.E., mustered for their expedition with Cyrus at Sardis (Xenophon, *Expeditio Cyri* 1.2.1–5). The Spartan king Agesilaus raided the city, in 395 B.C.E. (Xenophon, *Hellenica* 3.4.21–25). The Athenian admiral Konon was briefly imprisoned at Sardis, in 392 B.C.E. (Xenophon, *Hellenica* 4.8.16). Terms of the “King’s Peace” of Artaxerxes II, or “Peace of Antalcidas,” probably were announced to delegates of Greek states at Sardis, in 386 B.C.E. (Xenophon, *Hellenica* 5.1.30–31).

The historical record of Persian Sardis is brilliant, the archaeological record shadowy, the shadows due partly to scarcity of material evidence, partly to chronological ambiguity in late Lydian and early Persian eras. Lydian culture continued to flourish under Persian rule, and a local élite class evidently prospered. Many, possibly most, of the smaller tumuli that predominate in the tumulus cemetery at Bin Tepe (the total number of tumuli is slightly more than one hundred) date from the Persian era, and contemporaneous chamber tombs in the upper Pactolus valley contained handsome jewelry and silver and silver-gilt plate. Although direct evidence for ethnic identity of those burials is lacking, the Lydian character of graves and many grave goods suggests that they are more likely to have been for Lydians, who had accepted Persian cultural ideas, than for Persians “gone native.” The riches of Pythios, a Lydian who offered to help finance Xerxes’s campaign in Greece (Herodotus 7.27–29), represents an extreme example of Lydian affluence under Persian rule. Persian culture—itself a poorly understood hybrid, which included Lydian elements—may have had limited impact on Sardis. In the archaeological record, architecture and artifacts of later Lydian and Persian eras often are indistinguishable, and demonstrably Persian cultural material is uncommon; it includes sumptuary arts (jewelry and plate), Aramaic script (attested on one gravestone of Sardis, where it follows a text with the same content in Lydian; no. 1 in the Lydian corpus; see no. 41), and one kind of ceramic vessel, the Achaemenid bowl (Dusinberre 1999, 2003). The last, however, is common in ordinary habitation contexts at Sardis and is evidence for the adoption of Persian ideas in middle-class Sardis society. A monumental altar (?) of stepped pyramidal form, ca. 500 B.C.E. (figure 52.7), may be the

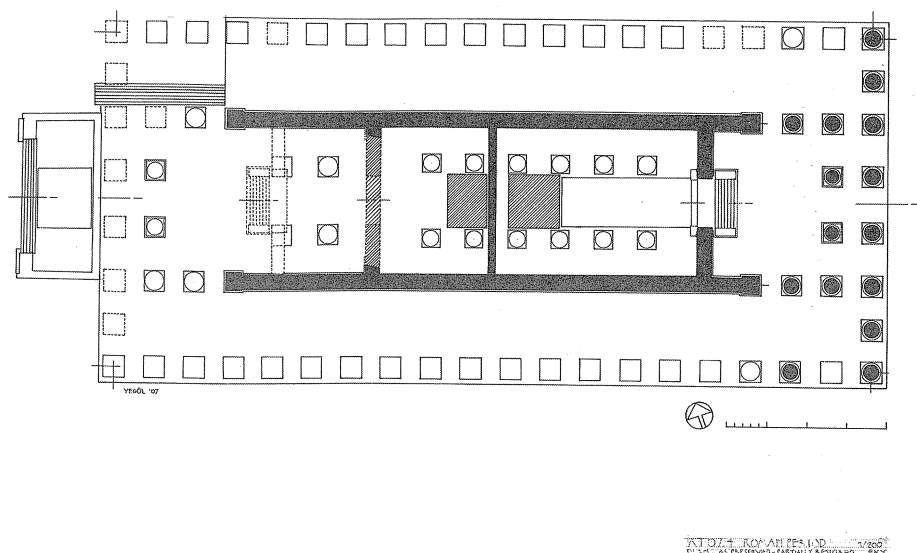


Figure 52.7. Altar and temple of Artemis, plan of surviving features (at no. 17 in figure 52.2). Both altar (far left) and temple had several construction phases, major features of which are combined in this plan. The square core of the altar was built during Persian rule. The Hellenistic temple faced west and had a single cella and deep porch (the cross-wall is shown hatched), both of which contained interior columns; a peripteral colonnade probably was intended but never begun. Alterations in Roman times resulted in two back-to-back cellas of equal length, with two short porches of equal depth (the west cross-wall is shown in outline). A peripteral colonnade was begun but never completed.

earliest structure in situ of the Artemis sanctuary in the Pactolus valley. A sanctuary of Zeus near or within that sanctuary may be implied by a text recording the dedication of a statue to Zeus by a high Persian administrative official during the reign of Artaxerxes (Briant 2002; Herrmann 1996; Robert 1975). Invocation of Artemis of Koloe on a grave stele inscribed in the time of King Artaxerxes suggests that Artemis's sanctuary by the Gygaean Lake/Lake Koloe (Strabo 13.4.5/626) was in existence. Persian domination at Sardis may have been dramatized in material culture through creative art forms that leave little or no trace in the archaeological record and receive only brief citation in ancient literature: for example, luxury textiles (pile carpets, cloth of gold, transparent, flesh-colored garments) and textile dyes (blue, red), which are cited in Greek sources of the Persian era (Greenewalt and Majewski 1980), and landscape architecture—the *paradeisoi*, orchards, and hunting parks of Tissaphernes and Cyrus the Younger at Sardis (Diodorus 14.80.2; Xenophon, *Oeconomicus* 4.20–24). To appreciate the powerful cultural statement that those art forms can make, one need only consider the monumental, richly colored tents of Ottoman armies and the vernacular gardens of Isfahan, Versailles, and Shugborough.

HELLENISTIC SARDIS

Sardis passed quietly out of the Persian Empire in 334 B.C.E., when it was surrendered by the Persian commander of the acropolis and leading citizens—the satrap having been killed at Granikos—to Alexander the Great, who restored “to Sardians and Lydians the old customs/laws (*nomoi*) of the Lydians” and gave them their freedom (Arrian, *Anabasis Alexandri* 1.17.3–4). For nearly 200 years after Alexander's death in 323 B.C.E., Sardis was part of the kingdoms of Hellenistic dynasts: of Antigonos Monophthalmos and Lysimachus for about twenty years each (321–281 B.C.E.), of Seleucids, from Seleucus I through Antiochus III, for a century (281–180 B.C.E.), and of Attalids for half a century (180–133 B.C.E.). It was coveted, at least partly because of its acropolis, “the strongest place in the world” (Polybius 8.20.12; Lucian, *De Mercede Conductis* 13). The city was besieged twice, by Seleucus I, in 281 B.C.E., and by Antiochus III—attacking his rebellious uncle Achaïos—in 215–213 B.C.E. (neither succeeded in taking the acropolis by assault; Polyaeus 4.9.4; Polybius 7.15–18; 8.15–21). Alexander the Great's only full sister, Cleopatra, lived at Sardis for more than a decade, after her brother's death, and was murdered there (at the orders of Antigonos Monophthalmos; Diodorus 20.37.3–6); the Seleucid king Antiochus I and his wife Stratonike (daughter of Demetrius Poliorcetes) spent time there in 276/75 B.C.E., and she died there in 254 B.C.E. (Akkadian texts in Austin 2006, no. 163; Kugler 1922, no. 4). Jews from Palestine probably were settled at Sardis—as they were in other parts of western Anatolia—by Antiochos III, in the late third century B.C.E. (Josephus, *Antiquitates Judaicae* 12.147–53). With the creation of the Roman province of Asia in 129 B.C.E., Sardis came under the control of Rome.

In the Hellenistic era, Sardis was a Greek city in important respects. Greek is the language of formal inscriptions on stone (except for some grave epitaphs and dedicatory texts in Lydian), and city government featured a council (*boule*) and assembly (*ekklesia*). Major public buildings of Greek form included a prytaneion, gymnasium (both cited in inscriptions), theater and hippodrome (Polybius 7.17–18), and temples: a *metroon* (attested by inscribed anta blocks; Gauthier 1989) and the huge temple of Artemis, featured in an extramural sanctuary of Artemis in the Pactolus valley (Butler 1925; Yegül 2010). The latter temple (figure 52.7) received a dedication from Stratonike, daughter of Demetrius Poliorcetes, in the form of a marble sphere (perhaps a substitution for the original dedication; Buckler and Robinson 1932).

LATER HISTORY

Sardis remained a large and prosperous city through Roman and Late Roman times. Decline began in the seventh century C.E., reaching its nadir in the eighteenth and nineteenth centuries (when settlement consisted of one or two hamlets, each

with only a few houses). Revival came in the twentieth century (Foss 1976; Hanfmann 1983).

POTTERY AT SARDIS AND LYDIAN MATERIAL CULTURE

Pottery predominates in the archaeological record of artifacts at Sardis, as elsewhere, and provides a valuable index of popular taste. Both Anatolian and Aegean Greek ceramic traditions appear in pottery of the later second and early first millennia B.C.E.; they are more explicitly definable in the shapes and decorative systems of local pottery of the later seventh and sixth centuries, and distinctive varieties and combinations of those shapes and decorative systems may reasonably be identified as Lydian. Common Lydian shapes include table amphora, column crater, skyphos crater, lebes, pyxis, one-handled mug, skyphos, "Ionian cup," stemmed dish, lekythos, lydion, and ring askos; column crater and skyphos are especially common, and evidently are derived from Corinthian shapes. Lydian decorative systems include Anatolian bichrome and black on red, Phrygian bucchero, and East Greek orientaling. Uniquely Lydian are the lydion (powder or salve container) shape and streaky-glaze and marbled glaze decorative systems, the last derived from multiple-brush motifs of bichrome. Narrative imagery is rare in Lydian painted pottery as it is uncommon in East Greek (Greenewalt 2010c). Imported pottery included Corinthian (Late Geometric through Late Corinthian), Attic (black-figure, red-figure, black-glaze), and Lakonian (II and black-figure) wares from Greece (Schaeffer, Ramage, and Greenewalt 1997), probably bucchero from Phrygia.

In the second half of the sixth century B.C.E., following the Persian conquest, and continuing into the fifth century, many traditional Lydian shapes and decorative systems continued, and the Achaemenid bowl became common in local ceramic repertory (Dusinberre 1999, 2003). In later Classical and Hellenistic eras, Greek shapes and decorative conventions (e.g., echinus bowls, fish plates, lagynoi, unguentaria, West Slope pottery, mold-made relief bowls, black-glazed, Pergamene appliqué, and lead-glazed wares) are conspicuous in the record.

The strong Greek element in Lydian pottery design and decoration and in pottery imports of the Lydian era also occurs in the design and style of architectural ornament, stone sculpture, and architectural terracottas of that era at Sardis, and in the Lydian alphabetic script (Gusmani 1975; Hanfmann and Ramage 1978; Ramage 1978; Ratté 1994), showing that the Hellenophile attitude of Lydian kings that is attested in Greek sources also was a feature of popular culture at Sardis. Lydian expertise in stone masonry, notably exhibited in the huge limestone ceiling beams and beautifully jointed and smoothed marble wall

blocks of the tomb chamber in the tumulus identified with King Alyattes (died ca. 560 B.C.E.) at Bin Tepe (figure 52.6), may reflect cultural interchange with both Greece and the Near East (Ratté 1993, 2011). At the other end of the scale, the exquisite glyptic art of seals and jewelry recovered at Sardis may have been a special craft of the city in Lydian and Persian eras (Curtis 1925; Meriçboyu 2010; Dusinberre 2010). Aspects of Lydian and Lydo-Persian culture that impressed the Greeks have left little or no significant trace in the archaeological record: music, fine textiles and textile dyes (if they were not exclusively products of the Persian era; see foregoing discussion), cosmetics (an unguent called *brenthium*; a salve or powder called *bakkaris*, evidently made from a plant of the same name), and horsemanship. Cosmetics are attested by their containers, notably the *lydion*, perhaps meant for *bakkaris* (Greenewalt 2010e). Horse bridle ornaments decorated in a nomadic animal style might reflect the impact on Lydian horsemanship of Cimmerians and Scythians, who were present at Sardis in the seventh and early sixth centuries B.C.E. (Herodotus 1.15–16, 73–74; Ivantchik 2001; Greenewalt 2010a).

HISTORY OF RESEARCH AT SARDIS

If Roman "robbers" tunnels in the tumuli at Bin Tepe partly reflect antiquarian concerns of the Second Sophistic, archaeology at Sardis began in antiquity. Otherwise, the beginnings of scholarly research may be associated with Cyriac of Ancona's visit in 1444 (when he copied the texts of inscriptions on stone, recorded columns of the temple of Artemis, and panned for gold in the Pactolus stream; Cyriac of Ancona 2003). The first reported excavation purely driven by intellectual curiosity was conducted in 1750 by the Robert Wood expedition (around column no. 16 in the temple of Artemis). Short-term excavation in the nineteenth and early twentieth centuries focused on specific monuments: tumuli at Bin Tepe, including one identified as the tomb of Alyattes, between 1854 and 1882, by Prussian Consul L. Spiegelthal and British Consul G. Dennis, the temple of Artemis in 1882 by Dennis and in 1904 by G. Mendel on behalf of the Imperial Ottoman Museums in Constantinople (Greenewalt et al. 2003; Greenewalt 2010b). Sustained excavations were conducted in 1910–14 and in 1922 by the American Society for the Exploration of Sardis, founded by H. C. Butler (primarily in the temple and sanctuary of Artemis and in cemeteries of the Pactolus valley), and from 1958 to the present by the Archaeological Exploration of Sardis, sponsored by Harvard and Cornell Universities and founded by G. M. A. Hanfmann (in many parts of the site, including the acropolis and cemeteries).

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